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See Appendix, Vol. VI, for

COMPLETE TABLES SHOWING THE

POPULATION OF THE UNITED STATES

By STATES AND TERRITORIES, COUNTIES, CITIES, TOWNS, VILLAGES AND BOROUGHS

As returned at the TWELFTH CENSUS, JUNE, 1900

Prepared under the direction of

WILLIAM C. HUNT

Chief Statistician for Population

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SIMPLIFIED SPELLING

TWENTY CLASSES AND THREE HUNDRED WORDS

THE SIMPLIFIED SPELLING BOARD, in Circular No. 2, issued March 21, 1906, mentions twenty distinguishable classes of words, and includes a list of three hundred common words spelled in two ways, of which the BOARD says: "choose the simpler spelling."

The twenty distinguishable classes of words, arranged in the alphabetical order of the letters or affixes affected, are as follows:

1. Words spelled with **ae, æ** or **e**. Rule: choose **e**. Ex.: *Anesthetic, esthetic, medieval*, etc.

2. Words spelled with **-dge-ment** or **-dg-ment**. Rule: Omit **e**. Ex.: *Abridgment, acknowledgment, judgment, lodgment.*

3. Words spelled with **-ed** or **-t**, the preceding single consonant being doubled before **-ed** (*-pped, -ssed*) and left single before **-t** (*-pt, -st*). Rule: Choose **-t** in all cases. Ex.: *dipt, dript, dropt, stept, stopt*, etc., *blest, prest, distrest, mist*, etc., *blusht, husht, washt*, etc.

(Forms like these, being inflections, are commonly omitted in the dictionary lists of words spelled in two or more ways, but they are genuine historical spellings and can not be ignored. Some are very ancient (for example, *kist* is Anglo-Saxon *cyste*, and *mist* is Anglo-Saxon *miste*), and all are frequent and normal in English literature from Spenser, Shakespeare, and Milton to Tennyson and Lowell. For example, Milton has *compast, languisht, vanquisht, admonisht, astonisht, diminisht, polisht, worshipt, supt, ceast, linkt, matcht, scorcht*, etc.—SIMPLIFIED SPELLING BOARD.)

4. Words spelled with **-ence** or **-ense** (Latin **-ens-a**). Rule: Choose **-ense** Ex.: *Defense, offense, pretense.*

5. Words spelled with **-ette** or **-et**. Rule: Omit **-te**. Ex.: *Coquet, epaulet, etiquet, omelet*, etc.

6. Words spelled with **gh** or **f**. Rule: Choose **f**. Ex.: *Draft.*

7. Words spelled with **-gh** or without. (1) **-ough** or **-ow**. Rule: Choose **-ow**. Ex.: *Plow.* (2) **-ough** or **-o**. Rule: Choose **-o**. Ex.: *Altho* (Bunyan), *tho* (Bunyan), *thoro, -boro* (in place names).

8. Words with the verb suffix, of Greek origin, spelled **-ise** or **-ize**. Rule: Choose **-ize**. Ex.: *Catechize, criticize, exorcize, organize*, etc

9. Words spelled with **-ite** or **-it**. Rule: Omit **e**. Ex.: *Deposit, preterit.*

10. Words spelled with **-ll** or **-l** (**-ill** or **-il**). Rule: Choose **-l**. Ex: *Distil, fulfil, instil.*

11. Words spelled with **-ll-ness** or **-l-ness**. Rule: Omit one **l**. Ex.: *Dulness, fulness.*

12. Words spelled with **-mme** or **-m**. Rule: Omit **-me**. Ex.: *Gram, program.*

13. Words spelled with **oe, œ** or **e**. Rule: Choose **e**. Ex.: *Ecumenical, esophagus.*

14. Words spelled with **-our** or **-or**. Rule: Choose **-or**. Ex.: *Favor, fervor, flavor, honor, labor, rigor, rumor, tenor, tumor, valor, vapor, vigor.*

15. Words spelled with **ph** or **f**. Rule: Choose **f**. Ex.: *Fantasm, fantasy, fantom, sulfate, sulfur.*

16. Words spelled with **-rr** or **-r**. Rule: Omit one **r**. Ex.: *Bur, pur.*

17. Words spelled with **-re** or **-er**. Rule: Choose **-er**. Ex.: *Center, meter, miter, niter, sepulcher, theater.*

18. Words spelled with **s** or **z** (in the root). Rule: Choose **z**. Ex.: *Apprize, assize, comprize, raze, surprize, teazel.*

19. Words spelled with **s-** or **sc-**. Rule: Omit **c**. Ex.: *Simitar, sithe.*

20. Words spelled with or without silent **-ue**. Rule: Omit **-ue**. Ex.: *Catalog, decalog, demagog, pedagog, prolog.*

The three hundred common words spelled in two ways, arranged in alphabetical order, are as follows:

SIMPLER (New)	OLD
abridgment	abridgement
accouter	accoutre
accurst	accursed
acknowledgment	acknowledgement
addrest	addressed
adz	adze
affixt	affixed
altho	although
anapest	anapaest, anapæst
anemia	anaemia, anæmia
anesthesia	anaesthesia, anæs-
anesthetic	anaesthetic, anæs-
antipyriu	antipyriue
antitoxiu	antitoxine
apothem	apothegm, apophth-
apprize	apprise
arbor	arbour
archeology	archaeology, archæo-
ardor	ardour
armor	armour
artisan	artisan
assize	assise
ax	axe
bans	banns
bark	barque
behavior	behaviour
blest	blessed
blusht	blushed
brazen	brasen
brazier	brasier
buu	bunu
bur	burr
caliber	calibre
caliper	calliper
candor	candour
carest	caressed
catalog	catalogue
catechize	catechise
center	centre
chapt	chapped
check	cheque
checker	chequer
chimera	chimaera, chimæra
civilize	civilise
clamor	clamour
claugor	claugour
clapt	clapped
claspt	clasped
clipt	clipped
clue	clew
coeval	coaeval, coæval
color	colour
colter	coulter
commixt	commixed
comprest	compressed
comprize	comprise
confest	confessed
controller	comptroller
coquet	coquette
criticize	criticise
cropt	cropped
crost	crossed
crusht	crushed

SIMPLER (New)	OLD
cue	queue
curst	cursed
cutlas	cutlass
cyclopedia	cyclopaedia, cyclopæ-
dactyl	dactyle
dasht	dashed
decalog	decalogue
defense	defence
demagog	demagogue
demeanor	demeanour
deposit	deposite
deprest	depressed
develop	develope
diercsis	diaeresis diæresis
dike	dyke
dipt	dipped
discust	discussed
dispatch	despatch
distil	distill
distrest	distressed
dolor	dolour
domicil	domocile
draft	dranght
dram	draehm
drest	dressed
dript	dripped
droopt	drooped
dropt	dropped
dulness	dullness
ecumenical	oecumenical, œcu-
edile	aedile, ædile
egis	aegis, ægis
enamor	enamour
encyclopedia	encyclopaedia, -pædia
endeavor	eudeavour
envelop	envelope
Eolian	Aeolian, Æolian
eon	aeon, æon
epaulet	epaulette
eponym	eponyme
era	aera, æra
esophagus	oesophagus, œsoph-
esthetic	aesthetic, æsthetic
esthetics	aesthetics, æsthetics
estivate	aestivate, æstivate
ether	aether, æther
etiology	aetiology, ætiology
exorcize	exoreise
exprest	expressed
fagot	faggot
fantasm	phantasm
fantasy	phantasy
fantom	phantom
favor	favour
favorite	favourite
fervor	fervour
fiber	fibre
fixt	fixed
flavor	flavour
fulfil	fulfill
fulness	fullness
gage	gauge
gazel	gazelle
gelatin	gelatine
gild	gnild
gipsy	gypsy
gloze	glose
glycerin	glycerine
good-by	good-bye
gram	gramme
gript	gripped
harbor	harbour
harken	hearken
heapt	heaped
hematin	haematin, hæmatin
hiccup	hiecough
hock	hongh
homeopathy	homoeopathy, homœ-
homonym	homonyme

SIMPLER (New)	OLD
honor	honour
humor	humour
husht	hushed
hypoteuuse	hypotheuuse
idolize	idolise
imprest	impressed
instil	instill
jail	gaol
judgment	judgement
kist	kissed
labor	labour
lacrimal	lachrymal
lapt	lapped
lasht	lashed
leapt	leaped
legalize	legalise
license	licenee
licorice	liquorice
liter	litre
lodgment	lodgement
lookt	looked
lopt	lopped
luster	lustre
mama	mamma
maneuver	manœuver, -œnvre
materialize	materialise
meager	meagre
medieval	medieval, mediæval
meter	metre
mist	missed
miter	mitre
mixt	mixed
moid	monid
moider	mouider
moiding	monlding
moidy	mouidy
moit	mouit
mulien	muliein
naturalize	naturalise
neighbor	neighbonr
niter	nitre
nipt	nipped
ocher	ochre
odor	odour
offense	offence
omelet	omelette
oppresl	oppressed
orthopedic	orthopaedic, -pædic
paleography	palaeography, palæo-
paleolithic	paiaeoilthic, palæo-
paleontology	palaeontology, paiæ-
paleozoic	paiaeozoic, palæozoic
paraffin	parafline
parlor	parlour
partizan	partisan
past	passed
patronize	patronise
pedagog	pedagogue, pæda-
pedobaptist	paedobaptist, pædo-
phenix	phoenix, phœnix
phenomenon	phaenomenon, phæn-
pigmy	pygmy
plow	plough
polyp	polype
possest	possessed
practise, v. and n.	practice
prefixt	prefixed
prenomen	praenomen, prænо-
prest	pressed
pretense	pretence
preterit	preterite, præterite
pretermit	praetermit, præter-
primeval	primaeval, primæval
profest	professed
program	programme
proiog	prologne
propt	propped
pur	purr
quartet	quartette

SIMPLER (New)	OLD
questor	quaestor, quæstor
quintet	quintette
rancor	rancour
rapt	rapped
raze	rase
recognize	recognise
reconnoiter	reconnoitre
rigor	rigour
rime	rhyme
ript	ripped
rumor	rumour
saber	sabre
saltpeter	saltpetre
savior	saviour
savor	savour
scepter	sceptre
septet	septette
sepulcher	sepulchre
sextet	sextette
silvan	sylvan
simitar	scimitar, cimeter, etc.
sipt	sipped
sithe	scythe
skilful	skilliful
skipt	skipped
slipt	slipped
smolder	smoulder
snapt	snapped
somber	sombre
specter	spectre
splendor	splendour
stedfast	steadfast
stept	stepped
stopt	stopped
strest	stressed
stript	stripped
subpena	subpoena, subpœna
succor	succour
suffixt	suffixed
sulfate	sulphate
sulfur	sulphur
sumac	sumach
suppresl	suppressed
surprize	surprise
synonym	synonyme
tabor	tabour
tapt	tapped
teazel	teasel, teasle, teazle
tenor	tenour
theater	theatre
tho	though, tho'
thoro	thorough, thoro'
thorofare	thoroughfare
thoroly	thoroughly
thru	through, thro', thro
thrnout	throughout
tipt	tipped
topt	topped
tost	tossed
transgrest	transgressed
trapt	trapped
tript	tripped
tumor	tumour
valor	valour
vapor	vapour
vext	vexed
vigor	vigour
vizor	visor
wagon	waggon
washt	washed
whipt	whipped
whisky	whiskey
wilful	willful
winkt	winked
wisht	wished
wo	woe
woful	woeful
woolen	woollen
wrapt	wrapped

escaped to France, he allied himself with Isabella, queen of Edward II., and the barons who shared her discontent. The queen accepted him as her paramour, and having obtained aid from the count of Hainault, they came to England in 1326, deposed and imprisoned the king, and governed the kingdom at their will. The young prince was proclaimed (Edward III.); *M.* was created earl of March, and took a large share of the estates of the Spensers; the deposed king was shamefully murdered by his orders; and at last Edward, weary of subjection to this insolent usurper, and backed by the public hatred of him, assumed the government. *M.* was seized at the castle of Nottingham, and hung at Tyburn, 1330.

Mor'timer, EDMUND, EARL, espoused Philippina, daughter of Lionel, second son of Edward III., king of England. — ROGER, son of the preceding, was declared heir to the crown in 1385, but died in 1399, leaving an only daughter, who married Richard, Duke of York, giving to that family a claim to the throne of England. Hence arose the wars of the "Red and White Roses," between the houses of York and Lancaster.

Mor'timer, in *Illinois*, a village of Lake co., about 45 m. N. by W. of Chicago.

Mortise, (*môr'tis.*) *n.* [Fr. *mortaise*, probably from Lat. *mordeo, morsus*, to bite, to bite into.] (*Carp.*) A cut or hollow place (*a a*, Fig. 1862), made in timber, to receive the tenon, *b b*, of another piece of timber.

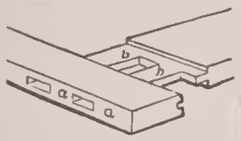


Fig. 1862. — MORTISE.

Mortise-joint, a joint made by the cohesion of a mortise and tenon. — *Mortise-lock*, a lock constructed to fit into a mortise cut in the stile of a door. — *Mortise-wheel*, a wheel of cast-iron, having wooden cogs let into mortises on its periphery.

—*v. a.* To cut or make a mortise in.—To cut by a mortise and tenon; as, to *mortise* a beam into a post.

Mor'tising-machine, (*-mā'sheen,*) *n.* A machine for the construction of mortises.

Mort'ling, *n.* Same as MORLING, *q. v.*

Mort'main, *n.* [Fr. *mort*, dead, and *main*, hand. See MANUAL.] (*Law.*) Possession of lands or tenements in dead hands, or hands that cannot alienate. *Alienation in mortmain* is an alienation of lands, tenements, or hereditaments, to any corporation (sole or aggregate), guild, or fraternity. The reason for the title, according to Blackstone (book i. c. 18), is that such alienations were usually made to ecclesiastical bodies, the members of which (being professed) were reckoned dead persons in law; land, therefore, holden by them might, with great propriety, be said to be held *in mortua manu.*

Mort-ne', *n.* Same as MORNE, *q. v.*

Mor'ton, JAMES DOUGLAS, 4th EARL of, regent of Scotland, was younger son of Sir George Douglas, of Pittendreich, and studied at Paris. Having married a daughter of the 3d earl, the earldom was transferred to him on the death of his father-in-law, in 1553. He favored the Reformation, though not at first very boldly, and was made lord high-chancellor of Scotland in 1563. Three years later he took part in the murder of Rizzio, and fled to England: he soon, however, obtained the queen's pardon, through the influence of Bothwell. Informed of the plot against Darnley, he refused to share in it, but did not reveal it. He was one of the leading opponents of Bothwell, was again made chancellor, and in 1572 was appointed regent of the kingdom. His administration was arbitrary and burdensome, and having made himself odious to the people, he resigned in 1577. He found means of recovering his high office soon afterwards; but in 1581 he was charged as accessory to the murder of Darnley, tried, condemned, and beheaded, 3d June. He died with great calmness, firmly maintaining his innocence.

Mor'ton, SAMUEL GEORGE, an American physician and ethnologist, was a. at Philadelphia, in 1799. He studied medicine at his native city and at the university of Edinburgh, graduating M. D. in both places, and in 1824 settled at Philadelphia, where he not only practised his profession, but distinguished himself as an ardent student of physical science. Ethnology at length became his chief study, and as a basis for investigation of differences in the structure of the skull in the different races of men, he formed an immense collection of skulls, both human and brute. He published the results of his researches in the works entitled, *Crania Americana; Crania Egyptiaca;* and *Types of Mankind.* In 1839 he became professor of Anatomy in the medical college of the University of Pennsylvania. He was a member of the Academy of Natural Sciences in Philadelphia from his 21st year, and its president for a number of years before his death; he left to this institution his collection of skulls—about 1,500 in number—900 of them human. Died May 15, 1851.

Mor'ton, WILLIAM THOMAS GREEN, M. D., an American dental surgeon, and the reputed discoverer of anæsthetics, b. in Mass., 1819. In 1840 he commenced the study of dentistry in Baltimore, and two years later commenced practice in Boston. In 1844, in the latter city, while engaged in experimental study, Dr. *M.* discovered and introduced ethereal anæsthesia, which he patented under the name of *letheon*, offering its advantages, however, free of cost to the charitable institutions of England and the U. States. The committee of the French Academy awarded the Montyon prize of 5,000 francs to be equally divided between Dr. Jackson and Dr. *M.*; but the latter refused to receive this joint award, protested against the decision of the Academy, and in 1852 received the Montyon prize medal. D. 1868

Mor'ton, OLIVER PERRY, an American statesman, b. in Ind., 1823; educated at Miami University; began practice of law in 1847; elected circuit judge in 1852, lieut.-governor in 1860, governor, 1861–7. He was active in support of the Federal government during the war. In 1863, he was opposed by a Democratic legislature, who contemplated taking the military power out of his hands, and placing it in those of four of their party. The Republicans defeated this attempt by withdrawing, leaving each house without a quorum. He borrowed money upon his personal responsibility to carry on the State government, which was subsequently repaid. U. S. senator in 1867; one of the Republican nominees at the convention of 1876 for President. In 1877, selected as one of the electoral commission, (*q. v.*) D. Nov., 1877.

Mor'ton, in *Ill.*, a p.-v. and twp. of Tazewell co. — In *Miss.*, a p.-v. of Scott co. — In *Mo.*, a v. of Ray co.

Mor'tonsville, in *Ky.*, a p.-v. of Woodford co. — In *N. Y.*, a v. of Orange co. — In *Penn.*, a p.-v. of Chester co.

Mor'tuary, *n.* [Fr. *mortuaire*, a funeral-pall; Lat. *mortuarius*, having reference to the dead, from *mors, mortis*, death.] A customary gift, claimed by, and due to, the minister of a parish on the death of a parishioner; also, a burial-place.

—*a.* Pertaining or having reference to the burial of the dead; as, a *mortuary* chapel.

Morumbidgee, (*mor'um-bid-je',*) a river of Australia, rising, by many heads, in the co. of Murray, N. S. Wales, and after a S.W. course of 400 miles, joining the river Murray, in Lat. 34° 48′ S., and Lon. 143° E.

Mo'rus, *n.* (*Bot.*) The typical genus of the order *Moraceæ*, q. v.

Mor'ven, in *Indiana*, a village of Shelby co., abt. 40 m. S.E. of Indianapolis.

Mor'ven, in *N. Carolina*, a village of Anson co., about 115 m. S.W. by W. of Raleigh.

Mosaic, (*mo-zā'ik,*) **Mosa'ic-work,** *n.* [Fr. *mosaïque;* L. Lat. *musivum opus*, mosaic-work; Gr. *mouseion*, the temple of the Muses, *mouseios*, belonging to the Muses, from *Mousa*, a muse. See MUSE.] An assemblage of small pieces or cubes of glass, marble, shells, pebbles, precious stones, &c. (*a, a, a*, Fig. 1863), of various colors, cut, and fixed together by a ground of cement in such a manner as to form ornamental patterns. Work of this kind is of great antiquity; and it is believed to have had its origin in Asia. In the book of Esther, mention is made of a "pavement of red and blue, and white and black marble," in the court of the garden of King Ahasuerus. This was without doubt a pavement of mosaic-work. In Greece, during the time of Alexander, mosaic pavements, made with variously colored marble, were among the sumptuous decorations of the period. These were for the most part geometric in design; but Pliny mentions a celebrated work of Sosos of Pergamos — the "Unswept Hall." This was a pavement of inlaid work, representing the crumbs and fragments left on the floor after a banquet. The art was carried from Greece by workmen to Rome, where it was called *opus musivum*, and acquired universal popularity, and soon came to be applied not only to floors, but also to walls and ceilings. In Italy, and in most of the countries occupied by the Romans, many floors ornamented with mosaic-work have been found among old ruins. They consist generally of a centre-piece, frequently of human beings or animals, with a border or frame of a regular pattern. The different parts of which the mosaic is formed consist of cubes of different colored stones or earthenware, cemented together. Some exquisite specimens of this kind of mosaic-work have been found at Pompeii. One of the finest examples found is supposed to represent the battle of Issus, and was found in 1831 in the Casa del Fauno. In the 5th century, when the arts and sciences were driven from Italy, the art of mosaic-work was preserved by the Byzantine Greeks, and was restored to Greece in the 13th century. It attained its highest perfection at the beginning of the 17th century, when Clement VIII. had the whole of the interior of the dome of St. Peter's ornamented with mosaic-work. Giambattista Calandra improved mosaic by the introduction of a new cement. He, and other artists who followed after him, employed the art for copying original paintings by celebrated artists. One of the great advantages of this kind of work is its wonderful power of preservation, by which many of these paintings are represented in all their original freshness and beauty. Guercino's "Martyrdom of St. Petronilla," and Domenichino's "Communion of the Dying St. Jerome," were thus preserved. A school for mosaic was founded at the beginning of the 18th century in Rome, by Peter Paul of Christopheris: and many of his pupils carried the art to a high degree of excellence. In modern times, two kinds of mosaic are particularly famous — the Roman and the Florentine. In Roman mosaic, the pictures are formed by joining very small pieces of stone, which gives greater variety, and facilitates the representation of large paintings. In the Florentine style, the mosaic is made of large pieces of stone, and is consequently more troublesome, and only adapted for small paintings. The Italians call mosaic-work in wood *tansia* or *tarsia;* the French, *marqueterie.* (See MARQUETRY.) In the most costly mosaics, precious stones have been cut to furnish materials: but in common works of this art, enamels of different colors, manufactured for the purpose, are the materials employed.

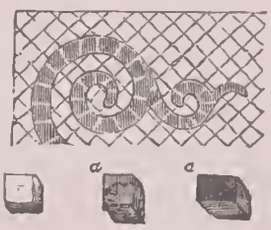


Fig. 1863. — MOSAIC.

—*a.* Pertaining, or having reference to, or composed of, mosaic-work; variegated; tessellated; as, a *mosaic* pavement.

Mosa'ic, Mosa'ical, *a.* [From *Moses.*] Pertaining, or having reference to Moses, the leader of the Israelites; as, the *Mosaic* law.

Mosa'ism, *n.* The doctrinal tenets propounded by Moses: adherence to the Mosaic law, rites, or institutions.

Mo'salem, in *Iowa*, a twp. of Dubuque co.

Mosasau'rus, Mososau'rus, *n.* [Lat. *Mosa*, the river Meuse, and Gr. *sauros*, lizard.] (*Pal.*) A large extinct aquatic saurian, which existed during the deposition of the cretaceous strata. Its remains have been found both near Maestricht and in the cretaceous deposits in America.

Mos'chus, *n.* (*Zoöl.*) The Musk, or Musk-deer, a genus of *Ruminantia*, family *Cervidæ.* These animals, which give name to the well-known perfume, inhabit the great extent of elevated country which occupies a large part of Central Asia, and are principally found in Thibet, Nepaul, Tonquin, and the districts adjacent to the N. of India and China. Their favorite haunts are the tops of mountains covered with pines, where they roam in places most difficult of access, resembling in their manners the chamois and other mountain quadrupeds. In size and general appearance, the Musk-deer is not very unlike a small roebuck, the length of the body being about 3 feet 4 inches. The upper jaw is considerably longer than the lower, and is furnished on each side with a curved tusk, about 2 inches long, the inner edges of which are quite sharp. The general color of the body is a kind of deep iron-gray. The ears are erect, about two inches long, of a deep-brown color externally, and pale-yellow within; the hoofs long and much divided; and the tail extremely short. These animals are hunted for the sake of their musk, which is contained in an oval receptacle, or small glandular pouch, situate at the hinder part of the abdomen, and peculiar to the male. The unctuous secretion contained in this receptacle is of the most powerful and penetrating nature; but from the ease with which it can be adulterated, very little of it reaches Europe in a pure state. The follicle containing the musk is covered with short brown hair, and is more or less full according to the age, health, &c., of the animal. The musk, when dry, is of a dark reddish-brown color, has a bitterish subacrid taste, and a fragrant smell, agreeable at a distance, but so strong and pungent as to be highly unpleasant when quite near. It is held in high estimation as a medicine among Oriental nations.

Fig. 1864. — MUSK-DEER, (*Moschus moschiferus.*)

Moscow, [Russ. *Moskwa,*] (*mos'ko.*) a govt. of European Russia, between Lat. 54° 50′ and 56° 40′ N., Lon. 34° 50′ and 38° 50′ E., having N. the govt. of Tver, E. Vladimir and Riasan, S. Toula and Kalouga, W. Smolensk and part of Tver. *Area*, 12,300 sq. m. The surface is level, with the exception of an elevated tract in the S.W. The soil is indifferently fertile. The rivers are the Moskwa, Kliazma, and Oka. *Min.* Limestone and yellow marble. *Manuf.* Woollen, cotton, and silk fabrics, carpets, paper, &c. Large numbers of horses and cattle are reared. *Pop.* (1897) 2,290,500.

—A large city of European Russia, capital of the above government, long the residence of the sovereigns, and still one of the capitals of the empire, on the river Moskwa, 400 m. S.E. of St. Petersburg. The city, which was founded in 1147, is one of the most singular in the world. It is of a circular form, and covers a large extent of ground. The central part, on an eminence, on the N. side of the river, is occupied by the Kremlin, or Citadel. The outer quarters of the city lie around this central nucleus, increasing in magnitude according as they diverge from it. On the outside of all are the *slobodes*, or suburbs. The Moskwa, which has a very tortuous course through the city, is crossed by various bridges, some of stone, but the greater number of wood.

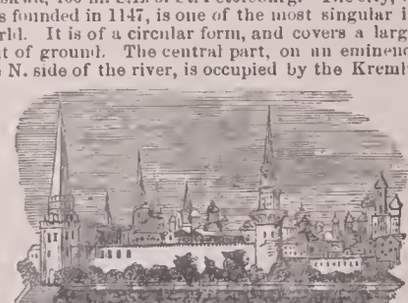


Fig. 1865. — THE KREMLIN.

Previous to the conflagration of 1812, which destroyed two-thirds of the city, *M.* presented the most extraordinary contrasts,—palaces alternating with huts, Asiatic with European buildings, and open fields and gardens, with crowded streets. The Kremlin, which has been completely repaired since 1812, comprises the imperial palace, the archbishop's palace, the cathedral of the Assumption, in which the Russian sovereigns are

Fig. 1866.—ST. BASIL'S CHURCH, (Moscow.)

crowned the churches of St. Michael and the Annunciation, and the Pokrovskoi cathedral, constructed of 20 churches joined together. It also contains the belfry of Ivan Veliki, a tower 269½ feet in height, containing 32 large bells. At a short distance, on the ground, is the great bell of *M.*, weighing 360,000 lbs. Prominent among the other public buildings are the Palace of Arms, the Imperial Theatre, the Palace of the Senate, the Daschkoff Palace, the church of St. Basil, the University, and the great Military Hospital, founded by Peter the Great. *Manuf.* Principally silk, cotton, and woollen fabrics, and hats, are carried on extensively; but in the adjoining towns and villages there are also numerous tanneries, breweries, &c. *M.* is the grand entrepôt of the internal commerce of the empire. A great deal of the commercial intercourse between the city and adjacent and distant provinces is carried on in winter by the sledge-roads, and at other times by means of railway and water communication. *M.* was founded in 1147, and was from 1300 the capital of Russia. In 1703, Peter the Great removed the seat of government to his new city on the Gulf of Finland, and thereby for many years materially injured the trade and prosperity of the city, which was almost annihilated by the conflagration in the year 1812. In that year, in obedience to their sovereign's order to drive the French out of the country by destroying their winter-quarters, the inhabitants set fire to the city, and with such good-will and dispatch, that more than two-thirds of their venerated city was soon reduced to ashes; and Napoleon, aghast at the ruin of all his hopes and schemes, commenced that fatal retreat which, between Moscow and Wilna, utterly disorganized and routed one of the finest armies that ever followed the French standard. *Pop.* (1897) about 754,550.—*M.* has become the centre of a network of railroads, and is, or soon will be, the commercial and industrial capital of the Empire.

Moscow, in *Ind.*, a p.-v. of Rush co., abt. 40 m. E.S.E. of Indianapolis.—In *Iowa*, a town and twp. of Muscatine co., abt. 25 m. E.S.E. of Iowa City.—In *Ky.*, a p.-v. of Hickman co., abt. 6 m. S. of Clinton.

Moscow, in *Maine*, a township of Somerset co.

Moscow, in *Michigan*, a post-village and township of Hillsdale county, about 60 miles south of Lansing.

Moscow, in *Minnesota*, name of a post-village and township of Freeborn county, about 8 miles W.N.W. of Austin.

Moscow, in *Missouri*, a village of Lincoln co.—A township of Washington co.

Moscow, in *New York*, a post-village of Livingston co., abt. 35 m. S.S.W. of Rochester.

Moscow, in *Ohio*, a post-village of Clermont co., abt. 29 m. S.E. of Cincinnati.

—A village of Licking co., abt. 8 m. S.S.W. of Newark.

—A village of Lucas co., abt. 20 m. S.W. of Toledo.

Moscow, in *Pennsylvania*, a post-village of Lackawanna co., abt. 13 m. S.E. of Scranton.

Moscow, in *Tennessee*, a post-village of Fayette co., abt. 40 m. E. of Memphis.

Moscow, in *Texas*, a post-village of Polk co., abt. 100 m. N.N.E. of Houston.

Moscow, in *Wisconsin*, a post-township of Iowa co.

Mose, an island in the E. Archipelago, N. of Timor-laut; Lat. 6° 20′ S., Lon. 131° 30′ E., 20 m. in circumference.

Moselle′, a river of W. Europe, rising in the French dept of Vosges, Lat. 48° N., Lon. 7° E. After a N.N.E course of 300 m., in which it flows through the E. part of France and the S. part of Rhenish Prussia, it empties into the Rhine at Coblentz, Lat 50° 22′ N., Lon. 7° 33′ E.

Moselle, (*mo-sel′,*) a dept. of the N.E. of France, formerly part of Lorraine, having N. Luxembourg, Rhenish Prussia, and Rhenish Bavaria, E. the dept. of Bas-Rhin, S. Meurthe, and W. Meuse; Lat. between 49° and 49° 30′ N., Lon. 5° 30′ and 7° 40′ E. *Area*, 2,390 sq. m. The surface is generally mountainous, and the soil indifferent. The rivers are the Moselle, Sarre, Orne, and Nied. *Prod.* Wheat, oats, barley, flax, and hemp. *Min.* Iron, coal, lime, and salt. *Manuf.* Woollens, lace, paper, carpets, leather, glue, &c. The chief towns are Metz (the cap.), Brieg, and Thionville.

Moselle, (*mo-zell′,*) in *Illinois*, a village of Jo Daviess co., abt. 10 m. S. of Galena.

Moselle, in *Missouri*, a post-village of Franklin co., abt. 50 m. S.W. of St. Louis.

Moselle, in *Wisconsin*, a post-township of Sheboygan co. Now usually spelled MOSEL.

Moselle, in *W. Virginia*, a village of Hampshire co., abt. 20 m. S.W. of Cumberland.

Moselle, *n.* A description of white German wine, named from the river Moselle.

Moselle′-cup, *n.* (*Drinks.*) A fancy beverage, concocted of Moselle wine, limes, sugar, and ice, dashed with cognac, and judiciously intermixed.

Mo′ses. [Egyptian *mo*, water, and *use*, saved.] (*Script.*) The son of Amram and Joahabed, of the tribe of Levi. This great Jewish historian and lawgiver was born in Egypt, during the rigor of the decree that commanded the death of every new-born male Israelite; to save her child from this cruel edict, his mother made an ark, or basket of rushes, and carefully placing the infant in this cradle, committed it to the river, in a place where she was aware that the daughter of Pharaoh was in the habit of bathing; the mother secreting herself among the reeds to note the effect of her stratagem. The princess, pitying the child thrown thus on her mercy, adopted the infant, gave it to the mother to nurse, and took charge of the child's future education and welfare; and Moses, being brought up in the court of the king, became "learned in all the wisdom of the Egyptians." When he had attained his fortieth year, Moses, seeing an Egyptian officer ill-treating an Israelite, killed the task-master, and hiding the body, fled into the wilderness, where he pursued the calling of a shepherd for forty years, marrying the daughter of a priest of the people among whom he had found shelter and protection. While so employed, the Almighty appeared to him in the "burning bush," and commanded him to return to Egypt, and lead his people from the house of bondage. In obedience to this command, Moses, after many oppositions, eventually brought the Israelites out of Egypt, passed the Red Sea, and within sight of the Promised Land; when, in consequence of the transgressions of the people, they were turned back, and condemned for forty years to wander in the wilderness, till the whole generation of offenders had died. Even Moses was not allowed to enter the land of Canaan, but merely to rejoice his eyes by a prospect of the rich and fruitful vales which constituted the Land of Promise. Having seen the glorious country from the heights of Mount Pisgah, Moses calmly prepared himself for his end, and died in his 120th year, on the confines of Canaan. Moses is the author of the first five books of the Old Testament,—Genesis, Exodus, Leviticus, Numbers, and Deuteronomy,—or, as they are collectively called, the *Pentateuch*, or the "Five Books." The life and institutions of Moses present one of the finest subjects for the pen of a Christian historian, who is, at the same time, a competent biblical antiquary. His institutions breathe a spirit of freedom, purity, intelligence, justice, and humanity, elsewhere unknown; and above all, of supreme love, honor, and obedience to God. They moulded the character of the Hebrews, and transformed them from a nation of shepherds into a people of fixed residence and agricultural habits. The above account is that given in the Hebrew Scriptures. It will suffice to say, in conclusion, that many Biblical critics doubt, for various reasons, that *M.* was the author of the books of the *Pentateuch*.

Mosh′erville, in *Michigan*, a post-village of Hillsdale co., abt. 55 m. S. of Lansing.

Moslertown, (*mo′zher-town,*) in *Pennsylvania*, a post-village of Crawford co., abt. 9 m. N.W. of Meadville.

Mos′inee, in *Wisconsin*, a post-village of Marathon co., abt. 15 m. S. by W. of Wausau.

Moskwa′, or **Moskva′,** a river of European Russia, traversing the govt. of Moscow, and after an E. course of 200 m., falling into the Oka at Colomna. During the invasion of Russia, Napoleon I. attacked the whole Russian army, intrenched at the village of Borodino, situated on the left bank of the River Kolotcha, about 2 m. above its junction with the *M.* After a sanguinary engagement, both armies encamped on the field of battle, but the Russians withdrew during the night. The killed and wounded amounted to 80,000 men. In 1839 the Russians erected a mausoleum on this battle-field. This action is called *battle of the Moskowa* by the French, and *battle of Borodino* by the Russians.

Mos′lem, *n.* A Mussulman; an orthodox Mohammedan —*a.* Mohammedan; Islamitic; belonging or having reference to orthodox Mussulmans.

Mos′lemism, *n.* Mohammedanism; Islamism; the religious doctrines of the Koran.

Mos′lings, *n. pl.* Thin strips of leather shaved off in dressing and preparing skins.

Mososau′rus, *n.* (*Pal.*) Same as MOSASAURUS, *q. v.*

Mosque, (*mŏsk,*) *n.* [Fr. *mosquée*; Ar. *masjad.*] A Mohammedan temple or place of worship. They are generally distinguished externally by cupolas and minarets, but internally they are little remarkable, forming merely a single hall or apartment, with numerous lamps, the floor covered with carpets, and the walls with arabesques and mosaics. The principal Arabian and Syrian mosques are remarkable for their vast quadrangles, surrounded with numerous columns. The revenues of the mosques are often considerable, and connected with them are usually institutions for education, hospitals for the sick, asylums for the poor, &c. The principal mosque of Constantinople was originally the Christian

Fig. 1867.—GREAT MOSQUE AT DELHI.

church of St. Sophia (Fig. 458), built by the Emperor Justinian in the 6th century; but it is surpassed in beauty and taste by that of Solyman the Magnificent, begun in 1550. The mosque of the Prophet at Medina, the great mosque at Mecca, and the mosque of Omar at Jerusalem, are considered peculiarly holy, and are among the finest extant specimens of Moslem architecture.

Mosquī′tia. See MOSQUITO TERRITORY.

Mosquito, or MUSQUITO, (*mus-kē′to,*) *n.* [Sp., from *mosca*, Lat. *musca*, a fly.] (*Zoöl.*) A troublesome little insect, resembling the gnat, and belonging to the family *Culicidæ*. (See GNAT.) It is a native of the W. Indies, the American continent, S. Africa, and India. The common mosquito, *Culex mosquito* (Fig. 1868), is about the same size as the gnat, and possesses a sucker, with five sharp-pointed, needle-like organs, with which it pierces the skin, and sucks the blood; but that which renders it so dangerous, as well as troublesome, is, that the proboscis not only makes a wound, but injects into it a poison which causes inflammation. The mosquito seldom appears in the daytime; but at night, in the tropics, when the unhappy traveller endeavors to sleep, the tantalizing little insect generally succeeds in banishing all idea of repose, both by its power of suction, as well as the continuous buzzing sound made by its wings.

Fig. 1868.—CULEX MOSQUITO. (Magnified.)

Recent research has proved that mosquitos of certain species are subject to infection by the germs of malaria, yellow fever, and perhaps some other infectious diseases, and transmit these to the blood of their victims, in which they propagate and produce the disease. By screening the windows of hospitals and sleeping rooms, so as to keep out these insects, such diseases can be prevented from spreading. This has been demonstrated in the yellow-fever districts of Cuba and the malarial Campagna of Rome. As the mosquito infects men, so diseased men infect the mosquito, and the disease is thus transmitted to new victims. Vigorous efforts are being made in some regions to eradicate the mosquito by destroying its water-bred larva. This has been successfully done by covering the surface of the water with petroleum, and by other means.

Mosquito Territory, or MOSQUITO SHORE, called also MOSQUITIA, a region of Central America, occupying the E. portion of Nicaragua, and bordering on the Caribbean Sea; between Lat. 11° and 16° N., and Lon. 83° 10′ and 86° W. *Area*, abt. 26,000 sq. m. *Rivers*, Cape, Taguan, Bluefields, and Rio San Juan. *Surface*, mountainous in the W., but more level along the coast; *soil*, exceedingly fertile, producing every variety of W. Indian vegetation in luxuriant abundance, including mahogany and other cabinet-timber, dye-woods, drugs, &c. Minerals are said to abound in the interior, and the finest quality of tortoise-shell is obtained upon the coast. The country is inhabited almost entirely by the Mosquito Indians, an active and daring race, whose chief claimed the title of King of Mosquitia. The English maintained a foothold in *M.* until 1860, when it was terminated under a treaty with Nicaragua. *Cap.* Bluefields. See also WALKER, WILLIAM.

Moss, *n.* [A.S. *meos*; D. and Dan. *mos*; Ger. *moos*; Fr. *mousse*; Lat. *muscus*, moss.] A small herbaceous plant, with a simple branching stem, and numerous narrow leaves, growing on trees, rocks, &c., mostly in humid places; a lichen.—In botany, the mosses comprise the alliance MUSCALES, *q. v.*

(NOTE. *Moss* is sometimes employed in the formation of certain self-explaining compounds; as, *moss*-clad, *moss*-covered, *moss*-grown.)

Moss-agate, *n.* (*Min.*) See AGATE.

Moss′-bunker, *n.* (*Zoöl.*) See MENHADEN.

Moss′er's Valley, in *Pennsylvania*, a vill. of Union co.

Moss′-pink, *n.* (*Bot.*) See PHLOX.

Moss′-rose, *n.* (*Bot.*) See ROSA.

Moss′-trooper, *n.* (*Eng. Hist.*) One of a class of rovers or maranders that in former times infested the

Scottish and English borders;—the name is taken from the aspect of the tract over which they trooped, it being, for the most part, morass or moss.

Moss'ville, in *Illinois*, a post-village of Peoria co., abt. 16 m. N.N.E. of Peoria.

Moss'y, *a.* Overgrown or abounding with moss.

"Old trees are more *mossy* far than young." — *Bacon.*

—Fringed or bordered with moss; as, "*mossy* brooks." *Cowley.*

Moss'y Creek, in *Tennessee*, a post-village of Jefferson co., abt. 212 m. E. of Nashville.

Most, *a.* (*superl.* of MORE.) [A.S. *mæst*, superl. of *mycel*, great.] Greatest; largest; consisting of the greater number or quantity;—plurally, numerous beyond others.

"Sweet bird, . . . *most* musical, *most* melancholy!" — *Milton.*

—*n.* (Used as a substitute for a noun omitted or understood.) The greatest number or part; the chief or major portion.

"They all repair'd, both *most* and least." — *Spenser.*

—The greatest degree, quantity, or amount; the utmost; generally used in the phrases *at the most*, *to the most*, *to make the most of*, &c.

"A covetous man *makes the most of* what he has, and can get, without regard to Providence." — *L'Estrange.*

—*adv.* In the greatest or highest degree.

"That which will *most* influence their carriage will be the company they converse with." — *Locke.*

Mos'tar, a town of European Turkey, pashalic of Bosnia, prov. of Herzegovina, on the Narenta, 48 m. S.W. of Bosnia Serai; Lat. 43° 20′ N., Lon. 17° 52′ E. *Manuf.* Swords and fire-arms; and has an extensive trade in cattle, corn, and wine. *Pop.* 8,000.

Mostar'das, a village of Brazil, about 50 m. S.S.E. of Alegre; *pop.* 3,000.

Mos'tic, Mos'tick, *n.* Same as MAHL-STICK, *q. v.*

Mos titiiba, *n.* See MUSTAIBA.

Most ly, *adv.* Chiefly; for the greater part; in the major degree, in the main.

Mos'tra, *n.* [It.] (*Mus.*) A little mark at the end of a line, showing what note the next line begins with.

Mo'sul, Mosel, or **El Mosul,** a pashalic of Asiatic Turkey, comprising the most part of Turkish Kurdistan, between Lat. 35° 30′ and 38° N., Lon. from 43° E. to the borders of Persia. The surface is mountainous. The principal rivers are the Tigris, the Great and Little Zab, and the Khaboor. The chief cities are Mosul (the cap.), Arbil, and Al-Hadhr. *Pop.* Unknown.

Mosul, the cap. of the above pashalic, situated on the site of the ancient Nineveh, on the Tigris, 193 m. N.N.W. of Bagdad. The principal ornaments of the city are a college, the tomb of the sheikh Abdul Cassim, and the remains of a fine mosque built by Noureddin, Sultan of Damascus. It formerly had considerable commercial importance, but is now very much decayed. *Manuf.* Cotton cloth.

Mot, (*mō,*) *n.* [Fr.; Lat. *motto.*] A pithy, pungent, or witty saying; a repartee; an epigrammatic figure of speech; a witticism. (A Gallicism.) See BON-MOT.

—A note sounded on a bugle. See MOAT.

Motacil'la, *n.* (*Zoöl.*) See WAGTAIL.

Mota'gua, a river of Guatemala, rises on the S. part of the State, and flowing N.E. enters the Bay of Houduras, abt. 15 m. W. of Omoa, Honduras.

Moth, *n.* [A.S. *motto*, *moththe*; D. *mot*; Ger. *motte*; Dan. *mol*; akin to Lat. *mando*, to chew; Sansk. *matka*, a bug. See MEAT.] (*Entom.*) The name given to the *Heterocera*, a numerous and beautiful division of Lepidopterous insects, readily distinguished from butterflies by their antennæ, which in the moths may be any one of a variety of shapes—filiform, setiform, fusiform, serrate, pectinate, filiciform, and plumose—but are never thread-like, with a knob on the end, like in the butterflies. The bodies of the moths are comparatively much larger than in the butterflies, and of a more hairy or downy character. The *Lepidoptera* were at one time divided into diurnal, nocturnal, and crepuscular, the latter flying at dusk; but these divisions are no longer used, as while most of the moths are nocturnal in habit, there are many species that fly in the hottest sunshine, and some of the so-called diurnals (butterflies) are crepuscular as well as some of the moths. The butterflies, and many of the moths, are all provided with a tongue for gathering their food; but a great portion of the moths are destitute of that organ, while in others it is exceedingly small: a considerable number of them, therefore, must pass the whole of their winged state without food. The larvæ or caterpillars from which the various moths are produced exhibit nearly the same variety of appearance as the winged insects which spring from them. Some are large, while others are extremely minute. They have six small feet and a number of auxiliary feet, or prop-legs, as they are called. They grow very rapidly, and cast their skins a number of times, and when full-grown transform into a chrysalis (pupa). Many species spin cocoons, inside of which the chrysalis remains apparently dead for a time, but eventually the perfect insect emerges. The cocoons are often formed of silk spun from the salivary glands, but in many cases cocoons are formed of the hairs on the body of the caterpillar, which it pulls out; also leaves, sticks, moss, or other similar materials. In other instances, the caterpillar goes into the ground, and, by wriggling around, forms an oval hole with hardened sides, in which it transforms into a chrysalis and remains through the winter. When summer comes the chrysalis works its way to the surface of the ground by the aid of its movable abdominal segments, and the perfect moth emerges. All the moths were included in the genus *Phalæna* by Linnæus, but since the time of that great naturalist they have been divided by Cuvier, Latreille, and others into a number of different groups, the classification of which is too complicated and embarrassing to be thoroughly explained in this work. We may remark that there are several thousand species of moths, varying in size from a line in breadth to eleven inches, and even more. The variety of form and color is endless. The principal species will be found described elsewhere in this work under their proper name, or the name of their genus, as *Cossus* for the Goat-moth; *Sphingidæ* for the Hawk-moth, &c.

Moth'-eat, *v. a.* To consume or devastate, as a moth eats an article of wearing apparel.

Mother, (*mŭth'er,*) *n.* [A. S. *modor*, *mæder*, *modur*; D. *moeder*; Icel. *módir*; Ger. *mutter*; Lat. *mater*; Gr. *mētēr*; Ir. *máthair*; Pers. *mádar*; Sansk. *mâtri*, the true form *mâtar* — *mâ*, with *nis*, to make.] A female parent, particularly one of the human race; a woman who has borne a child;—correlative of *son* or *daughter*.

"A *mother* is a *mother* still, the holiest thing alive."—*Coleridge.*

—That which has produced anything; that which has preceded in time; generatrix; source of origin; the oldest or chief of anything.

"Necessity, the *mother* of invention." — *Farquhar.*

—A familiar term of address or appellation of an old woman or matron; also, applied to the superioress of a convent, and to a woman who exercises care and tenderness toward another, or gives parental advice.

—A thick, slimy substance, concreted in liquor, particularly in vinegar.

—*a.* Native; natural; received by birth; vernacular; received from parents or ancestors; as, *mother*-tongue, *mother*-language; also, acting the part of a mother; originating.

"The common growth of *mother*-earth suffices me." — *Wordsworth.*

Moth'er-church, *n.* The church to which one belongs; the oldest church; the Church of Rome, by way of eminence, so designated by its adherents.

Moth'er-country, *n.* The mother-land; the country giving origin.

Moth'erhood, *n.* The state of being a mother.

Moth'ering, *n.* A rural custom, in England, of paying a friendly visit to one's mother.

Moth'er-in-law, *n.* The mother of a husband or wife.

Moth'erkill Creek, in *Delaware*, enters Delaware Bay from Kent co.

Moth'er-land, *n.* The land of one's mother; country of birth or origin.

Moth'erless, *a.* Destitute of a mother; deprived of a mother.

Moth'erliness, *n.* The state of being motherly; matron-like quality.

Moth'er-liq'uor, Moth'er-wa'ter, *n.* (*Chem.*) A saline solution from which crystals have been deposited, and which, when poured off and re-evaporated, generally furnish a second crop.

Moth'erly, *a.* Pertaining to a mother; tender; maternal; affectionate.

—*adv.* In the manner of a mother; as, *motherly* care.

Moth'er-of-pearl, *n.* [Ger. *perlen-mutter*; Fr. *nacre de perles.*] (*Conch.*) The hard, silvery, brilliant internal layer of several kinds of shells, particularly oysters, which is often variegated with changing purple and azure colors. The large oysters of the Indian seas alone secrete this coat of sufficient thickness to render their shells available for the purposes of manufactures. The genus of shell-fish called *Pentadinæ* furnishes the finest pearls, as well as mother-of-pearl; it is found in greatest perfection round the coasts of Ceylon, near Ormuz in the Persian Gulf, at Cape Comorin, and among some of the Australian seas. The brilliant hues of mother-of-pearl do not depend upon the nature of the substance, but upon its structure. The microscopic wrinkles or furrows which run across the surface of every slice act upon the reflected light in such a way as to produce the chromatic effect; for Sir David Brewster has shown that if we take, with very fine black wax, or with the so-called fusible alloy, an impression of mother-of-pearl, it will possess the iridescent appearance. Mother-of-pearl is very delicate to work; but it may be fashioned by saws, files, and drills, with the aid sometimes of an acid, such as the dilute muriatic; it is polished by colcothar.

Moth'er-of-thyme, *n.* (*Bot.*) See THYMUS.

Moth'er-queen, *n.* The mother of the reigning king or queen. (More commonly written QUEEN-MOTHER, *q. v.*)

Mother's-marks, *n. pl.* [Lat. *nævi materni.*] (*Physiol.* and *Med.*) These disagreeable and often very offensive-looking blotches, tumors, or blemishes, which the mother unconsciously entails on her child, are often as extraordinary in their appearance as they are diverse in their shape and situation. Physiologists have long disputed the popular belief that such formations have any relation with the mother whatever, and, rather than resign their opinion or prejudiced theory, are content to evade the subject, under the convenient but unscientific shelter of a *lusus naturæ*. Without disputing any opinion, or advancing any hypothesis, we shall content ourselves with adhering to the opinion of those who maintain that the quickened imagination and sensitive condition of the nervous system of a pregnant woman of a peculiar temperament is, at certain stages of her gestation, sufficient to impress on the unborn child those blemishes which are popularly known as mother's-marks. There is hardly any part of an infant's body on which these extraordinary marks have not been, and do not daily appear; though, unfortunately for the child, especially as it grows to maturity, they are most frequently met with where they are the most evident, and consequently objectionable, — the face, neck, and bosom. Of these three situations, the face is generally the locality where the most severe, as respects size and character, are to be found. The forehead and eyebrows, the eyelid and part of the eye, the nose, the lips (and, when the mouth suffers, producing hare-lip), with the cheek, are the situations where these *nævi* are most frequently seen. Some of these disfigurements are slight blotches or stains, quite superficial, and affecting only the skin, and may be mere discolored spots, or, as in what are called port-wine or claret stains, involve the whole of one side of the face and nose with irregular margins or stray spatters. Some, again, though not rising above the surface, involve the adjacent cellular tissue, while others protrude in the form of warts or moles, with a few bristly hairs, or else form irregular bladder-looking tumors, while some take an almost exact resemblance to the outline of a mouse, the surface being covered with a short brown fur. Another variety of the *nævus* is what is called the *varicose*, or a collection of small veins, freely anastomosing or uniting with each other, till they form a perfect *plexus* or network of interlacing and intermingling blood-vessels. Small patches of such *varicose nævi*, about the size of small wafers, are found on a child, one often situated at the inner or outer corner of the eye; but more generally such marks are found on the arm or leg, and then they are of a very considerable size. The colors of mother's-marks are nearly as various in their hue as their shape or size. Some are bright scarlet, others of a deep red; some few are black; but the most general color is that of a purplish-red; some, indeed, are hardly to be distinguished from the natural complexion of the skin except by their elevation. Not the least remarkable circumstance connected with *nævi* is the fact that all of those which are of a *deep red color* are singularly influenced by any violent emotion of the mind, becoming distended and much brighter in color during a fit of rage or any strong excitement, great heat of the weather, and during the paroxysm of a fever,—whatever, indeed, accelerates or disturbs the circulation. At such times, many of those *nævi*, of a vesicular or bladder-like character, with a thin cuticle, burst, and not unfrequently discharge a very considerable amount of blood. Among the various shapes which mother's-marks assume, the likeness to fruit is a very common one: peare, apples, strawberries, mulberries, and currants are the most familiar; these are often traced as accurately on the arm, leg, body, or face, as if they had been photographed on the skin. Fruit, of whatever sort, while simply drawn, as it may be, on the cuticle, if out of sight, is harmless and innocent enough; but if, as is sometimes the case, the grapes, mulberries, or currants are defined in what may be called alto-relievo on the skin, and are prominent, it is another remarkable fact, that during the natural season of the fruit, the *nævus* resembling it on the body will, during the last weeks of ripening, enlarge, and become excessively, sometimes intolerably, painful. In robust, masculine constitutions this fact is less evident, but in nervous and delicate habits it frequently amounts to extreme suffering.—The treatment is very uncertain in its results, and in many cases defies either medical or surgical aid. In all cases, if a cure is to be effected, the nævus should be treated as soon as the child has strength to bear the treatment.

Moth'er-spots, *n. pl.* (*Med.*) Congenital spots on the skin; nævus.

Moth'er-tongue, (*-tung,*) *n.* One's native language: lingual parent-stock.

Moth er-wit, *n.* Native wit; common sense.

"It is extempore, from my *mother-wit*." — *Shak.*

Moth'er-wort, *n.* (*Bot.*) See LEONURUS.

Moth ery, *a.* Concreted; full of concretions; dreggy; feculent;—used of liquors.

Moth y, *a.* Full of moths; as, "an old *mothy* saddle" *Shak.*

Mo'tif, *n.* [Fr.] That which suggests a hint or an idea to an artist; also, the hint itself.

Mot'ile, *a.* [From Lat. *motum*, to move, and *facere*, to make.] Inducing motion.

Motil ity, *n.* [Fr. *motilité*; Lat. *motilitas*, from *motus.*] (*Med.*) Faculty of moving; moving power; contractility.

Motion, (*mo'shun,*) *n.* [Fr.; Lat. *motio*, *motionis*, from *moveo*, to move, *q. v.*] Act or process of moving or of changing place; change of local position; alteration of distance between bodies; the passing of a body from one place to another, whether by voluntary, organic, or mechanical action;—the converse of *rest*. (See below, & *Motion, Laws of.*)—Manner of moving: port; gait; air; change of posture; action; military march or movement.

"By quick Instinctive *motion* up I sprung." — *Milton.*

—Power of, or capacity for motion.

"All without breath or *motion*." — *Coleridge.*

—Agitation; internal action: excitation of the mind, will, desires, appetites, or passions; effect of impulse; activity proceeding from any cause, external or internal.

"The *motion* of a hidden fire." — *Montgomery.*

—Proposition offered: course of conduct or line of action advanced or instigated; particularly, a proposition made in a deliberative assembly; as, a *motion* for a committee, a *motion* to bring in a bill, a *motion* to adjourn, &c.

(*Mach.*) The cross-head, cross-head guides, and blocks, in a locomotive steam-engine, taken collectively.

(*Mus.*) The direction given to the movement of the parts in contrapuntal writing. Direct or similar motion is when two parts move in the same direction *i. e.* rise or fall together; contrary motion is when one rises and the other falls; and oblique motion is when one part moves in either direction while the other is stationary. Contrary motion is the best, and next oblique motion.

(*Fine Arts.*) The change of place or position which from certain attitudes a figure seems to be making in its representation in a picture or sculpture. It can be only implied from the attitude which prepares the animal for the given change, and differs from *action*, q. v. Upon motion, in art, depends that life which seems to pervade a picture when executed by a master.

Motion (*Laws of*). (*Physics.*) The laws which direct and control the continued and successive change of place of various bodies, — in other words, their motion. The laws of motion may be thus described: — 1. A body always remains in a state of rest, or of uniform motion, in a straight line, until it is made to change its state on account of the action upon it by some external force. 2. This change of motion is proportional in an exact ratio to the force impressed, and is produced in the same straight line in which the opposing force acts. 3. Action, and consequently reaction, are always to be estimated in the same right line, and are equal in opposite directions. According to Dr. Arnold, in his work entitled "The Elements of Physic," all motion is really considered, with regard to itself, absolute, or the change of absolute space; for motion once begun would be continued forever, were it not for the interruption of external causes, the power of gravitation, and many other circumstances which affect it. *Equable motion* may be briefly stated to be the effects of a single stroke or impetus given to a body; as the momentum imparted to a ball discharged from the mouth of a cannon by the charge of gunpowder. (See GUNNERY.) *Accelerated motion* is produced by a constant application of power or impulse to the body which had been in a state of rest. (See GRAVITATION.) To sum up our remarks, force is not required for the maintenance of motion, but only for its change; that is, for producing, in the first place, a change of state from rest to motion, or from motion to rest; secondly, a change in the velocity of motion, either by accelerating or retarding it; or, thirdly, a change in its direction, by deflecting it upwards or downwards, to the right or to the left. Not only such bodies as are at rest, but also such as are performing uniform rectilinear motion may thus be regarded as being in a state of equilibrium. (See FORCES.) For it is only while their velocity or direction is changing, that is, while they are being accelerated, retarded, or moving in a curve, that the forces acting on them can be unbalanced, or can produce a resultant pressure; and as long as this pressure remains unbalanced, the motion will continue changing in velocity, in direction, or in both: because, whenever it becomes straight and uniform, the resultant of all the forces acting on the body will be equivalent to *nil*; or, in other words, the body will not be subject to any unbalancing force. The dynamical effect of force being then a change of motion, a continued force must produce a continuous change, whether in velocity or direction. The simpler effect of a sudden change of velocity, or an angular deflection, can be only produced by an instantaneous exertion of force, or an impact, as it is termed. (See IMPACT.) Among the many absurdities which have arisen out of a misapprehension of the laws of motion, is the attempt to discover what is called a *perpetual motion*, or a machine which of itself would never stop. The earth and planets are such machines in their rotations on their axes, and we have seen that any particle of matter, unacted on by any other matter, and once in motion, is a perpetual motion. If a wheel attached to an axle could be deprived of friction at the pivots, and inclosed in a permanently air-tight and perfectly exhausted receiver, it would also, when once in motion, be a perpetual motion. But as long as any friction or resistance, however small, is perpetually retarding the motion, it is obvious that the velocity, if maintained, must be indebted to some external supply of moving power. To take the case of friction, which arises from the roughness of the supports, and which, independently of *adhesion*, may be considered as a rapid succession of very small jolts, by which the roughness of the one surface strikes upon that of the other, and communicate a portion of momentum to the frame, and finally to the earth, — to suppose that a wheel, as above described, could go on forever, with friction, would be to suppose that there could be action without re-action. In fact, a perpetual motion, such as intended to be made by the speculators on the subject, is nothing less than a machine which will work forever without new moving-power; it being not one bit less absurd to suppose that it would perpetually overcome friction and atmospheric resistance, than that it would continue to supply the impetus necessary to carry on the sawing of a plank or the weaving of lace. The ancient philosophers had many peculiar and erroneous impressions with regard to the laws of motion, but their original ideas seemed to be the guiding-points in the investigations of the moderns. Galileo modelled some of the first theories, but we are indebted to Sir Isaac Newton for the first real investigation of the laws of motion.

—*v. n.* To make a significant movement or gesture with the hand or head.

Mo'tionist, *n.* One who brings forward or makes a motion.

Mo'tionless, *a.* Wanting motion; being at rest

Mo'tive, *a.* [It. *motivo*; L. Lat. *motivus.*] Causing or producing motion; influencing action; having power to move: denoting a tendency to move; as, *motive* power.

—*n.* [Fr. *motif*; It. *motivo*, from Lat. *moveo, motus*, to move. See MOVE.] That which moves, actuates, or influences; that which incites to action; that which determines the choice or moves the will: an incentive or inducement; cause; reason; that which may or ought to incite to action.

"Wife and children, those precious *motives*." — *Shaks.*

(*Mus.*) (Also written MOTIVO.) Theme, subject, or leading passage in a musical composition.

—*v. a.* To move; to furnish a motive to or for; to incite or induce by a motive or motives.

Motiv'ity, *n.* [L. Lat. *motivitas.*] Power of motion; the power of producing movement or action; the quality of being prompted by motives.

Moti'vo, *n.* [It.] (*Mus.*) See MOTIVE.

Motley, (*mot'le*,) *a.* [Sp. *motear*, to speckle, from *mota*, a mote.] Variegated in color; parti-colored; dappled; piebald. — Composed of different or various parts, characters, or kinds; diversified.

"*Motley* fruit of mongrel seed." — *Swift.*

Mot'ley, JOHN LOTHROP, an American historian and diplomatist, b. in Mass., in 1814. After graduating at Harvard Coll., in 1831, he proceeded to Europe, where he entered himself at the universities of Göttingen and Berlin respectively. After his return to the U. S., he studied law, and was admitted to the bar in 1836–7. In 1840 he was appointed Secretary of the American Legation in Russia, which after a tenure of 8 months he resigned, returning to the U. States, and devoting himself to literature. After a course of preparatory study on the continent of Europe, Mr. *M* published in London, in 1856, his first great work, *The Rise of the Dutch Republic.* This book at once achieved a grand success, its sale in England being 15,000 copies in the first year of its publication, while, on the other hand, the four years' demand (1856–60) in the U. States resulted in the sale of 7,590 copies only. This work was translated into Dutch, German, and French. In 1861 appeared, as a continuation, so to speak, of his first great work, his *History of the United Netherlands*, which has more than equalled the popularity of its predecessor. In the same year Mr. *M.* received the degree of D.C.L. from the university of Oxford, England, and was appointed U. S. minister to Austria, which post he resigned in 1867, in a spirited letter to Secretary Seward, who had charged him with speaking disrespectfully of President Johnson, a charge which he indignantly denied. In 1869 *M.*, who was a corresponding member of the French Institute, and of the principal learned societies in Europe, was appointed American minister to the Court of St. James, in which position he was succeeded in the following year by Gen. Schenck. In 1874, he published *John of Barneveld, a Biography.* Died in England, May 29, 1877.

Mot'ley-mind'ed, *a.* Possessing diversified or fluctuating views, ideas, or feelings.

Mot'mot, *n.* (*Zoöl.*) A curious and handsome bird of the genus *Motucotus* or *Trionides*, order *Insessores*, inhabiting many parts of S. America. Its back is of a dark rich green color, and it has a long wedge-shaped tail, two feathers of which extend some inches beyond the others. The shafts of these are stripped of their webs near the extremities, giving the bird a very singular appearance. One would suppose that these birds trimmed their feathers thus themselves, for many are found with quills perfect, and others partly denuded. The *M.* are generally in pairs in the deep woods, and are easily recognized by their note, *mot-mot*, slowly repeated. There are several species of *M*; the edge of the beak in these birds is serrated, both in the upper and lower mandibles.

Mo'to, [It.] (*Mus.*) Movement with increased quickness.

Mo'ton, *n.* In ancient plate-armor, a small plate covering the armpits.

Mo'tor, *n.* [Lat., from *moveo, motus*, to move.] A mover; that which gives motion; moving-power; motive of mechanical action.

(*Anat.*) One of the nerves of motion.

—*a.* (*Anat.*) Motory; giving motion; as, the *motor* nerves.

Moto'rial, *a.* (*Anat.*) Motory; motor; having reference to organs of motion.

Motorpath'ic, *a.* Pertaining or having reference to motorpathy.

Motor'pathy, *n.* [Lat. *motor*, a mover, and Gr *pathos*, suffering.] (*Med.*) A mode of treating disease by gymnastics or appropriate movements.

Mo'tory, *a.* Giving motion; motorial; motor; inciting to action.

Mott Ha'ven, *New York*, formerly a post-village of Westchester co., now part of New York city.

Mot'tic, Mot'ty, *a.* Abounding in, or consisting of, motes; — (a Scotticism.)

Mottle, (*mot'tl,*) *v. a.* To mark or stain with spots of different colors; to maculate; to speckle.

Mot'tled, *a.* Marked with spots of different colors, or shades of color, as if stained; maculated.

Mot'to, *n.*; *pl.* MOTTOES. [It.; Lat. *mythus*, from Gr. *mythos*, speech.] (*Her.*) A word or sentence added to a device, and commonly used, when put on a scroll, as an external ornament of coat-armor. The use of mottoes for this purpose is very ancient, and when appended to a coat-of-arms, a motto is frequently hereditary in a family. Strictly, the motto should bear an allusion to something in the achievement; but in modern times, the taking of it entirely depends upon the pleasure of the bearer, and it may be changed at will.

—A sentence or quotation prefixed to anything written or published.

Mot to-kisses, *n. pl.* Sweetmeats with mottoes, etc., attached, and enclosed in fancy-colored papers rolled into pellets; — used for pastime at children's parties, etc.

Mott's Corners, in *New York*, a village of Tompkins co., about 165 m. W. by S. of Albany.

Motts'ville, in *Nevada*, a village of Douglas co., about 18 m. S. of Carson City.

Mott'ville, in *Michigan*, a post-village and township of St. Joseph county, about 165 miles S. by W. of Lansing.

Mott'ville, in *New York*, a post-village of Onondaga co., abt. 150 m. W. by N. of Albany.

Mot'ty, *a.* Same as MOTTIE, *q. v.*

Mouflon, (*moof'lon.*) *n.* (*Zoöl.*) An animal of the sheep kind, *Ovis musmon*, inhabiting the mountainous parts of Corsica, Sardinia, Greece, &c. It is about the size of a small fallow-deer, covered with hair, and not with wool, except that hair of a somewhat woolly character appears in winter. The upper parts are brownish, the under parts whitish; the hair of the neck is long; the tail is very short. The horns of the male are very large, approaching to those of the Argali. The *M.* lives chiefly in the higher parts of mountainous regions, and is not easily approached by the hunter.

Fig. 1869. — MOUFFLON, (*Ovis musmon.*)

Mould, (sometimes written MOLD) *n.* [A. S. *molde, myl*; D. *mul*, dry sand; Ger. *mulm*, fine dust; Icel. *mold*, dust of the earth, from *molu*, akin to Lat *molo*, to grind. See MILL.] (*Hort.*) Soil composed of decayed vegetable matter in a state of minute division, more or less mixed with garden-earth. The kinds of mould most in use in horticulture are, leaf mould, formed from the decayed leaves of trees; rich mould, formed of thoroughly decayed stable-dung; heath mould, found on the surface of heath-lands; and peat mould, formed of thoroughly decomposed peat. In general, mould is distinguished from soils by containing a much greater portion of organic than of earthy matters.

—Matter, or constituent substance or material, of which anything is formed.

(*Bot.*) The name popularly applied to the thread-like *Fungi* which prey upon our provisions, and attack such substances as gum, glue, ink, &c., living at their expense, and destroying their valuable properties. Many of the moulds, observes Mr. Berkeley, are capable of sustaining life when immersed in fluids, contrary to the habit of most *Fungales*; and from their capability of appropriating what is nutritious, and rejecting what is hurtful, they are often developed even in solutions of poisonous metallic salts, which would be fatal to *Fungales* in general. In a solution of sulphate of copper, for example, they become, as it were, electrotyped by the copper, while they appropriate the other elements. As the spores are often able to sustain a considerable degree of heat without destruction, they occur in situations where they would otherwise not be expected, as in preserved fruits which have been subjected to heat, and when there could be no access of fresh spores. Where there is any possibility of communication, there are few kinds of vegetable tisanes which they cannot penetrate; and in animals, they occur in situations where they must, like intestinal worms, have worked their way through the tissues to the cavities in which they grow. They are among the most powerful agents in the generation of disease, as is proved by the potato-murrain. In the human frame they are the fruitful source of cutaneous disorders. There are many genera, mostly belonging to the order *Hyphomycetes*, as *Aspergillus*, q. v., or to the order *Physomycetes*, as the common *M., Mucor mucedo* (Fig. 1870), so plentifully found on fruit, paste, preserves, &c., in a state of incipient decay, the progress of which it hastens. It consists of cobweb-like masses of threads, from which rise many short stems, each bearing at the top a roundish membranous blackish spore-case.

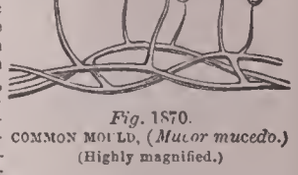


Fig. 1870. COMMON MOULD, (*Mucor mucedo.*) (Highly magnified.)

Mould, (*mōld,*) *n.* [Fr. *moule*; Sp. *molde*; Lat. *modulus*, dim. of *modus*, a measure. See MEASURE.] The matrix in which anything is cast and receives its form.

"Cast the mass again in a new and better *mould*."—*Burnet.*

—The model or pattern which serves as a guide in working mouldings, ornaments, mechanical models, &c.

—Cast; form; shape; design; character.

"The vulgar writer is of vulgar *mould*."—*Waller.*

(*Anat.*) The suture or contexture of the skull.

Mould, *v. a.* To cause to contract mould or fungous concretions; to gather mould. — To cover with mould or soil.

—*v. n.* To contract mould; to become mouldy.

Mould, *v. a.* To model; to shape: to fashion; to form into a particular shape or model; as, to *mould* metal.

"He *moulded* it with female clay."—*Swift.*

"Moral lessons *moulded* into the form of fiction."—*Watts.*

—To knead; as, to *mould* dough.

Mould'able, *a.* That may be moulded or formed.

Mould'-board, *n.* That part of a plough which turns over the earth in ploughing.

Moulder, (*mold'ur,*) *n.* The person who, or thing which

John Lothrop Motley

1814–1877

forms or moulds into shape; specifically, one who casts metal in a mould.

Mould'er, *v. n.* [From *mould*, fine, soft earth.] To turn to mould or dust by a process of natural decay; to crumble; to perish.

"When statues *moulder*, and when arches fall."—*Prior.*

—To waste away gradually; to be deteriorated or diminished.

"The enemy's army would have *mouldered* to nothing." *Clarendon.*

—*v. a.* To turn to mould or dust; to crumble; to waste.

"The silent stroke of *mould'ring* age."—*Pope.*

Mould'ery, *a.* Resembling mould; partaking of the characteristics of mould.

Mould'ing, *n.* Any thing cast in a mould.

(*Arch.*) A general term applied to all the varieties of outline or contour given to the angles of the various subordinate parts and features of buildings, whether projections or cavities, such as cornices, capitals, bases, door- and window-jams, and heads, &c. The regular *M.* of *Classical* architecture are the *Fillet*, or *list*; the *Astragal*, or *bead*; the *Cyma reversa*, or *ogee*; the *Cyma recta*, or *cyma*; the *Cavetto*; the *Ovolo*; the *Scotia*, or *trochilus*; and the *Torus* (see those names and COLUMNS);—each of these admits of some variety of form, and there is considerable difference in the manner of working them between the Greeks and Romans. The mouldings in Classical architecture are frequently enriched by being cut into leaves, eggs, and tongues, or other ornaments, and sometimes the larger members have running patterns of honeysuckle or other foliage carved on them in low relief. In mediæval architecture, the diversities in the proportions and arrangements of the *M.* are very great, and it is scarcely possible to do more than point out a few of the leading and most characteristic varieties. In the Norman style the plain *M.* consist almost entirely of rounds and hollows, variously combined, with an admixture of splays, and a few fillets. The rich *M.*, however, are very various, one of the most marked being the constant recurrence of *M.* broken into zigzag lines, and forming what is called the *zigzag* or *Chevron* moulding. (Fig. 579.) A series of grotesque heads placed in a hollow *M.*, called *Beak-heads*, (Fig. 326.) with their tongues or beaks lapping over a large bead or torus, was also very common. The *Hatched M.* is also not uncommon, and is found early in the style, as it can be cut conveniently without the aid of a chisel, with the pick only. The other favorite mouldings of the Norman style are the *Billet* mouldings, both square and round, the *Lozenge*, the *Nail-head*, the *Pellet*, the *Chain*, the *Cable*, and the *Rose*, examples of which are given in Fig. 1871. There may also be mentioned the *Star*, the *Billeted Cable*, the *Nebule*, the *Studded*, the *Indented*, the *Scolloped*, the *Fir Cone*, the *Double Cone*, the *Dovetail*, the *Embattled*, the *Open Heart*, and the *Antique*. The plain *M.*, in the *Decorated* style, though in large suites, rounds, and hollows, are often very deeply cut, but in many instances, especially toward the end of the style, they become shallower and broader; ovolos are not very uncommon, and ogees are frequent; splays also are often used,

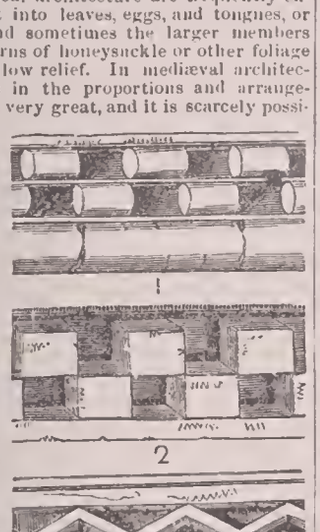


Fig. 1871.—NORMAN MOULDINGS.

1, Roman billet; 2, Square billet; 3, Lozenge; 4, Nail head; 5, Pellet; 6, Chain; 7, Cable; 8, Rose.

either by themselves or with other mouldings; fillets placed upon larger members are abundant, especially in the early part of the style; and a round *M.*, called the *Roll-M.* from a roll of parchment, or the *Scroll M.*, with a sharp projecting edge on it, arising from one-half being formed from a smaller curve than the other, is frequently used, and is characteristic of decorated work. When used horizontally, the larger curve is placed uppermost. There is also another *M.*, convex in the middle and concave at each extremity, which, though sometimes found in the perpendicular style, may be considered as generally characteristic of the decorated. Fillets are very frequently used to separate other members, but the rounds and hollows often run together. The enrichments consist of leaves and flowers, either set separately or in running patterns, figures, heads, and animals, all of which are generally carved with greater truth than at any other period; but the *ball-flower*, which belongs especially to this style, and a variety of the *four-leaved* flower, are the commonest. In the perpendicular style, the *M.* are generally flatter and less effective than at any earlier period. One of the most striking characteristics is the prevalence of very large, and often shallow hollows; these sometimes occupied so large a space as to leave but little room for any other *M.* In Perpendicular work, small fillets are not placed upon larger members as in the Decorated; splays also are much less frequent. The ornaments used in the *M.* are running patterns of foliage and flowers; detached leaves, flowers, and bunches of foliage; heads, animals, and figures, usually grotesque; shields, and various heraldic and fanciful devices; the large hollow *M.*, when used in arches or the jambs of doors and windows, sometimes contain statues with canopies over them.

Mould'iness, *n.* State or quality of being mouldy;—a name applied to all minute fungi which appear in masses upon organic bodies.

Mould'ing-mill, *n.* A mill for moulding or shaping timber.

Mould'ing-plane, *n.* A plane used in making mouldings.

Mould'ing-sand, *n.* (*Metallurgy.*) A mixture of loam and sand, used in making moulds.

Mould'-turner, *n.* A maker of metal frames.

Mould'y, *a.* [From *mould.*] Overgrown with mould; as, *mouldy* bread.

Moule, (Le,) a town of Guadeloupe, W. Indies, on the N.E coast of the island of Grand Terre: *pop.* 10,000.

Mouline, (*mōō-lren',*) **Moulinet',** *n.* [Fr.] The drum of a crane or capstan; a turnstile.

Moulinette, a village of Stormont co., Upper Canada, abt. 7 m. N.W. of Cornwall.

Moulins, (*moo'la,*) a town of France, dept. of Allier, on the Allier, 159 m. S.S.E. of Paris. The principal public edifices are the church of Notre Dame, the imperial college, the town hall, and the hall of justice. It also contains a public library of 20,000 vols. *Manuf.* Cutlery, cotton, silk, and woollen fabrics, &c. It has a considerable trade in corn, wine, timber, and live-stock. *Pop.* 18,000.

Moul'mein, a seaport-town of India. See MAULMAIN.

Moult, (*mōlt,*) *v. n.* [Fr *muer*; Lat. *muto*, to change.] To change, shed, or cast the hair, feathers, skin, horns, &c., as an animal.

—*v. a.* To change or shed, as the feathers.

—*n.* The act or process of changing the feathers, &c.; moulting.

Moult'ing, *n.* The operation by which certain animals change, cast off, or lose their hair, feathers, &c.

Moulton, (*mōl'ton.*) in *Alabama*, a post-village, cap. of Lawrence co., abt. 110 m. N. by E. of Tuscaloosa.

Moul'ton, in *Ohio*, a post-township of Auglaize county.

Moul'ton, in *Texas*, a post-village of Lavacca co., abt. 28 m. S.S.W. of Lagrange.

Moultonborough, in *New Hampshire*, a post-township of Carroll co.

Moultrie, WILLIAM, an American general and statesman, b. in S. Carolina, 1731. He was of Scottish descent, his parents emigrating to S. Carolina early in the 18th century. In 1761 he commenced his career as captain in a militia regiment of infantry, raised for the defence of the frontier against the Cherokees, rendering important service, and acquiring considerable military knowledge. Becoming a warm advocate of the rights of the colonies, he was elected to the provincial congress in 1775, and was at the same time appointed colonel of the 2d S. Carolina regiment. In 1776 he was designated to construct a fort on Sullivan's Island, at the mouth of Charleston harbor, which afterwards received his name. The British fleet attacked the fort before its completion, but were repulsed with great slaughter. He was soon after made brigadier of the continental forces, and distinguished himself by the repulse of the British in their advance on Charleston, in 1779. In the spring of 1780 Charleston was again attacked, and *M.*, who was second in command, shared in the capitulation of the American forces. He remained a prisoner two years, being exchanged in 1782, and was promoted a major-general by Congress the same year. In 1785 he was elected governor of S. Carolina, and again in 1794, after which he retired to private life. He was the author of *Memoirs of the Revolution*. D. 1805.

Moultrie, (*mol'tree,*) in *Georgia*, a post-village, cap. of Colquitt co., abt. 14 m. S.S.E. of Albany.

Moultrie, in *Illinois*, a S.E. central co.; *area*, abt. 320 sq. m. *Rivers*. Kaskaskia River, and several less important streams. *Surface*, level; *soil*, fertile. *Cap.* Sullivan.

Moul'trie, in *Ohio*, a post-village of Columbiana co., abt. 66 m. S.E. of Cleveland.

Mound, *n.* [A. S. *mund*, defence; from Lat. *munio*, *munire*, to fortify.] Something raised as a defence or fortification, usually a bank of earth or stone; a bulwark; a defence; a rampart or dike: an artificial elevation of earth; a knoll; an isolated hill.

(*Her.*) A globe encircled, and bearing a cross.

—*v. a.* To fortify with a mound.

Mound, in *Illinois*, a township of McDonough county.

Mound, in *Indiana*, a village and township of Warren co., abt. 4 m. N. of Covington.

Mound, in *Kansas*, a twp. of Miami co.

Mound'-bird, *n.* (*Zool.*) See MEGAPODIDÆ.

Mound City, in *Arkansas*, a village of Crittenden co., abt. 7 m. N. of Memphis, Tennessee.

Mound City, in *Illinois*, a post-village of Pulaski co., abt. 7 m. N.E. of Cairo.

Mound City, in *Kansas*, a post-village and township, cap. of Linn county, about 24 miles N.N.W. of Fort Scott.

Mound City, in *Missouri*, a village of Holt co., abt. 13 m. N.N.W. of Oregon.

Mound Prairie, in *Iowa*, a twp. of Jasper co.

Mound Prairie, in *Minnesota*, a township of Houston county.

Mound View, in *Minnesota*, a township of Ramsey county.

Mounds'ville, in *Virginia*. See GRAVE CREEK.

Mound'ville, in *Wisconsin*, a village of Dane co., abt. 24 m. W.S.W. of Madison.—A post-village and township of Marquette co., abt. 10 miles North of Portage City.

Mount, *n.* [A. S. *munt*; Fr. *mont*; It. *monte*; Lat. *mons, montis.*] A mountain or hill; a mass of earth, or earth and rock, rising considerably above the surface of the surrounding land; a high hill; an isolated knoll or butte; as, *Mount* Washington.—A mound; an embankmen; a bulwark for offensive or defensive operations.—Paper, card, or Bristol-board on which a drawing, miniature, or photograph is fixed.

(*Mil.*) A horse, and appliances for mounting; equipments requisite to a mounted horseman or trooper.

Mount of Piety. See MONT-DE-PIETÉ.

—*v. a.* To raise aloft; to lift on high; to elevate above.

"As high as we have *mounted* in delight,
In our dejection do we sink as low." — *Wordsworth.*

—To ascend; to climb; to scale; to get upon an elevated place.

"Shall we *mount* again the rural throne?"—*Dryden.*

—To place, as one's self on horseback.—To furnish with animals for riding; to supply with horses: as, to *mount* a troop of cavalry.—To prepare for use; to set off to advantage, or embellish; as, to *mount* a picture, to *mount* a jewel, to *mount* a gun on its carriage, &c.—To be furnished with; to carry; as, the ship, or fort, *mounted* twenty guns.

To mount guard. (*Mil.*) To take the post and perform the duty of a sentry or patrol.

—*v. n.* To ascend, as to the top of a mountain; to rise, or rise on high; to tower; to be raised or built to a great altitude.

"A mind . . that *mounts* no higher than a bird can soar."—*Shaks.*

—To get on horseback; to leap or spring upon the back of an animal, or upon anything.

"And there was *mounting* in hot haste." — *Byron.*

—To amount; to count up: to rise in value.

"Make fair deductions, see to what they *mount*." — *Pope.*

Mount'able, *a.* Capable of being mounted; that may be mounted.

Mount A'braham, in *Maine*, a mountain in Franklin co., abt. 60 m. N.N.W of Augusta

Mount Ad'ams, or WACHUSET MOUNTAIN, in *Massachusetts*, a mountain of Worcester co., abt. 45 m. N.W. of Boston; *height*, 2,018 ft.

Mount Ad'ams, in *New Hampshire*, a summit of the White Mountains, in Coos co.; *height*, 5,759 ft.

Moun'tain, *n.* [Fr. *montagne*; Lat. *montanus*, from *mons, montis*, a mountain.] A large mass of earth and rock, rising above the common level of the earth or adjacent land, but of no definite altitude. Any *M.* of small dimensions is termed a *hill*, especially when it rises above the plain by almost insensible degrees. There are various parts in a *M.* which it is well to observe, for we have the *base*, the *sides* or *declivities*, and the *top* or *summit*. When the summit of a *M.* is detached, so to speak, from the general mass, by assuming all at once a very steep ascent, it is called a *peak*; such as the *Pic-du-Midi* in the Pyrenees, and the *Pic Blanc* in the Alps, near Mont Rosa, and the Peak of Teyda in the island of Teneriffe. Every flat summit is termed a *plateau*, while a rounded one is called a *drove* or *hummock*. The intervening space between two chains of *M.* is termed a *valley*; and this is said to be of the first class when it serves as the basin of a large river. The lateral subdivisions which *M.*-chains frequently exhibit, and which form smaller valleys leading into the principal one, bear the name of *branches*. An *offset* is a series of smaller *M.* which detach themselves from the principal chain, receding from it in a direction almost parallel. If this offset be of small extent, it is termed a *spur*, while the name of *crest* is applied to the upper ridge, whether of a branch, an offset, or a spur. The numerous attempts that have been made to generalize the distribution of *M.* on the globe have hitherto been almost unsuccessful. In America, the *M.* take a general direction more or less parallel to the meridian, and for a distance of 8,280 m., from Patagonia to the Arctic Ocean, form a vast and precipitous range of lofty *M.*, which follow the coast-line in S. America, and spread somewhat out in N. America, presenting everywhere throughout their

course a tendency to separate into two or more parallel ridges, and giving to the whole continent the character of a precipitous and lofty W. border, gradually lowering into an immense expanse of E. lowlands. In the Old World, on the other hand, there is no single well-defined continuous chain connected with the coast-line. The principal ranges are grouped together in a Y-shaped form, the general direction of which is at right angles to the New World chain. The centre of the system in the Himalayas is the highest land in the hemisphere. From this, one arm radiates in a N.E. direction, and terminates in the high land at Behring Straits: the other two take a W. course: the one a little to the N., through the Caucasus, Carpathians, and Alps, to the Pyrenees; the other more to S., through the immense chain of Central African *M.*, and terminating at Sierra Leone. Most of the principal secondary ranges have generally a direction more or less at right angles to this great *M.* tract. The highest summits upon the globe are: in Asia, Mt. Deodhunga in the Himalayas, 29,002 feet above the level of the sea; in America, Aconcagua, in the Andes, 22,867 feet; in Europe, Mont Blanc, 14,748 French, or about 15,775 English feet; in Africa, Kilimanjaro, 19,680 feet.—*M.* chiefly owe their origin, the one to *denudation*, which is always abrading and carrying to a lower level the exposed surfaces: the other, to an internal force, which is raising or depressing the existing strata, or bringing unstratified rocks to the surface. The extent to which denudation has altered the surface of the globe can scarcely be imagined. All the stratified rocks are produced by its action; but these do not measure its full amount, for many of these beds have been deposited and denuded, not once or twice, but repeatedly, before they reached their present state. Masses of rock

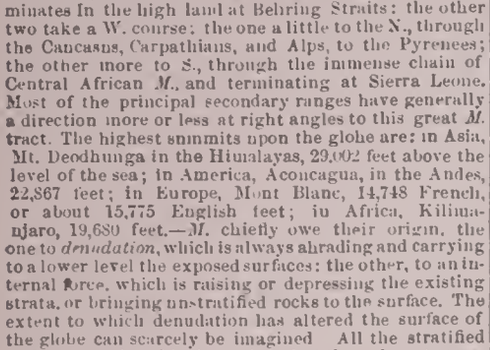


Fig. 1872.

THE GREAT GLACIER CALLED THE MER DE GLACE, ("SEA OF ICE,") ON MONT BLANC.

(View taken from Montanvert.)

more indurated, or better defended from the wasting currents than those around, serve as indices of the extent of denudation. *M.* produced by internal force are of several kinds. I. *M.* of ejection, in which the internal force is confined to a point, so to speak, having the means of exhausting itself through an opening in the surface. The lava, scoriæ, and stones ejected at this opening form a conical projection which, at least on the surface, is composed of strata sloping away from the crater. Many volcanic cones of this kind have been denuded after the volcano became extinct, so as to present the appearance of ordinary mountains, so that the features presented by mountains of this origin are often due to the work of denuding agents. 2. *M.* of elevation, formerly supposed to be due to an upthrust from below, are now ascribed to the folding and fracturing of strata resulting from lateral pressure. They indicate lines of weakness along which the rocks have yielded to severe lateral compression, perhaps due to the sinking down of the outer shell of the earth upon the contracting nucleus. Many such mountains have afterward lost much of their height through denudation, while the deposition of the denuded materials on the ocean floor may have lifted them again, by the thrust due to the increased weight. 3. *M.* of circumdenudation are results of erosion which has cut deeply into plateau regions, carrying away surrounding material and leaving mountain-like masses isolated. Excellent examples of this are to be seen in the flat-topped *mesas* or *buttes* of the Western U. S.—*Age of Mountains.* Mountains are of all geological ages, those of latest date being usually the youngest, from the brief time left to eroding forces. Some of the very early mountains seem to have been denuded down to their bases, and reduced to low plains, which have subsequently been lifted as plateaus, and again largely denuded. Such seems to have been the case, in some measure, with the Alleghenies, which are far more remote in origin than the much higher and more imposing Rocky Mountain chain.

Moun'tain, *a.* Pertaining, or having reference to a mountain: formed on mountains; characteristic of mountains; growing on mountains: as, *mountain* air, *mountain* pines, &c.—Huge; vast; resembling a mountain in size.

"The high, the *mountain* majesty of worth."—*Byron.*

Moun'tain-ash, *n.* (*Bot.*) See PYRUS.

Moun'tain-blue, *n.* (*Min.*) A very beautiful carbonate of copper, found in Cumberland, England. It is not, however, durable; used in oil, it becomes green, and, as a pigment, is precisely of the character of verditer.

Moun'tain-cat, *n.* (*Zoöl.*) The catamount.

Mountain-cork, Mountain-leather, *n.* (*Min.*) A very light variety of asbestos, the fabrics of which are so interlaced that the fibrous structure is not apparent.

Mountain Cove, in *W. Virginia*, a post-village of Fayette co., abt. 150 m. S. of Wheeling.

Mountain Creek, in *Virginia*, enters the Rappahannock River from Culpepper co.

Moun'tain-dew, *n.* Pure Scotch whisky;—so called from being distilled in the Scottish Highlands.

Mountaineer', *n.* An inhabitant of a mountain.—A rustic; a freebooter; a savage.

"Savage, fierce bandit, or *mountaineer.*"—*Milton.*

Moun'tain-flax, *n.* (*Min.*) Same as AMIANTHUS, *q. v.*

Moun'tain-green, *n.* (*Min.*) A native carbonate of copper, combined with a white earth, and often striated with veins of mountain-blue, to which it bears the same relation that green verditer does to blue verditer; nor does it differ from these and other copper-greens in any property essential to the painter.

Moun'tain-goat, *n.* (*Zoöl.*) A species of antelope, (Fig. 1873,) *Aplocerus montanus*, which inhabits the Rocky Mountains. Its jet-black, polished, slender, and conical horns are much like those of the chamois. It is covered with long and pendent hair, and the color is white.—*Tenney.*

Fig. 1873.—MOUNTAIN-GOAT.

Moun'tain-heath, *n.* (*Bot.*) See NEUZIESA.

Moun'tain-lau'rel, *n.* (*Bot.*) See KALMIA.

Moun'tain-leath'er, *n.* (*Min.*) See MOUNTAIN-CORK.

Moun'tain-lie'oriee, *n.* (*Bot.*) See TRIFOLIUM.

Moun'tain-lime'stone, *n.* (*Geol.*) (Also called *carboniferous limestone.*) A calcareous rock, containing marine shells and corals, devoid of coal. It is situate immediately below the millstone-grit, and above the old red sandstone.

Moun'tain-mahog'any, *n.* (*Bot.*) See BETULA.

Moun'tain-milk, *n.* (*Min.*) A very soft, spongy variety of carbonate of lime.

Moun'tain-mint, *n.* (*Bot.*) See MONARDA.

Moun'tainous, *a.* Full of mountains; hilly; rugged; as, a *mountainous* country.—Large as a mountain: huge.

"*Mountainous* heaps of wonder."—*Prior.*

Moun'tainousness, *n.* State of being full of mountains; as, "the *mountainousness* of Armenia."
Brerewood.

Moun'tain-pars'ley, *n.* (*Bot.*) See ATHAMANTA.

Moun'tain-pep'per, *n.* The seeds of *Cupparis simaica.*

Moun'tain-rice, *n.* (*Bot.*) See ORYZOPSIS.

Moun'tain-rose, *n.* (*Bot.*) The Alpine rose. See ROSA.

Moun'tain-soap, *n.* (*Min.*) A soft, brownish, unctuous shell.

Moun'tain-tea, *n.* (*Bot.*) See GAULTHERIA.

Moun'taintown Creek, in *Georgia*, enters the Coosawattee River in Gilmore co.

Moun'tain View, in *California*, a post-village of Santa Clara co., abt. 12 m. N.W. of San Jose.

Moun'tain View, in *S. Carolina*, a village of Abbeville dist.

Moun'tain Well, in *California*, a village of Nevada co., abt. 9 m. E. of Nevada.

Mount Air'y, in *Illinois*, a village of Greene co.

Mount Airy, in *Maryland*, a post-village of Carroll co.

Mount Airy, in *N. Carolina*, a post-vill. of Surrey co.

Mount Airy, in *New Jersey*, a post-village of Hunterdon co., about 15 m. N.N.W. of Trenton.

Mount Airy, in *Pennsylvania*, a village of Berks co.—A village of Washington co.

Mount Airy, in *Virginia*, a post-village of Pittsylvania co., about 145 m. S.W. of Richmond.

Mount Ar'rington, in *Oregon*, a peak of the Coast Range, on the boundary line between Coos and Douglas counties.

Mount Aubry, (*aw'bree,*) in *Pennsylvania*, a village of Lehigh co., abt. 1 m. N.W. of Allentown.

Mount Au'burn, in *Illinois*, a post-village and township of Christian county, about 22 miles E. by S. of Springfield.

Mount Au'burn, in *Indiana*, a post-village of Shelby co., abt. 12 m. S.W. of Shelbyville.

Mount Ayr, in *Iowa*, a post-village and township, cap. of Ringgold county, about 75 miles S.S.W. of Des Moines.

Mount Ba'ker, in *Oregon*, a peak of the Cascade Range, abt. 90 m. E. of the mouth of Frazer's River.

Mount Beth'el, in *New Jersey*, a village of Somerset co., abt. 7 m. N.E. of Somerville.—A post-village of Warren co., abt. 11 m. E. of Belvidere.

Mount Beth'el, in *Pennsylvania*, a post-village of Northampton co., abt. 120 m. E.N.E. of Harrisburg.

Mount Big'elow, in *Maine*, a mountain on the boundary line between Franklin and Somerset counties, abt. 70 m. N.N.W. of Augusta.

Mount Blan'chard, in *Ohio*, a post-village of Hancock co., abt. 85 m. N.N.W. of Columbus.

Mount Briggs, in *Iowa*, a village of Pottawattomie co., abt. 12 m. E. by N. of Council Bluffs.

Mount Bul'lion, in *California*, a post-village of Mariposa co., abt. 5 m. E. of Mariposa.

Mount Car'mel, in Syria. See CARMEL (MOUNT)

Mount Car'mel, in *Connecticut*, a post-village of New Haven co., abt. 9 m. N. of New Haven.

Mount Car'mel, in *Illinois*, a city, cap. of Wabash co., on the Wabash and 2 other R.Rs., 24 m. S.W. of Vincennes, Ind.; has abundant water-power and extensive manuf. *Pop.* (1897) 4,050.

Mount Car'mel, in *Kentucky*, a post-village of Fleming co., about 81 m. N.E. of Frankfort.

Mount Car'mel, in *Mississippi*, a post-village of Covington co., about 55 m. S.S.E. of Jackson.

Mount Carmel, in *Ohio*, a post-village of Clermont co., about 12 m. E. of Cincinnati.

Mount Car'mel, in *Pennsylvania*, a post-borough and township of Northumberland co., about 30 m. E.S.E. of Sunbury.

Mount Car'roll, in *Illinois*, a city, cap. of Carroll co., on C., M. & St. P. R.R., 34 m. S.E. of Galena. *Pop.* (1897) 2,150.

Mount Clem'ens, in *Michigan*, a city, cap. of Macomb co., 25 m. N.N.E. of Detroit. *Pop.* (1894) 5,647.

Mount Da'na, in *California*, a peak of the Sierra Nevada, abt. Lat. 37° 53′ N; *height*, abt. 13,500 feet.

Mount Da'vidson, in *Nevada*, a peak of the Sierra Nevada (Washoe Range), in Storey co. Virginia City is built upon its E. slope. It contains rich deposits of silver.

Mount Desert, (*dez'ert.*) In *Maine*, an island in Frenchman's Bay, off the coast of Hancock co., abt. 40 m. S.E. of Bangor; *area*, abt. 180 sq. m. It constitutes the post-township of Mount Desert, and has several very fine harbors.

Mount Des'ert Rock, in *Maine*, an island and light-house off the S.E. coast of Hancock co., about 20 m. S. of Mount Desert. It exhibits a fixed light 50 feet above the sea: Lat. 43° 58′ 30″ N., Lon. 68° 8′ W.

Mount Diablo, (*de-a'blo,*) in *California*, a peak of the Coast Range, in Contra Costa co., about 30 m. E. of San Francisco; *height*, abt. 3,800 feet.

Moun'tebank, *n.* [It. *montambanco*, from *montare*, to mount, and *banco*, a bench.] A quack doctor: one who was formerly wont to mount a bench or stage in some public place, to boast his skill in curing diseases, and vend nostrums as pretended infallible remedies; a saltimbanque.

"It looks like a *mountebank* to boast infallible cures."—*Baker.*

—A charlatan: a quack: an empiric; a humbug; any boastful and false pretender.

"Disguised cheaters, prating *mountebanks.*"—*Shaks.*

—*v. a.* To gull; to cheat; to cozen; to humbug by boasting and false pretences. (R.)

"I'll *mountebank* their loves."—*Shaks.*

Moun'tebankery, *n.* Quackery; charlatanry; empiricism; humbug.

Moun'tebankism, *n.* Practices of a mountebank; mountebankery.

Mount Eden, in *California*, a post-village of Alameda co., abt. 7 m. S.E. of San Leandro.

Mount E'den Fur'nace, in *Pennsylvania*, a village of Lancaster co.

Mount Edgecumbe, (*ed'kum,*) a mountain of New Zealand, in Lat. 38° S., Lon. 177° E.; *height*, 10,000 feet.

Mount Em'mons, in *New York*, a spur of the Adirondacks, in Hamilton co.; *height*, 4,500 feet.

Mount E'non, in *Georgia*, a village of Richmond co., abt. 15 m. S. of Augusta.

Mount Ephraim, (*ē'fra-im,*) in *New Jersey*, a post-village of Camden co., abt. 6 m. S. by E. of Camden.

Mount Ephraim, in *Ohio*, a village of Guernsey county.—A post-village of Noble co.

Mount'er, *n.* One who mounts, rises, or ascends.

Mount Et'na, in *Indiana*, a post-village of Huntingdon co., abt. 90 m. N.E. of Indianapolis.—A village of Rush co., abt. 6 m. N. of Rushville.

Mount Flor'ence, in *Kansas*, a post-village of Jefferson co., abt. 13 m. N.E. of Topeka.

Mount Free'dom, in *Kentucky*, a post-village of Jessamine co.

Mount Gal'lagher, in *S. Carolina*, a post-village of Laurens dist.

Mount Gil'ead, in *Kansas*, a village of Anderson co.

Mount Gil'ead, in *Kentucky*, a post-village of Mason co., abt. 12 m. S.E. of Maysville.

Mount Gil'ead, in *Ohio*, a post-village and township, cap. of Morrow county, about 42 miles N. by E. of Columbus.

Mount Gil'ead, in *Virginia*, a post-village of Loudoun co., abt. 155 m. N. of Richmond.

Mount Grove, in *N. Carolina*, a village of Davis co.

Mount Ham'ilton, in *California*, a peak of the

Coast Range in Santa Clara co., abt. 22 m. E. of San Jose; height, 4,449 feet.

Mount Haw'kins, in *Illinois*, a village of Perry co., abt. 10 m. E. of Pinckneyville.

Mount Haw'ley, in *Illinois*, a village of Peoria co., abt. 10 m. N. of Peoria.

Mount Heal'thy, in *Ohio*, a post-village of Hamilton co., abt. 110 m S.W. by W. of Columbus.

Mount Hill Iron Works, in *Pennsylvania*, a village of Cumberland co.

Mount Holl'y, in *New Jersey*, a post-village, cap. of Burlington co., abt. 19 m. S. of Trenton.

Mount Holly, in *Ohio*, a post-village of Knox co., abt. 60 m. N.E. of Columbus.

Mount Holly, in *Vermont*, a post-township of Rutland co.

Mount Hood, in *Oregon*, a peak of the Cascade Range, abt. 70 m. E. of Oregon; height, 11,000 feet.

Mount Hope, in *Illinois*, a township of McLean county.

Mount Hope, In *Iowa*, a post-village of Delaware co., abt. 15 m. N.W. of Delhi.

Mount Hope, in *New York*, a post-village and township of Orange co., abt. 130 miles S.S.W. of the city of Albany.

Mount Hope, in *Pennsylvania*, a village of Franklin co., abt. 11 m. S.E. of Chambersburg.
—A post-village of Lancaster co.

Mount Hope, In *Rhode Island*, an eminence of Bristol co., on the W. shore of Mount Hope Bay. It is noted as having been the residence of the famous Indian chief King Philip.

Mount Hope Bay, In *Rhode Island*, an arm of Narragansett Bay, extending N.E. into Bristol co.

Mount Ida, in *Arkansas*, a post-village, cap. of Montgomery co., abt. 90 m. W. by S. of Little Rock.

Mount Idaho, in *Idaho*, a post-town, cap. of Idaho co., 60 m. S.E. of Lewiston.

Mount Independence, in *Vermont*, an eminence in Addison co., abt. 2 m. S.E. of Fort Ticonderoga. It was a strongly fortified military post during the early history of the colonies.

Mount'ing, *n.* Act of rising.
—Act of preparing for use, or embellishment; that by which anything is prepared for use, or set off to advantage.
—Equipment; embellishment; appointment; as, the *mounting* of a sword.

Mount'ingly, *adv.* By ascending or rising.

Mount Jack'son, in *Pennsylvania*, a post-village of Lawrence co., abt. 50 m. N N.W. of Pittsburg.

Mount Jackson, in *Virginia*, a post-village of Shenandoah co., abt. 13 m. S.W. of Woodstock.

Mount Jefferson, in *New Hampshire*, a summit of the White Mountains, in Coos co., between Mount Adams and Mount Washington. *Height*, 5,657 feet.

Mount Joy, in *Pennsylvania*, a township of Adams co.
—A post-borough and township of Lancaster co., about 12 m. N.W. of Lancaster.

Mount Kings'ton, in *Illinois*, a village of Montgomery co., abt. 72 m. S. of Springfield.

Mount La Fayette, in *New Hampshire*, a summit of the White Mountains, in Grafton co., abt. 75 m. N. by W. of Concord. *Height*, 5,500.

Mount Leb'anon, in *Louisiana*, a post-village of Bienville parish, abt. 200 m. N.N.W. of Baton Rouge.

Mount Lein'ster, a mountain of Ireland, in Leinster, of Carlow, abt. [illegible] m. E.N.E. of Borris. *Height*, 2,610 feet.

Mount Lib'erty, in *Ohio*, a post-village of Knox co., abt. 40 m. N.E of Columbus.

Mount Lin'coln, one of the highest peaks of Colorado. *Height*, 14,296 ft. ab sea-level (Hayden, 1876).

Mount Linn, in *California*, a peak of the Coast Range, abt. Lat. 40° N., Lon. 123° W.

Mount Ly'ell, in *California*, a peak of the Sierra Nevada, abt. Lat 37° 45′ N. *Height*, abt. 13,500 feet.

Mount MacIntire, in *New York*, a summit of the Adirondacks, N.E. of Mount Tahawus. *Height*, 5,180 ft.

Mount Mad'ison, in *New Hampshire*, a peak of the White Mountains in Coos co., immediately south of Mount Washington. *Height*, 5,415 feet.

Mount Mans'field, in *Vermont*, the highest peak of the Green Mountains, abt. 20 m. N.W. of Montpelier. *Height*, 4,359 feet.

Mount Mar'cy, in *New York*. See MOUNT TAHAWUS.

Mount Meigs, in *Alabama*, a post-village of Montgomery co, abt. 15 m E. of Montgomery.

Mount Melimoyu', a peak of the Andes, near the W. coast of Patagonia. *Height*, 7,400 feet.

Mountmel'lick, a town of Ireland, in Leinster, Queen's co., abt. 6 m. N W. of Maryborough.

Mount Merid'ian, in *Indiana*, a post-village of Putnam co., abt. 40 m. W.S.W. of Indianapolis.

Mount Merid'ian, in *Virginia*, a post-village of Augusta co., abt. 118 m. N.W. of Richmond.

Mount Mis'ery, In *New Jersey*, a village of Burlington co., abt. 17 m. E.S.E. of Mount Holly.

Mount Mitch'eli, or MITCHELL'S PEAK, in *N. Carolina*, a peak of the Black Mountains, abt. 125 m. W.N.W. of Raleigh. It is the second highest summit E. of the Mississippi River. *Height*, 6,732 feet.

Mount Mori'ah, in *New Hampshire*, a peak of the White Mountains, in Coos co.

Mount Mor'ris, In *Illinois*, a post-village and township of Ogle county, abt. 177 miles N. of the city of Springfield.

Mount Mor'ris, in *Michigan*, a post-village and township of Genesee co., about 68 m. N.N.W. of the city of Detroit.

Mount Mor'ris, in *New York*, a post-village and township of Livingston co., abt. 36 m. S. by W. of Rochester.

Mount Morris, in *Pennsylvania*, a post-village of Green co., abt. 18 m. S.E. of Waynesburg.

Mount Morris, in *Wisconsin*, a post-township of Waushara co.

Mount Ne'bo, in *Pennsylvania*, a post-village of Lancaster co.
—A village of Lebanon co.

Mount Ne'bo, in *Vermont*, an eminence of Addison co., near Lake Champlain.

Mount Ol'ive, in *Arkansas*, a post-village, the former cap. of Izard co., about 100 m. N. of Little Rock.

Mount Ol'ive, in *Iowa*, a village of Mills co., abt. 5 m. S E. of Glenwood.

Mount Olive, in *Ohio*, a post-village of Clermont co., abt. 30 m. S.E. of Cincinnati.

Mount Ol'iver, in *Pennsylvania*, a village of Allegheny co, abt. 2 m. S. of Pittsburg.

Mount Oph'ir, in *California*, a post-village of Mariposa co., abt. 7 m. W. of Mariposa.

Mount Pacarai'ma, or SIERRA PACARAIMA, a mountain of Brazil, near the Parima; Lat. 3°38′N., Lon. 63°8′W.

Mount Pal'atine, in *Illinois*, a post-village of Putnam co., abt. 12 m. S.E. of Hennepin.

Mount Pe'lia, or MIDDLEBURG, in *Tennessee*, a village of Weakly co., abt. 135 m. W. of Nashville.

Mount Pis'gah, in *Ohio*, a post-village of Clermont co., abt. 20 m. E. of Cincinnati.

Mount Pleas'ant, a village of Upper Canada, abt. 30 m. N. of Hamilton.

Mount Pleasant, in *Indiana*, a village and township of Delaware county, about 33 miles W.N.W. of Richmond.—A village of Martin county, about 35 m. E. of Vincennes.

Mount Pleasant, in *Iowa*, a city, cap. of Henry co., abt. 28 m. W.N.W. of Burlington. It contains a Wesleyan University, the Iowa Insane Hospital, and several other educational and benevolent institutions.

Mount Pleasant, in *Kansas*, a post-village and township of Atchison county, about 10 miles S. of Atchison.

Mount Pleasant, in *Kentucky*, a village of Harlan co., abt. 170 m. S.E. of Frankfort.

Mount Pleasant, in *Maryland*, a post-village of Frederick co.

Mount Pleasant, in *Michigan*, a post-village, cap. of Isabella co. *Pop.* (1894) 3,178.
—A village of Wayne co., about 22 m. S.W. of Detroit.

Mount Pleasant, in *Minnesota*, a former township of Green county.—A village of Scott county, about 27 miles S.W. of St. Paul.—A township of Wabasha county.

Mount Pleasant, in *Missouri*, a township of Lawrence co.—A village of Miller co., abt. 28 m. S.W. of Jefferson City.—A township of Scotland co.

Mount Pleasant, in *Nebraska*, a post-village of Cass co., abt. 32 m. S. of Omaha City.

Mount Pleasant, in *N. Carolina*, a post-village of Cabarras co., abt. 136 m. W. of Raleigh.

Mount Pleasant, in *New Jersey*, a post-village of Hunterdon co., abt. 11 m. W.N.W. of Flemington.—A village of Monmouth co., abt. 10 m. N. of Freehold.—A village of Morris co., abt. 13 m. N.N.W. of Morristown.

Mount Pleasant, in *New York*, a township of Westchester co.

Mount Pleasant, in *Ohio*, a village of Hamilton co., about 10 miles N. of Cincinnati.—A post-village and township of Jefferson county, about 130 miles E. of Columbus.

Mount Pleasant, in *Pennsylvania*, a township of Adams county.—A village and township of Columbia county, about 3 miles N. of Bloomsburg.—A village of Lancaster county.—A village and township of Washington county, about 20 miles S.W. of Pittsburg.—A township of Wayne county.—A post-borough and township of Westmoreland county, about 40 miles S.E. of Pittsburg.

Mount Pleasant, in *Tennessee*, a post-village of Maury county, about 52 miles S.S.W. of Nashville.—A village of Sullivan county.

Mount Pleasant, in *Texas*, a post-town, cap. of Titus county, about 320 m. N.E. of Austin. *Pop.* (1897) 1,100.

Mount Pleasant, in *Utah*, a city of San Pete co., about 22 m. N.N.E. of Manti.

Mount Pleasant, in *Virginia*, a post-office of Spottsylvania co., about 5 m. N. by W. of Richmond.

Mount Pleasant, in *Wisconsin*, a township of Green co.—A village and township of Racine co., about 4 m. W. of Racine.

Mount Pulas'ki, in *Illinois*, a post-village of Logan co., about 25 m. E.N.E. of Springfield.

Mount Rain'ier, in *Washington*, a lofty peak of the Cascade Range, about Lat. 46° 60′ N., Lon. 121° 30′ W.; *height*, about 12,000 ft.

Mount'rath, a town of Ireland, in Leinster, Queen's county, abt. 14 m E.N.E. of Roscrea; *pop.* 3,000.

Mount Repub'lic, in *Pennsylvania*, a village of Wayne co, abt. 170 m. N.E. of Harrisburg.

Mount Rip'ley, in *California*, a peak of the Coast Range, on the E. border of Lake co.; *height*, abt. 7,500 ft.

Mount Rock, in *Pennsylvania*, a post-village of Cumberland co.

Mount Saint Eli'as, a volcanic mountain of North America, on the boundary line between Alaska and the British possessions; Lat. 60° 18′ N., Lon. 140° 30′ W. *Height*, (estimated) 17,000 ft.

Mount's Bay, an inlet of the Atlantic Ocean, on the S.E. coast of England, county of Cornwall. In it is St. Michael's Mount.

Mount San Bernardi'no, in *California*, a mountain peak in Bernardino co., about 75 m. E. of Los Angelos; *height*, 8,500 ft.

Mount Scott, in *Iowa*, a village of Cass co., abt. 200 m. W.N W. of Iowa City.

Mount Scott, in *Oregon*, a preciuct of Douglas county.

Mount Sew'ard, in *New York*, a spur of the Adirondacks, in Franklin co., abt. 130 m. N. by W. of Albany; *height*, 4,800 feet.

Mount Shas'ta, in *California*, an isolated peak in Siskiyou co., abt. 30 m. S.E. of Yreka; *height*, estimated at 17,500 ft. It is an extinct volcano, and supposed to be the highest summit in California.

Mount Sid'ney, in *Indiana*, a village of Jackson co., abt. 80 m. S. of Indianapolis.

Mount Sid'ney, in *Virginia*, a post-village of Augusta co., abt. 10 m. N.E. of Staunton.

Mount So'lon, in *Virginia*, a post-village of Augusta co, abt. 110 m. W.N W. of Richmond.

Mount Ster'ling, in *Alabama*, a post-village of Choctaw co., abt. 125 m. W. by S. of Montgomery.—A village of Monroe co.

Mount Ster'ling, in *Illinois*, a post-village, cap. of Brown co., abt. 77 m. W. by N. of Springfield.

Mount Ster'ling, in *Indiana*, a post-village of Switzerland co.

Mount Ster'ling, in *Kentucky*, a city, cap. of Montgomery co., about 60 m. E. by S. of Frankfort. *Pop.* (1897) 3,760.

Mount Ster'ling, in *Ohio*, a post-village of Madison co., abt. 22 m. S.W. of Columbus.—A village of Muskingum co., abt. 46 m. E. of Columbus.

Mount Ster'ling, in *Wisconsin*, a post-village of Crawford co., abt. 25 m. N. by E. of Prairie du Chien.

Mount Sum'ner, in *Illinois*, a post-village of Jo Daviess co., abt. 155 m W N.W. of Chicago.

Mounts'ville, in *Virginia*, a village of Loudoun co., abt 150 m. N of Richmond.

Mount Ta'bor, in *Indiana*, a village of Monroe co., abt. 11 m. N W. of Bloomington.

Mount Ta'bor, in *S. Carolina*, a post-village of Union district.

Mount Ta'bor, in *Vermont*, a township of Rutland co.

Mount Tahaw'us, or **Mount Mar'cy,** in *New York*, a peak of the Adirondacks, in Essex co. *Height*, 5,467 feet, being the highest summit of the range.

Mount Tom, in *Massachusetts*, an eminence of Hampden co., on the Connecticut River. *Height*, 1,214 ft.

Mount Tyn'dall, in *California*, a peak of the Sierra Nevada, in Tulare co., abt. Lat. 36° 40′ N. *Height*, abt. 14,200 ft.

Mount U'nion, in *Ohio*, a suburb of Alliance, in Stark co.

Mount U'nion, in *Pennsylvania*, a post-borough of Huntingdon co., abt. 80 m. W. of Harrisburg. *Pop.* 1,100.

Mount Up'ton, in *New York*, a post-village of Chenango co., about 100 m. W. by S. of Albany.

Mount Ver'non, in *Alabama*, a post-village of Mobile co., about 150 m. S.W. of Montgomery.

Mount Ver'non, In *Arkansas*, a village of St. Francis co., about 115 m. E.N.E. of Little Rock.

Mount Ver'non, in *Colorado*, a village of Jefferson co., about 15 m. W.S.W. of Denver.

Mount Ver'non, in *Georgia*, a post-village, cap. of Montgomery co., about 100 m. W. of Savannah.

Mount Ver'non, in *Illinois*, a city, cap. of Jefferson co., 135 m. S.S.E. of Springfield. *Pop.* (1897) 3,500.

Mount Ver'non, in *Indiana*, a city, cap. of Posey co., about 200 m. S.W. of Indianapolis; *pop.* (1897) 5,250.—A village of Wabash co., about 10 miles. S. of Wabash.

Mount Ver'non, in *Iowa*, a township of Black Hawk co.—A post-town of Linn co., about 16 m. E.S.E. of Cedar Rapids.—A village of Mahaska co.

Mount Ver'non, in *Kentucky*, a post-village, cap. of Rockcastle co. *Pop.* (1897) 580.

Mount Ver'non, in *Maine*, a post-township of Kennebec co.

Mount Ver'non, in *Michigan*, a post-village of Macomb co.

Mount Ver'non, in *Minnesota*, a post-township of Winona co., about 17 m. N. of Winona.

Mount Ver'non, in *Missouri*, a city, a cap. of Lawrence county, about 150 m. S.W. of Jefferson City.—A village of Moniteau county, about 20 m. S.E. of Booneville.

Mount Ver'non, in *Nebraska*, a village of Nemaha co., about 9 m. N.W. of Brownsville.

Mount Ver'non, in *New Hampshire*, a post-town of Hillsborough county, about 22 miles S. by W. of Concord.

Mount Ver'non, in *New York*, a post-village of Westchester co., about 20 m. N. of New York city.

Mount Ver'non, in *Ohio*, a city, cap. of Knox co., about 45 m. N.E. of Columbus. *Pop.* (1897) 6,450.

Mount Ver'non, in *Pennsylvania*, a village of Chester co., about 72 m. E.S.E. of Harrisburg.

Mount Ver'non, in *Tennessee*, a post-village of Monroe co., about 48 m. S.S.W. of Knoxville.

Mount Ver'non, in *Texas*, a post-town, cap. of Franklin co., 35 m. S. of Clarksville. *Pop.* (1897) 650.

Mount Ver'non, in *Virginia*, a locality of Fairfax co., on the Potomac river, about 8 m. below Alexandria. It was the residence, and contains the tomb of George Washington. The estate orlginally consisted of a handsome wooden mansion, with the usual farm buildings and 7,000 acres of land. The mansion was built by Lawrence Washington, George's elder brother, who settled here in 1743, and named the estate after Admiral Ver-

non, under whom he had served in the British navy. The mansion was greatly enlarged, and the whole estate much improved by the general, who made it his home until death, Dec. 14, 1799. In 1858 the mansion and tomb, with 200 acres of the farm, were purchased from John A. Washington, the nephew of George Washington, by the "Ladies' Mount Vernon Association," for $200,000.

Fig. 1874. — MOUNT VERNON.

The design of this association is to keep the place in order, and hold it in perpetuity as a place of public resort and pilgrimage. Gen. Washington's library and bed-room remain as they were at the time of his death, and contain many articles of interest.

Mount Ver'non, in *Wisconsin*, a post-village of Dane co., abt. 17 m. S.W. of Madison.

Mount Ver'non, in *W. Virginia*, a village of Preston co., abt. 7 m. N.N.E. of Kingwood.

Mount View, in *Missouri*, a post-village of Benton co., abt. 80 m. S.W. by W. of Jefferson City.

Mount'ville, in *Georgia*, a post-village of Troup co., abt. 9 m. E. of La Grange.

Mount'ville, in *Pennsylvania*, a post-village of Lancaster co., abt. 8 m. W. of Lancaster.

Mount Vision, (*vish'on,*) in *New York*, a post-village of Otsego co., abt. 78 m. W. of Albany.

Mount Wash'ington, formerly VERNON, in *Kentucky*, a post-village of Bullitt co., abt. 21 m. S.S.E. of Louisville.

Mount Wash'ington, in *Massachusetts*, a township of Berkshire co.

Mount Wash'ington, in *New Hampshire*, a peak of the White Mountains in Coos co., abt. 85 m. N. by E. of Concord. *Height*, 6,226 ft. above sea-level, being not only the culmination of the White Mountains, but the highest land in New England. It is a favorite resort for tourists in summer. The summit is now reached by a railroad.

Mount Wash'ington, in *Ohio*, a p.-v. of Hamilton co., forming a suburb of Cincinnati.

Mount Wash'ington, in *Pa.*, a v. of Alleghany co.

Mount Will'iug, in *Alabama*, a village of Lowndes co., abt. 40 m. S.W. of Montgomery.

Mount Will'iug, in *S. Carolina*, a post-village of Edgefield district.

Mount Yo'nah, in *Georgia*, a village, former cap. of White co., about 15 m. W. of Clarksville.

Mount Zi'on, in *Georgia*, a village of Hancock co., abt. 30 m. N.N.E. of Milledgeville.

Mou'ra, a town of Brazil, on the Rio Negro, abt. 47 m. W.N.W. of Ayrad.

Mou'rad Bey', chief of the Mamelukes, and companion-in-arms of Ibrahim Bey, was born in Circassia, 1750. On the invasion of Egypt by Bonaparte, he won the admiration of the French by his gallant resistance, but was forced to submit to Kleber, who left him the government of Upper Egypt, under French protectorate. D. 1801.

Mourn, *v. n.* [A. S. *murnan;* O. Ger. *mornen;* Goth. *maurnan,* to mourn.] To sorrow; to lament; to express grief or sorrow; to be sorrowful; to bemoan.

—To wear the customary habit of sorrow.

"We *mourn* in black, why *mourn* we not in blood?" — *Shaks.*

—*v. a.* To grieve for; to deplore; to lament.

"He that lacks time to *mourn*, lacks time to mend." — *H. Taylor.*

—To utter in a sorrowful manner. (R.)

Mourne, (*morn,*) a river of Ireland, in Ulster, co. Donegal, enters the Foyle at Lifford.

Mourne Mountains, a range of Ireland, in Ulster, co. Down. They are abt. 11 m. in length, extending between Newcastle on the Irish Sea to Carlingford Bay. Highest summit, 3,000 feet.

Mourn'er, *n.* One who mourns or deplores any loss or misfortune. — One who follows a funeral in the habiliments of mourning.

Mourn'ful, *a.* Full of sorrow; expressing sorrow. —Causing grief or sorrow; sad; calamitous; distressing.

Mourn'fully, *adv.* With sorrow; in a manner expressive of sorrow.

Mourn'fulness, *n.* State of mourning; sorrow; grief. — Show, appearance, or expression of grief or sorrow.

Mourn'ing, *n.* An outward manifestation of grief, more particularly on occasions of death. Every nation has some conventional form of mourning. The ancient Hebrews rent their garments, tore their hair, smote their breasts, threw ashes on the head, abstained from washing, sat on the ground, and went bare-headed and bare-footed. The usual period of mourning was seven days; but for Moses and Aaron they mourned a month. The first reference to hired mourners occurs in *Eccles.* xii. 5: "The mourners go about the streets." Another reference to them occurs in 2 *Chron.* xxxv. 25. The greater number of the mourners in ancient Egypt were women, as in the modern East. In Fig. 1875, mourners, all females, are shown casting dust upon their heads before the mummy of a man. Mourning for the dead was conducted in a tumultuous manner among the Hebrews,

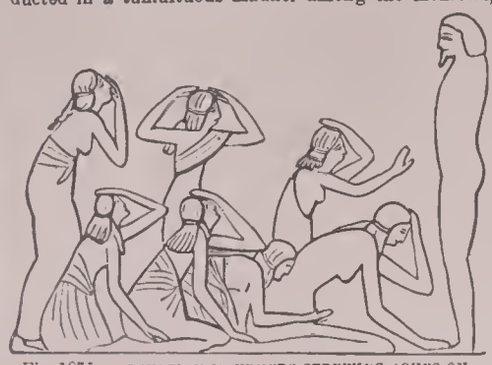


Fig. 1875. — EGYPTIAN MOURNERS STREWING ASHES ON THEIR HEADS.

(Fig. 1876.) They also wept and wailed greatly, (*Mark* v. 38.) The Greeks withdrew into privacy, cut off their hair, put on black, — or in some parts, as in Argos, white garments, — rolled themselves on the ground, threw ashes on their heads, tore their clothes, and never appeared in public without a veil. The Roman forms of mourning did not differ greatly from the Grecian. Hired mourning-women were employed at funerals, both by Greeks and Romans. In Europe, the ordinary color for mourning is black; in China and Japan it is white; in Turkey, blue or violet; in Egypt, yellow; in Ethiopia, brown. The time varies in different countries, and according to the degree of relationship, from a week to a year. Hired mourners appear as attendants at funerals in England; but their office is one of mere dumb show, and they are commonly called *mutes*. But in some parts of Ireland, the hired mourners, generally old women, are famous for their extravagant lamentations. Court-mourning in Europe, for members of the reigning family, even in remote degrees, is prescribed by ceremonials, which give the minutest directions as to dress.

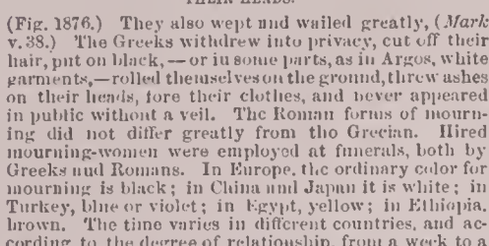


Fig. 1876. — JEWISH MOURNING.
(Wail with tabrets, etc.)

Mourn'ing-dove, *n.* (*Zoöl.*) A name given to a N. American dove (*Columba Carolinensis*), on account of its mournful note.

Mourn'ingly, *adv.* With the appearance of mourning; mournfully.

Mour'ystown, or **Mourytown,** in *Ohio*, a village of Highland co., abt. 14 m. S.W. of Hillsborough.

Mouse, *n.*; *pl.* MICE. [Ger. *maus;* L., A. S., and Sw. *mus.*] (*Zoöl.*) The common name of *Mus*, a genus of rodent mammalia of the family *Muridæ*, having three simple molar teeth in each jaw, with tuberculated summits, the upper incisors wedge-shaped, the lower compressed and pointed; the fore-feet with four toes and a rudimentary thumb; the hind-feet five-toed; the tail long, nearly destitute of hair, and scaly. This genus includes Rats (*q. v.*), and Mice, — the smaller species bearing the latter name. — The common *M.* (*Mus musculus*) is a general inhabitant of almost every country in the world; for though it is said to be not a native of America, but taken there by European settlers, it is now found in every part of this continent. There are several varieties, distinguished by their color; but the fur is usually of a brownish ash-color above, and light beneath; the tail not quite so long as the body; and the ears about half the length of the head. All its actions appear to be regulated by fear and necessity. It seldom leaves its hole but when impelled thereto by the want of food; and then, unlike the rat, who travels from one house to another, it seldom quits the spot where it has once taken up its residence. The *M.* makes a nest not unlike that of a bird, and brings forth several times in a year, generally having from six to ten at a litter. When first born, *M.* are naked and helpless; but in about 15 days they are able to shift for themselves. No animal has more enemies than the *M.*; and few are so incapable of resistance. Cats, snakes, hawks, owls, weasels, and rats are their incessant destroyers; and but for their amazing fecundity, the extirpation of the whole race would seem to be a natural consequence. The *M.* is capable of being tamed, and will sometimes show considerable attachment to its keeper. The *albino*, or white variety, which may be perpetuated by breeding, and is frequently kept as a pet, is particularly so. — The Harvest-mouse (*Mus messorius*) is the smallest, and one of the prettiest of all quadrupeds that exist in this country. It is a lively, active, playful little creature. Its eyes are dark; its color above a delicate reddish fawn — the under parts abruptly white; the ears are short and rounded; the tail is rather shorter than the body; length of head and body, 2 inches 6 lines. This animal lives entirely in the fields, resorting in the winter to burrows of its own construction, or to corn-ricks, into which it penetrates, and there finds food and shelter. The asylum in which it rears its young is an artful and beautiful nest, of a spherical form, consisting of the split leaves and panicles of grasses, artificially interwoven, and suspended among the stalks of standing corn or thistles, to which it is secured, and of which the leaves screen it from notice. The entrance to the nest is rather below the middle, and is scarcely observable. The parent closes it when she leaves it, and probably while she remains within. The inside is warm and neatly rounded.

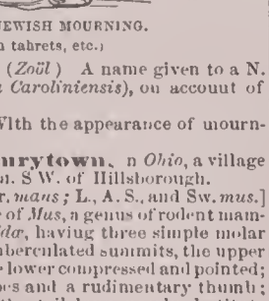


Fig. 1877.
NEST OF THE HARVEST-MOUSE.

(*Naut.*) A boss formed on a rope by parcelling.

Mouse piece. The piece of beef cut from the buttock-end of the round.

Mouse, *v. n.* To watch for and catch mice; as, "a *mousing* owl."—*Shaks.*

—To watch for or pursue in a sly manner; to pry about stealthily.

"A whole assembly of *mousing* saints."—*L'Estrange.*

—*v. a.* To rend; to tear, as a cat devours a mouse.

To mouse a hook. (*Naut.*) To whip a small line across the upper part, as a preventive against unhooking.

Mouse'-color, *n.* A color resembling that of the mouse.

Mouse'-colored, *a.* Of the color of a mouse; dun.

Mouse'-ear, *n.* (*Bot.*) See CYNOGLOSSUM.

Mouse'-fish, *n.* (*Zoöl.*) See CHIROMETES.

Mouse'-hole, *n.* A small hole; a hole by which a mouse only may run in and out.

"He can creep in at a *mouse-hole*."—*Stillingfleet.*

Mouse'-hunt, *n.* A hunt for mice.

—A mouser, one that hunts mice.

"You have been a *mouse-hunt* in your time."—*Shaks.*

Mous'er, *n.* A cat which catches mice.

"Puss will be a *mouser* still."—*L'Estrange.*

Mouse'-tail, *n.* (*Bot.*) See MYOSURUS.

Mouse'-trap, *n.* A trap for catching mice.

Mous'ing, *n.* Act of lying in wait for and catching mice.

(*Naut.*) Same as MOUSE, *q. v.*

Mousseline-de-laine, (*mūs-lin-de-lān'.*) *n.* [Fr.] A woollen fabric, of flimsy texture, used for ladies' dresses.

Mous'tache, *n.* See MUSTACHE.

Moustachio, (*mūs-tash'yo,*) *n.* Old spelling of MUSTACHE, *q. v.*

Mouth, *n.* [A. S. *muth;* D. *moud;* O. Sax., O. Fris., Ger., Belg., and Dan. *mund;* Icel. *mudr,* an orifice; W. *mantachu,* to open the jaws; Lat. *mando,* to cut = Sansk. *mantr,* to speak.] The opening in the head of an animal between the lips, in which food is received, and in which it is eaten, and by which the voice is uttered; also, the cavity between the lips, containing the jaw, teeth, and tongue. — The opening or orifice of a vessel, by which it is filled or emptied; as, the *mouth* of a pitcher. — The part or channel of a river by which its waters empty into the ocean, or into a lake, or into another river; as, the *moaths* of the Amazon. — The aperture of a piece of ordnance, by which the charge is issued; as, the *mouth* of a cannon. — The orifice of an organic vessel in animal bodies, by which fluids or other matter is received or discharged; as, the *mouth* of the lacteal vessels. — The opening or entrance of a cave, pit, well, or den; as, the *mouth* of a grotto. — A leading or chief speaker; a mouth-piece; a spokesman.

"Every coffee-house has some statesman belonging to it, who is the *mouth* of the street where he lives."—*Addison.*

—Cry; voice; articulation; utterance.

"With all the *mouths* of Rome to second thee." — *Addison.*

—A wry face; a distortion of the features; a mowe; a grimace; a facial make-up.

"Make *mouths* upon me when I turn my back." — *Shaks.*

Down in the mouth, downcast in look; chapfallen; of dejected aspect; mortified; chagrined.

"Upon this disappointment they were *down in the mouth*." *L'Estrange.*

To stop the mouth, to silence; to confound; to confuse; to abash; to confute; to put to shame; to snub.

—*v. a.* (*imp.* and *pp.* MOUTHED.) To take into the mouth; to seize with the jaws; to chew; to grind; to munch, as food.

"And now he feasts, *mouthing* the flesh of men." — *Shaks.*

—To utter with a voice affectedly big and resonant; to speak in a strained, stilted, or artificially sonorous manner.

"He *mouths* a sentence, as curs mouth a bone." — *Churchill.*

—To sneer at; to insult; to jeer; to flout. (R.)

—*v. n.* To speak with an affectedly loud or sonorous voice; to rant; to utter with vociferation of tone.

"I'll *mouth* at Cæsar till I shake the senate." — *Addison.*

—To kiss; to buss; to osculate by joining mouth to mouth. (R.)

Mouthed, (*mouth'd,*) *a.* Supplied with a mouth: —

used chiefly in composition; as, foul-*mouthed*, mealy-*mouthed*, hard-*mouthed*.

Mouth'er, *n.* One who mouths or rolls his voice about; a ranter.

Mouth'-friend, *n.* A pretended friend; one who professes false friendship.

Mouth'ful, *n.*; *pl.* MOUTHFULS. As much as fills the mouth, or as much as the mouth contains at one time. —Any proverbially small quantity; a morsel; a morceau; a driblet; a tasting-bit; a modicum.

"To take a *mouthful* of sweet country air." — *Dryden.*

Mouth'-glass, *n.* A small hand-glass, used for inspecting the interior of the mouth.

Mouth'-honor, *n.* Civility outwardly expressed, without sincerity. (R.)

"Curses not loud, but deep, *mouth-honour*, breath." — *Shaks.*

Mouthless, *a.* Having no mouth.

Mouth'-made, *a.* Lip-labored; spoken without sincerity.

Mouth'-piece, *n.* That orifice of a musical wind-instrument to which the mouth is applied; as, the *mouth-piece* of a bugle. —One who speaks on behalf of others; a spokesman.

Movable, (*moov'a-bl,*) *a.* [From *move*; Fr. *mobile*, from Lat. *mobilis*.] That may be moved; susceptible of motion or movement; that can or may be lifted, carried, drawn, turned, or conveyed, or in any way capable of being changed in place or posture; portable; not fixed. —Changeable from one time to another; mutable.

"The *movable* festivals of the Christian Church." — *Holden.*

—*pl.* Goods which are capable of being removed from one place to another. Movable goods or effects are ready money, merchandise, bonds, book-debts, cattle, and household furniture, not fastened with iron or nail, nor sealed in the plaster, but which may be transported without either fraction or deterioration.

Mov'ableness, *n.* State or quality of being movable; mobility; susceptibility of motion.

Mov'ably, *adv.* In a movable manner or condition.

Move, (*moov,*) *v. a.* (*imp.* and *pp.* MOVED.) [Fr. *mouvoir*; It. *movere*; Lat. *movere*, from *moveo*, *motum*, to move; Heb. *mud.*] To cause to change place, posture, or position; to set in motion; to impel; to carry, convey, or draw, as from one place to another; as, the horse *moves* a cart, wind *moves* a ship's sails, they are *moving* their furniture, &c.

"Push on — keep *moving*." — *Morton.*

—To excite into action by the force of motive; to rouse or urge by argument, inducement, or appeal; to effect or influence, as the mind, will, or passions; to agitate or disturb through the moral or emotional nature; to prevail on; to cause to act or determine.

"No female arts his mind could *move*." — *Dryden.*

—To awake the feelings or passions of; particularly, to excite tenderness, pity, or grief in the heart; to excite emotional feeling in; to touch pathetically; to arouse active sympathy.

"Would'st thou be *mov'd* to pity, or bestow an alms?" *Dryden.*

—To bring forward for consideration and determination; to moot for deliberation; to propose; to urge; to recommend; to submit, as a resolution to be publicly adopted; as, it was *moved* that the house do adjourn.

Moving force. (*Mech.*) The cause of the change of velocity in the motion of a body.

Moving power. (*Mech.*) Natural agency, as steam, wind, water, &c.; motive power; motor.

—*v. n.* To change place, situation, or posture: to stir; to pass or go, in any manner, from one place or part of space to another, whether by natural or mechanical agency.

"Nor till her fay was ended could I *move*." — *Dryden.*

—To be aroused to action: to stir or operate mentally or spiritually. —To change habitation; to remove, as from one place of abode to another. —To submit a proposition in a deliberate assembly: to bring forward a measure for discussion and decision; to suggest legislatively; to recommend: to urge.

—*n.* The act of moving: a movement: especially, the act of moving one of the pieces employed in playing a game, as chess or draughts, from one position to another, in the course of the game.

"An unseen hand makes all their *moves*." — *Cowley.*

Move'less, *a.* Motionless; fixed; without action.

"The Grecian phalanx, *moveless* as a tow'r." — *Pope.*

Movement, (*moov'-*.) *n.* [Fr. *mouvement*; It. *movimento.*] Motion: act of moving; any change of position in a material body; progression; a passing, shaking, turning, or flowing; natural or appropriate transference from one place to another; as, his *movements* were watched. —Agitation of the mind or sensibilities; emotion; moral action.

"Could he describe one *movement* of the mind?" — *Pope.*

—Manner of locomotion; style of moving; as, a slow or rapid *movement*. — That which moves or induces motion; as, the wheel-mechanism of a watch is termed its *movement*.

(*Pol.*) An expression adopted of late years into the political vocabulary of most European nations, signifying that party in a state which strives to obtain such concessions in favor of popular rights as will ultimately place the chief functions of government in the hands of the people. It is opposed to the Conservative party, or the *parti de résistance*.

(*Mus.*) Most compositions are divided into several parts, which generally differ from each other in time and key. Each of these divisions is called a movement. For instance, symphonies are, as a rule, divided into six movements, viz.: *An introductory, slow movement; a quick movement; an andante; a minuet; a trio;* and another *quick movement*. In short, every piece of music consists of as many movements as it contains positive changes of time or measure.

(*Horology.*) The train of wheel-work.

Move'ment, *n.* Motive agent; impelling power. (R.)

Mover, (*moov'er,*) *n.* The person or thing that moves or changes place or posture. —The person or thing that imparts motion or impels to action; a motor; a proposer; one who offers a proposition, or makes a suggestion; one who recommends anything for consideration or adoption; as, the *mover* of an address to the Crown.

Moving, (*moov'ing,*) *p. a.* Exciting motion or action; occasioning change of place or posture; arousing the passions or affections; touching; pathetic; calculated to excite the feelings or sensibilities.

Mov'ingly, *adv.* In a manner to excite the passions or affect sensibility; pathetically.

"His looks speak *movingly* in his behalf." — *Shaks.*

Mov'ingness, *n.* Power to affect the passions; quality of being pathetic.

Mow, (*mo,*) *n.* [A. S *mowe*, or *muga*; the same in origin as *much*.] A heap, mass, or pile of hay, or sheaves of grain deposited in a barn. —A loft or chamber where hay or corn is laid up.

—*v. a.* To lay, as hay, or sheaves of grain, in a heap or mass in a barn, or to lay it in a suitable manner. —To cut down with a scythe, as grass or other plants. —To cut down with speed, or indiscriminately, or in great numbers or quantity.

"What valiant foemen have we *mowed* down." — *Shaks.*

—*v. n.* To cut grass; to use the scythe.

Mow'-burn, *v. n.* To ferment and heat in the mow, from not being dry.

Mowe, *n.* A wry or distorted face.

Mowee, or **Moui,** (*mow'e,*) one of the Sandwich Islands, in the N. Pacific Ocean, 20 m. N.W. of Hawaii, Lat. 21° 44′ N., Lon. 155° 58′ W. It is divided into two peninsulas connected by a low isthmus. The first, or E. *M.*, rises to a height of 10,000 ft., terminating in a crater 2,700 ft. deep, and falling almost perpendicularly towards the sea. W *M.* rises to an elevation of 6,000 ft. above the sea. The soil is fertile in parts. *Prod.* Wheat, sugar-cane, and fruits. The principal town is Lahaina. *Pop.* 25,000.

Mow'er, in *Minnesota*, a S.E. co., adjoining Iowa; *area*, about 675 sq. m. *Rivers.* Red Cedar, Upper Iowa, and Root rivers. *Surface*, nearly level; *soil*, fertile. *Cap.* Austin. *Pop.* (1895) 21,546.

—A village of Mower co., about 32 m. S.W. of Rochester.

Mow'er, *n.* One who mows; a man dexterous in the use of the scythe.

Mow'ing, *n.* Act of cutting with a scythe.—Land from which grass is cut.

Mowing and Reap'ing Machines'. (*Agric.*) The mechanical contrivances now in general use for cutting grass and grain, and which have superseded the former methods of the sickle and scythe. The first experiments in the use of such machines of which we have any distinct knowledge were made in England in the latter part of the 18th century, the first machine on record being produced in 1786. It was followed by many others, the inventions of Gladstone, Bell, Smith, Scott, Mann, and others, though up to 1835 only three had done practical work in the field. Machines of this kind were first introduced into the U. S. in 1826, where they gave an active stimulus to invention. A mowing machine was invented in 1830, and soon after a combined mower and reaper. Up to 1835 28 patents had been granted on machines for this purpose, and since that date inventions in this direction have been so active that more than 20,000 patents have been granted, in addition to the considerable number granted in Great Britain. Most important among these was the celebrated McCormick reaper, which introduced a new principle, and for the first time made machine-harvesting effective. The first machine had been constructed to imitate, as near as possible, the hand process, cutters similar to the ordinary scythe being used, and

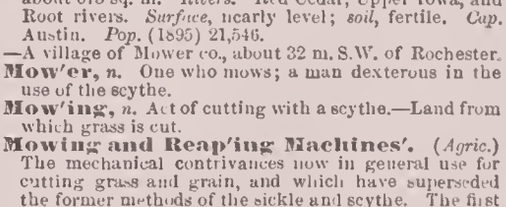


Fig. 1878.—MOWER AND REAPER.

rotary motion communicated from the wheels supporting the machine. The cutters were afterward improved by substituting for the scythe a kind of shears, which cut the grass and grain by a scissor-like action. The McCormick machine, which was first produced and successfully operated in 1831, but which only gradually forced itself upon the attention of farmers, substituted for those devices a reciprocating knife moving through fixed fingers. This consisted of a long, saw-bladed strip of steel, the saw-teeth being sharpened on both edges, and constituting a series of double-edged knives. These pressing the grain against the fixed fingers, through which they work back and forth, cut it by a shearing action. The McCormick machine first came into general notice after its exhibition at the London World's Fair of 1851, where it created astonishment and admiration by its remarkable performance, and completely revolutionized the existing ideas upon the subject. Since that period innumerable reapers and mowers have come into existence, all based on this principle, yet with such varied improvements as to render their use essential to every farmer. Their essential parts are the cutters, a divider to separate the swath to be cut from the other grain, carriers or rakes to lift and deposit the grain, &c. The mower is essentially the reaper without its platform and other special parts, and with a higher speed for the knives. The U. S. far excels all other countries in the construction of mowers and reapers, about 100,000 having been produced annually for home use since 1875, and still a larger number for exportation. These are distributed throughout almost every quarter of the globe.

Mox'a, *n.* (*Med.*) A cottony substance prepared by the Chinese and Japanese, by beating the dried leaves of the *Artemisia moxa*. It is used as a cautery by placing a small cone of it on the skin, and then setting fire to it. On burning down to the part on which it rests, it makes a sore, which is kept open, if requisite. It is principally used in cases of gout or rheumatism. — Any substance which, by gradual combustion near the skin, is employed as a counter-irritant.

(*Bot.*) *Artemisia chinensis.* See ARTEMISIA.

Moxibus'tion, *n.* (*Med.*) Mode of cauterization by means of moxa.

Moy, a river of Ireland, rising in the city of Sligo, and, after a course of 40 m., falling into Killala Bay, 2 m. from Killala.

Mo'ya, *n.* [Fr. and Sp.] A term used in S. America to denominate the mud thrown out in volcanic eruptions.

Moyamen'sing, in *Pennsylvania*, a former district of Philadelphia co., now included within the limits of the city of Philadelphia. It contains the county prison, abt. 1½ m. S.W. of the State-House.

Moyle, *n.* See MOIL.

Moyobam'ba, a town of Peru, abt. 40 m. E of Chachapoyas; *pop.* 6,001.

Mozambique, (*mo-zam-beek',*) a territory on the E. coast of S. Africa, belonging to Portugal, extending from Cape Delgado, in Lat. 10° 41′ S., to Delagoa Bay, 26° S. *Area*, estimated at 283,500 sq. m. The country along the coast is level and fertile. The shores are generally high and abrupt. The principal rivers are the Zambesi and Sofala. *Prod.* Wheat, maize, rice, sugar, coffee, indigo, &c. *Min.* Gold and copper. Pearl-fishing is a source of considerable profit. The principal exports are grain, gold-dust, honey, tortoise-shell, amber, &c. The principal settlements are Mozambique (the cap.), Ibo, Pomba, Conducia, Mokamba, and Quilimane. *Pop.* 300,000.

MOZAMBIQUE, the cap. of the Portuguese provinces in Africa, Lat. 14° 49′ S., Lon. 40° 45′ E. It stands on an island of coral, 1½ m. in length, near the entrance of a deep inlet of the sea, which forms its harbor. The harbor is commodious, but the trade, which was formerly very extensive, is very much reduced, being chiefly with India. *Pop.* 5,000

MOZAMBIQUE CHANNEL, a portion of the Indian Ocean, between the Island of Madagascar and the S.E. coast of Africa. It is 1,000 m. long and 450 in average breadth. In its narrowest part, on the coast of Zanzibar, is the above territory, island, and town.

MOZAMBIQUE CURRENT. (*Phys. Geog.*) A S.W. current, which sets along the African coast toward the channel of Mozambique during the whole year, and is probably the result of a drift current produced in the South Indian Ocean by the monsoons: it varies much in different seasons and years. The set of the winds drives the water up among the islands, and forces it to recover its level by rushing through the Mozambique Channel. This current is a part of the chain conveying the waters of the Pacific to the Atlantic, and is connected with the current produced within a narrow belt of ocean on the south side of the equator. On the north side the causes act less regularly, and the results are not traceable.

Mo'zart, JOHANN CHRYSOSTOMUS WOLFGANG GOTTLIEB, a celebrated German musical composer, b. at Salzburg, on the 25th of January, 1756; was the son of Leopold *M.*, a bookbinder of Augsburg, who studied music at Salzburg, and was, in 1762, admitted as one of the musicians of the prince-archbishop of that town. The young *M.*, born amid music, soon evinced a most remarkable musical precocity. His father could not fail to observe his genius, and he gave him every advantage; so that, before the child was four years old, he could play on the harpsichord with correctness and taste. In his fifth year he wrote a concerto for the harpsichord. In his sixth year, his father took him and his sister Maria Anna, who was also a musical genius, to Munich and Vienna, where the little artists were introduced to the imperial court, and the unequalled execution of the boy excited universal surprise. In 1763, when young *M.* was seven years old, he was taken to Paris, where he remained six months, and was overwhelmed with attention and applause. Here he published his first sonatas. In 1764, the family proceeded to England, and performed at court, the son playing on the king's organ with great success. At a public concert, symphonies of his composition only were performed. Here, as well as in Paris, compositions of Bach, Handel, &c., were laid before him, all of which he executed with the greatest truth at first sight. After this, he returned to Holland, and assisted

at the installation of the stadtholder. The family next visited Paris, and after having been twice at Versailles, proceeded, by way of Lyons, through Switzerland to Munich. In 1766, they returned to Salzburg, where they remained till 1768, and then made a second journey to Vienna. In 1769, *M.*, who had been made master of the concerts at the court at Salzburg, commenced a journey to Italy, in company with his father. In 1770 he composed, in his fourteenth year, his serious opera of *Mithridates*, which had a run of upwards of twenty nights in succession. When *M.* returned to Salzburg, in 1771, he found a letter, in which he was commissioned, in the name of the Empress Maria Theresa, to compose the grand theatrical serenata *Ascanio in Alba*, for the celebration of the nuptials of the Archduke Ferdinand. He undertook this commission, and in August returned to Milan for some months, where, during the festivities of the marriage, Mozart's serenata and an opera composed by Hasse were performed alternately. In 1775 he went again to Vienna, and, engaging in the service of the emperor, he satisfied the great expectations which were raised by his early genius. Among the works of his which will always be the delight of every musical nation, are the *Idomeneo*, by the composition of which he won the hand of Constance Weber, the lady he loved; the *Nozze di Figaro*; the *Zauberflöte*; the *Clemenza di Tito*; and, above all, the splendid *Don Giovanni*, which first appeared in 1787. The music of this opera is the triumph of dramatic composition; and though its great merits were not appreciated on its first performance, its composer lived to see justice done to it. When in his 36th year, and in a state of great physical debility, he undertook the composition of his sublime *Requiem*, but the decline of his bodily powers, and his great mental excitement, hastened his dissolution; he was seized with repeated fainting fits, brought on by his extreme assiduity in writing, in one of which he expired, Dec. 5, 1792. An English translation of his *Letters*, by Lady Wallace, from the collection of Ludwig Nohl, appeared in 1865. These letters, written in a frank, confidential mood, possess great interest, showing in the most striking manner how the great artist lived and labored, enjoyed and suffered.

Fig. 1879.
HOUSE OF MOZART AT SALZBURG.

Mozdok', a town and fortress of S. Russia, govt. of Caucasus, on the Terek, 55 m. E.S.E. of Georgievsk.; *pop.* 8,000.

Mozuffurnuggur', a dist of Brit. India, in the N.W. provinces; lat. between 29° 10′ and 29° 50′ N., Lon. 77° 6′ and 78° 10′ E. *Area*, 1,620 sq. m. *Pop.* 540,000.

M. P. Abbreviation of *Member of Parliament*. (Eng.)

Mr. An abbreviation of *Master* or *Mister*; — the common title prefixed to the names of men of almost all classes.

M-roof, *n.* (*Arch.*) A roof formed by the junction of two common roofs with a vallum between them.

Mrs. An abbreviation of *Mistress*: — the common title prefixed to the name of every married lady; also, frequently, in England, to the names of elderly unmarried ladies.

MS. Abbreviation of *manuscript*.

MSS. Abbreviation for *manuscripts*.

Mucate, *n.* (*Chem.*) A salt formed by the combination of mucic acid with a base.

Much, *a.* [A.S. *micel*; O. Ger. *mihil*, much, great; Gr. *megas*, great; Sansk *muhra*, to increase.] Great in quantity or amount; many in number; long in duration; copious; abundant; plentiful; as, to take *much* pains.

—*n.* A great quantity; a great deal; more than enough.

"More than a little is by *much* too *much*." — *Shaks.*

—An uncommon thing; something odd or strange.

"Ladies thought it *much* a man should die for love." — *Dryden.*

To make much of, to treat with peculiar regard or consideration; to pet; to pamper.

"When thou cam'st first, . . . thou *mad'st much of* me." — *Shaks.*

—*adv.* In a great degree; by far; to a great degree or extent; — used as a qualification to adjectives and adverbs in the comparative degree; as, *much* more, *much* richer, *much* faster.

"Rejoice *much* more, that *much* more good shall spring." — *Milton.*

—Often or long; to a great extent.

"Think *much*, speak little." — *Dryden.*

—Nearly; closely; almost.

"All left the world *much* as they found it." — *Temple.*

—*v. a.* To make much of; to regard with favor. (Used as a provincial Anglicism.)

Much'ness, *n.* Quantity; — principally used in the vulgarism "much of a *muchness*," that is, much of the same kind, value, or degree.

Mucic Acid, *n.* (*Chem.*) A crystalline acid formed by the oxidation of gum-arabic, sugar of milk, and other members of the saccharine group of substances. It is a dibasic acid.

Mu'cid, *a.* [From Lat. *mucus*, mucus.] Slimy; musty.

Mu'cidness, *n.* Mustiness; sliminess; mouldiness.

Mucific, (*mu-sif'ik*,) *a.* [Lat. *mucus*, and *facere*, to make.] (*Med.*) Making or generating mucus.

Mu'ciform, *a.* [Lat. *mucus*, and *forma*, form.] (*Med.*) Resembling mucus; having the characteristic properties of mucus.

Mucilage, (*mu'si-laj*,) *n.* [Fr.; L. Lat. *mucilago*, from Lat. *mucus*.] (*Chem.*) A substance which water, heated to 160° or 180°, extracts from certain seeds or roots, when they are infused in it, and then subjected to pressure in a linen strainer; when the liquor is evaporated, the residue resembles gum. When bruised linseed is thus treated, it yields a mucilaginous solution, which is precipitated by acetate and sub-acetate of lead, by chloride of tin, and by alcohol. Quince-seed furnishes a similar solution. The mucilage appears to reside in the husk or outer coating of the quince-seed; it is used by ladies, under the name of *fixature*, to retain the hair in curl. — Also, a solution of gum, used for the cementing envelopes, documents, &c.

Mucilaginous, (*mu-se-laj'e-nus*,) *a.* Pertaining to, or secreting mucilage; slimy; ropy. — Moist, soft, and lubricous; partaking of the nature of mucilage. — Soluble in water, but not in alcohol.

M. drinks. (*Med.*) The *ptisans*, consisting of decoctions of mallow, gum-water sweetened with sugar candy, gruel made with sago, tapioca, arrowroot or oatmeal, and such drinks as simple and compound barley-water, rice-water, or any demulcent infusion or decoction.

Mucilag'inousness, *n.* The quality of being mucilaginous; sliminess; viscosity.

Mu'cine, *n.* (*Med.*) An albuminuous substance found in mucus.

Mucip'arous, *a.* Producing mucus; as, *muciparous* glands.

Muck, *n.* [A.S. *meox*, *miox*; Swed. *mock*.] Liquefied dung. — Compost; decaying or putrefied vegetable matter.

"With fattening *muck* besmear the roots." — *Philips.*

—Anything low, mean, or filthy.

"Reward of worldly *muck*." — *Spenser.*

—An old cant term for money.

"The fatal *muck* we quarrelled for." — *Beau. and Fl.*

To run a muck. [Malay *amuk*, to slaughter.] To run madly about, attacking all one meets.

"Satire 's my weapon, but I 'm too discreet
To run a muck, and tilt at all I meet." — *Pope.*

Muck, *v. a.* To manure with muck; to dung; to apply compost to.

—*a.* Rank; damp; moist; resembling muck. (R.)

Muck'-fork, *n.* A dung-fork.

Muck'-heap, *n.* A dung-heap; a midden; a mass of manure.

Muck'-hill, *n.* A dung-hill; a muck-heap; a midden.

Muck'ish, a mountain of Ireland, in Ulster, co. Donegal, abt. 5 m. S. of Dunfanaghy; *height*, 2,190 feet.

Muck'iness, *n.* Nastiness; filth; squalor; noisomeness.

Muck'-midden, *n.* A dung-heap; a place for the deposit of manure.

Muck'-rake, *n.* A rake for gathering muck together.

Muck'ross, a peninsula of Ireland, in Munster, co. Kerry, between the middle and lower lakes of Killarney. On it are the ruins of an abbey, founded in 1440.

Muck'-sweat, *n.* A profuse sweat or perspiration. (Vulgar.)

Muck'-worm, *n.* A worm found in muck or liquid manure.

—A miser; a curmudgeon; a hunks.

"Misers are *muck-worms*."—*Swift.*

Muck'y, *a.* Filthy; nasty; disgusting.

Mu'cocele, *n.* (*Med.*) An enlargement or protrusion of the mucous membrane of the lachrymal passages, giving occasion to fistula lachrymalis; dropsy of the lachrymal sac.

Muco-pur'ulent, *a.* (*Med.*) Having the character and appearance of mucus and pus.

Mu'cor, *n.* [Lat.] Mouldiness; mustiness.

(*Med.*) Same as MUCUS, *q. v.*

(*Bot.*) The typical genus of the order *Mucoraceæ*. The species form the various kinds of *mould* on bread, cheese, preserves, paper, &c.

Mucorin'eæ, *n.* (*Bot.*) An order or division of the alliance *Fungales*. DIAG. Spores surrounded by a vesicular veil, or sporangium. Thallus floccose.

Mucos'ity, *n.* Sliminess. — A fluid containing mucus.

Muco'so-suc'charine, *a.* Combining the qualities of mucilage and sugar.

Mucous, (*mū'kus*,) *a.* Pertaining to mucus or resembling it; slimy, ropy, or lubricous.

—Containing mucus or mucilage.

M. membrane. (*Anat.*) The membraneous substance which lines all those internal passages and cavities of the body which are exposed to contact with the air, or by which foreign substances are taken into the body or eliminated from it. These membranes are soft, velvety, and extremely vascular. They are distinguished as lining the digestive, respiratory, and genito-urinary passages. In each of these parts they present some slight modifications, adapted for the special functions.

Mu'cousness, *n.* State of being mucous; sliminess.

Mu'cro, *n.* [Lat.] A point.

Mu'cronate, **Mu'cronated**, *a.* (*Bot.* and *Zoöl.*) Ending in abrupt spinous processes.

Mu'cronately, *adv.* In a mucronate manner.

Mucron'ulate, *a.* (*Bot.*) Tapering by degrees to an abrupt point.

Mu'culent, *a.* [From Lat. *mucus*.] Viscous; moist; sticky; slimy.

Mucu'na, *n.* [*Mukuna guaca* is the Brazilian name of one species.] (*Bot.*) A gen. of Papilionaceous plants, order *Tabaceæ*. The hairs covering the legumes of the species *M. pruriens* and *prurita* are used as a mechanical anthelmintic, under the name of *cowhage*, or *cowitch*. The pods, being dipped into treacle or honey, have the hairs scraped off, until the mass has the consistency of an electuary.

Mu'cus, *n.* [Lat., from *mungo*, to blow the nose = Gr. *myssō*.] (*Physiol.*) A thick, glairy fluid, secreted in the cells of the mucous membrane, but differing very materially in its characters, according to the situation of the membrane and the function it has to perform. Mucus chemically consists of albumen, water, and some alkaloid salts. Though naturally thin and transparent, like water, disease produces remarkable differences in its character. Thus: inflammation either makes the secretion thin and acrid, excoriating the cuticle on which it falls; or thick, ropy, and viscid; or compact, granular, and lumpy. At other times it is discharged from the bowels in the form of a flaky deposit. The mucus discharged from the eyes, apart from the secretion of the lachrymal glands, is peculiar to that organ, and that from the ears is distinct in character; while the discharge from the nose, called the *pituitary* secretion, is still more distinct and peculiar.

Mu'cutine, *n.* (*Physiol.*) The characteristic organic matter of animal mucus.

Mucurl, (*moo-koo-ree'*,) a river in Brazil, enters the Atlantic Ocean abt. Lat. 18° 6′ S.; *length*, abt. 150 m.

Mud, *n.* [Du. *mudder*; Ger. *moder*.] Moist or soft earth of any kind, such as is found in marshes and swamps, at the bottom of rivers and ponds, or in highways after rain.

—*v. a.* To bury in mud or slime.

"*Mudded* in that oozy bed."—*Shaks.*

—To make turbid or foul with dirt; to stir, as the sediment of liquors.

Mu'dar Bark, and **Mudarine'**. See CALOTROPIS.

Mud'dily, *adv.* Turbidly; with foul mixture; cloudily; confusedly.

Mud'diness, *n.* The state or quality of being muddy; turbidness; foulness caused by mud, dirt, or sediment. —Intellectual cloudiness or dulness.

Muddle, (*mud'dl*,) *v. a.* To make muddy, foul, or turbid, as water.

"Drink fine champagne, or *muddled* port."—*Prior.*

—To intoxicate partially; to cloud or stupefy, particularly with liquor; to fuddle.

"I was for five years always *muddled*."—*Arbuthnot.*

—To squander; to waste; as, to *muddle* money away.

—*v. n.* To become muddy; to contract filth; to be in a confused or dirty state.

—*n.* Intellectual torpor, confusion, or dulness; as, his brains are in a *muddle*.

Mud'dy, *a.* Foul with mud, dirt, or fine earthy particles; turbid, as water or other fluids; containing mud, as a street. — Dirty; dashed, soiled, or besmeared with mud; as, *muddy* shoes. — Consisting of mud or earth; gross; impure. — Dark; of the color of mud. — Dull; cloudy in mind; heavy; stupid; lethargic; incoherent.

"A dull and *muddy* rascal."—*Shaks.*

—*v. a.* To dirty; to render turbid. — To cloud; to make dull or heavy.

Mud'dy, in *Illinois*, a former township of Coles co.

Mud'dy (or BIG MUDDY) **Creek**, in *Illinois*, enters the Mississippi river from Union co.

Mu'ddy, in *Oregon*, a post-village of Linn co.

Muddy Creek, in *Kentucky*, enters the Green River between Butler and Muhlenburg cos.

Muddy Creek, in *Missouri*, enters Crooked Fork of Graud River in Grundy co.

—Enters Lamine River in Cooper co.

Muddy Creek, in *Ohio*, enters Sandusky Bay of Lake Erie from Sandusky co.

Muddy Creek, in *Pennsylvania*, enters the Susquehanna River in York co.

—A flourishing village and township of Butler county.

Muddy Fork, in *Ohio*, enters the Walhonding River in Holmes co.

Muddy Lane, in *Illinois*, a village of McDonough co.

Muddy-brained, (*brānd*,) *a.* Stupid; dull; lethargic; obtuse.

Muddy-head'ed, *a.* Having a dull understanding; thick-headed.

Mud'-eel, *n.* (*Zoöl.*) See LEPIDOSIREN.

Mud'-fish, *n.* (*Zoöl.*) Same as LOACH, *q. v.*

Mud'-hen, *n.* (*Zoöl.*) See RALLUS.

Mud'-hole, *n.* (*Mech.*) A covered opening in the bottom of a boiler, for discharging the dirt and sediment.

Mud'-plugs, *n. pl.* In locomotive steam-engines, tapered screw-plugs fitted into convenient parts of the boiler to admit of its being washed out occasionally.

Mud'-puppy, *n.* (*Zoöl.*) See MENOBRANCHUS.

Mud'-sill, *n.* The lowest sill of any building, usually imbedded in the soil.

Mud'-stone, *n.* A stone resembling indurated mud.

Mud'-sucker, *n.* (*Zoöl.*) An aquatic fowl seeking its food from mud.

Mud'-turtle, *n.* (*Zoöl.*) See TERRAPIN.

Mud'-wall, *n.* A wall built without mortar, by throwing up mud and suffering it to dry.

—*n.* (*Zoöl.*) See MEROPS.

Mud'-walled, *a.* Having a mud-wall.

Mud'-wort, *n.* (*Bot.*) See LIMOSELLA.

Mue, *v. a.* To moult; to change feathers; to mew. See MEW.

Muez'zin, *n.* [Ar.] A Moslem crier of the hour of prayer from the top of a minaret.

Muff, *n.* [Ger. and Sw. *muff*; Dan. *muffe*; Fr. *moufle*.] A warm cover for receiving the hands, usually made of fur or dressed skins. — A mean-spirited, despicable

fellow; a stupid person; as, "a *muff* of a curate." *Thackeray.* (Used colloquially.)

Muffetee', *n.* A small muff worn over the wrist to protect it from cold.

Muf'fin, *n.* A light, round, spongy cake, baked on a griddle and buttered, used for the less substantial meals, as breakfast, tea, &c.; a crumpet.

—An earthen table-plate.

Muffineer', *n.* A dish for keeping muffins hot at table.

Muffle, (*mŭf'fl,*) *v. a.* [Fr. *moufler*, from *moufle*, a muff.] To cover from the weather by cloth, fur, or any garment; to cover close, particularly the neck and face.

"You must be *muffled* up like ladies." — *Dryden.*

—Figuratively, to cloak; to cover; to conceal.—To deaden the sound of, as by wrapping or tying cloth, &c., around; as, *muffled* oars.

"Our hearts like *muffled* drums are beating." — *Longfellow.*

—*v. n.* To speak inwardly; to speak without clear and distinct articulation.

"*Muffling*, and laziness of speaking." — *Holden.*

Muf'fle, *n.* (*Chem. and Metall.*) An arched vessel with a flat bottom, in which substances may be exposed to a red heat without coming into contact with the fuel.—The naked extremity of the nose between the nostrils, when covered with a mucous membrane; — applied to ruminant animals.

Muf'flon, *n.* (*Zoöl.*) See MOUFFLON.

Muf'ti, *n.*; *pl.* MUFTIS. [Ar.] In Turkey, the name given to the head doctors of the law of the Koran, of which there is one in every large town. He is of great authority in the empire, being, as interpreter of the law, consulted on judicial proceedings, particularly in criminal cases, and in general on all affairs of importance. The grand muftiat Constantinople, called "Sheikh-ul-Islam," *chief of Islam*, is the head of the Turkish Church, and takes rank immediately after the Grand Vizier. He is the chief interpreter of the law, and formerly no person could be put to death without his consent; but of late years, since the reorganization of the Turkish government, the powers and prerogatives of the grand mufti have been much curtailed.

Muf'ti, *n.* In England, a colloquialism for the civilian garb of a naval or military officer when off duty; also, a citizen's dress, as distinguished from naval, military, or court uniform.

Mug, *n.* [Ir. *muga*, a mug.] A small vessel of earthenware or metal for containing liquor.—A slang colloquialism for the human face or mouth.

Mug'gets, *n. pl.* The intestines of a calf.

Mug'gish, *a.* Same as MUGGY, *q. v.*

Mug'gy, Mug'gish, *a.* [W. *mwg*, smoke; Icel. *mugga*, mist.] Moist; damp; mouldy; unsold; as, *muggy* straw. — Damp and close; oppressive: not elastic or bracing; as, *muggy* weather.

Mugil'idæ, *n. pl.* (*Zoöl.*) The Mullets, a family of acanthopterygious fishes, of which the generic characters are as follows: — Body nearly cylindrical, covered with large scales; two dorsal fins, widely separated, the rays of the first fin being spinous, and those of the second flexible; ventral fins behind the pectorals; the middle of the under jaw with an elevated angular point, and a corresponding groove to receive it in the upper; the teeth small; the head depressed; and the branchiostegous rays six in number. The color of the back and top of the head is a dusky gray, tinged with blue; the sides and under-surface of the body silvery white, marked with longitudinal parallel dark lines; the membranes of the fins dull white, cheeks silvery white, and the irides reddish brown. *Mugil* is the typical genus of the family, and to it belong the following species: — The Gray Mullet is a common inhabitant of the Mediterranean, and of the northern seas; it seldom proceeds to any distance from land, as it delights in shallow water, and seldom proceeds to any distance up the mouths of rivers. That the gray mullet was well known to the ancients, the historian Pliny bears ample testimony, as he has celebrated the great fisheries of this one species which the Romans possessed at Languedoc. The mullets prey generally on food in a state of decomposition, and it is one of the few fishes that reject live prey. Besides the common mullet, there is the *thick-lipped gray mullet*, which differs only from the specimen last described by the lip being thicker, and the color of the head and back being more of a greenish hue; the *plain red mullet*, found in the Mediterranean and the seas and rivers of America, Africa, and even India; and the *striped red mullet* (*Mugil lineatus*), a small species, 8 to 9 in. long, of a silvery color, which is common on our coasts.

Fig. 1880. — STRIPED MULLET. (*Mugil lineatus.*)

Mu'halitch, a town of European Turkey, 13 m S. of the Sea of Marmora. Exp. silk, wool, fruits. *Pop.* 12,000.

Mühlbach, (*mül'bahh*) LUISE. The *nom de plume* of Klara Mundt (Müller), a distinguished German novelist, wife of Theodor Mundt, also an author of distinction; she has written many historical novels, those relating to Frederick the Great and Marie Antoinette are perhaps the best known in this country. B. 1814, D. 1873.

Muhlenbach, (*moo'len-bak,*) a town of Austria, in Transylvania. *Manuf.* Woollen cloth. *Pop.* 4,500.

Muhlenberg, in *Ohio*, a township of Pickaway co.

Muhlenber'gia, *n.* [After the late Henry *Mühlenberg*, D. M., an eminent botanist.] A genus of plants, order *Graminaceæ*. *M. diffusa*, the Drop-seed Grass, is a perennial herb growing on the borders of woods along the Atlantic States and W. to Kentucky; stem decumbent, diffuse, branching, slender, compressed; spikelets pedicellate, often purple; awn abt. as long as the palæ.

Muh'lenburg, in *Pennsylvania*, a twp. of Berks co.

Muhlhausen, (*mil-hou'zn,*) a town of Prussia, prov. of Saxony, on the Unstrut, 29 m. N.W. of Erfurt. *Manuf.* Woollen and linen cloths, and carpets; also, dye-works, fulling and oil mills, tanneries, distilleries, &c. It has an active trade in corn and dyeing-drugs.

Muil'rea, or MULREA, a mountain range of Ireland, co. Mayo, on the N. side of Killery harbor, *Height*, 2,688 ft.

Muk'den, the capital of Manchuria, lies on a branch of the Liao River, 380 miles N. E. of Peking. Its port is Newchwang, 120 miles south. It is surrounded by a masonary wall, with a mud wall around the suburbs. Near by are the tombs of the reigning family of China. *M.* was the seat of a great victory of the Japanese, in the Russo-Japan war of 1904-5. *M.* was evacuated by the Russians and occupied by the Japanese March 10, 1905. *Pop.* about 200,000.

Mulat'to, *n.*; *pl.* MULATTOES. [Sp. *mulato*, from *mulo*, a mule, the produce of a horse and an ass. See MULE.] One who is the offspring of a negress by a white man, or of a white woman by a negro.

Mulat'ress, *n.* A female mulatto.

Mul'berry, *n.* [Ger. *maulbeere;* Swed. *mulbær;* It. *mora;* Lat. *morus;* Gr. *moron*, the black mulberry.] (*Bot.*) See MORACEÆ.

Mul'berry, in *Arkansas*, a township of Franklin co.—A township of Johnson co.

Mulberry Creek, in *Alabama*, forms the line between Autauga and Dallas cos., and enters the Alabama River 14 m above Selma.

Mulberry Creek, in *Georgia*, flows into the Chattahoochee River in Harris co. The Indian name is *Cataula.*

Mulberry Creek, in *N. Carolina*, enters the Catawba near Morgantown, in Burke co.

Mulberry Gap, in *Tennessee*, a post-village of Hancock co., abt. 280 m. E. by N. of Nashville.

Mulberry River, in *Alabama*, one of the head forks of the Tuscaloosa.

Mulch, *n.* Half-rotten matting, straw, &c., strewn on the ground, as around the roots of a tree, plant, &c., to protect them from unfavorable weather.

—*v. a.* To furnish with mulch.

Mulct, *n.* [It. *multa;* Lat. *mulcta*, or *multa;* a Sabine word.] A fine; a penalty; amercement; a forfeiture; especially, a fine imposed on a person guilty of some offence or misdemeanor.

—*v. a.* [Fr. *maleter;* Lat. *mulcto*, or *multo.*] To punish for an offence or misdemeanor by imposing a pecuniary fine. —To withhold or debar from by way of punishment or discipline.

Mul'der, GERHARD JOHANNES, a Dutch chemist, B. at Utrecht, 1802, professor of chemistry in the University of his native town. He is chiefly known as the discoverer of *Protein*, q. v.

Mule, *n.* [A. S. *mul;* D. *muilezel;* Ger. *maulesel;* Gael. *muileud;* Ir. *muille*, probably akin to Lat. *molo.*] (*Zoöl.*) A hybrid animal, between the horse and the ass, differing in size, strength, and beauty, according to the predominance of its parental species; those between a male ass and a mare being far superior to the progeny of a she-ass with a horse. In mountainous countries mules are highly serviceable, no beast of burden being either so sure-footed, or so capable of enduring fatigue; but in beauty of form they fall very short of that noble quadruped, the horse; the mule having a large, clumsy head, long, erect ears, a short mane, and a thin tail. In Spain, Portugal, Italy, the East, and in South America, this animal is much valued for the saddle, and for drawing carriages. Savoy produces very large ones, but the finest are bred in Spain. They are sometimes fifteen or sixteen hands high, thick-set, and capable of travelling for months together, with six or eight hundred weight on their backs. It has been thought that they are altogether incapable of producing their kind; but some few instances have occurred in which female mules have had foals, and in which the male has impregnated females, both of the horse and ass species. Such instances are, however, very rare.

Fig. 1881. — SPANISH MULE.

Mule, Mule'-jenny, *n.* (*Mach.*) A machine used in the manufacture of cotton-thread. (Sometimes written *spinning-jenny.*)

Mule'-spinner, *n.* One who spins thread on a mule.

Muleteer', *n.* [Fr. *muletier.*] A mule-driver.

Mu'ley, *n.* A kind of saw.

Mul'grave, in *Alaska*, a cape and port on the N.W. coast, Lat. 59° 33' N., Lon. 139° 43' W.

Mul'grave Archipel'ago, in the Pacific Ocean, comprising various groups of islands, between Lat. 3° S., and 12° N., Lon. 160° and 177° E., including the Radack, Ralick, Piscadores, Marshall, and Mulgrave islands.

Mulhausen or **Mulhouse**, (*mil-hou'zn,*) a town of Germany, p. of Alsace-Lorraine, on the Ill, 22 m. S. of Colmar, and 16 m. N.W. of Basle. It is divided into the old and new town. The latter, which extends as far as the canal which unites the Rhine and Rhone, contains numerous handsome edifices, the principal of which are the chamber of commerce, the exchange, and town-hall. *Manuf.* Woollen cloths, hosiery, straw hats, morocco, leather, and beer. It has also a brisk trade in iron, hardware, and agricultural produce. *M.* was made a free and imperial city in 1273, by Rudolph I. of Hapsburg, and became the chief town of a small republic, which entered into an alliance with the Swiss cantons in 1514. It declared in favor of annexation to France in 1793, and this was accomplished by treaty in 1798. Since 1870 it has reverted to Germany.

Mulheim, (*mool'hime.*) a town of Rhenish Prussia, on the Rhine, 3 m. N.E. of Cologne. *Manuf.* Silks, cottons, cashmere, leather, &c. *Pop.* 6,000

Mul'heim, a town of Rhenish Prussia, on the Ruhr, 16 m. N.N.E. of Düsseldorf. *Manuf.* Woollen, cotton, and linen fabrics, leather, starch, and tobacco.

Mulieb'rity, *n.* [Lat. *muliebritas*, from *mulier*, a woman.] Womanhood; puberty in woman.—corresponding with virility in man. — Effeminacy; weakness; softness.

Mu'lier, *n.* [Lat.] A woman.

Mu'lierty, *n.* (*Law.*) Position of one born in lawful wedlock.

Mul'ish, *a.* Like a mule; stubborn; sullen; refractory; obstinate.

Mul'ishly, *adv.* With stubbornness, as of a mule.

Mul'ishness, *n.* Quality of being mulish; obstinacy or stubbornness, as of a mule.

Mull, *v. a.* [Lat. *mollio*, to soften, to moderate. See MOLLIFY.] To heat, sweeten, and enrich with spices: as, to *mull* claret. — To dispirit; to deaden; to render insensible.

—*n.* [W. *moel*, a mountain.] A headland; a promontory; a cape: as, the *Mull* of Galloway. (A Scotticism.)

—In Scotland, a snuff-box made of the curved or smaller end of a horn.

Mull, *n.* A thin, flimsy kind of muslin.

Mull, one of the Hebrides, off the W. coast of Scotland, co. of Argyle, separated from the mainland by the Sound of Mull; Lat 56° 30' N., Lon. 6° W. *Ext.* 30 m. long, and 25 broad. The surface is mountainous; Mount Benmore reaching an elevation of 3,000 ft. The soil is adapted for grazing. The principal town is Tobermory. *Pop.* 16,000.

Fig. 1882. — BASALTIC ROCKS, IN THE ISLAND OF MULL.

Mull, (Sound of,) off the W. coast of Scotland, 18 m. in length and 2 m. in average breadth, separates the above island from the cos. of Argyle and Inverness.

Mul'la, Mul'lah, *n.* Same as MOLLAH, *q. v.*

Mullenahone', a town of Ireland, about 26 m. E. of Tipperary; *pop.* 1,200.

Mul'lein, Mul'len, *n.* [Fr. *molène*, from Lat. *mollis.*] (*Bot.*) See VERBASCUM.

Mul'ler, *n.* The person who, or thing which, mulls. — A vessel used for mulling wine over a fire.

—[Lat. *molaris*, a mill-stone.] A sort of pestle used for grinding or pulverizing pigments, &c.

Müller, CARL GOTTFRIED, an eminent German scholar and historian, was B. in 1797, at Brieg, in Silesia. He studied at Breslau and Berlin, and became, in 1819, professor of archæology in the University of Göttingen, and distinguished himself by his researches into Greek mythology and history. He visited France and England in 1822, but his life is marked by few incidents. While travelling in Greece, with a view to the commencement of an elaborate work on the history of that country, he was taken ill, and D. at Athens, Aug. 1, 1840. His most important works are, *Die Dorier*, which was translated into English by Sir G. C. Lewis; *Prolegomena to a Scientific Mythology; Die Etrusker; Handbuch der Archæologie der Kunst;* and a *History of Greek Literature*, which he did not live to complete.

Müller, FRIEDRICH MAX, one of the most eminent of living philologists, was B. at Dessau, in 1823. After receiving the early part of his education in his native town, *M.* proceeded to Leipzig, and Berlin, and in those cities devoted himself to the study of Sanskrit and other Oriental languages. In 1847, he was commissioned by the English East India Company to edit the *Rig-Veda* of the Hindoos. The first vol. of this great undertaking appeared in 1849, and the fourth in 1863. In 1853 *M*

was appointed professor of Modern Languages at Oxford University, and elected a fellow of All Souls' College. While pursuing his labors on the *Rig-Veda* he published a number of treatises on philological subjects in a popular style, and with a felicity of illustration that brought them a wide audience and did much to arouse a taste for the science of language. His works include *Comparative Mythology; History of Sanskrit Literature;* lectures on *The Science of Language;* lectures on *The Science of Religion; Chips from a German Workshop,* and various others. He is also the editor of the important series of works entitled: *The Sacred Books of the East.* The first series of Gifford lectures, delivered by him in 1888, at Glasgow University, have been published as *Natural Religion.* He is a foreign member of the Institute of France and a knight of the Ordre pour le Mérite, and has the degree of LL.D. from Cambridge, Edinburgh, and Bologna.

Müller, JOHANN, an eminent German physiologist, born at Coblentz, 1801. After taking his degree of doctor in medicine at the University of Bonn, in 1823, he became professor of Physiology and Anatomy at the same place (1830), exchanging to Berlin three years afterward. In 1833 he published his great work, *The Physiology of Man,* which was soon afterward translated into French and English, and is still, perhaps, the best existing work on physiology. Müller founded the physico-chemical school of physiology, raising it from a speculative to a positive science, and reformed the theory of medicine. His 100 publications embrace nearly every subject in comparative anatomy and physiology. Died 1858.

Müller, OTTO FREDERICK, a Danish naturalist, and one of the most original observers of the 18th century, b. at Copenhagen, 1730. After travelling in various countries as tutor to a Danish nobleman, he returned to Copenhagen in 1767, and married a lady of considerable property; whereupon he devoted his life to scientific pursuits. He was appointed by Frederick V. of Denmark, to continue the publication of the "Flora" of his native country, and, in 1779, he commenced a corresponding work on the *Zoölogy of Denmark,* but only lived to complete two parts. Müller also made researches relative to the minute animals, and published several treatises thereon, which Cuvier declared entitled their author to a "place in the first rank of those naturalists who have enriched science with original observations." D. 1784.

Mul'let, *n.* [Fr. *mulet;* Lat. *mullus,* the red sur-mullet. Etymol. unknown.] (*Zoöl.*) See MUGILIDÆ.

(*Her.*) The rowel of a spur. In English blazonry it is depicted of five points (Fig. 1883); in French, of six. It is used as the filial distinction of the third son. See DIFFERENCE.

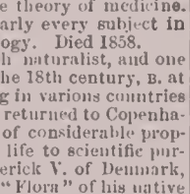


Fig. 1883. ENGLISH MULLET.

Mul'let, a peninsula of Ireland, on the W. coast, co. Mayo.

Mul'lett River, in *Wisconsin,* flows into the Sheboygan, in Sheboygan co.

Mul'lett's Creek, in *Michigan,* enters Huron River near Ann Arbor.

Mulley, (*mŭl'y,*) *n.* A child's term for a cow.

Mul'lica, in *New Jersey,* a township of Atlantic co.

Mul'lica Hill, in *New Jersey,* a post-village of Gloucester co., abt 7. m. S. by W. of Camden

Mulligataw'ny, *n.* (*Cookery.*) An East India soup made with hot curry.

Mul'ligrubs, *n.* A slang term for colic, flatulence, or distention of the bowels. — Sullenness; ill-humor; spleen.

Mullingar', a town of Ireland, prov. of Leinster, cap. of the co. Westmeath, on the Brosna, 44 m. N.W. of Dublin. It is a large mart for corn, butter, cattle, and other agricultural produce. *Pop.* 5,359.

Mullin'gong, *n.* (*Zoöl.*) See DUCK-BILL.

Mul'lion, (*mŭl'yun,*) MUNNION, MONION, or MONIAL, *n.* [Fr. *moulure,* a moulding, from *moule,* a mould; Lat. *modulus,* dim. of *modus,* a standard.] The division between the lights of windows, screens, &c., in Gothic architecture: the styles, or upright divisions, in wainscoting are also sometimes called by the same name. In Norman work, windows are not unfrequently used in couplets, and sometimes in triplets, but they are almost invariably separated by small shafts, or by piers, too massive to be called *M.* In the Decorated and Perpendicular styles they are very common. The mouldings of *M.* are extremely various, but they always partake of the char-

Fig. 1884.

acteristics of the prevailing style of architecture: in rich Early English and Decorated work they have frequently one or more small shafts attached to them, which terminate at the level of the springing of the arch, and the mouldings in the tracery (where tracery is used) over the capitals of the shafts are generally different from those below; but in very numerous instances, mullions, in both these styles, have plain splays only, and no mouldings, and many of the Decorated date have shallow hollows instead of splays at the sides; in Perpendicular work a plain mullion of this last-mentioned kind is extremely common. After the introduction of the Perpendicular style, shafts are rarely found on mullions, though bases are sometimes worked at the bottoms of the principal mouldings, an arrangement which is also occasionally found in earlier work, and most abundantly in the Flamboyant style of France.

Mul'lion, *v. t.* To shape into divisions by mullions.

Mulse, *n.* [Lat. *mulsum.*] Wine boiled and mingled with honey.

Multan'gular, *a.* [Lat. *multus,* many, and *angulus,* an angle. See MULTIPLY, and ANGLE.] Having many angles; polygonal.

Multan'gularly, *adv.* With many angles.

Multan'gularness, *n.* The state of being many-angled or polygonal.

Multartic'ulate, *a.* [Lat. *multus,* much, and *articulus,* a joint.] Possessing many articulations or joints.

Multe'ity, *n.* [From Lat. *multus.*] Multiplicity. (R.)

Multicap'sular, *a.* [Lat. *multus,* and *capsula,* a small box.] (*Bot.*) Having many capsules; divided into many cells.

Multicar'inate, *a.* [Lat. *multus,* and *carina,* a keel.] (*Conch.*) Many-keeled, said of certain shells.

Multica'vous, *a.* [Lat. *multicavus.*] Full of holes; having many cavities.

Multicip'ital, *a.* [Lat. *multus,* and *caput,* head.] (*Bot.*) Many-headed.

Mul'ticolor, *a.* Exhibiting many colors.

Multicus'pidate, *a.* [Lat. *multus,* many, and *cuspis,* point.] Possessing many cusps or points.

Multiden'tate, *a.* [Lat. *multus,* and *dentis,* tooth.] Having many teeth.

Mul'tifaced, *a.* Possessing many faces.

Multifa'rious, *a.* [Lat. *multifurius — multus,* and probably *varius,* diverse, varying. See VARIOUS.] Having great diversity or variety; various; manifold; having great multiplicity.

Multifa'riously, *adv.* With great multiplicity and diversity; with great variety of modes and relations.

Multifa'riousness, *n.* Multiplied diversity.

(*Law.*) In equity pleading, the demand in one bill of several matters of a distinct and independent nature against several defendants.

Multif'erous, *a.* [Lat. *multus,* and *ferre,* to bear.] Bearing much or many.

Mul'tifid, *a.* [Lat. *multifidus — multus,* and *findere,* to split, divide.] (*Bot.*) Having many parts or divisions; cleft into many branches; as, a *multifid* leaf.

Multifidous, *a.* Same as MULTIFID, *q. v.*

Multiflo'rous, *a.* [Lat. *multus,* and *flos, floris,* flower.] Many-flowered.

Mul'tiflue, *a.* [Lat. *multus,* and Eng. *flue.*] Having many flues.

Mul'tifoil, *n.* [Lat. *multus,* and *folium,* leaf.] (*Arch.*) A leaf ornament, consisting of more than five foils. See FOIL.

Mul'tifold, *a.* [Lat. *multus,* and Eng. *fold.*] Many times doubled; manifold.

Mul'tiform, *a.* [Lat. *multiformis — multus,* and *forma,* shape.] Presenting many forms, shapes, or appearances. —*n.* That which has many forms or aspects.

Multiform'ity, *n.* Diversity of forms or appearances in the same thing.

Multiform'ous, *a.* Exhibiting many forms.

Multigen'erous, *a.* [Lat. *multus,* many, and *genus, generis,* kind.] Having many kinds.

Multigran'ulate, *a.* [Lat. *multus,* and *granum,* grain.] Consisting of many grains.

Multij'ugous, *a.* [Lat. *multus,* and *jugum,* yoke.] Comprising many pairs.

Multilat'eral, *a.* [Lat. *multus,* and *latus, lateris,* a side. See LATERAL.] Many-sided.

Multilin'eal, *a.* [Lat. *multus,* and *linea,* line.] Many-lined.

Multiloc'ular, *a.* [Lat. *multus,* and *loculus,* dim. of *locus,* a place.] Having many shells or departments; as, a *multilocular* shell.

Multil'oquence, *n.* [Lat. *multus,* and *loqui,* to speak.] Garrulousness; verbiage; talkativeness.

Multil'oquent, Multil'oquous, *a.* Very talkative; garrulous; speaking much.

Multino'date, Multino'dous, *a.* [Lat. *multus,* and *nodus,* knot.] Containing many knots.

Multino'mial, *a.* Same as POLYNOMIAL, *q. v.*

Multinomi'nal, Multinom'inous, *a.* [Lat. *multus,* and Gr. *monos, nomanus,* name.] Having many names.

Multip'arous, *a.* [Lat. *multus,* and *parere,* to yield.] Bringing many at a birth; as, "the *multiparous* generation of serpents." — *Browne.*

Multip'artite, *a.* [Fr., from Lat. *multus,* and *partitus — pars,* part.] Having numerous parts.

Mul'tiped, *n.* [Lat. *multus,* and *pes, pedis,* a foot. See PEDAL.] An insect that has many feet.

—*a.* Having many feet.

Mul'tiple, *a.* [Lat. *multiplex — multus,* and *plico, plexus,* to fold. See PLY.] That has many parts; containing many times; manifold.

—*n.* (*Math.*) A number or quantity which contains another an exact number of times without a remainder is a *multiple* of the latter, and the latter is a *sub-multiple* of parts of the former.

M. fruit. (*Bot.*) A mass of fruit resulting of several blossoms, and aggregated into one body, as the pine-apple.

M. point of a curve. (*Math.*) A point through which the curve passes several times. — *M. tangent of a curve.* (*Math.*) A line which touches the curve several times.

Mul'tiplex, *a.* [Lat. *multus,* and *plicare,* to fold.] Manifold; multiple.

Mul'tipliable, *a.* [Fr.] That may be multiplied; multiplicable.

Mul'tipliableness, *n.* Capacity of being multiplied.

Mul'tiplicable, *a.* Multipliable; susceptible of multiplication.

Mul'tiplicand, *n.* [Lat. *multiplicandus,* from *multiplico,* to multiply.] (*Arith.*) A number or quantity to be multiplied by another; — the latter is called the *multiplier.*

Mul'tipleate, *a.* [Lat. *multiplicatus.*] Multiple; manifold; consisting of more than one.

Multiplicate flowers. (*Bot.*) Applied to a double flower, the petals of which arise from supernumerary developments of the parts of floral whorls.

Multiplica'tion, *n.* [Lat. *multiplicatio.*] Act of multiplying or of increasing numbers; state of being multiplied.

(*Math.*) A rule or operation by which any given number may be repeated or added to itself any number of times proposed; — thus, the product of 100 *multiplied* by 10 is 1,000.

Mul'tiplicative, *a.* Tending to multiply; having the power to multiply or increase numbers.

Mul'tiplicator, *n.* [Fr. *multiplicateur.*] The number by which another number is multiplied; a multiplier.

Multiplicity, (*plis'i-ty.*) *n.* [Fr. *multiplicité,* from Lat. *multiplex, multiplicis,* manifold.] State of being many or manifold: as, a *multiplicity* of thought. — Great number; many of the same kind; as, a *multiplicity* of gods.

Mul'tiplier, *n.* One who, or that which, multiplies, or increases number.

"Quarrels . . . are the *multipliers* of injuries."—*Decay of Piety.*

Mul'tiply, *v. a.* [Lat. *multiplico — multus,* great, much, *pl.* many (probably akin to Heb. *mala,* to fill, to make full), and *plico,* to fold. See PLY.] To increase in number; to make more by natural generation or production, or by addition.

"He *multiplieth* words without knowledge."—*Job* xxv. 16.

(*Math.*) To repeat or add to itself any given number as many times as there are units in any other given number; thus, 8 *multiplied* by 8 produces the number 64.

—*v. n.* To become manifold; to grow or increase in number; to become numerous.

"The *multiplying* brood of the ungodly shall not thrive." *Wisd.* iv. 3.

—To increase in extent; to extend; to spread; as, the "*multiplying* villanies of nature." — *Shaks.*

Multiplying-gluss. (*Optics.*) A lens or glass by means of which objects appear to be increased in number. It is ground into several planes, that make angles with each other, and through which the rays of light, issuing from the same point, undergo different refractions, so as to enter the eye from every surface in a different direction, and thus appear as if they came from several points.

Multip'otent, *a.* [Lat. *multus,* and *potens,* powerful.] Having manifold power; possessing the faculty of doing many different things.

Multipres'ence, *n.* [Lat. *multus,* and *presentia,* presence.] The power or act of being present in more places than one at the same time.

Multira'diate, *a.* [Lat. *multus,* and *radius,* ray.] Exhibiting or emitting many rays.

Multiramose', *a.* [Lat. *multus,* and *ramus,* branch.] Many-branched.

Mul'tisect, *a.* [Lat. *multus,* many, and *secare, sectum,* to cut.] (*Zoöl.*) Divided into many segments, as an insect.

Multise'rial, *a.* [Lat. *multus,* and *series,* rank.] (*Bot.*) Arranged in many horizontal ranks.

Multisil'iquous, *a.* [Fr. *multisiliqueux,* from Lat. *multus,* and *siliqua,* a pod.] Having many pods.

Multis'onous, *a.* [Lat. *multus,* and *sonus,* sound.] Having many sounds, or sounding much.

Multispi'ral, *a.* [Lat. *multus,* and *spira,* coil.] (*Conch.*) Presenting numerous coils round a submedian centre; — said of the opercula of certain shells.

Multistri'ate, *a.* [Lat. *multus,* and *striu,* a channel.] Exhibiting many streaks.

Multisul'cate, *a.* [Lat. *multus,* and *sulcus,* furrow.] Having many furrows.

Multisyl'lable, *n.* [Lat. *multus,* and Eng. *syllable.*] A polysyllable. (R.)

Multitu'bular, *a.* [Lat. *multus,* and *tuba,* tube.] Many-tubed; as, a *multitubular* boiler.

Mul'titude, *n.* [Fr.; Lat. *multitudo,* from *multus,* many.] State of being many; numerousness. — A number collectively; a great number, indefinitely; a crowd; a throng; a gathering.

The multitude, the populace; the lower classes of society; the rabble.

Multitu'dinary, *a.* Multitudinous; manifold; numerous.

Multitu'dinous, *a.* Consisting of a multitude or great number; having the appearance of a multitude; manifold.

"My hand will the *multitudinous* sea incarnadine."—*Milton.*

Multitu'dinously, *adv.* In a multitudinous manner.

Multitu'dinousness, *n.* State or quality of being multitudinous.

Multit'ular, *n.* [Lat. *multus,* and *titulus,* a title.] Many-titled.

Mul'tivalve, *n.* [Lat. *multus,* and *valva,* the leaf of a door.] (*Zoöl.*) One of those shelly coverings of molluscs which are formed of more than two distinct pieces. In systems of Conchology, the term is one of primary importance; but since the study of the living animals has led to arrangements very different from those founded on their mere shells, a very subordinate place has been assigned to it, as indicating a distinction much less important than was at first supposed. Thus, Chitons, which have multivalve shells, are now placed in

the same order of gasteropods with Limpets, of which the shells are univalve; and *Pholas* and *Teredo*, which have two principal valves and some small accessory valves, the latter also a long shelly tube, are placed among lamellibranchiate molluscs, along with most of the bivalves of conchologists.

Mul'tivalve, Multivalv'ular, *a.* Many-valved.

Multiv'ersant, *a.* [Lat. *multus*, and *vertere*, to turn.] Assuming many shapes or forms; protean.

Multiv'ious, *a.* A rare expression, signifying having many methods, ways, means, roads, &c.; as a man of *multivious* resources; a course having *multivious* routes, &c.

Multi'vocal, *a.* [Lat. *multus*, and *vox*, voice.] Implying various meanings; ambiguous, equivocal.

Multivol'tine, *a.* Having several broods annually; an expression sometimes used in referring to certain varieties of the silkworm.

Multiv'orous, *a.* Having a ravenous appetite; disposed to eat (consume) a large variety of objects; gluttonous.

Multno'mah, in *Oregon*, a N. by W. co., adjoining Washington; *area*, about 440 sq. m. *Rivers*. Columbia and Willamette rivers. *Surface*, much diversified; *soil*, fertile. *Products*, wheat, oats, barley, rye, vegetables, fruits, &c. Lumber is largely shipped, and there are increasing manufacturing interests. *Cap.* Portland. *Pop.* (1897) 108,500.

Multo'ca, *n.* [From Ar. *multaka*, a junction.] The Turkish code of law.

Multoc'ular, *a.* (*Zoöl.*) Having more eyes than two.

Multo'na Springs, in *Mississippi*, a village of Attala co.

Mul'tum, *n.* An infusion of quassia, licorice, &c., fraudulently used by brewers to adulterate porter.

Multun'gulate, *a.* [Lat. *multus*, and *ungulatus*, hoofed.] (*Zoöl.*) With the hoof cloven in two or more parts.

Mult'ure, *n.* [From Lat. *molitiva*, grindstone.] (*Scots Law.*) The quantity of grain or meal assignable to a miller by way of compensation for grinding grain. — A grist; the quantity of grain ground.

Mum, *a.* [Formed from the sound, and allied to *mumble*, *mumm*, and *mummery*.] Silent; not speaking.

"The citizens are *mum*; say not a word." — *Shaks.*

—*interj.* An exclamation denoting hush! be silent!

"Well said, master; *mum!* and gaze your fill." — *Shaks.*

—*n.* Silence.

"Intrust it under solemn vows of *mum*." — *Hudibras.*

Mum, *n.* [Ger. *mumme*.] A term formerly given to strong beer or double ale.

Mum'ble, *v. n.* [Ger. *mummeln*, from *mum*.] To make the sound *mum* in speaking; to mutter; to speak with the lips or other organs partly closed, so as to render the sounds inarticulate and imperfect; to utter words with a grumbling tone.

"Peace, you *mumbling* fool."—*Shaks.*

—To bite gently; to eat with the lips close.

—*v. a.* To utter with a low, inarticulate voice.

"He with *mumbled* pray'rs atones the deity."—*Shaks.*

—To mouth gently or softly; to eat with a muttering sound.

"Spaniels civilly delight
In *mumbling* of the game they dare not bite."—*Pope.*

—To slobber over; to suppress; to utter imperfectly.

Mum'ble-news, *n.* A tale-bearer; a gossip.

Mum'bler, *n.* One who mumbles; a mutterer.

Mumm, *v. n.* [D. *mommen*, to play the mummer; Dan. *formumme*, to mask; probably allied to Gr. *mōmos*, blame, ridicule; personified, the critic god.] To mask; to sport or make diversion in disguise; to frolic in an assumed character.

"With *mumming* and with masking all around."—*Hubbard.*

Mum'ma-chog, *n.* (*Zoöt.*) See CYPRINODONTINÆ.

Mum'masburg, in *Pennsylvania*, a post-village of Adams co., abt. 5 m. N.W. of Gettysburg.

Mummer, *n.* Originally, one who made sport by gestures, without speaking; formerly, one who masked himself to frolic in disguise.

Mum'mery, *n.* [Dan. *mummeri*; Fr. *momerie*.] Masking; sport; frolic; diversion; buffoonery.

"Your fathers disdained the *mummery* of foreign strollers."*Fenton.*

—Hypocritical disguise and parade to delude vulgar minds.

Mummifica'tion, *n.* [Fr. *momification*.] The act of making into a mummy.

Mum'miform, *a.* [Eng. *mummy*, and Lat. *forma*, form.] Resembling a mummy; characteristic of a mummy.

Mum'mify, *v. a.* [Eng. *mummy*, and Lat. *facio*, to make.] To make into a mummy; to embalm and dry, as a mummy.

Mum'mius, LUCIUS, a Roman consul, who, after serving as prætor in Spain, distinguished himself, in B. C. 146, by the conquest of Greece. He took, burnt, and pillaged Corinth, and sent the finest works of art found there to Rome. To *M.* was then intrusted the task of organizing the new province of Achaia. He was honored with a triumph and the surname of Achaicus. He afterwards held the office of censor.

Mum'my, *n.* [Pers. and Ar. *mom*, wax.] A term applied to a body which had undergone the process of embalming. The operation by which the body was preserved from decay after death, will be found described in the article EMBALMING. During the space of two thousand years, the mode of preparing mummies differed at different periods. Recent writers on the subject have divided the art into four kinds: 1. Drying the bodies in sand, a method chiefly employed among the poorer classes. 2. Salting in natron, and then drying. 3. Boiling in resins and bitumen. 4. Preparing with fine resins, and removing the brains and viscera. Great diversity of opinion exists with regard to the substances employed. Within or about the bodies of different mummies have been found sulphate of soda, saltpetre, common salt, soda, oil of cedar, turpentine, asphalt, myrrh, and cinnamon. The bandages of mummies are always of linen, the use of wool being prohibited. The greater portion of these bandages were made of old linen, either collected by the deceased during his lifetime, or else by the *taricheutes*. Shirts and burned portions of garments are often found, and sometimes the initials of the deceased embroidered on the cloth. The cloth is of various qualities, from that of canvas to that of fine muslin. The large mass of the bandages, however, consists of strips of about three or four inches wide, and from one to several yards in length, wound round the body with great skill and symmetry, and apparently laid on in a wet condition. All inequalities are carefully padded, so as to bring the body to a symmetrical shape. The length of these bandages is very great, as much as 1,000 yards having been found wrapping a single mummy. On the inner bandage of some mummies are found, inscribed in a caustic ink, the name of the deceased, the years that he lived, and the name of the monarch in whose reign he died. Straps of scarlet leather have been found on some mummies, prepared with the greatest care. These straps are about one and a half inch wide, and are found crossing the shoulders and breast. On the ends are stamped, apparently by a heated metal punch, like that used by bookbinders, the names and titles of the reigning king, or the monarch, worshipping Amen-Ra. The earliest of these bears the name of Rameses XIII. of the 20th dynasty, and they continued to be used till B. C. 525. Mummies have frequently a case composed of as many as 20 or 40 layers of cotton cloth, closely pressed and glued together, and then covered with a thin layer of lime, on which have been painted, in distemper, the face and dress of the mummy, various deities connected with funeral rites, and texts of chapters from the ritual. In general, a scarab is painted on the head, a flying ram-headed hawk on the chest, the goddess Nu on the stomach, and at the feet, frequently made of a piece of board, the enemies of Egypt, sometimes painted under the sandals, or the bull Apis, bearing a mummy on its back. These *cartonages*, as they are called, are found on the mummies of the kings of the 11th dynasty, and continue till the time of the Ptolemies. Sometimes, instead of a cartonage, the outer bandages of the mummy are covered with copious extracts from the ritual for the dead, written in black carbonaceous ink. Papyri, generally rolled up, were often deposited with the mummies. In the hand of a Greek mummy exhumed at Thebes was found a papyrus containing the 17th book of the Iliad. The mummies, with or without their cartonages, were deposited in coffins or sarcophagi, generally of wood, either on cedar or sycamore, made in the shape of a mummy, placed upon pedestals. The Egyptian tombs are generally hollow rock-chambers, excavated in the Arabian chain of hills to the west of the principal cities. Mummies are principally found in the Bournah quarter of Thebes, and in the plains of Sakhara. Few mummies of children have been found. It has been calculated that 420,000,000 mummies were made from the commencement of the Egyptian monarchy to the cessation of the art in the 7th century. The bodies of sacred animals were also embalmed by the Egyptians from an early period of the monarchy; but they did not bestow so much care upon them as upon the human mummies. Mummies have been found of the ape, the emblem of the god Khons; and of the dog, the emblem of Anubis. A large number of cats, sacred to Bast, have also been found, some in bandages made up in the form of the animals, others of conical shape, with feet close to the body, and the head modelled in linen. The mummies of wolves have been found at Lycopolis. The larger animals were only partly embalmed. Mummies of rams and lambs, sacred to Ammon, have been found at Thebes. Mummies of the sacred vultures of the goddess Mut, and of different kinds of falcons, sacred to the sun, have also been found, together with mummies of the owl, sacred to Buto, and of the swallow. The bird, however, most commonly embalmed was the ibis, sacred to the Thoth; and extensive catacombs of it mummied have been found at Sakhara. Many mummies of the crocodile, sacred to the god Sebak, have been found; and serpents embalmed in packets of bitumen, in the shape of an egg, with sometimes as many as six in a packet. Other nations besides the Egyptians endeavored to preserve the human form after death, but in no case can they be considered mummies. The Persians used wax, the Assyrians honey, and the Hebrews embalmed their kings with spices. The Guanches, or ancient inhabitants of the Canary Islands, seem to have been the only people who adopted a mode of preserving the body similar to that of the Egyptians.

—The glutinous matter exuding from bodies prepared with tar, asphaltum, pitch, &c.

(*Gardening.*) A sort of wax used in the planting and grafting of trees.

To beat to a mummy. To pound, thump, or bruise to an unrecognizable and senseless mass.

—*v. a.* To mummify; to embalm.

Mum'my-chog, *n.* (*Zoöl.*) Same as MUMMA-CHOG.

Mump, *v. a.* [D. *mompelen*; allied to *mumble*.] To nibble; to bite quickly; to chew continuously. — To utter or speak unintelligibly, imperfectly, feebly, or brokenly; as, to *mump* one's words.

—*v. n.* To move the lips with the mouth nearly closed; to mutter or mumble, as in sullenness.

—[D. *mompen*.] To implore with a beggar's accent and motion of the mouth; to cheat; to trick; to cozen. — To be sulky, sullen, or stupid.

Mump'er, *n.* A tramp; a beggar; a vagrant.

Mump'ish, *a.* Silent; dull; heavy; sulky; sullen; stupid.

Mump'ishly, *adv.* Sullenly; doggedly; heavily.

Mump'ishness, *n.* Sullenness; sulkiness; moodiness.

Mumps, *n. pl.* [See MUM and MUMBLE.] Silent displeasure; sullenness; sulks.

(*Med.*) An inflammation of the parotid and sub-maxillary glands, of a contagious or epidemic origin. It is generally preceded and accompanied by some degree of fever, and commences with a feeling of pain and tension beneath the ear. A swelling forms, and the motion of the jaw becomes painful. It usually attains its height in four days; and four days more are occupied by its decline. It ordinarily requires but little treatment beyond the administration of a laxative, and protection from cold, with the application of poultices or other warm substances to the part, or, in severe cases, of leeches.

Mun, *v. aux.* To be obliged, forced, or compelled; must. (Used as an English provincialism.)

Munch, (*munsh,*) *v. n.* [Fr. *manger*; Lat. *mandūco*, to chew; a lengthened form of *mando*.] To chew eagerly by great mouthfuls; — used colloquially.

—*v. n.* To masticate; to crunch with closed lips. (Colloq.)

München. See MUNICH.

Munchengratz, a town of Austria, in Bohemia, on the Iser, 8 m. N.E. of Jungbunzlau. *Manuf.* Woollen, cotton, and linen fabrics. *Pop.* 4,000.

Muncher, *n.* One who munches.

Münchhausen, HIERONYMUS KARL FRIEDRICH, BARON VON, a German soldier, B. in Hanover, 1720. He served in his youth as an officer in the Russian cavalry, and passed the close of his life in his native country, delighting in narrating the most astounding stories of his warlike exploits in the campaign against the Turks in 1737–9, and thereby gaining the reputation of being the greatest liar of his time. D. 1797. A compilation of his prodigious *gascomades* was published in London in 1785, under the title of *Baron Munchausen's Narrative of his Marvellous Travels and Campaigns in Russia.* In the following year a 2d edition appeared at Oxford, described as *The Singular Travels, Campaigns, Voyages, and Sporting Adventures of Baron Munnikhausen, commonly pronounced Munchausen; as he relates them over a bottle when surrounded by his friends.* A 3d edition was also brought out in London, in the same year, entitled *Gulliver Revived*; the best English edition is that by Shore (1872) illustrated by Doré and additions by Theo. Gautier. RUDOLF ERICH RASPE, the author of this marvellous narrative, was B. in Hanover, in 1737, he was a professor and curator of the museum of Cassel, which position he lost. He fled to England and d. in Ireland, 1794.

Muncie, in *Indiana*, a city, cap. of Delaware co., on 3 R.R. lines, 54 m. N.E. of Indianapolis: in natural-gas belt; has important industries. *Pop.* (1897) 14,50-).

Muncy, in *Pennsylvania*, a post-borough of Lycoming co., on Penna. and P. & R. R.Rs., 14 m. E. of Williamsport. *Pop.* (1897) 1,450.

Muncy Creek, in *Indiana*, enters White River in Delaware co.

Muncy Creek, in *Pennsylvania*, enters the West Branch of the Susquehanna River in Lycoming co.

—A township of Lycoming co.

Mundane, *a.* [Lat. *mundanus* — *mundus*, the world.] Worldly; terrestrial; temporal; belonging to the world; as, the *mundane* sphere.

Mundanely, *adv.* In a mundane manner; worldlily.

Münden, a town of Prussia, prov. of Hanover, on the Weser, 15 m. S.W. of Göttingen. *Manuf.* Earthenware, and tobacco. *Pop.* 6,000.

Mundi, (*mun-de',*) a dist. of Hindostan, in the Punjab, in the Jullinder Doab; *area*, 760 sq. m. It is mountainous, but comprises several fertile valleys. *Min.* Iron and salt. — The cap. is Mundi, on the river Beas, 120 m. E. of Umritsir. *Pop.* 115,000.

Mundic, *n.* (*Min.*) Iron or arsenical pyrites: an exceedingly ponderous mineral, whitish, beautiful and shining, but not brittle. It is found in abundance in Cornish and Irish mines.

Mundificant, *a.* [From Lat. *mundus*, clean, and *facere*, to make.] Tending to cleanse and heal.

—*n.* An ointment, &c., which serves to cleanse and heal.

Mundification, *n.* [Fr. *mondification*.] Act or operation of cleansing any body from dross or extraneous matter.

Mundificative, *a.* [Fr. *mondificatif*.] Having capacity to cleanse or heal.

—*n.* A medicine or unguent having power to cleanse.

Mundil, *n.* A turban embroidered with gold and silver threads.

Mundivagant, *a.* [Lat. *mundus*, the world, and *vagus*, a wandering about.] Wandering about the world. (R.)

Mundungus, *n.* [Sp. *mondongo*, a black-pudding.] A cant word for tobacco.

Munds, *n. pl.* See MUNS.

Mundy, in *Michigan*, a post-township of Genesee co.

Mundfordsville, in *Kentucky*, a post-village, cap. of Hart co., abt. 100 m. S.W. of Frankfort. There is a remarkable orifice in the earth, in this vicinity, shaped like a funnel, and extending downwards to an unknown depth.

Munger's Mills, in *Missouri*, a post-village of Reynolds co.

Mung'-corn, *n.* Same as MANG-CORN, *q. v.*

Mungo, *n.* (*Manuf.*) A term applied to woollen cloth manufactured from old wool obtained from the rags of heavy fabrics, the rags being torn into fibre by cylinder

cal machines armed with teeth. This cloth gives substance and warmth, and is capable of a fine finish, but from the shortness of the fibre is weak and tender. It is chiefly used for padding, linings, office-coats, druggets and blankets. Broadcloth is sometimes made with a large admixture of this cheap and inferior material

Mungo Park. See PARK, (MUNGO.)

Munich, (*mu'nik,*) [Ger. *München,*) a city of S. Germany, cap. of Bavaria, on the Isar, 220 m. W. of Vienna, and 118 E.S.E. of Stuttgart; Lat. 48° 8′ 19″ N., Lon. 11° 35′ 15″ E. It stands in the midst of a plain, 1,600 feet above the sea. The more notable among the numerous public buildings are the cathedral, the new palace, (including the old royal residence,) the treasury, chapel, &c.; the post-office, theatre, the Königsbau or Royal Palace, designed after the Pitti Palace at Florence, and the Jesuit's Church. In the square called *Carolinen-Platz*, is an obelisk 100 feet high, formed partly of cannon taken by the Bavarians from Russia in the French campaign of 1812. The great glory of *M.* is its fine galleries of painting and sculpture, called respectively *Pinacotheca*, and the *Glyptotheca*, comprising 9,000 drawings, besides 1,500 paintings, including several works from Rafaelle, Fra Bartolomeo, Rembrandt, Albert Dürer, Vandyck, Velasquez; and some sculptures by Canova, Thorwaldsen, Schadow, &c. Also, the Lenchtenberg gallery, formed by Prince Eugene Beauharnais. The University of *M.*, originally founded at Ingolstadt in 1472, removed to Landshut in 1800, and to *M.* in 1826, is the principal school of learning in Bavaria. It contains a library of 200,000 vols. The public library formed by Albert III. between 1550 and 1579, contains 400,000 printed vols. and 22,000 MSS., besides extensive natural history and scientific collections. The most beautiful among the gates of *M.* are the Siegesthor ("Gate of Victory"), designed after Constantine's triumphal arch at Rome; and the Isar Thor, noted for its elaborate frescoes. *Manuf.* Important, consisting principally of furniture, tapestry, musical, mathematical, and surgical instruments, porcelain, &c. Its telescopes are celebrated. *M.* was founded by Henry, duke of Saxony and Bavaria, in 962. Otho IV encircled it with walls in 1157, and it was made the imperial residence by Louis III., who restored and extended it in 1327. *M.* was made the cap. of Bavaria in the 15th century. It was taken by Gustavus II. of Sweden in 1632, by the Austrians in 1704, 1741, and 1743, and by the French in 1800, from which time until 1813 the country remained in alliance with France.

Municipal, (*-is'i-pal,*) *a.* [Fr.; Lat. *municipalis*, from *municipium* — *munia*, official duties or functions, and *capio*, to take. See MUNITION.] Pertaining or having reference to a corporation or city; as, a *municipal* charter, the *municipal* body. — Belonging to a state, or kingdom.

M. Law, in contradistinction to International law, is the system of law proper to any single nation or state. It is the rule or law by which a particular district, community, or nation is governed

Municipalism, *n.* The municipal system or organization.

Municipal'ity, *n.* [Fr. *municipalité.*] A town or city possessed of certain privileges of local self-government; the governing body in such a town.

Munificence, (*-nif'i-sens,*) *n.* [Fr.; Lat. *munificentia* — *munus*, and *facio.*] A giving or bestowing liberally; generosity; liberality; beneficence; bounty.

Munificent, *a.* [L. Lat. *munificus* — *munus*, and *facio.*] Manifesting liberality in giving or bestowing; bounteous; beneficent; liberal; generous; bountiful; as, a *munificent* benefactor.

"My Lord Dorset, the *munificent* patron of letters." — *Cheyne.*

Munificently, *adv.* In a munificent or open-handed manner.

Mu'niment, *n.* [Lat. *munimentum*, from *munio*, to fortify.] Act of defending or fortifying; support; defence. — A stronghold; a fortification; a place of defence; munition.

(*Law.*) A record; a deed; a charter; a writing by which claims and rights are defended or maintained.

Muniment-house, or *room*, a strong, or, more properly, fire proof apartment in a public or private building, for the preservation of charters, deeds, seals, &c.

Munition, (*-nish'un,*) *n.* [Fr.; Lat. *munitio*, from *munio*, to fortify: probably akin to Gr. *amunō*, to keep off, ward off, and Hind. *umun*, warden.] Ammunition; whatever materials are used in war for defence, or for attacking an enemy; provisions of a garrison or fortress, or for ships of war; military stores of all kinds.

Munition-ship. (*Nav.*) A store-ship; a vessel conveying munitions of war.

Munjeet', *n.* [Hind. *manjit.*] In Hindostan, a dye-stuff used in lieu of madder.

Munkacs, (*moom-katch',*) a town of Austria, in E Hungary, on the Latorcza, 80 m. N.E. of Debreczin. *Manuf.* Hosiery and alum. In its vicinity are mines of crystal, called Hungarian diamonds. *Pop.* 5,300.

Munnion, (*mŭn'yun,*) *n.* (*Arch.*) Same as MULLION, *q. v.*

Munnions, *n. pl.* (*Naut.*) Pieces that part the lights in a ship's stern and quarter-gallery.

Munnsville, or MUNSVILLE, in *New York*, a post-village of Madison co., abt. 100 m. W. by N. of Albany.

Munntown, in *Pennsylvania*, a post-village of Washington co.

Muns, Munds, *n.* [Goth. *munths.*] A vulgarism for the mouth, jaws, &c.

Munson, in *Illinois*, a thriving township of Henry co.

Munson, in *Ohio*, a township of Geauga co.

Münster, a city of Prussia, cap. of the prov. of Westphalia, on the Aa, a tributary of the Ems, 65 m. N.E. of Düsseldorf, and 80 m. N.N.E of Cologne; Lat. 51° 55′ N., Lon. 7° 40′ E. The principal public buildings are the cathedral, the church of St. Lambert, the town-hall, and the palace. *Manuf.* Woollen fabrics, leather, thread, starch, &c.; it has also a considerable trade in linen, hams, and other produce. *M.* was founded about 700, under the name of *Mailand*, afterwards changed to *Mimigardevorde*, or *Miningerode*. It became a principality in the 12th century, and joined the Hanseatic League in the 13th century. John Bocklesohn, called "John of Leyden," leader of the Anabaptists, with a number of followers, held the town from Feb. 27, 1534, till June 24, 1535, when it was taken by storm. The Congress at Münster, in July, 1643, signed the preliminaries of a treaty of peace in Jan., 1647, but the definitive treaty was not signed till Oct. 24, 1648. (See WESTPHALIA, TREATY OF.) It was evacuated by the French, and taken possession of by the Duke of Brunswick, in 1758. The French general d'Armentières captured it after a short siege, July 25, 1759, and it was retaken by Gen. Imhoff, Oct. 20. By a treaty concluded at Paris, it was ceded to Prussia, May 23, 1802; but was again given up July 9, 1807, and released from the French yoke by the Allies, in 1813. Its fortifications were destroyed in 1765. *Pop.* 27,332

Munster, the S.W. and largest of the four provinces of Ireland, having N. Connaught, E. Leinster, S. and W. the Atlantic Ocean. It comprises the cos. of Clare, Cork, Kerry, Limerick, Tipperary, and Waterford. *M.* existed as a kingdom at an early period. It was subdued by Henry II., in 1172.

Munster, in *Pennsylvania*, a post-village of Cambria co., abt. 4 m. E. of Ebensburg.

Münstertal, (*moon'ster-tal.*) two valleys of Switzerland, one in the cant. of Grisons, the other in the N.E. of Berne, where, in 1444, the battle of St. Jacob was fought between the French and the Swiss, when the latter were nearly destroyed.

Mun'tin, Mun'ting, *n.* (*Arch.*) An upright piece in a door-frame, separating the panels.

Munt'jak, *n.* (*Zoöl.*) *Cervus muntjak*, an animal of the Deer tribe, about one-fifth larger than the Roebuck, being about two feet two inches high at the shoulders; head large; ears rather large; eyes large,

Fig. 1885. — MUNTJAK, (*Cervus muntjak.*)

with lachrymal sinuses; tail short and flattened; general color reddish-brown above; belly and front of the thighs pure white. The male has large canines in the upper jaw; the female has none, nor has she horns. The Cervus Muntjak is a native of Java, and is described by those who are fully acquainted with its character as possessing a great portion of craftiness, combined with much indolence. It has a strong scent, and is easily tracked by dogs.

Muntz's Metal, *n.* [From the name of the discoverer.] (*Chem.*) An alloy of copper and zinc, used for the sheathing of ships, composed of 60 per cent. of copper and 40 of zinc. It admits of hot rolling.

Münzer, THOMAS, (*moont'ser.*) a fanatic, who, in the early part of the 16th century, rendered himself for a while extremely formidable in Germany, where he preached equality and the community of property, and collected 40,000 followers, who committed many enormities. He was at length defeated by the Landgrave of Hesse, with the loss of 7,000 of his deluded followers, and being chased to Franchausen, was taken prisoner, and executed at Mulhausen, in 1525.

Mnot'ta, a village of Switzerland, cant. of Schwytz, on the Mnotta, 6 m. E.S.E. of Schwytz. Here, in 1799, the Russians, under Suwarrow, encountered the French, who, after a sanguinary battle, succeeded in effecting their retreat.

Murad. See AMURATH.

Muræ'na, *n.*; **Muræ'nidæ,** *n. pl.* (*Zoöl.*) See EEL.

Mu'ral, *a.* [Fr.; Lat. *muralis* — *murus*, a wall: akin to W., Ir., and Gael. *mûr*, Sansk. *mûr*, to surround.] Pertaining to a wall; as, *mural* fruit.

—Resembling a wall; perpendicular; vertical; steep; as, a *mural* cliff

Mu'ral Circle, *n.* (*Astron.*) This instrument, which superseded mural arcs and quadrants, was invented by Edward Troughton in 1812. It is generally of large size, attached to a stern wall or pier of solid masonry, and fixed in the meridian, for the purpose of measuring the distance of stars from the pole or the zenith. One form of this instrument is represented in Fig. 1886. *A* is a stone pier which supports the axis of the instrument,

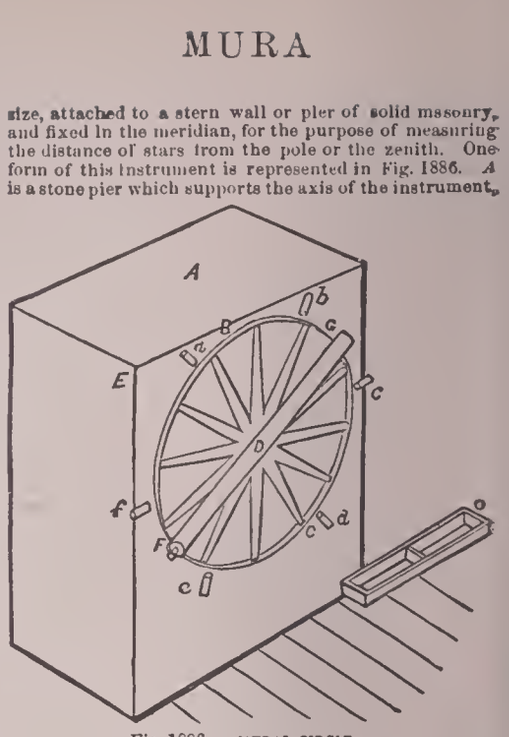


Fig. 1886. — MURAL CIRCLE.

and to which microscopes, *a*, *b*, *c*, *d*, *e*, and *f*, are attached. The face of the pier which carries the microscopes fronts either the E. or the W. The axis carries the circle *B C* and the telescope *F G*. The telescope is fastened to the circle, so that both must move together. This circle is graduated on its outside into degrees, minutes, and other subdivisions. The microscopes serve as pointers for observing the exact position of the circle, and by their aid the space between the divisions can be subdivided with great exactness. We wish to know in any observation how far the telescope points above the horizon. This can be easily ascertained, if we know what is the reading of the circle when the telescope points horizontally. For example, if the reading of the circle is 5° 15′ when the telescope points horizontally, and 27° 16′ 25″ when the telescope is pointing to the star, the telescope must point 27° 16′ 25″ — 5° 15′ = 22° 1′ 25″ above the horizon. The reading of the circle when the telescope points horizontally is ascertained as follows. It is well known that a star seen by reflection from the surface of water or quicksilver appears just as far below the horizon as it is above it. The trough *o* is filled with quicksilver, and the telescope first directed to a star, *S* (Fig. 1887), on the meridian, and on the reading of the circle observed; the telescope is then turned as to observe the star as reflected by the quicksilver, and the reading of the circle again observed. The horizontal

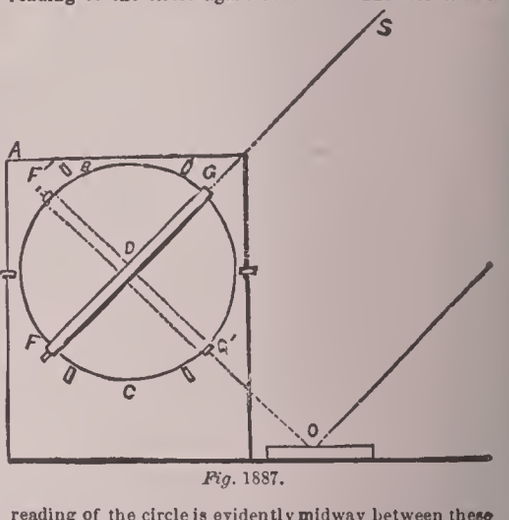


Fig. 1887.

reading of the circle is evidently midway between these two readings. The elevation of the N. celestial pole must next be ascertained. This is done by observing the pole star, which describes a small circle about the celestial pole as its centre. With the *M. C.* the angular elevation of this star above the horizon is observed at its highest and lowest points. These observations are corrected for refraction, and their mean gives the angular elevation of the pole above the horizon. The angular elevation of any body above the horizon is called its *altitude*, and its altitude when in the meridian is called its *meridian altitude*. By observing now the altitude of any star when under the meridian, we can easily ascertain its angular distance from the pole. This angular distance is called *polar distance*. If the star be N. of the zenith, its polar distance is equal to the difference between its meridian altitude and the altitude of the pole. If the star is S. of the zenith, its polar distance will be 180° less the sum of the altitude of the pole and of the meridian altitude of the star.

Mu'ral Crown, *n.* See CROWN.

Mural monument, a monumental tablet affixed to a wall.

Mura'no, a town of N. Italy, on an island in the Lagunes, 1 m. N.E. of Venice, of which it is now a suburb. *Manuf.* Venetian glass and mirrors. *Pop.* 4,000.

Muraschkino, or **Mooraschkino,** (*moo-rash-ke'no,*) a town of Russia, govt. of Nijni-Novgorod, 40 m. S.S.E. of Nijni-Novgorod; *pop.* 6,000.

Murat, JOACHIM, (*moo-rah',*) one of the most intrepid of the French marshals, and placed on the throne of Naples by Napoleon I., was the son of an innkeeper at Cahors, where he was b. in 1771. He was intended for the Church, but escaping from the college of Toulouse, he enlisted as a chasseur, but was shortly after dismissed for insubordination. On the formation of the constitutional guard, he entered it, and displaying an active zeal for revolutionary principles, he was soon advanced to the rank of lieutenant-colonel. The overthrow of the Terrorists checked his progress for a time, but the Directory made him chief of brigade, and in 1796 he accompanied Bonaparte to Italy as his aide-de-camp. Here he distinguished himself by his impetuous courage as a cavalry officer, and was employed as a diplomatist at Turin and at Genoa. He followed Napoleon to Egypt, where he decided the victory over the Turks at Aboukir, and returned as general of division. In 1800 he married Marie Caroline, the younger sister of his patron, who was then first consul; and, in 1804, *M.* was made marshal, grand admiral, and prince of the French empire. His services in the campaign of 1805 against Austria, during which he entered Vienna at the head of the army, were rewarded with the grand-duchy of Berg. He continued to share the victories of his master with such distinction, that, in 1808, Napoleon placed him on the throne of Naples. After reigning peaceably four years, he was called to accompany Napoleon to Russia, as commander-in-chief of his cavalry; and, after the defeat of Smolensk, he left the army for Naples. He next took part with Napoleon in the fatal campaign of Germany; but, after the battle of Leipsic, he withdrew, and finding that the throne of the emperor began to totter, concluded an alliance against him. In 1815, however, he again took up arms, and formed a plan to make himself master of Italy as far as the Po, at the very time that Austria and the allies, upon his repeated assurances that he would remain true to them, had determined to recognize him as king of Naples. It was too late. Austria, therefore, took the field against him, and he was soon driven as a fugitive into France. After the overthrow of Napoleon he escaped, in the midst of continual dangers, to Corsica, from which he sailed with a few adherents to recover his lost throne. A gale, off the coast of Calabria, dispersed his vessels, but *M.* determined to go on shore. He was seized, and carried in chains to Pizzo, brought before a court-martial, and condemned to be shot. This sentence was executed Oct. 13, 1815, when *M.* met his fate with undaunted courage. Napoleon, when at Elba, described him truly in these words:—"Murat is a good soldier—one of the most brilliant men I ever saw on the field of battle. Of no superior talents; without much moral courage; timid even in forming his plan of operations; but the moment he saw the enemy, all that vanished—his eye was the most sure, and the most rapid—his courage truly chivalrous. Moreover, he is a fine man, tall, and well-dressed, though at times rather fantastically. It was really a magnificent sight to see him in battle heading the cavalry."

Murat, CAROLINE, wife of the preceding. See BONAPARTE (CAROLINE).

Murat, in *Ohio*, a village of Paulding co.

Murato'ri, LUDOVICO ANTONIO, an eminent Italian historian and antiquary, was b. 1672 at Vignola, in the Modenese; was made keeper of the Ambrosian library at Milan, and, subsequently, librarian and archivist to the Duke of Modena. His literary productions are numerous and valuable, but his fame chiefly rests on his great historical collection, entitled *Rerum Italicarum Scriptores, ab anno Æræ Christianæ*, 29 vols. folio; in addition to which, his *Antiquitates Italicæ, Medii Ævi*, 6 vols. folio; *Anecdota Latina*, 4 vols. 4to; *Anecdota Græca*, 4 vols. 4to; *Annali d'Italia*, 18 vols. 8vo; with many other works, attest the magnitude of his literary labors. D. 1750.

Muravieff, Mou'ravieff, (*moo-ra-veef',*) the name of an ancient, noble Russian family which, from the middle of the last century down to the present time, has furnished to Russia a number of distinguished military commanders and literateurs.

Murchison, SIR RODERICK IMPEY, F.R.S., a distinguished English geologist, Director-General of the Geological Survey of Great Britain, and director of the Metropolitan School of Science applied to Mining and the Arts, b. in Ross-shire, 1792. After receiving a portion of his education at the Durham grammar-school, he entered the military college at Marlow in 1805, and left it two years subsequently, upon receiving a commission in the 36th regiment. He served at the battle of Vimiera, and shared the dangers of the retreat made by Sir John Moore upon Corunna. In 1815 he married, quitted the military profession, and directed himself to the study of the science of geology. In 1828 he accompanied Sir Charles Lyell in a geological tour among the extinct volcanoes of Auvergne. After exploring the chain of the E. Alps, he published a memoir upon the subject, accompanied with a geological map, 1829. He subsequently succeeded in discovering the whole series of Silurian rocks in the sea-cliffs W. of Milford Haven. The term *Silurian System*, which is the name of his first great work, was first used by him, in consequence of the vast deposits of which it is constituted, being most fully displayed in those parts of England and Wales once inhabited by a tribe of Britons to whom the Romans applied the name "Silures." In the years 1835 and 1839 he explored the Rhenish provinces; and, in 1840, in company with M. de Verneuil, a French geologist, he set out for Russia, with the intention of investigating the geological formations of that country, hitherto very little known. The result of his several expeditions was published in 1845, in a magnificent volume, entitled *Geology of Russia and the Ural Mountains*, in the production of which he was assisted by M. de Verneuil and the Count Von Keyserling. Shortly after the publication of this book *M.* was knighted. About the same time the Royal Society awarded him its Copley medal, for his efforts in establishing the "Silurian System." In 1854 he produced *Siluria; the History of the oldest known Rocks containing Organic Remains, with a Brief Sketch of the Distribution of Gold over the Earth.* *M.* likewise declared that gold ought to be found in the Australian Alps, and urged the government to organize an expedition to test the truth of his views. This appeal met with no official response; but his theories soon were rapidly confirmed through the discovery of the precious metal by private individuals. *M.* was a member or almost all the scientific bodies of Europe. Died 1873.

Murcia, (*mer'she-a*) [Sp. *Moorthea.*] An ancient kingdom, and afterwards province, in the S.E. of Spain, between Lat. 37° 20′ and 39° 25′ N., Lon. 0° 40′ and 3° 5′ W, having N. Castile, E. Valencia, S. the Mediterranean, and W. Andalusia, and part of Castile. *Area*, 7,877 sq. m. The surface is generally mountainous, and the soil sandy and unproductive, except in the valleys formed by the Segara and its tributaries. The climate is very oppressive in summer, except along the sea-coast, and among the mountains. The winters are so mild that frost is almost unknown. The principal river is the Segara. *Prod.* Wheat, rye, barley, rice, maize, vegetables, and fruits. Cattle, sheep, and goats are numerous. *Min.* Lead, copper, nitre, sulphur, alum, and marble. *Manuf.* Silk, linen, earthenware, and soap. *M.* was colonized by the Carthaginians abt. B. C. 200, and passing successively under the sway of the Romans and the Goths, it was subjugated by the Moorish invaders in 712. In 1339 it was erected into a kingdom tributary to Castile, and the Moors were finally dispossessed in 1266. In 1833 it was divided into the province of Murcia and Albacete. The actual *M.* comprises the southern parts of the ancient prov., bounded S.E. by the Mediterranean.

MUR'CIA, a city, cap. of the above prov., on the Segara, 31 m. N.W. of Carthagena, and 250 m. S.E. of Madrid. The city is situated in a beautiful and fertile plain. The cathedral, a Gothic edifice, has a tower 260 feet high, ascended by a spiral walk or inclined plane, accessible even to horsemen. *Manuf.* Linens, woollens, and saltpetre.

Mur'der, *n.* [A. S. *murther, morthor*; Goth. *manthr*, slaughter; Icel. *myrdha*, to kill privily; akin to Lat. *mors*, death.] (*Law*) *M.*, according to the definition of Blackstone, is when a person of sound memory and discretion, unlawfully killeth any reasonable creature in being, and under the king's peace, with malice aforethought, either express or implied. It can only be committed by a person of sound mind and discretion, for lunatics and infants, unless where they show a consciousness of doing wrong, are incapable of committing any crime. The unlawfulness arises from killing without any lawful warrant or excuse; and the person killed must be a reasonable creature in being, and under the king's peace. Lastly, the *M.* must be with malice aforethought; and it is this which distinguishes *M.* from every other species of killing. Malice may be either express or implied in law; express, when one evidently and of set purpose designs the killing of another; implied, as when one kills another suddenly, without any or great provocation. The malice need not be against the individual killed; for if one shoots at a person intending to kill him, but misses him and kills another, this is *M.*; and in like manner, if one shoots into a crowd without knowing a person there, and kills one of them, this also is *M.*; for the malice is regarded as against the human race. As a general rule, all homicide is malicious, and amounts to *M.*, unless where justified by the command or permission of the law, excused on account of accident or self-preservation in sudden quarrel, or alleviated into manslaughter by being either voluntary upon a sudden heat, or involuntary, but in the commission of some unlawful act. In all such cases the prisoner has to make out the justification, excuse, or alleviation; for all homicide is supposed to be malicious until the contrary appeareth upon evidence. *Manslaughter*, which differs from *M.* as being without malice, either express or implied, is either the involuntary consequence of some act not strictly lawful, or, if voluntary, then occasioned by some sudden and sufficiently violent provocation. Even where a person does an act lawful in itself, but in an unlawful manner, or without due caution and circumspection, and kills another, this may amount to manslaughter, or even in some circumstances to *M.* Every person convicted of *M.* shall suffer death as a felon. Manslaughter is punishable at the discretion of the court, by penal servitude for life, or for a term of not less than three years, or by imprisonment, with or without hard labor, for any term not exceeding four years, or by payment of such fine as the court may award. Besides the punishment of manslaughter as a crime, it is attended with a liability to make pecuniary satisfaction to the relatives of the deceased. In some of the States, by legislative enactments, *M.* has been divided into degrees. So, in Pennsylvania, by Act of April 23, 1794, "all *M.* which shall be perpetrated by means of poison, or by lying in wait, or by any other kind of wilful, deliberate, and premeditated killing, or which shall be committed in the perpetrating or attempt to perpetrate any arson, rape, robbery, or burglary, shall be deemed *M.* of the *first degree*; and all other kinds of *M.* shall be deemed *M.* of the *second degree*; and the jury before whom any person indicted for *M.* shall be tried, shall, if they find the person guilty thereof, ascertain in their verdict whether it be *M.* of the first or second degree." Similar enactments have been made in Virginia, Massachusetts, Tennessee, &c.

Mur'der, *v. a.* [A. S. *myrthian*; Dan. *myrde*; O. Ger. *murdrjan.*] To put to death unlawfully; to kill a human being with premeditated malice; to slay with design aforethought.—To put an end to; to destroy; to abuse or violate grossly; to mar by bad execution; as, to "*murder* the English language."

—*interj.* An exclamation or outcry, when life is in danger.

"Where be these bloody thieves? Ho, *murder! murder!*"—*Shaks.*

Murder Creek, in *Alabama*, flows into Conecuh river in Conecuh co.

Mur'derer, *n.* One who murders, or is guilty of murder; an assassin; a man-slayer.

Mur'deress, *n.* A female who commits murder.

Mur'derkill, in *Delaware*, a former hundred in Kent county.

Mur'derous, *a.* Guilty of murder; as, "the *murderous* king."—*Milton.*

—Consisting in murder; done with murder.

"With *murd'rous* rapine and seditious strife."—*Prior.*

—Committing murder; bloody; sanguinary; cruel.

"*Murd'rous* tyranny sits in grim majesty to fright the world."*Shaks.*

—Premeditating murder; as, with *murderous* intent.

Mur'derously, *adv.* In a murderous manner; bloodthirstily.

Mur'docksville, in *Pennsylvania*, a post-village of Washington co., abt. 230 m. W. of Harrisburg.

Mure, *v. a.* [Fr. *murer.*] Same as IMMURE, *q. v.*

Murex, *n.* [Lat., a shell-fish.] (*Zoöl.*) A genus of gasteropodous molluscs, having a univalve spiral shell, with an oval aperture ending in an entire, straight, or slightly ascending canal. The molluscs thus characterized form a family (*Muricidæ*, or rock-shells.) In the order of Prosobranchiate Gasteropods of the system of Woodward and include the following genera: *Murex, Pisania, Ranella, Triton, Fasciolaria, Turbinella, Cancellaria, Trichotropis, Pyrula, Fusus.* The celebrated Tyrian purple dye was obtained from two little shell-fish, the *Buccinum* and *Murex*; the former being found on rocks near the shore, and the latter in deeper water on the Phœnician coast. The general character of the genus *Murex* may be seen in *M. tenuispina* of the Moluccas, Fig. 1888.

Fig. 1888.
MUREX TENUISPINA.

Mu'rexide, *n.* (*Chem.*) If 4 grains of alloxantine and 7 grains of crystallized alloxan be dissolved in half an ounce of hot water, and 80 grains of a cold saturated solution of carbonate of ammonia added, the carbonic acid is disengaged with effervescence, and the liquid assumes a brilliant purple color, depositing, as it cools, *murexide* in splendid crystals, which have a red color by transmitted light, and reflect a play of green and gold, like the wing of the sun-beetle. The beautiful color of this magnificent substance has been applied in dyeing and calico-printing.

Mur'freesborough, in *Arkansas*, a post-village, cap. of Pike co., abt. 125 m. W.S.W. of Little Rock.

Mur'freesborough, in *N. Carolina*, a post-village of Hertford co., 110 m. N.E. by E. of Raleigh.

Murfreesborough, in *Tennessee*, a fine city, capital of Rutherford co., about 30 m. S.E. of Nashville. Here, on Dec. 31, 1862, and Jan. 2, 1863, were fought, between the army of Cumberland under Gen. Rosecrans, and the Confederates under Gen. Bragg, two sanguinary battles, which finally terminated in the victory of the National army. The National loss was 1,533 men killed, 7,245 wounded, and about 3,000 made prisoners. That of the Confederates was estimated at 24,000, though Gen. Bragg admitted only a loss of 10,000, of whom 9,000 were killed and wounded.

Muriahe, (*moo-re-a-ha',*) a river in Brazil, prov. of Rio de Janeiro, rising in the Sierra do Pico and flowing into the Parahiba.

Mu'riate, *n.* (*Chem.*) See HYDROCHLORATE.

Mu'riated, *a.* Combined or treated with muriatic acid.—Steeped in brine.

(*Photography.*) Prepared with chloride of silver through the agency of common salt.

Muriat'ic Acid, *n.* (*Chem.*) See HYDROCHLORIC ACID.

Murical'cite, *n.* [Lat. *muria*, and *calx, calcis*, limestone.] (*Min.*) Rhomb-spar.

Mu'ricate, Mu'ricated, *a.* [Lat. *muricatus.*] (*Zoöl.*) When a surface is armed with short, but not close-set cones, having a sharp apex.

Mu'ringer, *n.* An overseer of a wall.

(*Bot.*) Having the surface armed with prickles.

Mu'ricite, *n.* (*Pal.*) A fossil shell of the genus *Murex*.

Muri'cidæ, *n. pl.* (*Zoöl.*) See MUREX.

Mu'ridæ, *n. pl.* (*Zoöl.*) The Rat family, order *Rodentia*, comprising Rats, Mice, and other immediate allies, the limits of which are very differently stated by different naturalists. The *M.* are of the section of rodents having distinct clavicles. They have three or four molars on each side in each jaw, the molars at first furnished with rounded tubercles, which wear down till they exhibit mere roughened crowns. This family contains many genera and a very large number of species, distributed over all parts of the world.

Mu'ride, *n.* [From Lat. *muria*, brine.] (*Chem.*) The former name of BROMINE, *q. v.*

Mu'riform, *a.* [Lat. *murus*, a wall, and *forma*, form.] (*Bot.*) Resembling, in squares and regularity of arrangement, masonry or brick-work.

Murillo, BARTOLOMEO ESTEBAN, (*moo-reil'yo,*) one of the greatest of the Spanish painters, was B. in 1618, near Seville. He acquired the rudiments of art from his uncle, Juan de Castillo; and being encouraged to visit Madrid, he acquired the countenance and patronage of the great painter Velasquez, then in the height of his reputation. He afterwards returned to Seville, and there founded an Academy of Painting, and earned by his labors an imperishable fame. While painting the admired picture of St. Catharine, in the church of the Capuchins at Cadiz, he fell from the scaffold, and D. 1682, in consequence of the injuries he received. The principal works of *M.* are — *The Return of the Prodigal Son*; *Abraham Visited by the Angels*; *Christ Healing the Sick of the Palsy*; *The Pool of Bethesda*; — but his *chef d'œuvre* is *Our Lady of the Immaculate Conception*, painted in 1678, and lately purchased by the French government for the enormous sum of $118,000.

Mu'rine, *a.* [Lat. *murinus.*] Mouse-like; mouse-colored; pertaining or having reference to mice.

Murk, Mirk, *a.* Murky; gloomy; dark; overcast; as, a *mirk* night.

—*n.* The husks, skins, &c., of fruit after appropriation of the pulp.

Murk'ily, *adv.* Gloomily; darkly; cloudily.

Murk'y, *a.* [A.S. *mirc.*] Dark; obscure; gloomy; overcast; as, "a *murky* storm."— *Addison.*

Mur'mur, *n.* [Lat. See the verb.] A low sound continued or continually repeated, as that of a stream running in a stony channel, or that of flame.

"In hollow *murmurs* died away." — *Collins.*

—A complaint half-suppressed, or uttered in a low, muttering, mumbling voice.

—*v. n.* [Lat. *murmuro*; Gr. *mormurō*, formed by duplication of *murō*, to flow, to run, to trickle.] To make a low, continued noise, like a stream of water, the hum of bees, rolling waves, or like the wind agitating the trees of a forest. — To grumble; to complain; to repine; to speak in a tone of sullen discontent; to utter complaints in a low, half-articulated voice; with *at* or *against* before the causative agent; as, "*murmuring against* the government." — *Swift.*

Murmura'tion, *n.* Act of murmuring.

Mur'murer, *n.* One who murmurs; a grumbler.

Mur'muringly, *adv.* Complainingly; with a low, muttered sound.

Mur'murous, *a.* Attending with murmurs; murmuring.

Mur'phy, in *N. Carolina*, a post-village, cap. of Cherokee co., abt. 373 m. W. by S. of Raleigh.

Mur'phy's, in *California*, a post-town of Calaveras co., about 15 m. N. of Sonora. *Pop.* (1897) 600.

Mur'physborough, in *Illinois*, a city, cap. of Jackson co., on Big Muddy river and 3 R. Rs., 57 m. N. of Cairo. *Pop.* (1897) 4,350.

Mur'physville, in *Kentucky*, a post-village of Mason co., abt. 9 m. S. of Maysville.

Murrain, (*mŭr'rin,*) *n.* [Sp. *morrina*, from Lat. *morior*, to die.] (*Farriery.*) A contagious disease among cattle, generally caused by a hot dry season, which occasions an inflammation of the blood and a swelling in the throat, which soon become fatal. The symptoms of the disease are a hanging down and swelling of the head, a short and hot breath, profusion of gum in the eyes, rattling in the throat, palpitation of the heart, staggering, and a slimy tongue. The early stage of murrain is one of fever, and the treatment should be regulated accordingly. It is of great importance that the infected animal should be immediately removed from the sound ones.

Mur'ray, JAMES STUART, EARL OF, Regent of Scotland, was the natural son of James V. by Margaret, daughter of Lord Erskine, and was probably B. soon after 1530. At five years of age his father made him prior of St. Andrews, and he was long known by that title. He accompanied his sister, the Princess Mary, to France, was present at her marriage with the dauphin, and was frequently passing to and fro between the French and Scottish courts. He became a warm supporter of the Reformers, and was chosen a member of the council, and one of the lords of the articles. On the return of Mary to Scotland as queen, Murray became her chief adviser, and was created first, earl of Mar, and then earl of Murray. He was opposed to the queen's marriage with Darnley, and has been accused of implication in the murder of the latter; he appears to have been aware of the plot, and to have stood aloof from it. He remained out of Scotland for some months, in 1567, only returning on the accession of James VI. He saw his sister a captive in Lochleven Castle, and was soon after named regent. Mary having escaped and taken arms, he encountered and defeated her at Langside, in 1568, and was one of the witnesses against her on her trial. The regent *M.* fell by the shot of an assassin at Liulithgow, January 23, 1570.

Mur'ray, LINDLEY, an American grammarian, B. 1745, at Swatara, Lancaster co., Penna., received his primary education in Philadelphia in the academy of the Society of Friends. He was originally destined for a mercantile life; but having been severely chastised for a breach of domestic discipline, he left his father, who was then residing in New York, and taking up his abode in a school at Burlington, New Jersey, he there contracted a love of books and study. He afterwards studied the law, and practised as a barrister; but in course of time he quitted the bar for the counting-house, and having realized a competency, he went, in 1784, to England, and settled at Holdgate, near York. His *English Grammar*, which so long held its ground, and has passed through an immense number of editions, appeared in 1795. He soon after published the *English Exercises* and *Key*. These were followed by many other schoolbooks, and several moral treatises. His private life was as amiable as his labors in the cause of education and morals were successful. D. 1826.

Mur'ray, a river of Australia, formed by the junction of numerous streams W. of the Australian Alps. After passing through Lake Victoria, it enters the S. Pacific Ocean in Lat. 35° 20′ S., Lon. 139° E.

Murray, in *Georgia*, a N.N.W. co. adjoining Tennessee; *area*, abt. 600 sq. m. *Rivers.* Coosawattee and Connasauga rivers, besides many smaller streams. *Surface*, diversified, and in some parts mountainous; *soil*, fertile. *Min.* Gold, silver, lead, zinc, and hydraulic limestone. *Cap.* Spring Place.

Murray, in *Indiana*, a post-village of Wells co.

Murray, in *Kentucky*, a post-village, cap. of Callaway co., abt. 200 m. W.S.W. of Frankfort.

Murray, in *New York*, a township of Orleans county.

Mur'raysville, in *Georgia*, a village of Hall co., abt. 100 m. N.N.W. of Milledgeville.

Mur'raysville, in *Illinois*, a post-village and township of Morgan county, abt. 12 m. S. by W. of Jacksonville.

Mur'raysville, or MURRYSVILLE, in *Pennsylvania*, a post-vill. of Westmoreland co., abt. 21 m. E. of Pittsburg.

Mur'rey, *a.* [O. Fr. *moré*; Lat. *morus*, mulberry.] Mulberry-colored; claret-colored; of a dark red color.

"A waistcoat of *murrey*-colored satin." — *Arbuthnot.*

Murrhine, (*mŭr'rin.*) *n* [Lat. *murrhinus*, from Gr. *morrhia*, a costly material of which were made vases, cups, &c., either agate, or Chinese porcelain, china. Of Eastern origin.] Among the ancients, a term having reference to a delicate kind of ware, made of fluor-spar, brought from the East.

Mur'riusville, in *Pennsylvania*, a post-village of Butler co., 21 m. N. of Butler.

Mur'rion, *n.* (*Mil.*) Another spelling of MORION, *q. v.*

Murth, *n.* An English provincialism, denoting plenty; abundance; as, a *murth* of grain.

Murviedro, (*moor're-ai-dro.*) [Anc. *Saguntum.*] A town of Spain, prov. of Valencia, on the Canates, 3½ m. from the Mediterranean, and 15 m. N.N.E. of Valencia; *pop.* 7,500.

Mus, *n.* (*Zoöl.*) See MURIDÆ.

Musa, (*mu'za,*) *n.* (*Bot.*) The typical genus of the order *Musaceæ*, q. v.

Mur'za, *n.* A Tartar hereditary noble.

Musa'ceæ, *n.* (*Bot.*) The Musad family, an order of plants, alliance *Amomales*. — DIAG. More stamens than one. They are stemless or nearly stemless plants, with leaves sheathing at the base, and forming a kind of spurious stem, often very large, their limb separated from the taper petiole by a round tumor, and having fine parallel veins diverging regularly from the midrib

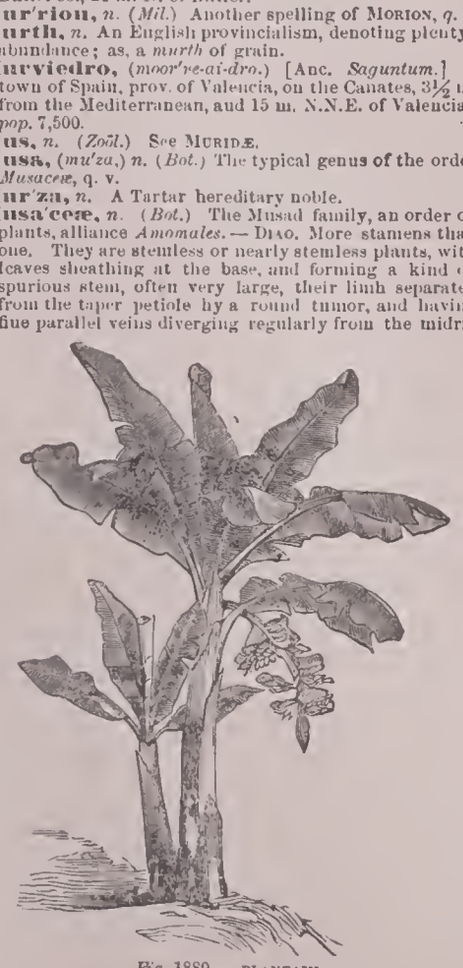


Fig. 1889. — PLANTAIN.
(*Musa sapientum.*)

towards the margin. Flowers spathaceous.—The genus *Musa* is the type of the family, and is one of the most important of all found in tropical countries. The Plantain, *Musa sapientum*, has a fruit which is used to an immense extent by the inhabitants of hot climates, and is, in reality, one of the necessary articles of their food. Throughout equinoctial Asia and America, in tropical Africa, and in the islands of the Atlantic and Pacific oceans, wherever the mean temperature of the year exceeds 75° F., the plantain is extensively cultivated. It is often the whole support of an Indian family, as an extent of ground which, in wheat, could only maintain two persons, will yield sustenance under the plantain to fifty. A great many varieties are produced by culture. Besides its utility as an article of food, a tough fibre, capable of being made into thread of great fineness, is obtained from its stem, and the leaves, from their breadth and hardness, form an excellent material for the thatch of cottages. An intoxicating liquor is also made from the fruits when fermented, and the young shoots are eaten as a delicate vegetable. The Banana, *Musa paradisiaca*, is only a variety of the plantain, the fruit being smaller and more delicate flavored. Botanists call it *paradisiaca*, from an allusion to an old notion of its being the "forbidden fruit of Scripture;" and fanciful writers have supposed it to be the "grapes" brought by the spies of Moses from the promised land, one bunch of which was borne upon a pole by two men. Several other species of the genus *Musa* are known, all natives of Asia, one of which affords a valuable textile fabric. This species, *Musa textilis*, is a native of the Philippine Islands; and from the delicate vegetable fibres is obtained a fine thread called *Manilla hemp*, from which the fine muslins known as Manilla handkerchiefs and Manilla scarfs are manufactured.

Musaceous, (*-zā'shus.*) *a.* (*Bot.*) Pertaining or having reference to plants of the order *Musaceæ*.

Mu'sæ, *n. pl.* [Lat., Muses.] (*Myth.*) Certain goddesses, who presided over poetry, music, dancing, and all the liberal arts. They were generally supposed to be the daughters of Jupiter and Mnemosyne, and were nine in number. — Clio, Enterpe, Thalia, Melpomene, Terpsichore, Erato, Polyhymnia, Calliope, and Urania. Apollo, their patron and conductor, had received the name *Musagetes*, or leader of the Muses. The palm-tree, the laurel, and all the fountains of Pindus, Helicon, Parnassus, &c., were sacred to the Muses. They were generally represented as young, beautiful, and modest virgins, and commonly appeared in different attire, according to the arts and sciences over which they presided. The worship of the Muses was universally established, particularly in the enlightened parts of Greece, Thessaly, and Italy. Sacrifices were never offered to them, though no poet ever began a poem without a solemn invocation to the goddess who presided over verse.

Mu'sal, *a.* Belonging or having reference to the Muses, or to poetry. (R.)

Mu'sar, *n.* An itinerant player on the MUSETTE, *q. v.*

Mus'ca, *n.*; *pl.* MUSCÆ. [Lat., fly.] (*Zoöl.*) The typical genus of the family *Muscidæ*, q. v.

(*Astron.*) A small constellation of the Southern hemisphere, lying between Aries and Medusa. It has 1 star of the 2d, 2 of the 4th, and 2 of the 5th magnitude.

Mus'cæ volitan'tes, *n. pl.* [Lat., flying specks.] (*Med.*) A term used by physicians to express the motes, clouds, and other imaginary bodies supposed to be seen by a patient when laboring under some cerebral oppression, particularly when the optic nerve is affected.

Muscin'eæ, *n. pl.* (*Bot.*) The Mosses, an alliance of plants, class Acrogens. DIAG. Cellular or vascular, with the spore-cases either plunged in the substance of the frond, or enclosed in a cap-like hood. They constitute a class of small flowerless plants of considerable interest in botanical science and importance in the economy of nature. They occur most abundantly in damp regions of the temperate zones, but extend through all climates. Scientifically they form with the Liverworts the division *Muscineæ*, which is marked off from the Ferns and other vascular Cryptogams by the absence of vessels, while the lower members of the group, consisting of a mere flat thallus, are related to the Thallophytes. There are in all some 3,000 species, divided into 4 orders. Of these *Bryaceæ* includes the great bulk of the genera. In this the sporangium, or spore case, has a cap, the *calyptra*, which is blown off by the wind when ripe. Under it is a lid, the *operculum*, which splits off from the capsule and exposes the spores. The capsule has a long stalk. In *Phascaceæ*, a small order, the spores are set free by the rotting of the sporangium. *Andreaceæ*, represented by a single genus, has no operculum, and the sporangium opens by slits. The fourth order is *Sphagnaceæ*, the bog mosses. In these some of the leaf-cells expand and lose their contents. These open into one another, and are surrounded by smaller cells filled with chlorophyll. The stem tissue has a pith-like center, surrounded by a layer of long cells, outside which is an epidermal layer of large empty cells. The male and female organs are on separate branches or separate plants. The life of a moss plant, under favorable circumstances, seems to be practically endless. The bog mosses (*Sphagnum*) which we see growing to-day are the continuation of plants which may have begun to grow thousands of years ago, having formed beds of peat which may be 20 feet thick. The basic substance of the plant dies, but its tips live and grow. These deep beds of peat and the felted coverings of moss which appear in mountain regions perform important services in nature by soaking up the rain and preventing floods, while yielding water to the streams in times of drought. A moss plant consists of a stem with leaves and root, the latter growing out

from any part of the plant which is kept dark and damp. Even from a detached leaf roots will grow, from which new plants will arise. Their branching habit, and the growth of special buds separated from the parent plant, enable mosses to be so easily propagated, that in many species sporcs rarely appear. The sexual propagation is an interesting phenomenon.

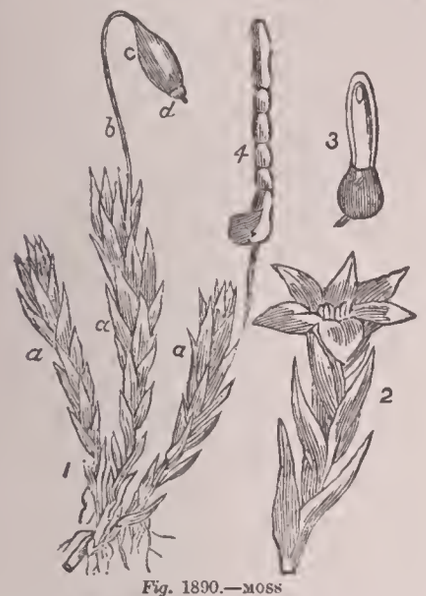


Fig. 1890.—MOSS

(*Funaria hygrometrica*, order *Bryaceæ*.)

1. Perfect plant; *a*, branches clothed with leaves; *b*, seta, or footstalk; *c*, capsule; *d*, operculum, or lid. 2. Branch producing stellate heads, having masses of "male" flowers, and filaments in center. 3. Spore of moss, germinating. 4. Spore of moss in a more advanced state.

In mid-summer there appears on the apex of a plant what are usually called moss-flowers, consisting of a rosette of small leaves, forming a sort of bud. In the center of this male and female organs appear (though in some species these appear on separate plants). The male organs (*antheridia*) are club-shaped bodies, which burst when ripe, yielding a gelatinous mass of cells, each of which yields a motile *antherozoid*, which is able to swim away if the moss is thoroughly wet. The archegonia, or female organs, are flask-shaped, the large egg-cell lying at the bottom of the flask, with a row of "canal cells" in the neck, through which the antherozoid makes its way down to the egg-cell. The ovum now grows within the flask, but after a time forces its way down into the parent plant, which nourishes it. When fully grown it forms the spore capsule, which may be seen as a small sac at the end of a hair-like stalk, rising from the moss cushion. The spores are sown in various ways from the sporangium, and yield a thread-like plant, from a bud of which the moss-plant grows, the thread then dying. Thus there is an alternation of generations, the moss yielding an egg or seed, and this a plant which produces spores, from which new plants arise.

Mus'cardine, *n.* A disease among silk-worms, generated by a fungus; also, the fungus itself.

Muscar'iform, *a.* [Lat. *muscarium*, fly-brush, and *forma*, shape.] Exhibiting the form of a brush.

Mus'cat, Muscatel', *n.* A rich, sweet wine made of Muscatel grapes in the S. of France. These grapes are also dried on the vine, for fine table-raisins.

Mus'cat, a state and seaport-town of Arabia.—See MASCAT.

Muscat'atuc, or MUSKAK'ITUCK, in *Indiana*, a river rising in Ripley co., and flowing S.W., joins the Driftwood Fork of White River in Jackson co. The Indian name is *Mesh-ca-que-tuck*, i. e. "Pond River."

Muscatine, (*mus-ka-teen'*,) in *Iowa*, an E.S.E. co., adjoining Illinois; *area*, about 450 sq. m. *Rivers*. Mississippi, Iowa, and Red Cedar rivers. *Surface*, undulating; *soil*, remarkably fertile. *Min.* Coal, limestone, and freestone. *Cap.* Muscatine.

—A city, river-port, and the cap. of the above co., on the Mississippi River, about 26 m. below Davenport. The town is well built, has an active trade, extensive manufactories, and is growing rapidly. It was formerly called BLOOMINGTON. *Pop.* (1895) 12,237.

Muschelkalk, (*moosh'el-kălk*,) *n.* [Ger. *muschel*, muscle, and *kalk*, limestone.] (*Geol.*) The name given to the shelly limestone occupying the middle of the Triassic series of rocks on the continent of Europe.

Mus'ci, *n. pl.* [Lat., mosses.] (*Bot.*) In certain classifications, a division of plants corresponding to the alliance MUSCALES, *q. v.*

Mus'cidæ, *n. pl.* (*Zoöl.*) A fam. of dipterous insects, distinguished by short antennæ that end with an oval joint and a lateral bristle; a short, soft proboscis, ending with large fleshy lips, enclosing a sucker composed of only two bristles, and capable of being entirely retracted into the oval cavity. The larvæ are fleshy, whitish maggots, and never cast their skins; but when they pass to the pupa state, they shorten, become oblong-oval, dry, hard, and brown on the outside. This family includes about one-third of all the Diptera, and its members are known under the names of Horse-flies, Cheese-flies, Flesh-flies, &c. The common House-fly, *Musca domestica*, is described under FLY, *q. v.* The most important of the other species will be found under their proper names.

Muscle, (*mŭs'sl*,) *n.* [Fr.; Lat. *musculus*, a little mouse, also, a muscle of the body; Gr. *mys*, from *myō*, to be shut. See MOUSE.] (*Anat.*) The name given to the fibrous contractile tissue forming the flesh of men and animals, by means of which the many highly complicated voluntary and involuntary motions of the body are performed. Muscular tissue is of two kinds, distinguished by structural peculiarities and mode of action, the one including the muscles of organic life (with the exception of the fibres of the heart), consisting of simple smooth filaments; the other comprising the muscles of animal life and the heart, and consisting of compound and apparently striated fibres, or tubes inclosing fibrils. The muscles of organic life, or unstriped muscles, consist of fibres, or, rather, elongated spindle-shaped fibre-cells, which, in their most perfect form, are from 1-2700th to 1-3100th of an inch broad, very clear, granular, and brittle, many of them being marked along the middle or one of the edges, either by a fine, continuous dark streak, or by short isolated dark points. These fibres are collected in divers numbers in fasciculi, and form the proper contractile coats of the digestive canal, urinary bladder, gall-bladder, arteries, &c. The muscles of animal life, or striped muscles (Fig. 1891), are composed of fleshy bundles inclosed in coverings of fibro-cellular tissue, by which each is at once connected with, and isolated from, those adjacent to it. Each bundle is again divided into smaller ones similarly ensheathed, and similarly divisible through an uncertain number of gradations, till just beyond the reach of the naked eye one arrives at the primitive fasciculi, or the muscular fibres, properly so called. These consist of tubes of delicate structureless membrane — the *sarcolemma* of Bowman, varying in breadth from 1-200th to 1-500th in., and including a number of filaments. They are of a pale-yellow color, and marked by striæ, which pass transversely round them. The primitive fibrils, of which each fasciculus contains several hundreds, are the proper contractile tissue of the muscle, cylindrical but

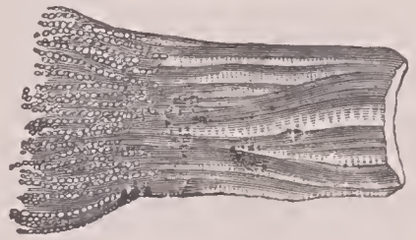


Fig. 1891.

A FASCICULUS OF STRIPED MUSCULAR FIBRES, SHOWING LONGITUDINAL CLEAVAGE.

(Magnified 300 diameters.)

somewhat flattened in form, and about 1-8000ths of an inch in greatest thickness. The peculiar property of muscular tissue, its contractility, although commonly brought into action by the nervous system, appears to be inherent in the muscular tissue, and not derived by it from the nerves, for it may be manifested in a muscle after being isolated from the influence of the nervous system by division of the nerves supplying it. Muscular contraction is generally believed to be effected by an approximation of the constituent parts of the fibrils, which, without any alteration in their general direction, become closer, flatter, and wider. It is a uniform, simultaneous, and steady shortening of each fibre and its contents. Muscles are usually styled *voluntary* or *involuntary*, according as they are, or are not, subject to the influence of the will; but this division is not strictly accurate, and is of little value in a scientific point of view. Many muscles, especially such as are under the immediate dominance of reflex nervous action (as the respiratory and sphincter muscles), partake of both characters, since volition can interfere only temporarily with their contraction; and all muscles, even the most confessedly voluntary, are subject to emotional and instinctive influences, in which the will has no share. Muscles are either elongated and fixed at their two extremities, or hollow and inclosing a cavity. They are so disposed as to give beauty as well as strength to the human body, and for the most part are arranged in pairs; as flexors and extensors, abductors and adductors, supinators and pronators, &c. Muscles are attached

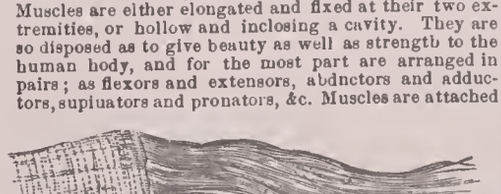


Fig. 1892.

ATTACHMENT OF TENDON TO MUSCULAR FIBRE IN THE SKATE.

to bones by means of tendons, white and shining, rounded or flattened, fibrous cords, and very resisting. (Fig. 1892.) The fixed point of a muscle is called its origin, the movable one its insertion. Muscular fibres, especially those of animal life, are constantly in a state of slight contraction, as is evident from the fact that when the action of certain muscles of a part are injured the antagonistic muscles always draw it towards them. Thus, when the muscles of one lateral half of the face are paralyzed, those of the other half draw the features towards their side. There are in the human body no fewer than 527 distinct muscles, of which 261 are in pairs, and 5 single on the median line. Of these there are 83 in the head and face, the *orbicularis oris* being single; 49 in the neck, the arytenoid of the larynx being single; 78 in the thorax, the *triangularis sterni* and the diaphragm being single; 33 in the abdomen, the *sphincter ani* being single; 78 in the back, 98 in the upper extremities, and 108 in the lower. Yet with all this complicated machinery, everything is in perfect order and harmony.

(*Zoöl.*) See MUSSEL.

Mus'cled, *a.* Supplied with muscles.

Mus'cle Shoals, in *Alabama*, an expansion and series of rapids of the Tennessee River extending from Decatur to Morgan co., to Florence in Lauderdale co. They vary from one to two m. in width, and have a fall of 100 feet in the course of 20 m.

Muscling, (*mŭs'sling*,) *n.* (*Fine Arts.*) An anatomical diagram of the muscles. (R.)

Musco'da, in *Wisconsin*, a post-village and township of Grant co., on the Wisconsin River, 30 m. N.N.E. of Lancaster, and 54 of Madison.

Muscogee', in *Georgia*, a W. co., adjoining Alabama; *area*, about 244 sq. m. *Rivers*. Chattahoochee river, and Nocheefaloochee, Randall's, and Upatoi creeks. *Surface*, generally level; *soil*, in some parts remarkably fertile, and in others sterile. *Min.* Granite, hornblende, iron, agate, jasper, and chalcedony. *Cap.* Columbus. *Pop.* (1890) 27,761.

Mus'coid, *a.* [Lat. *muscus*, moss, and Gr. *eidos*, form.] (*Bot.*) Moss-like; partaking of the qualities of moss.

—*n.* (*Bot.*) A moss-like plant.

Muscol'ogy, *n.* [Lat. *muscus*, and Gr. *logos*, doctrine.] (*Bot.*) That branch of botanical science which has reference to the mosses.

Musconet'cong, in *New Jersey*, a river issuing from Hopatcong Pond, between Morris and Essex cos., and flowing S., empties into the Delaware River, 10 m. below Easton; *length*, nearly 50 m.

Muscos'ity, *n.* [From Lat. *muscus*.] Mossiness.

Muscotah', in *Kansas*, a post-village of Atchison co., abt. 21 m. W. of Atchison.

Muscotink', or MUSKOOTINK, in *Minnesota*, a former post-village of Chisago co.

Muscova'do, *a.* [From Sp. *menoscato*, determination.] Pertaining or having reference to raw or unrefined sugar.

—*n.* The commercial term for raw or unrefined sugar.

Mus'covite, *n.* (*Geog.*) A native or inhabitant of Muscovy, or ancient Russia; also occasionally applied to the modern Russian or Russ.

(*Min.*) A name sometimes applied to Mica, from its having been formerly used in Russia as a substitute for window-glass. See MICA.

Mus'covy-duck, *n.* A corruption of *musk-duck*, q. v.

Mus'covy-glass, *n.* Muscovite. See MICA.

Mus'cular, *a.* [Fr. *musculaire*.] Pertaining or having reference to a muscle or muscles; as, *muscular* strength or power.—Performed by, or having connection with a muscle or muscles; as, *muscular* motion.—Consisting of a muscle or muscles; as, *muscular* fibre.—Having well-developed muscles; strong; brawny; powerful; vigorous; as, a *muscular* man.

Muscular'ity, *n.* State, condition, or quality of being muscular.

Mus'culite, *n.* [Lat. *musculus*, and Gr. *lithos*, stone.] (*Pal.*) A petrified mussel.

Mus'culous, *a.* Muscular; brawny.

Mus. D. Abbreviation of Doctor of Music.

Muse, (*mūz*,) *v. n.* [Fr., from Lat. *Musa* = Gr. *Mousa*, a Muse, wit, task, genius; probably from obs. Gr. *mădō*, to search out, and so invent.] To ponder; to think closely; to study or ruminate in silence; to meditate; to contemplate.—To be absent in mind; to be so occupied in study or contemplation as not to observe passing scenes or things present; to be absorbed in a brown study.

"Thick-eyed *musing* and curs'd melancholy."—*Shaks.*

—*v. a.* To think on: to cogitate or meditate on.

"And *muse* on Nature with a poet's eye."—*Campbell.*

Muse, *n.* Deep thought; rapt contemplation; close or profound attention abstracting the mind from present objects and passing events; also, sometimes, absence of mind; brown study.

(*Myth.*) One of the Muses or MUSÆ, *q. v.*

Muse, *n.* See MUSET.

Muse'ful, *a.* Abstracted; silently thoughtful.

"Full of *museful* mopings."—*Dryden.*

Muse'fully, *adv.* Abstractedly; thoughtfully; meditatively.

Muse'less, *a.* Eschewing the Muses; indifferent to poetry.

Museog'raphist, *n.* [Gr. *mouseion*, museum, and *graphein*, to write.] One who catalogues or classifies the contents of a museum.

Mus'er, *n.* One who muses or meditates; an absent-minded person.

Muset', Muse, *n.* [O. Fr. *musette*.] A gap or break in a fence or hedge sufficiently large to allow a hare to pass through.

Musette, (*mu-zet'*,) *n.* [O. Fr.] A small French bagpipe or viol-de-gamba, formerly in vogue.—A rustic air adapted to such instrument; also, a dance of a similar character.

Museum, (*mu-se'um*,) *n.* [Lat. = Gr. *mouseion*, from

mousa, a Muse; Fr. *musée*.] A repository of curious objects in nature and art; but, in most instances, the former; as, the *Museum* of Natural History in Philad'a.

Mush, *n.* [N. H. Ger. *muss*, pap.] Maize-meal boiled in water.

Mushan'non Creek, in *Pennsylvania*, enters the W. branch of the Susquehanna River, between Centre and Clearfield cos.

Mush kee River, in *Wisconsin*. See MAUVAISE RIVER.

Mush'room, *n.* [Fr. *mousseron*; Gr. *mukis*, from *mukos*; Lat. *mucus*, slimy matter from the nose.] (*Hort.*) The Common Mushroom, *Agaricus campestris*, is a native of most of the temperate regions, both of the Old and New World. It is found during summer and autumn in old pastures. Its *pileus* is regularly convex, becoming almost flat when old; fleshy, dry, white, with a tinge of yellow or brown; of a silky smoothness on the upper surface, or somewhat scaly, but never warty; thickly set on the under side with very unequal gills, which in a young state are pink, and afterwards become dark brown. The pileus is attached by its centre to the top of the stem. The stem is of a firm, fleshy texture, and towards the top is surrounded by a more or less distinct white membraneous ring, the remains of the curtain or veil *indusium*, which in a young state extends to the pileus, and covers the gills. This *M.* is gathered for the table when young, being preferred when the veil is still unbroken, and the expanded pileus has the form of a ball or button; but both in this state and afterwards, while it shows no symptoms of decay, it is used for making catchup. It has a very pleasant smell and taste, and the flesh, when bruised, assumes a reddish-brown color. Care must be taken not to confound the Common *M.* with the white variety of *Agaricus phalloides*, a species quite common chiefly in the woods, and on the borders of woods, which is very poisonous. *Agaricus phalloides* is, however, easily distinguished by the ring at the bottom of the stem, the white color of the gills, the warts on the upper surface of the pileus, and the powerful smell, which becomes extremely disagreeable as the *M.* grows old. The Common *M.* is frequently cultivated both in the open garden and in houses or sheds. To grow it in the open garden, beds are prepared, generally of earth mixed with horse-dung, partly fresh and partly from old hot-oeds, and are raised into ridges almost as high as broad. To grow it in houses, boxes are filled with alternate layers of half-rotten horse-dung and of straw, with a surface layer of fine mould. But of each of these methods there are many different modifications, none of which can here be detailed. In both, the production of mushrooms is sometimes left to the chance—often almost a certainty—of spawny *mycelium* or spores existing in the dung or earth; sometimes, to increase the probability of a speedy and abundant crop, earth is introduced into the bed or box from a pasture known to be rich in mushrooms, and *M.* spawn is also frequently planted, which is either collected where mushrooms grow, or produced by artificial means, often appearing and being propagated extensively without the development of the *M.* itself. There are many other species which, in Europe, are much esteemed for the table, but the Common *M.* is the only one of any importance in this country. For the botanical character of *M.*, and the poisonous properties of a number of them, see AGARICUS.

—An upstart; a parvenu; one who springs suddenly from obscurity into a good social position.

"Such as are upstarts in state, they call, in reproach, *mushrooms*."—*Bacon.*

Mushroom spawn, the generative seed of the mushroom.

—*a.* Pertaining, resembling, or having reference or relation to mushrooms; of sudden growth and decay.

Mush'room-headed, *a.* (*Bot.*) Having a head resembling that of a mushroom.

Mu'sic, *n.* [Fr. *musique*; It., from Lat. *musica*; Gr. *mousikē*, from, *Mousa*, a Muse.] Melody; harmony any succession or repetition of sounds so arranged and modulated as to please the ear, or any combination of simultaneous sounds in accordance or harmony.

"*Music* arose with its voluptuous swell."—*Byron.*

—The science of harmonical sounds, which treats of the principles of harmony or the co-relations of sounds.

"*Music's* golden tongue."—*Keats.*

—The art of combining sounds in a manner grateful and pleasing to the ear.

(NOTE. *Music* is frequently used in the formation of words having especial relation to music, and which are all more or less self-explaining, as, *music*-master, *music*-hall, *music*-stool, *music*-seller, &c.)

Magic music. (*Games.*) A parlor game in which a person engages to find some article hidden by his or her companions, assisted by the pianoforte or other instrument, which is played fast when the seeker approaches the right place, and slower by degrees, when receding from it.

Music of the spheres, the harmony considered by the ancients to be evolved by the harmonious and accordant action of the celestial orbs.

(*Fine Arts.*) *M.* teaches the properties, dependencies, and relations of melodious sounds, or the art of producing harmony and melody by the combination and arrangement of those sounds. Rousseau defines it as the art of combining tunable sounds in a manner agreeable to the ear. *M.*, in common with all other arts, is chiefly derived from the ancients. Of its origin no certain knowledge can be obtained, nor is it easy to determine what it was in its primitive state. There are, of course, many fabulous stories attributing its invention to gods and goddesses. It was in all probability coeval with man, and it may almost be assumed that vocal *M.* preceded that of instruments. The simple elevation or depression of the voice in expressing the passions or emotions of the mind, would most likely have led to its discovery, and the idea of regulating it might naturally have been obtained from the modulated songs of birds. A portion of the song of the blackbird is well known to consist of true diatonic intervals. With the ancients the term *M.* possessed a far wider meaning than it does at present. With them it comprehended not only dancing and acting, but even poetry, and, indeed, everything that was practically considered to emanate from the influence of the nine Muses. Hesychius tells us that the Athenians understood the term in this latter sense. The first traces of *M.* were discovered in Egypt, where the art was undoubtedly carried to a high degree of perfection, although Diodorus Siculus asserts that it was prohibited, as not only useless but even noxious, from its tendency to make man effeminate; on the other hand, however, we are assured by Plato and Herodotus, both of whom were travellers in Egypt, that the art was greatly encouraged and the youth instructed in it at an early age; and Diodorus contradicts himself by telling us in another place that *M.* and musical instruments were the inventions of the Egyptian deities Osiris, Isis, Orus, and Hermes. They are also proved to have possessed instruments capable of much variety and expression, by representations of them that have been found. One was discovered drawn on an obelisk erected by Sesostris, at Heliopolis: it represented an instrument which, by means of its neck, was capable, with only 2 strings, of furnishing, when tuned by fourths, that series of sounds called by the ancients a *heptachord*, and if tuned by fifths, of producing an octave. Many other drawings of musical instruments have also been found which prove the art to have been in a very flourishing condition. Even after the subjugation of the empire by Cambyses it was not lost, but continued, though in a much less prosperous state, to

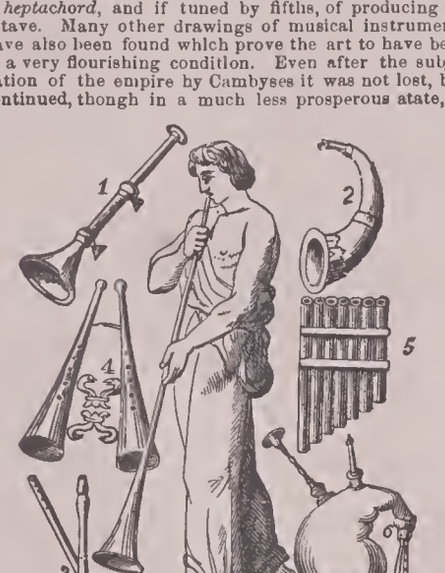


Fig. 1893. — WIND-INSTRUMENTS OF ANTIQUITY.

1, Trumpet (Heb. *Shophar*); 2, Horn (Heb. *Keren*); 3, Flutes (Heb. *Chalil*), 4, Double Pipe or Flute (Heb. *Mishrokitha*); 5, Shepherd's Pipe; and, 6, Bagpipe (Heb. *Ugab*—dubious); 7, Straight Trumpet (Heb. *Chatzozerah*).

the time of Cleopatra's misfortunes,—an event which terminates the history of the Egyptian empire. Of Hebrew *M.* little is known, except what may be gathered from Holy Writ. Jubal, 7th only in descent from Adam, is spoken of as "the father of all such as handle the harp and the organ." The instrument here meant by the organ was, most probably, a number of pipes joined together, resembling the common Pan's pipe, which is known to be of the remotest antiquity. No mention is again made of *M.* until 600 years after the Deluge, when Laban says to Jacob, "Wherefore didst thou flee away secretly and steal away from me, and didst not tell me, that I might have sent thee away with mirth and with songs, with tabret and with harp?" It is seldom again alluded to until the time of David, when we find music and musical instruments continually spoken of. Under Solomon, music received little encouragement; for, unlike his father, he was not a performer, but ranked "men singers and women singers, and the delights of the sons of men, such as musical instruments," among the vanities of the world. The Babylonish captivity, lasting sixty-three years, proved a mortal blow to the Jewish music, and, indeed, all their other arts; and in the stormy time which followed, during which they were conquered successively by the Egyptians, Persians, and Romans, it was entirely lost. Since the destruction of the Temple, both instrumental and vocal music have been excluded from all Jewish synagogues, excepting those of the German Jews, as they consider it improper to sing or rejoice before the coming of the Messiah. *M.* being held in greater estimation by the Greeks than by most other nations, we might naturally expect that our knowledge of it would be considerable. It is, however, quite the reverse; neither the ancient writings nor the researches of modern inquiries give us any idea what the Greek *M.* really was; neither is this very surprising when we consider that the music of a country can be handed down to a remote posterity only by the preservation of actual compositions expressed by a notation capable only of expressing the sounds with distinctness at the time, but which will continue to be intelligible in later ages. Now, therefore, as all we possess of Greek *M.* are a few fragments written in a notation which is very far from being understood, we cannot wonder at the small knowledge we have of it as a science, while of its origin and primitive history we can give little else than conjectures, having no more satisfactory accounts than mythological traditions, from which it would seem that the Greeks received their music, or at least great improvements in the execution of it, from Lydia, where Amphion is said to have learned this art, and from Arcadia, where the shepherds practised on the pipe, flute, and cithera. Their different modes, viz., the Phrygian, Dorian, Lydian, Æolian, and Ionian, were derived from various provinces in Asia Minor; hence their names. Most of the ancient philosophers wrote on music, more especially the disciples of Pythagoras, Plato, and Aristotle; from whom we find that music was considered an almost indispensable portion of the education of the higher classes, and that it was employed in their religious ceremonies. They ascribe the invention of various instruments to their gods and goddesses; thus they say Mercury invented the lyre, Pan the syrinx, or Pan's pipes, and Minerva the flute: this latter instrument was held in high estimation. The musical scale of the Greeks consisted, at its greatest extent, of only two octaves, the lowest note of which was A, the first space in the bass of modern music, and resembled that of the present day exactly in the disposition of its intervals; but instead of being arranged in octaves, as with us, it was divided into tetrachords. The Greeks are supposed to have possessed no musical rhythm, except in their poetry. Their musical notation was very complicated. Its basis was formed upon the letters of the alphabet, which were multiplied by distorting and mutilating their forms, and by the use of accents, and of arbitrary signs, producing in all about sixteen hundred characters. The question which has been so long contested, as to whether the Greeks possessed any knowledge of counterpoint, or part-music, seems now to be determined in the negative; for although they must, if only by mere accident, have known the effect of simultaneous sounds, it is extremely improbable that what we call harmony formed any part of their music. Prizes were awarded for music and poetry at the Olympic, Nemean, and Isthmian games, the poets reciting their own verses to the strains of music. At the Pythian games, which were of more recent date, prizes were given for instrumental music only. No professors seem to have been more highly honored than those of the musical profession. Their pay was enormous. Athenæus tells us that a flute-player named Amœbæus received a talent, equal to $974, for a single performance at the theatre, while Xenophon asserts that flute-players lived in a most magnificent manner. The practice of this instrument extended to the fair sex; speaking of whom, we cannot omit to mention Lamia, the daughter of Cleanora, mistress to Demetrius Poliorcetes, whose proficiency on the flute, added to her wit and beauty, caused her to be considered almost a prodigy. Inasmuch as the Greeks received their music from the Egyptians, so did the Romans, though in a much greater extent, receive theirs from the Greeks; and although the art was very highly estimated by this warlike people, they made little or no progress in it; indeed, none of the arts seem to have received much attention from them. Dr. Burney says that, even during the Augustan age, they possessed no sculptor, painter, or musician; those, he continues, "who have been celebrated in the arts at Rome, having been Asiatics or Europeans, who came to exercise such arts among the Latins as the Latins had not among themselves." In the reign of Tiberius, comedians and musicians were banished from Rome; and although recalled by Caligula, and encouraged by Claudius, the musical art languished until the reign of Nero, by whom it was restored to its former splendor. He studied the art himself, and spent the greatest part of his time in receiving lessons from Torpius, the most skilful harpist and lyrist of his time. The successors of Nero encouraged public games and musical and dramatic performances to a considerable extent; thus the art continued to flourish until the fall of the Empire, when, in common with all other arts, it disappeared until the period of its revival in modern Italy. Music has been employed in the religious ceremonies of the Christian Church from the earliest ages. Of what it consisted during the first three or four centuries is purely a matter of conjecture, although we may naturally suppose it to have somewhat resembled that employed in the countries in which the early Christians dwelt. There is much controversy among musical historians, as to whether they derived their music from the Greeks and Romans, or from the Hebrews. Father Martini says they received it from the latter people, and Dr. Burney agrees with him so far as to be of opinion that the Greek and Roman secular music was discarded by the Christians, and that we have no remains of it in the traditional melodies which have, through the Church, reached even to these times. It is, however, impossible ever to decide the question, as we possess no *written* remains of either the chants or airs for single voices of the early Christians. About the year 386, St. Ambrose, bishop of Milan, finding the whole system of church-music in great confusion, determined upon reforming it, and composed what has been called, after him, the *Cantus Ambrosianus*, or Ambrosian Chant, in which he adopted the Greek

nomenclature hence it has been supposed, without sufficient grounds, that he adopted their entire system. However this may be, it is quite certain that he greatly improved music and the manuer of performing it, and that his system formed the foundation of that introduced two centuries afterwards by Pope Gregory, and which has formed in its turn the basis of all that is grand and valuable in modern music. What the distinctive qualities hetweeu the two systems were cauuot now be ascertained, as we possess no vestiges of the Ambroslan Chant sufficient to ascertain its peculiar character. It is to the fact that the Chant of Gregory has been retained in its simplicity in the Church of Italy, that the Italians owe their pre-eminence in slnging. The modern chant, introduced in Protestant cathedrals at the Reformation, is but a poor substitute for that which, confined to nine varietics, has been heard, without satiating the ear, in the Romlsh Church from the time of Gregory to the present day. Many attempts seem to have been made, after the death of Gregory, to improve musical notatiou. The practice then in use of placing letters or syllables to indicate sounds, could not have been very intelligible or easy to read. About the end of the 10th century, 7 parallel lines were employed, upon which the notes were expressed by dots or points; but it was not until 1022 that the great reformation of the musical scale took place. About this time, Guido, a Benedictine mouk, born at Arezzo, a small town in Tuscany, reduced the number of lines to four, and placed the points not only on the lines, but *between* them. He also added to the ancient aystem a bass-note, answering to the G or *sol* in nur *fa* or bass-clef. This note he designated by the *gamma* (Γ) of the Greeks; hence, this series of sounds in the acale is called the gamut. He also invented the method of counting by hexachords, instead of by tetrachords, and of designating the major hexachord by the syllables *ut, re, me, fa. sol, la.* The invention of counterpoint has also been attributed to him by some authors; but tbis is nnjust to his predecessors; for although he was the first to write upon it, and it had made but little progress before his time, he is not entitled to the honor of its invention. (See COUNTERPOINT.) Up to this period, the plain chant consisted of notes of equal value in respect to time. A rhythm was unknown. Now, however, mnsicians began to feel its importance. The first treatise on this branch of the art was written by Franco of Cologne, or, as some say, of Paris, in a wurk still extant, entitled *Franconis Musica et Cantus Mensurabilis.* He considers measured music to be much auperior to plain chant. He distinguishes three different notes, viz., the long. the breve, and the semibreve, each of different duration. Tbese may be again subdivided. He divides rhythm into five modes. Descant he defines as the union of several melodies concordant with eacb other, but composed of different figures, and divides it lnto four kinds, viz., simple, prolate (*prolatus*), troncate (*troncatus*), and copulate. Franco's system, although much improved and extended, is employed to this day. We may tberefore consider Guido and Franco as the authors of musical notation, all subsequent changes being merely modifications of tbeir inventions, rendered necessary by the improvements in music. To the introduction of the organ, which took place in France about 757, and which came into general use in England, Germany, and Italy about the 10th century, we owe the invention of harmony. This noble instrument being played with keys, the production of simultaneous sounds became easy, and the beautiful effects of the union of concordant sounds must soon have been felt, and once discovered, was diligently cultivated by a succession of eminent men, among whom we may mention Franco (before spoken of), Marchetto of Padua, John de Muris, John Okenheim, Joaquin des Prés, and Claudio Monteverde. The science of harmony continued gradually to progress until the beginning of the 18th century, when it may be said to have reached its greatest refinement. We know scarcely anything of the state of music between the 11th and 15th centuries. Many efforts seem to have been made to improve it. Melody was treated with contempt, harmony being the great point of attractiou. Rhythmical feet, as determined by Franco, began to be abandoned toward the close of the 14th cent., aud as many sounds were introduced into the metre or measure as the subdivisions of the different orders of notes would at that time permit, and new forms or figurea were fouud necessary to represent new values of time. The laws of harmony were first fixed and regulated about the middle of the following century, as we find from the writings of several authors of that time, and more particularly in those of John Tinctor, who was first chapel-master to Ferdinand, king of Naples, and afterwards canon and doctor at Nivelle, in Brabant. He wrote the first musical dictionary, and also the first treatise on this art ever *printed* in Italy. This was followed, a few years after (1496), hy tbat of Franchino Gafforio, in which the doctrines we find in John Tinctor are much better developed. In the compositiona of the 15th century, there was a great want of melody, for which all the display of science and curious combinations which they contain does not atone. In the next century, however, melody and harmony were united by the brilliant genius of Palestrina and some of his contemporaries, while at the same time the art was enriched by the writings of Peter Aaron, Zarlino, Artusi of Bologna, Zacconi of Venice, and others. According to M. Bombet, the oratorio was invented about A. D. 1540, by St. Philip Neri, who established at Rome the Congregation of the Priests of the Oratory, and held performances of music at the Chiesa Nuova, or New Chapel, consisting of sacred interludes, written by first-rate poets, for the purpose of turning to pious accouut the theatrical enthusiasm which then prevailed at Rome. The experiment was successful; and these concerts, or oratorios, as they are now called, although at first only short, simple poems, gradually progressed, until at the preseut day they differ very little from dramatic performances. (See ORATORIO.) Although sacred dramas and pastoral and secular plays, with choruses and hymns interspersed, were common to all countries, and music was often introduced into tragedies, comedies, and pastorals, before the 16tb century, it was not until 1594, or 1597, that the first indicatiou of the modern opera made its appearance. About this time, however, tbe first one, named "Daphne," was produced in Italy, composed by Giacomo Peri and Count Corsi, aud written by Ottavio Rinuccini, a Florentine poet, who soon afterwards wrote two others, called "Eurydice" and "Ariadne," — the music of the first of these being composed by Peri and Giulio Caccini, and that of the other by Claudio Monteverde. In 1606, the first opera performed at Rome was produced. In the following year the last-mentioned composer wrote his "Orpheo" for the court of Mantua. In 1637 the lyric drama was introduced at Venice, and at Naples in 1645. Venice, however, took the lead of all other places, no less than 350 operas heing performed there between 1637 and 1700. A number of tbese were composed by Cavalli, chapelmaster at Venice, who added air to the recitative. According to M. Choron, until the time of Alessandro Scavlatti, tbe overture to an opera had consisted of meagre obligato symphony produced by certain routine, and frequently with bad taste. This he now reformed, and established it less upon the foundation of tne opera than upon tbe work itself, making it a species of musical prologue or programme of the action. He perfected the obligato or accompanied recitative, aud was the first to introduce the *da capc*, or ritornel of the symphonies, into the recitatives For the great reformation of the lyric drama we are indebted to Gluck, whose opera of "Orpheo" was the first ever *printed* in Italy. At the end of the 18th century, the advancement of instrumental music produced a sensible change in that for the drama; several composers endeavored to introdnce the richnesa of the symphonies into the operatic accompaniments. This brilliant system, upou which Haydn, Mozart, Cherubini, and all their school worked, although possessing many advantages, had one drawback; viz., that of being liable to eclipse the chief or vocal part, and sometimes even to make it appear less important than the accessory part. About 1809, Italian music, which had begun to decline toward the end of the 18th century, received a fresh impulse from the compositions of Giacomo Rossini, the most popular composer of modern times. He composed his first opera, "Demetrio e Polibio," in 1809, and since that time he has written thirty-four others, the last and best of wbich was "Guillaume Tell." Contemporary with Rossini were Bellini, who, had he lived, promised to rival the greatest of bis predecessors, — his "Sonnambula" and "Puritani" are extremely beautiful, while his "Norma" is one of the finest operas we possess; Weber, who, although often wanting fluency in his vocal writings, is unrivalled in a certain class of passionate expressions; Meyerbeer, whose operaa of "Les Huguenots," "Le Prophete," and "Etoile du Nord," stamp him as a first-rate composer; Donizetti, a wonderfully prolific composer, whose operas of "Lucrezia Borgia," "Lucia di Lammermoor," "La Figlia del Regimento," &c., are great works, and universally admired; and Auber, who, although somewhat resembling Rossini in his earlier compositions, has produced some very fine works. His "Fra Diavolo," and his most celebrated piece, "La Muette de Portici," or "Masaniello," are well known aud deservedly popular. Verdi is the latest accession to the Italian school. His music, although extremely sweet and pretty, is, as a rule, very sensuous; as, for example, that of "La Traviata" and "Il Trovatore." Although the Italians stand pre-eminent in vocal, the Germans have far surpassed them in instrumental music. Their oratorios possess the greatest beauties; those of Handel are to this day unequalled; while tbe "Ascension," and the "Israelites," by Bach, and the "Death of Jesus" by Grau, are magnificent compositions; as are also Haydn's two cantatas of the "Creation," and the "Seasons." The masses, the splendid requiem, and, above all, tbe secular instrumental music of Mozart, have never been surpassed. To Germany we owe Beetboven, who, like Mozart, devoted himself chiefly to the instrumental branch of secular music. His power and genius are best displayed in his symphonies; that in C minor stands alone unrivalled, while his "Sinfonia Pastorale" is, perhaps, the most exquisitely beautiful piece of descriptive music in existence. Mendelssohn also was a German. His overture to the "Midsummer Night's Dream," tbe concert in G minor, his octet, and his magnificent oratorios of "St. Paul" and "Elijah," have obtained a world-wide repntation as works of the highest genius. The latest and at present the most admired of eminent German composers is Richard Wagner, whose works, after a long struggle for recognition, have now won very high rank in the estimation of music lovers. He sought to make the "Art Work of the Future," aa he called it, equally dependent for effect on music, drama, and scenic art, all combined into one grand unity, and his snccess in this ideal is attested by the supremacy of his operas.

Mu'sical, *a.* Belonging or relating to music or agreeable sounds; as, a *musical* instrument. — Producing or containing music; aa, a *musical* voice. — **Melodious**; harmonious; sweet-sounding; pleasing to the ear.

"As sweet, and *musical*, as is Apollo's lute." — *Shak.*

Musical glasses. (*Mus.*) See HARMONICA.

Mu'sically, *adv.* In a melodious or harmonious manner; with sweet or pleasing sounds.

Musician, (*-zish'an,*) *n.* [Fr. *musicien.*] One skilled in music, or a teacher of music; one who sings or performs on instruments of music according to the rules of the art.

Musicoma'nia, *n.* [Lat. *musica*, music, and *mania*, madness.] (*Med.*) A kind of monomania, caused by an absorbing passion for music.

Mus'ingly, *adv.* In a musing or abstractedly thoughtful manner.

Musk, *n.* [Lat. *muscus*; Pers. *mashk*; Ar. *musk*; Hind. *mooshk, misk*; late Gr. *moschos.*] A strong-scented substance, the produce of the *Moschus moschiferus*, or musk-deer, an animal which inhabits the mountains of Eastern Asia. Behind the navel is a bag, which in the adult animal is filled with musk. These bags are imported from China, Bengal, and Russia. Musk is originally a viscid fluid, but dries into a brown pulverulent substance, of a strong, peculiar, and highly diffusible odor. Its chief use is as a perfume: it has been employed in medicine as a stimulant antispasmodic, but much difference of opinion exists as to its efficacy; and its high price and extreme liability to adulteration are against its use.

(*Zoöl.*) The MUSK-DEER, *q. v.*

(*Bot.*) A name popularly applied, from their strong musky scent, to some plants of the genus *Muscari*, ord. *Liliaceæ*, and of the genus *Erodium*, order *Geraniaceæ*.

—*v. a.* To perfume, or impregnate with the odor of musk.

Musk'-deer, *n.* (*Zoöl.*) A deer of the genus MOSCHUS, *q.v.*

Musk'-duck, *n.* (*Zoöl.*) The Muscovy-duck, *Anas moschata.*

Mus'kegon, or MASKEGON, in *Michigan*, a river rising in Houghton lake, in Roscommon co., and flowing a general S.W. course, enters Lake Michigan from Muskegon co.; *length*, 200 m., of which 25 are navigable.

—A W. co. of the lower peninsula bordering on Lake Michigan; *area*, about 520 sq. m. *Rivers.* Muskegon and White, and Cedar and Crockery creeks. *Surface*, nearly level; *soil*, fertile. *Cap.* Muskegon. *Pop.* (1894) 37,323.

—A city, cap. of above co., on Muskegon river, near Lake Michigan, 38 m. N.W. of Grand Rapids, has 3 R.R. lines, a spleudid harbor, and fine trade with the rich conntry adjoining. *Pop.* (1894) 20,022.

Mus'ket, *n.* [Fr. *mousquet.*] A description of fire-arm used in war, originally discharged by a match, and afterwards hy a spring-lock and a flint. The rifle has entirely superseded it as a military weapon, while the percussion-lock has taken the place of the flint-lock for sporting and other pnrposes.

Musketeer', *n.* [Fr. *mousquetaire.*] A soldier who carries a musket; — a term now in disuse.

Musketoon', *n.* [Fr. *mousqueton.*] (*Mil.*) A short musket; a blunderbuss; also, the person who carries a musketoon.

Mus'ketry, *n.* [Fr. *mousqueterie.*] Muskets in general, or their fire; as, a volley of *musketry.*

Musk'iness, *n.* [From *musk.*] State or quality of being musky; the scent of musk.

Muskin'gum, in *Ohio*, a river, which, rising in Licking co., flows S.E., and enters the Ohio River at Marietta; *length*, abt. 110 m.

—A S.E. central co.; *area*, about 651 sq. m. *Rivers.* Muskingum and Licking rivers, besides several smaller streams. *Surface*, diversified; *soil*, fertile. *Min.* Coal and iron in abundance. *Cap.* Zanesville. *Pop.* 53,400.

—A township of the above co.

Musk'-melon, *n.* See MELON.

Musko'gees, or **Creeks,** the principal tribal group of the Appalachian Indians. Long seated in Georgia, Florida, and Alabama, they rose against the whites in 1813, but were subdued, after a hard struggle, by General Jackson. Later outbreaks led in 1833 to their forcible removal to the Indian Territory, in which region they have become civilized and prosperous. Their population now numbers about 16,000.

Musk'-ox, *n.* (*Zoöl.*) The *Ovibos moschatus*, a ruminating animal which by some naturalists has been considered as intermediate between the sheep and ox, inhabits the more northern parts of America, where the country is mostly rocky and barren, except on the banks of the larger rivers. When they are fat, the flesh is well flavored, but smells strongly of musk. They herd together in flocks of twenty or thirty. The Musk-ox is about the height of a deer, but of much stouter

Fig. 1894. — MUSK-OX.

proportions. The horns are very broad at the base, covering the forehead and crown of the head; and curving downwards between the eye and ear, until about the level of the mouth, when they turn upwards. The head is large and broad, and the nose very obtuse; the ears are short, and not very conspicuous. The hair of

the body is in general brown; on the neck and between the shoulders it is long, matted, and somewhat curled; and this bushy state of the hair on those parts causes the animal to appear humped. On the back and hips the hair is also long, but lies even and smooth; and on the shoulders, thighs, and sides, it is so long as to hang down below the middle of the leg. The tail is so short as to be concealed in the fur. Beneath the long hair, on all parts of the animal, is a fine kind of soft ash-colored wool, which, if it could be procured in sufficient quantity, would be highly useful to the manufacturer. The legs of the Musk-ox are short and thick, and furnished with narrow hoofs, resembling those of the Moose. The female is smaller than the male, and has also smaller horns, whose bases do not meet. Her general color is black, except that the legs are whitish, and between the horns there is a tuft of white hair intermixed with rust-color; an elevated ridge or mane of dusky hair runs along the back, and on the middle of the back is an oblong patch or bed of white hair, shorter than the rest, and which has been termed the *saddle*. The Musk-ox runs nimbly, and climbs hills and rocks with great ease. When pursued by the hunter, they seek for safety by instant flight; but the bulls are sometimes dangerously irascible when closely pressed.

Musk'-pear, *n.* A fragrant sort of pear.

Musk'-rat, *n.* (*Zoöl.*) See FIBER.

Musk'-rose, *n.* (*Bot.*) A variety of very fragrant rose, *Rosa moschata*.

Musk'-thistle, (*-thĭs'l,*) *n.* (*Bot.*) A species of thistle, *Carduus mutanes*, which emits a strong odor of musk.

Musk'y, *a.* Yielding the odor of musk; fragrant.

Muslin, (*muz'lĭn,*) *n.* [Fr. *mousseline*, said to be derived from *Moussul*, a city of Turkish Asia, where it was first manufactured; It. *mussolina, mussolo.*] A sort of fine, thin, flimsy cotton cloth, which bears a downy nap on its surface. It is principally used for ladies' dresses. See MOUSSELINE-DE-LAINE.

—*a.* Made of muslin; as, a *muslin* dress.

Muslinet', *n.* [Fr. *mousselinet.*] A kind of coarse cotton cloth.

Mus'uon, *n.* (*Zoöl.*) Same as MOUFFLON, *q. v.*

Mus'nud, *n.* [Pers.] In Persia, a throne or chair of state.

Musoma'nia, *n.* (*Med.*) Same as MUSICOMANIA, *q. v.*

Musoph'aga, *n.*; MUSOPHA'GIDÆ, *n. pl.* (*Zoöl.*) A gen. and fam. of Scansorial birds, evidently allied to the Insessorial or Perchers. The base of the bill is enormously dilated, so as to spread like a casque or helmet over the fore part of the head as far as the crown, where its thickened sides form a semicircle. Nostrils oval, open, placed nearer to the tip than to the eyes, and pierced in the substance of the bill. The species *Musophaga violacea* here figured is a very magnificent bird. Bill rich yellow, passing into crimson; orbits naked, and, like the compact velvety feathers of the crown, glossy crimson; a white stripe beginning below the eye and extending above the ear; secondary and part of the primary quills carmine, margined and tipped with blackish violet, which is the general color of the plumage, changing into a very deep green on the under parts, which is very rich on the tail; legs strong and black; gape wide. The Gold Coast and Senegal, in Africa, are its localities.

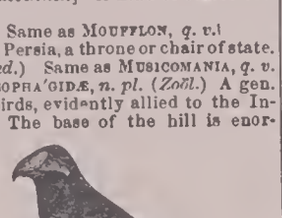


Fig. 1895. — PLANTAIN-EATER, (*Musophaga violacea.*)

Mus'quash, *n.* (*Zoöl.*) The Musk-rat. See FIBER.

Musquet, (*mus'ket,*) *n.* An old spelling of MUSKET, *q. v.*

Musqueteer', *n.* (*Mil.*) The former orthography of MUSKETEER, *q. v.*

Musquite, (*-keet',*) *n.* (*Bot.*) See MEZQUITE.

Musquito, (*-kē'to,*) *n.* (*Zoöl.*) Same as MOSQUITO, *q. v.*

Musquito, in *California*, a post-village of Calaveras co., abt. 11 m. E. of Moquelumne Hill.

Mus'rol, Mus'role, *n.* [Fr. *muserolle.*] The nose-band of a horse's bridle.

Muss, *n.* [From Lat. *musca*, a fly.] A scramble; a wrangle; a contention; a pother; a confused struggle. (Obsol. in England, but largely used in the U. States.)

"When I cried hoa! like boys into a *muss*."— *Shaks.*

—*v. a.* To tumble; to engage in a wrangle or quarrel; to throw into confusion. (Used in the U. States.)

Mus'sel, *n.* (*Zoöl.*) The common name of the genus *Mytilus*, including molluscous animals, the characters of which are, that the shell is bivalve, of an oblong triangular form, terminating in a point, and having its two extremities equal. The head of the animal is in the acute angle. The common salt-water *M., Mytilus borealis* of New England, by some considered the same as the *Mytilus edulis* of Europe, is distinguished by a strong shell, slightly incurvated on one side, and angulated on the other; the end near the hinge being pointed, and the other rounded. From the circumstance of their being always found attached to rocks, stones, or to the shells of each other, they have been supposed by many to be incapable of progressive motion; but although they have no tendency to change of place, they seem possessed of a certain degree of locomotive power; and their manner of exerting it has been examined and well explained by Reaumur. He discovered that their mode of progression consisted in trusting their tongue-like foot out of the shell, curving it, hooking it to some adjacent body, and thus drawing themselves forward to the point of attachment. *M.* are not unpleasant to the taste, and are with many an object of great consumption.

Musselburgh, (*mus'sel-bro,*) a seaport-town of Scotland, co. of Edinburgh, at the mouth of the Esk, in the Frith of Forth, 5 m. E. of Edinburgh. *Manuf.* Leather, sail-cloth, and hats. *Pop.* 7,500.

Musset, ALFRED DE, (*moos'saĭ,*) one of the best modern French poets, playwrights, and novelists. After completing his education at the College of Henry IV., where his fellow-pupil and intimate friend was the duke d' Orleans, son of Louis Philippe, he essayed the most diverse studies. The law, medicine, finance, painting, were in turn engaged in, in turn abandoned. In 1830, he put forth a small volume of poetry, entitled *Les Contes d'Espagne et d'Italie*, which was received with great favor. A celebrity at 23, the young poet made a journey to Italy with George Sand, under the name of confidential secretary. At the revolution of 1848, he lost his post as librarian to the ministry of the Interior, but regained it after the establishment of the empire, with the additional appointment of reader to the empress. During his last years, he gave himself up to play, and even grosser pleasures. His last volume of verse was published in 1850, and showed a premature decay of the author's powers. He was nevertheless elected a member of the French Academy, in 1852. D. 1857.— His best works are his poems,— *Le Spectacle dans un Fauteuil; La Coupe et les Lèvres; A quoi Rêvent les Jeunes Filles? Namonna; Rolla;* — and his two exquisite dramatic pieces — *Un Caprice*, and *Il faut qu'une porte soit ouverte ou fermée.* During the political complications in 1840, he answered Becker's war-song in regard to the Rhine ("Sie sollen ihn nicht haben, den freien deutschen Rhein,") with a poem, entitled *Nous l'avons eu, votre Rhin Allemand.* See biography by his brother, Paul de *M.* (Paris and Boston, 1877.)

Mus'site, *n.* (*Min.*) A grayish-green variety of diopsite, from the Mussa Alp, in Piedmont.

Mus'sulman, *n.*; *pl.* MUSSULMANS. [Ar. *Muslim*, pl. *Muslimin.*] A Mohammedan; a Moslem; a believer in Islam.

Mus'sulmanic, *a.* Having reference to Mussulmans.

Mus'sulmanish, *a.* Moslem; Mohammedan.

Mus'sulmanism, *n.* Islamism; Mohammedanism.

Mus'sulmanly, *adv.* After the manner of Mussulmans.

Mus'sy, in *Michigan*, a twp. of St. Clair co.

Must, *v. n.* or *auxil.* [A. S. *mōt*, must, ought, pl. *móston*; Ger. *müssen*, to be compelled or obliged; Dan. *maate*, must.] To be obliged; to be necessitated; as, man *must* die.

—A verb which expresses moral fitness or propriety as necessary or essential to the character or end proposed.

"Likewise *must* the deacons be grave."—1 *Tim.* iii. 8.

(*Must* is of all persons and tenses, and used of persons and things.)

Must, *n.* [A. S., Ger., and Dan. *most*; It. and Sp. *mosto*; Lat. *mustum.*] The expressed juice of the grape before its conversion into wine by the process of fermentation. According to Berard, the juice of ripe grapes contains sugar, gum, gluten, malic acid, and malate of lime, bitartrate of potash, and bitartrate of lime. The acidity of the juice of ripe grapes is principally due to the tartar which it contains, and which is precipitated by the alcohol formed during fermentation.

—New wine expressed from the grape, but not fermented.

"The wine itself was suiting to the rest,
Still working in the *must*, and lately press'd."—*Dryden.*

Must, *n.* Mouldiness; fustiness; rancidity, sourness.

—*v. a.* To make mouldy or fusty; to make sour.

—*v. n.* To become rancid or fetid.

Mus'tac, *n.* (*Zoöl.*) A species of small, tufted monkey.

Mustache, Moustache, (*mus-tăsh',*) (formerly written MUSTACHIO,) *n.*; *pl.* MUSTACHES, (formerly MUSTACHIOS.) [Fr. *moustache*; Gr. *mustax*, Doric for *mustax*, the upper lip, from *masaŏmai*, to shoot out the lip.] Long hair left to grow above the upper lip; that part of the beard which grows above the mouth.

Mustachio, (*mus-tăsh'yo,*) *n.* See MUSTACHE.

Mustach'ioed, *a.* Wearing or having mustaches.

Musta'ba, Musta'hiba, *n.* (*Bot.*) A Brazilian wood, inferior to rosewood, but harder. It is extensively used for the handles of glaziers' and other knives.

Mus'taug, *n.* The term given to the small, hardy wild horses of the Texan prairies, Mexico, California, &c.

Mustapha I., (*mus'ta-fa,*) sultan of Turkey, succeeded his brother, Ahmed I., in 1617. In the same year he was, however, deposed by the Janissaries, and thrown into prison. He was afterwards released, and placed upon the throne, but again deposed by the Janissaries, and strangled in 1623.

MUSTAPHA II., son of Mohammed IV., succeeded Ahmed II., his uncle, in 1695. He defeated the Austrians at Temeswar, and made war, with success, against the Venetians, Poles, and the Russians. Fortune at length turning against him, he was forced to make peace. He was deposed by his subjects, and died in 1703.

MUSTAPHA III, the son of Ahmed III., ascended the throne in 1757. He was a weak prince, and by trusting to his favorites greatly exhausted the public treasury. His brother Abdul Ahmed succeeded him. D. 1774.

MUSTAPHA IV. ascended the throne in 1807, after the deposition of Selim III. Mustapha Baïraktar, pasha of Rudshuk, collected an army and marched upon Constantinople, demanding that the deposed Selim should be given up to him. But Selim had been already strangled, and his dead body was brought to Baïraktar, who thereupon deposed Mustapha IV., and placed his brother Mahmoud upon the throne. (See MAHMOUD II.) Mustapha IV. was put to death by his brother Mahmoud II., in 1808.

Mustard, (*mus'terd,*) *n.* [It. *mostarda*; Fr. *moutarde*; Lat. *mustum ardens*, burning must.] (*Bot.*) See SINAPIS.

Mustee', *n.* Same as MESTEE, *q. v.*

Mus'tela, *n.* (*Zoöl.*) The Martens, a genus of carnivora of the family *Mustelidæ*. There are two important varieties of this species, viz., the Beech-marten and the Pine-marten (Fig. 1895), the former being possessed of a white throat, and the latter of a yellow one. The Beech-marten (*Mustela martes*) differs but little from the weasel in form, with the exception of the body being slightly more elongated, the head a little more pointed, and the fur generally longer. The Martens besides have an additional molar tooth in both jaws; and also the larger grinder of the lower jaw has a small internal tubercle which does not exist in that of the weasels. The tail is about as long as the body; the upper parts grayish or yellowish brown; and the feet and tail of a chocolate hue. The throat has already been described. The limbs are of moderate length. On the fore-foot the first toe is very short, the second and fifth equal in length, and the fourth the longest. On the hind-foot the proportions are similar. The soles of all are covered with hair; and the claws are large, compressed, tapering, and arcuate — that is to say linear, and bent like a bow. The fur is dense, rather soft and long, being longer on the hind parts, especially on the tail. The under fur is thick and woolly. When young, the Marten is of a darker color; and in summer the fur is always of a lighter hue than in winter. The Marten is generally distributed throughout Europe. In its habits it partakes of the qualities of the fox, as it is a destructive depredator at night-time of farm-yards, although it shuns men as much as possible. Its general length, from nose to tail, is about a foot and a half. The female has two litters, at least, in the year, and produces two or three cubs at a time. The pine-marten is an inhabitant of North America, where it frequents the woody districts from the Atlantic to the Pacific, and furnishes the highly prized fur known as *Hudson Bay sable.* These Martens are very destructive to small game and the eggs of birds, their lives being one continual plundering of the nests of partridges, the retreats of the squirrel, and the *form* of the hare. When deprived of these, they prey on field-mice, dormice, and even lizards and serpents. When the time has arrived for the female to bring forth her young, she takes forcible possession of a squirrel's nest, and enlarges it so as to suit her requirements. The Fisher (*M. pennantii*), of the U. States, is the largest known species of the genus, being 2 feet long to the tail.

Fig. 1896.

1, Common Marten (*Martes foina*); 2, Pine-Marten (*Martes abietum*).

Muste'lidæ, *n. pl.* (*Zoöl.*) The Weasel family, comprising elongated and slender-bodied carnivorous animals, with five-toed plantigrade or digitigrade feet, and with a single tubercular molar tooth only on each side of each jaw. The *M.* comprise all the animals known as Fishers, Martens, Sables, Weasels, Minks, Otters, Badgers, and Skunks. Nearly all in the family have glands which secrete a fetid liquid, and in some cases of a most disagreeable odor.

Muste'line, *a.* [Lat. *mustelinus.*] Belonging or having reference to, or resembling, animals of the weasel family.

Mus'ter, *v. a.* [Ger. *mustern*, to muster, review; D. *monsteren*; Fr. *montrer*; O. Fr. *monstrer*, to display, from Lat. *monstro*, to show. See MONSTER.] To collect, as troops, in order that they may be inspected; to assemble, as troops, for review, parade, or exercise.— To bring together; to gather or obtain; to have at disposal; as, to *muster* one's cash.

To muster troops into service. (*Mil.*) To inspect and enter soldiers on the muster-roll of the army.—*To muster troops out of service.* To inspect and pay off troops previous to dismissal from active service.— *To muster up.* To gather up; to contrive to procure, obtain, or amass.

Mus'ter, *v. n.* To assemble; to rendezvous; to meet in one place; to be gathered together for parade, exercise, &c.

—*n.* An assembling of troops for review, or a review of troops under arms.—A register or roll of troops mustered; a muster-roll.—A collection, or the act of collecting; an assemblage, display, or gathering.

"Of the temporal grandees of the realm, . . . the *muster* was great and splendid."—*Macaulay.*

To pass muster. To pass through an inspection without cavil or censure.

Mus'ter-book, *n.* (*Mil.*) A book containing the registry of military forces.

Mus'ter-file, *n.* (*Mil.*) Same as MUSTER-ROLL, *q. v.*

Mus'ter-master, *n.* (*Mil.*) One who keeps the register of troops and their equipments.

Mus'ter-roll, *n.* (*Mil.*) A roll or register of the men in each company, troop, regiment, or battalion.

Must'ily, *adv.* [From *musty.*] Mouldily; rancidly; sourly.

Must'iness, *n.* Quality of being musty or sour; mouldiness; damp foulness; sourness.

Must'y, *a.* [Fr. *moisir*, to grow mouldy, from Lat. *mucere*, to be mouldy, musty, from *mucus*, matter running from the nose. See MUCUS.] Mouldy; sour; rancid; foul and fetid; as, a *musty* cask, a *musty* book.

—Stale; spoiled with age.

"The proverb is somewhat *musty*." — *Shaks.*

—Dull; heavy; spiritless; wanting life and vigor.

—Vapid; wanting spirit and effervescence; as, *musty* ale.

Mutabil'ity, *n.* [Fr. *mutabilité*; Lat. *mutabilitas*, from *muto*, *mutatus*, to change. See MUTATION.] State or quality of being mutable; susceptibility of change; state of habitually or frequently changing; variation, as of mind, disposition, or will; inconstancy; instability.

Mu'table, *a.* [It. *mutabile*, from Lat. *mutabilis* — *muto*, *mutatus*, to change.] Subject to change; changeable; that may be altered in form, qualities, or nature. — Susceptible of change; variable; apt to waver; unstable; inconstant; fickle; unsettled.

"Most *mutable* in wishes." — *Byron.*

Mu'tableness, *n.* Mutability; instability; changeableness.

Mu'tably, *adv.* In a mutable manner; changeably.

Mu'tage, *n.* A process for arresting fermentation in the must of grapes.

Mutan'dum. *n.*; *pl.* MUTANDA. [Lat. *mutare*, to change.] Something necessary to be changed; — employed usually in the plural.

Mutu'tion, *n.* [Lat. *mutatio*, from *muto*, *mutatus*, to change; W. *mud*, a change of residence; Gael. *muth.*] Act or process of changing. — Change; alteration; variation, either in form or qualities.

"His honour was nothing but *mutation*." — *Shaks.*

Mute, *a.* [Fr. *muet*; It. *muto*; Lat. *mutus*, dumb; akin to Gr. *mūō*, to close, to be shut; Sansk. *muk*, mute.] Having the organs of speech stopped or closed; not having the power of utterance; dumb; silent. — Figuratively, uttering no sound, as silent grief; restrained from speech.

"*Mute*, solemn sorrow, free from female noise." — *Dryden*

(*Gram.*) A vowel (or consonant) is said to be mute when written, but not pronounced; as the vowel *e* at the end of many English words, in some of which it effects a change in the pronunciation of the preceding vowel, as in *wife*, *life*, *place*, &c., rendering it long.

(*Law.*) A person that stands dumb or speechless when he ought to answer or plead. A prisoner is said to stand mute when he either makes no answer at all, or answers foreign to the purpose, and will not answer otherwise. In such cases, the ancient English law was that a jury be empanelled to inquire whether the prisoner stood obstinately mute, or was mute by the act of God, (*ex visitatione Dei.*) If the latter appeared to be the case, then the judges were to proceed with the trial, and examine all the points as if he had pleaded not guilty; but, if found to be obstinately mute, then, in treason and in all misdemeanors, it was held as equivalent to conviction. By Act of Congress of March 3, 1825, it is provided that if any person being arraigned upon, or charged with, any indictment or information for any offence *not capital*, shall stand mute of malice, or will not answer directly to the indictment or information, then it shall be lawful for the court, if it shall so think fit, to order the proper officer to enter a plea of "not guilty," which shall have the same force and effect as if such person had actually pleaded the same.

—*n.* A person who cannot speak, or who remains silent; one who stands speechless when he ought to answer or plead; — specifically, one who is unable, through congenital causes, to articulate speech; a deaf mute; a dummy. — A person employed by undertakers to stand before the door of a house in which a corpse is lying; also, one who precedes a bier to the place of burial.

—In Turkey, and other countries of the East, a dumb attendant in a seraglio or harem, who is frequently used as the instrument of private vengeance.

(*Mus.*) A small piece of brass, box, or ivory, somewhat resembling in shape a very short comb. When in use, it is placed in an erect position on the bridge of a violin to deaden or soften the tone, which it does to such an extent as to render it almost inaudible in an adjoining room.

(*Gram.*) A letter that represents no sound, as *p*, *l*, *k*; a silent letter; also, a close articulation which intercepts the voice.

Mute, *v. n.* [O. Fr. *mutir.*] To eject ordure or excrement, as birds.

"The sparrows *muted* warm dung in mine eyes."—*Job* ii. 10.

—*v. a.* To moult, as feathers.

—*n.* The excrement of birds.

Mute'-hill, *n.* Same as MOOT-HILL, *q. v.*

Mute'ly, *adv.* Silently; without uttering sounds; not vocally.

Mute'ness, *n.* Silence; dumbness; restraint from speaking.

Mu'ticous, *a.* [Lat. *muticus*, for *mutilus.*] (*Bot.*) Having no beard or barb.

Mu'tilate, *v. a* [Lat. *mutilo*, *mutilatus*, to cut or lop off, from *mutilus*, maimed; Gr. *mutilos*, curtailed.] To maim; to cut off, as a limb, or essential part or member of an animal body; to hack; to cripple; as, to *mutilate* the person. — To cut or break off, or otherwise separate any essential part; to retrench, remove, or destroy any material or important part, so as to render the thing imperfect; as, to *mutilate* a speech.

Mu'tilate, *a.* (*Bot.*) Losing an essential part; mutilated.

—*n.* (*Zoöl.*) Said of an insect when its base-covers appear unreasonably short or curtailed, as if mutilated.

Mutila'tion, *n.* [Lat *mutilatio.*] Act of mutilating; deprivation of some essential part, as of writings, buildings, limbs, and, especially, castration.

Mu'tilator, *n.* [Fr. *mutilateur.*] One who performs the act of mutilation.

Mutineer', *n.* A person guilty of mutiny; specifically, a soldier or sailor guilty of insubordination against the authority vested in his superior officers.

Mu'ting, *n.* Ordure of birds.

Mu'tinous, *a.* Exciting or promoting mutiny; turbulent; disposed to insubordination, or to resist the authority of laws and regulations in an army or navy, or openly resisting such authority. — Seditious; rebellious.

Mu'tinously, *adv.* In a mutinous or turbulent manner; seditiously.

Mu'tinousness, *n.* State of being mutinous; opposition to lawful authority in the naval and military services; seditiousness; turbulence.

Mu'tiny, *n.* [Fr. *mutinerie.* See the verb.] (*Law.*) An insurrection of soldiers or seamen against the authority of their commanders; open resistance to officers, or opposition to their authority.

—Turbulent commotion; strife; contention; uproar.

"There is a *mutiny* in 's mind." — *Shaks.*

—*v. n.* [Fr. *se mutiner*, to mutiny; *mutin*, riotous, turbulent; Sp. *amotinar*, to excite to rebellion; Fr. *émeute*, a stir, an uprising, from Lat. *moveo*, *motus*, to move.] To rise against lawful authority in the naval and military services; to excite to revolt; to be guilty of open insubordination.

Mu'tism, *n.* The state or condition of being mute or without speech.

Mu'tius, CÆLIUS, (*mu'shi-us,*) first named Codrus, and afterwards Scævola, an illustrious Roman, who distinguished himself when Porsenna besieged Rome 507 B. C. Mutius entered the camp of Porsenna to assassinate him, and, by mistake, stabbed one of his attendants. Being seized and brought before Porsenna, he said that he was one of 300 who had engaged, by oath, to slay him; and added, "This hand, which has missed its purpose, ought to suffer." On saying this, he thrust it into the coals which were burning on the altar, and suffered it to be consumed. Porsenna, struck with his intrepidity, made peace with the Romans. The name of Scævola, or left-hand, was given as a mark of distinction to Mutius and his family.

Mut'ter, *v. n.* [Lat. *muttire*, from *mu*, a sound produced by closing the lips.] To mumble; to utter words with a low, subdued voice and compressed lips, with sullenness or anger; to murmur; to grumble. — To sound with a low, rumbling noise.

"Thick lightnings flash, the *muttering* thunder rolls." — *Pope.*

—*v. a.* To utter with imperfect articulations, or with a low, murmuring voice.

—*n.* Murmur; inarticulate or obscure utterance.

Mut'terer, *n* One who mutters, murmurs, or grumbles.

Mut'teringly, *adv.* With a low voice; without distinct articulation.

Mutton, (*mŭt'tn,*) *n.* [Fr. *mouton*, a wether-sheep.] The flesh of sheep, raw or dressed for food — A sheep; — now rarely used.

(NOTE. *Mutton* is often employed in the construction of certain self-interpreting compounds; as, *mutton*-cutlet; *mutton*-fat; *mutton*-ham, *mutton*-pie, &c.)

Mut'ton-chop, *n.* A collop or rib of mutton for broiling, having the hone at the thin end chopped off.

Mutton-chop whisker, a man's side-whisker, growing half-way down the cheek, and resembling in shape a mutton-chop, — whence the name.

Mut'ton-fist, *n.* A large, red, brawny fist.

Mut'ra, or **Mathura,** a town of Hindostan, presidency of Bengal, on the Jumna, 30 m. N.W. of Agra. It is a place of pilgrimage, and venerated as the birthplace of Krishna, and contains numerous temples and mosques. *Pop.* 60,000.

Mutual, (*mūt'yu-al,*) *a.* [Fr. *mutuel*; Lat. *mutuus*, from *muto*, to change. See MUTATION.] Reciprocal; interchanged; each acting in return or correspondence to the other; given and received; as, *mutual* love or confidence, *mutual* aversion or indifference.

Mutual'ity, *n.* [Fr. *mutualité.*] State or quality of correlation; reciprocation; interaction; mutual dependence.

Mu'tually, *adv.* In a mutual manner; reciprocally; in the manner of giving and receiving.

"The tongue and the pen *mutually* assist one another." — *Holder.*

Mu'tuary, *n.* (*Law.*) A person who borrows personal chattels to be consumed by him and returned to the lender in kind.

Mu'tule, *n.* [Fr.; Lat. *mutulus.*] (*Arch.*) A projecting block worked under the corona of the Doric cornice, in the same situation as the modillions in the Corinthian and Composite orders; it is often made to slope downward toward the most prominent part, and has usually a number of small guttæ or drops, worked on the under side.

Fig. 1897. — MUTULE.

Mux, *n.* [From *muck.*] An English provincialism for muck; manure, refuse.

Mux'y, *a.* An English localism for rimy; dirty; gloomy.

Muz'ziness, *n.* State or condition of being muzzy.

Muzzle, (*mŭz'l,*) *a.* [Fr. *museau*; Low Lat. *musellum*, dimin. of *musum*, a beak, snout, mouth.] The projecting mouth and nose of an animal, as of a horse; also, the human mouth, spoken in contempt. — The extreme end for entrance or discharge; the mouth or orifice; as, the *muzzle* of a gun, the *muzzle* of a bellows. — A fastening or curb for the mouth which hinders from biting; as, a dog's *muzzle.*

Muzzle-lashing. (*Gun.*) The lashing that secures the muzzle of a gun to the upper part of a ship's port. — *Muzzle-ring*, the metallic circle that goes round the muzzle of a piece of ordnance. In the smooth-bored cast guns, the thickness of metal is increased at the muzzle, forming what is called the *tulip* or swell of the muzzle.

Muz'zle, *v. a.* To bind, fasten, or secure the mouth of, so as to prevent biting or eating. — To fondle with the mouth. (R.) — To restrain from doing hurt or injury.

"My dagger *muzzled*, lest it should bite its master."—*Shaks.*

—*v. n.* To bring the mouth near; as, "the bear *muzzles* and smells to him."—*L'Estrange.*

Muz'zy, *a.* [From Eng. *muse.*] Confused; abstracted or perturbed in mind; bewildered;—also, boozy; inebriated with liquor; as, a *muzzy* look.

My, *pronom. adj.* [Contracted from A. S. *min* = O. Ger. *min*, mine. See MINE.] Belonging to me; — invariably employed attributively; as, this is *my* house. — *Mine* is used predicatively; as, the house is *mine.*

My'cale. (*Anc. Hist.*) A promontory of Ionia, in Asia Minor, opposite the island of Samos, where the Persian army under Tigranes was defeated at this Ionian city of Asia Minor, by the Greeks, under Leotychines, king of Sparta, and Xanthippus, in Sept., B. C. 479. But few of the vanquished survived the contest; and the Greeks, after burning the Persian fleet and camp, retired with their booty to Samos. The battles of Mycale and Platæa were both gained by the Greeks on the same day.

Myce'lium, *n.* [Gr. *mykēs*, mushroom, from *mykos*, mucus.] A development of vegetable life peculiar to the Fungales, but apparently common to all the species of that order. The *spawn* of mushrooms is the mycelium. The *M.* appears to be a provision for the propagation of the plant where its spores may not reach, its extension in the soil or matrix in which it exists, and its preservation when circumstances are unfavorable to its further development. It consists of elongated filaments, simple or jointed, situated either within the matrix or upon its surface. It is often membranous or pulpy.

Myce'loid, *a.* [Gr *mykēs*, and *eidos*, form.] (*Bot.*) Resembling a mushroom or fungus.

Mycenæ, or MYCENE, (*mi-se'ne,*) an ancient city of Greece, nomarchy of Argolis, near the village Krabata, 22 m. S.W. of Corinth, and 5 m. N.E. of Argos. It is said to have been founded by Perseus, B. C. 1457. It was the cap. of the kingdom of Agamemnon, and was at that time the principal city of Greece. About 468, it was destroyed by the inhabitants of Argos, and never after regained its former prosperity. Its ruins are still to be seen in the neighborhood of Kharvati, and are specimens of Cyclopean architecture (Fig. 751). The most celebrated is the "Gate of Lions," the chief entrance to the ancient Acropolis, and receiving its name from two immense lions sculptured upon a block of bluish limestone above the gate.

Mycetes, (*-sē'teez,*) *n.* [Gr., from *mykasthai*, to bellow.] (*Zoöl.*) The Howlers, a genus of Sapajous, belonging to the family *Cebidæ*, and comprising a number of species, the largest of the American monkeys. They are remarkable for the great development of the organ of voice, which consists of a peculiar kind of bony drum, formed by the convexity of the os hyoides, and communicating with the larynx (Fig. 1898). The noise produced by these howlers in the dead of night, is described as being perfectly appalling, and lasts from about 11 o'clock at night till daybreak. An ear-witness says, a person might suppose that half the wild beasts of the forest were collected for the work of carnage —now it is the tremendous roar of the jaguar as he springs on his prey — now it changes to his deep-toned growlings as he is pressed on all sides by superior force — and now you hear his last dying moan beneath a mortal wound. They

Fig. 1898. — SKULL OF MYCETES URSINUS.

Showing the structure of lower jaw and organ from whence the howling noise proceeds.

are social animals, and live in troops in the deep forests of tropical America. The Araguato, or Brown Howler, *M. ursinus* (Fig. 1899), is one of the most abundant, living in Guiana and Brazil. They are gregarious, and forty individuals may be seen on one tree.

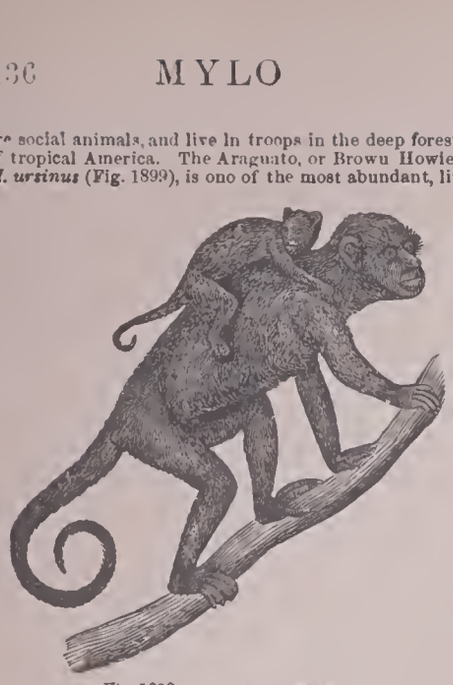


Fig. 1899. — BROWN HOWLER, (*Mycetes ursinus.*)

Mycolog'ic, Mycolog'ical, *a.* Having reference to mycology; pertaining to the fungi.

Mycol'ogist, *n.* One versed in mycology.

Mycol'ogy, *n.* [Gr. *mikēs*, fungus, and *logos*, treatise.] That department of natural science which has reference to the mushrooms or fungi.

Mycone, or **Myconus,** (*mik'o-ne,*) an island of the Grecian Archipelago, govt. of Syra, among the N. Cyclades, 5 m. S.E. of Tinos; *area*, 45 sq. m. It is of granite formation, and the soil is unproductive. There are several good ports, the principal being Mycone, Onos, Port Palermo, and St. Anne. *Pop.* 6,000.

Mycli'tis, *n.* (*Med.*) Inflammation of the spinal marrow or its membranes.

My'ersburg, in *Pennsylvania*, a post-village of Bradford co., abt. 5 m. N.E. of Towanda.

Myer's Mill, in *Iowa*, a village of Pottawattomie co., abt. 40 m. N.E. by E. of Council Bluffs.

My'erstown, in *Pennsylvania*. See MEYERSTOWN.

My'gale, *n.* (*Zoöl.*) The Bird-catching Spider, a genus of spiders, having four pulmonary sacs and spiracles, four spinnerets, eight eyes, and hairy legs. They make silken nests in clefts of trees, rocks, &c., or in the ground, sometimes burrowing to a great depth, and very tortuously. To this genus belongs the Bird-catching Spider of Surinam, which, as several other of the larger species, natives of the warm parts of America, East Indies, and Africa, frequently prey on the small vertebrate animals. They do not take their prey by means of webs, but hunt for it and pounce upon it by surprise. They construct a silken dwelling for themselves in some sheltered retreat. Some of them make a curious lid to their nest or burrow. They envelop their eggs, which are numerous, in a kind of cocoon.

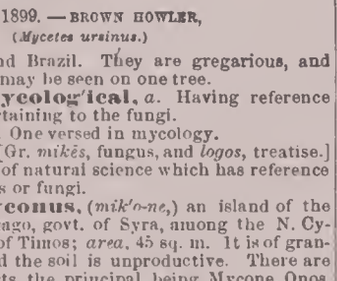


Fig. 1900. — NEST OF THE MYGALE.

—A genus of Insectivora, comprising the Desmons. See DESMON.

My'læ, (*Anc. Hist.*) A town situated on a tongue of land S.W. of Pelorum, on the N. coast of Sicily. — The Roman fleet, commanded by C. Duillius, defeated the Carthaginians near this place, B. C. 260. — Near the same place, Agrippa, with the fleet of Octavius, defeated Sextus Pompey's squadron, B. C. 36.

Mylit'ta, *n.* (*Bot.*) A genus of fungi, order *Ascomycetes*. *M. Australis*, called the "native bread of Australia," is an edible species, weighing from one to three pounds. It is commonly eaten by the natives. Other species are used in China for food and medicine.

Mylo'don, *n.* [Gr *mylos*, mill-stone, and *odous, odontos*, tooth.] (*Pal.*) A gigantic fossil quadruped included under the family of extinct *Edentata*, by Owen, called the *Megatheridæ*. The *M.* is closely allied to the Megatherium, and among existing Edentata it holds a place between the Ai and the great armadillo. Its food is said to have chiefly consisted of the leaves and tender shoots of forest-trees, which the animal's gigantic strength enabled it to tear up by the roots. There have been three distinct species described — *M. robustus*, *M. Darwinii*, *M. Harlani*. The last one has been found in Kentucky, Mississippi, Missouri, S. Carolina, and Oregon. In 1841, an almost complete skeleton of *M. robustus* was discovered about 20 m. N. of Buenos Ayres.

My'lo-hy'oid, *a.* [Gr. *mylos*, molar tooth, and *yoeidēs*, shaped like the Greek letter *γ*.] (*Anat.*) Having reference, or pertaining to the jaw-bone and the hyoid bone; as, the *mylo-hyoid* nerve.

Mymensing, (*mi-men-sing',*) a dist. of Hindostan, presidency of Bengal. Lat. between 24° 4′ and 25° 40′ N., Lon. between 89° 28′ and 91° 13′ E.; *area*, 5,000 sq. m. The surface is diversified, and the soil fertile. There are numerous shallow lakes. *Prod.* Wheat, barley, sugar, hemp, rice, flax, and tobacco. The chief town is Mymensing, or Nusserahad. *Pop.* 1,490,000.

Mynch'ery, *n.* An old Saxon term for a nunnery: — still locally used in England.

Myn'heer, *n.* [D., my lord, my master.] Mr.; Sir; — the customary compellation among the Dutch; hence, a Dutchman; as, *Mynheer* Vandunck.

Myodynam'ics, *n sing.* [Gr. *myos*, a muscle, and *dynamis*, force.] Act or operation of muscular force or contraction.

Myodynamiom'eter, Myodynamom'eter, *n.* [Gr. *myos*, muscle, *dynamis*, force, and *metron*, measure.] An instrument for admeasurement of muscular power in man and other animals

Myograph'ic, Myograph'ical, *a.* Belonging or having reference to myography.

Myog'raphist, *n* One who describes the muscles of animals.

Myog'raphy, *n.* [Fr. *myographie*, from Gr. *myos*, and *graphein*, to describe.] (*Anat.*) A treatise on, or description of, the muscles of the body.

Myolæm'ma, *n.* [Gr. *myos*, muscle, and *lemma.*] (*Anat.*) The delicate sheath that envelops the fibre of a muscle.

My'oline, *n.* [Gr. *mus*, mouse.] The essential substance of muscle.

Myolog'ic, Myolog'ical, *a.* Having reference, or pertaining to the description and system of the muscles.

Myol'ogist, *n.* One versed in myology.

Myol'ogy, *n.* [Gr. *myos*, and *logos*, speech.] (*Anat.*) The doctrine of the muscular system of the human body.

Myopath'ic, *a.* [Gr. *myōs*, muscle, and *pathos*, suffering.] Belonging or relating to a diseased condition of muscles.

My'ope, *n.* [Fr.; Gr. *myops*, from *ōpos*, the eye.] A short-sighted or purblind person; a myops.

Myop'ic, *a.* Having reference to myopy; short-sighted.

Myopora'ceæ, *n.* (*Bot.*) The Myoporad family, an order of plants, alliance *Echiales*. — DIAO. Irregular, unsymmetrical flowers, confluent nuts, pendulous ovules and 2-celled anthers. — The species are natives of the S. hemisphere. The bark of *Avicunia tomentosa*, the white mangrove, and other species, is much used in Brazil for tanning. The order includes but few useful plants. It is divided into 9 genera, and 42 species.

My'ops, *n.* A myope; a purblind or near-sighted person.

Myop'sis, *n.* [Gr. *myia*, fly, and *ōpsis*, vision.] (*Med.*) A disease of the eyes inducing an imaginary perception of black spots moving after the manner of flies.

My'opy, *n.* [Fr. *myopie*; Gr. *myōpia.*] Short-sightedness. It is an affection of the eye characterized by the diminution of the distance of the far point, and the consequent inability of the eye to see distant objects distinctly without the aid of concave glasses.

Myo'sis, *n.* [Gr. *myein*, to close the eyes.] (*Med.*) Permanent contraction of the pupil of the eye.

Myosit'ic, *a.* (*Med.*) Producing contraction of the pupil of the eye.

Myos'otis, *n.* [Gr. *mus*, mouse, *otis*, the ear, its leaves being hairy, and growing like the ear of a mouse.] (*Bot.*) A gen. of plants, order *Boraginaceæ*. They are annual and perennial herbs, slightly villous; the calyx is 5-parted; corolla salver-shaped; convolute in the bud; throat closed with scales; limb 5-fid, blunt; stamen included; filaments very short; style simple; nuts smooth, convex externally keeled within, attached by a minute lateral spot near the base. Distinguished from all the other genera by a convolute corolla. Nearly 50 species have been described, and are to be found in every quarter of the globe. *M. palustris*, the Great water-scorpion grass, or Forget-me-not, has the fruit-calyx open, teeth short triangular, the pubescence of the stem usually spreading. It is a beautiful plant, with a large bright-blue corolla, having a yellow eye, and, probably on account of its striking appearance, has received its name of Forget-me-not. None of the species are used in the arts, or in medicine.

Myox'us, *n.* (*Zoöl.*) The Dormouse (Fig. 1901), a gen. of Rodentia, family *Sciuridæ*. They appear to be intermediate between the squirrels and mice; inhabit temperate and warm countries, and subsist entirely on vegetable food. They have two cutting teeth in each jaw; 4 toes before and 5 behind, and naked ears. These mice inhabit woods and thick hedges, building their nests, which are lined with moss and dead leaves, either in the hollows of trees, or near the roots of close shrubs. Towards the approach of winter they form little magazines of nuts, beans, acorns, &c., on which to subsist during the inclement season; when they retire to their retreats, roll themselves up, and fall into a torpid or lethargic state, which lasts, with little interruption, till the winter is over. It was formerly believed that their hibernation was a state of continual sleep from the period that they sought their winter-quarters until they emerged from them in a more genial season. Buffon, however, very properly exposed the absurdity of the ancient notion; and has observed that these animals occasionally wake, and make use of their stock of provision. They bring forth three or four at a time, which are usually born blind, and remain so for a few days. There are several species.

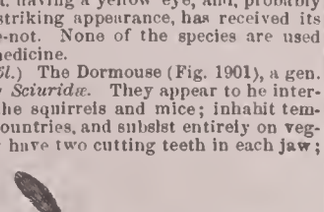


Fig. 1901. — COMMON DORMOUSE, (*Myoxus avellanarius.*)

Myos'urus, *n.* [Gr. *mus*, mouse, *oura*, tail; alluding to the long spike of carpels.] (*Bot.*) A gen. of plants, order *Ranunculaceæ*. They are annual herbs: leaves linear, entire, radicle, scapes 1-flowered. *M. minimus*, the Mouse-tail, is a diminutive plant, remarkable for its little terete spikelet of fruit, which is often an inch long. It has a single, minute, pale-yellow flower at top.

Myotil'ity, *n.* [Fr. *myotilité*, from Gr. *myos*, muscle.] Muscular contractility.

Myot'omy, *n.* [Gr. *myos*, muscle, and *tomē*, a cutting.] (*Anat.*) A dissection of the muscles of the body.

Myriad, (*mir'ī-ad,*) *n.* [Gr. *myrias, myriados*, from *myrios*, countless; W. *myrdd*, infinity, a myriad.] A countless or indefinitely large number; an immense number, proverbially. — The number of ten thousand. —*a.* Vast; having innumerable aspects.

"Our *myriad*-minded Shakspeare."—*Coleridge.*

Myr'iagramme, *n.* [Fr., from Gr. *myrioi*, 10,000, and *gramme*, the 24th part of an ounce.] A French weight, equivalent to 10 kilogrammes = 220·485 lbs. avoirdupois, or 26·795 lbs. Troy.

Myrialitre, (*mir-ī-a-lē'tr,*) *n.* [Fr., from Gr. *myrioi*, 10,000, and *litra*, a certain weight. See LITRE.] A French measure of capacity, containing 10,000 litres = 2641·4 American gallons.

Myriametre, (*mir-ī-a-mā'tr,*) *n.* [Fr., from Gr. *myrioi*, and *metron*, measure.] A French measure of length, containing 10,000 metres = 6·2134 American miles, or 6·21382 English miles.

Myriap'oda, *n. pl.* [Gr. *myrioi*, and *pous, podous*, foot.] (*Zoöl.*) An order of insects, the first in the classification of Cuvier, and often designated by the term *Centipedes*. They are the only animals of the class which possess more than 6 feet in their perfect state, and which have their abdomen not distinct from their trunk. Their body, destitute of wings, is composed of a number of

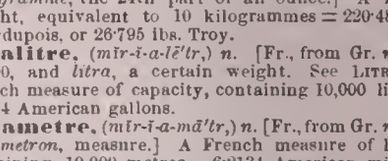


Fig. 1902. — AMERICAN MYRIAPOD. (The Galley-worm, or Iulus.)

rings, generally equal in size; each of which — a few of the first excepted — bears two pairs of feet, mostly terminated by a single hook; these annuli, or rings, are either entire or divided into two demi-segments, each bearing a pair of these organs, and one of these only exhibiting two stigmata. In general, the *M.* resemble little serpents or nereides, their feet being closely approximated to each other throughout the whole extent of the body. The form of these organs even extends to the parts of the mouth. The mandibles are bi-articulated, and immediately followed by a quadruple piece in the form of a lip, with articulated divisions resembling little feet, which, from its position, corresponds to the ligula of the crustacea. Next come two pairs of little feet, the second of which, in several, resemble large hooks, that appear to replace the two jaws as well as the lower lip of insects. The antennæ are two in number, and are short, somewhat thicker towards the extremity, or nearly filiform, and composed of 7 joints in some; in others they are numerous and setaceous. Their visual organs are usually composed of a union of ocelli. The stigmata are very small, and their number, owing to that of the annuli, is usually greater than in the latter, where it never exceeds 18 or 20. The *M.* are divided into two families by Cuvier; namely, the *Chilognatha* and the *Chilopoda*; the first of which move very slowly, that is, slide along, and roll themselves into a ball; while the latter possess speedier faculties of locomotion. The Chilognatha are divided by Linnæus into 4 classes; viz., *Glomeris*, *Iulus*, *Polydesmus*, and *Polyxenus*. The Chilopoda are divided into 3 classes; comprising *Scutigera*, *Lithobius*, and *Scolipendra* (or Centipedes).

Myriarch, (*mir'ī-ārk,*) *n.* [Gr. *myrioi*, 10,000, and *archos*, chief.] A commander of ten thousand men.

Myr'iare, *n.* [Fr., from Gr. *myrioi*, and Fr. *are*. See ARE.] A French superficial measure, being 10,000 *ares* = 1,000,000 square metres; equivalent to 248·085 American, or 247·1143 English, acres.

Myr'ica, *n.* [Gr. *myro*, to flow; because some of the species are native of river-banks and inundated places.] (*Bot.*) The typical genus of the order *Myricaceæ*, q. v.

Myr'icin, *n.* (*Chem.*) That portion of wax which is insoluble in alcohol. It melts at 147° Fahr. The wax of the *Myrica cerifera* affords it.

Myricyl'ic Al'cohol, *n.* (*Chem.*) The hydrated oxide of myricyl. The oxide of myricyl exists in beeswax in combination with palmitic acid, and is liberated in the hydrated form by the action of caustic potash. Myricylic alcohol is a colorless solid, of a silky lustre, melting at 185° Fahr.

Myriolog'ical, *a.* Pertaining or having reference to a myriologue.

Myriol'ogist, *n.* The female performer of a myriologue.

Myr'iologue, *n.* [Fr., from Gr. *Moria*, the goddess of death, and *logos*, discourse.] In modern Greece, a funeral dirge or requiem sung by a female, extemporaneously.

Myrica'ceæ, *n.* (*Bot.*) The Gale-wort family, an ord. of plants, alliance *Amentales*. — DIAG. A 1-celled ovary, and a single erect seed, with superior radicle. — They are shrubs or small trees, aromatic, covered with resinous glands or dots, and having simple alternate leaves. Flowers monœcious, or dicecious, amentaceous, each axillary to a bract. The species *Myrica cerifera* is known by the names Wax-berry, Candleberry, Wax-myrtle, and Bayberry; its fruits, when boiled, yield the kind of wax known to commerce as *Myrtle-wax*. This useful and interesting shrub is found in dry woods or in open fields, from Nova Scotia to Florida, and W. to Lake Erie. *M. gall*, the Sweet Gale, or Dutch Myrtle, is found in marshy places, and on the borders of mountain lakes, generally throughout the N. States and Canadas. The order includes 3 genera and 30 species.

Fig. 1903. — DUTCH MYRTLE, (*Myrica gall.*)

Myriophyl'lous, *a.* [Gr. *myrioi*, and *phyllon*, leaf.] (*Bot.*) Having an indefinitely great number of leaves.

Myrioph'yllum, *n.* [Gr. *myrios*, a myriad, *phyllon*, a leaf; from the numerous divisions of the leaf.] (*Bot.*) A gen. of plants, order *Haloragaceæ*. They are perennial, aquatic herbs, with submersed leaves parted into capillary segments. Upper flowers usually staminate, middle ones perfect, and lower ones pistillate. *M. spicatum*, the Spiked Water-milfoil, is found from New England to Arkansas. Stems slender, branched, very long; leaves composed of innumerable hair-like segments, always submerged; flowers greenish, sessile. Another species, *M. verticillatum*, the Water-milfoil, is common in stagnant water from Canada to Florida, and W. to Oregon.

Myriora'ma, *n.* [Gr. *murias*, a myriad, and *opao*, I view.] (*Paint.*) A picture made up of fragments of buildings, landscapes, &c., so as to admit of an infinity of combinations.

Myris'tic Acid, *n.* [Gr. *muron*, unguent.] (*Chem.*) One of the fatty acids contained in the expressed oil of nutmeg.

Myristica, (*mi-ris'ti-kă,*) *n.* (*Bot.*) The typical gen. of the nat. ord. *Myristicaceæ*. The most important species is *M. moschata* or *officinalis*, the Nutmeg-tree. It is a native of the Molucca Islands, but is now cultivated in many tropical regions. The well-known spices *nutmegs* and *mace* are derived from this species. The fruit is fleshy and pear-shaped, and commonly about the size of an ordinary peach; it contains a single seed, surrounded by a lacerated envelope, called an *arillode*, which is scarlet when fresh, and yellow when dried. Beneath the arillode, which forms the spice called *mace*, we find a hard shell, and within this the nucleus of the seed. This nucleus, or the seed divested of its shell and arillode, is our commercial *nutmeg*. The fleshy pericarp is commonly used as a preserve. Nutmegs and mace are largely employed as condiments. They are both used in medicine as stimulants, carminatives, and flavoring agents. Nutmegs, when distilled with water, yield a volatile oil called *volatile* or *essential oil of nutmegs*. Mace treated in the same way yields a volatile oil of nearly similar properties. The substance called *expressed oil of mace*, *butter of nutmegs*, or *expressed* or *concrete oil of nutmegs*, imported from the Moluccas, is prepared by heating nutmegs, and then submitting them to pressure. It consists of a small quantity of volatile oil mixed with two fatty substances. The nutmegs from *M. moschata* are frequently termed the *true* or *round nutmegs*, to distinguish them from those of an inferior quality obtained from other species. The *long* or *wild nutmegs* of commerce are said to be derived from *M. fatua* or *tomentosa*, and *M. mala barica*.

Myristica'ceæ, *n. pl.* (*Bot.*) The Nutmeg family, an order of plants, alliance *Menispermales*. — DIAG. Ruminated albumen, and a valvate cup-shaped calyx. They are tropical trees, often yielding a red juice, with alternate, entire, exstipulate, stalked, and leathery leaves. Flowers declinous. Calyx leathery, 3–4-cleft, in the female flower, deciduous; æstivation valvate. Male flower with 3–12 stamens, or rarely more than 12; filaments distinct or monadelphous; anthers 2-celled, extrorse, distinct, or united, with longitudinal dehiscence. Female flower of 1 carpel, or many carpels, each with 1 erect ovule. Fruit non-esculent, seed arillate, with copious oily fleshy albumen; embryo small, with an inferior radicle. There are 5 genera and 35 species.

Myrmecoph'aga, *n. pl.* [Gr. *myrmex*, and *phago*, to eat.] (*Zoöl.*) The Ant-eaters, a genus of the family *Armadillo*, order *Edentata*. The Ant-eaters have no grinders, have the body covered with rather long hair, an elongated slender head, with very long exsertile tongue, and walk on the sides of their feet with the claws incurved. The great ant-eater, *M. jubata*, is a native of Brazil and Guiana, and is much the largest of all the ant-eaters. It is covered with long, coarse, shaggy hair, and has a remarkably large tail, with which, when at repose, it can wrap itself up so as to be effectually protected from heat or rain. It is a powerful animal, and specimens often occur which measure more than 8 feet in length from the extremity of the nose to the end of the tail. The second and third toes of the fore-feet are provided with long, sharp-pointed, and trenchant claws, so strong that nothing upon which it has an opportunity of fastening can escape, and it is even asserted that it has killed a tiger by plunging these formidable weapons into its side and tearing it open. It lives, however, exclusively on ants, and it procures these insects in abundance by tearing open their hills with its hooked claws, and then drawing its long tongue, which is covered with glutinous saliva, over the swarms which flock from all quarters to defend their dwelling.

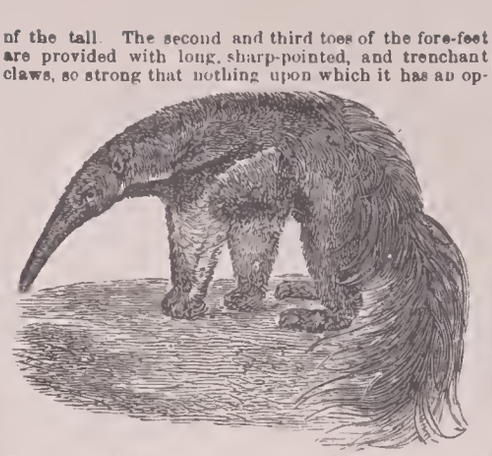


Fig. 1904. — MYRMECOPHAGA JUBATA, (Great Ant-eater.)

Myrme'leon, *n.* [Gr. *myrmos*, ant; *leo*, lion.] (*Zoöl.*) The Ant-lion, a genus of neuropterous insects, one of the species of which has long been known for the remarkable habit its larva has of forming a pitfall to catch its prey. This insect, *M. formicalio*, in its perfect state, resembles a small dragon-fly. It deposits its eggs in dry sandy places, and as soon as the larvæ are hatched, they begin to prepare their traps for securing food for themselves. For this purpose they insinuate themselves into and beneath the sand, and scoop out a conical pit, at the bottom of which they take up their abode. Should an unfortunate insect tumble into this pit, it is immediately seized, the fluids of the body sucked out, and the carcass jerked out of the hole. Should the insect escape the first attack, and attempt with all haste to clamber up the sides of the pitfall, the ant-lion immediately throws up a shower of sand and brings its victim down again. The larva continues in this state for about two years, when, being full-grown, it spins a cocoon and assumes the chrysalis form, and at the end of three weeks comes out a perfect insect.

Myr'midon, *n.* [Gr. *murmidones.*] (*Myth.*) One of the followers whom Achilles led from Phthia to the Trojan war. The name (like that of Achilles, Helen, Paris, and many others) cannot be explained by any Greek words. According to one version of the myth, Zeus deceived Eurymedusa, daughter of Cleitus, in the form of an ant, *murmex*, and became the father of Myrmidon, the eponym of the Myrmidones. The Homeric poems exhibit the Myrmidons as warriors who cannot act except at the bidding of Achilles. When he appears, they rush forth like wolves, (*lukoi ös; Il.* xvi. 156.) The simile which follows lays special stress on the fiery color of their cheeks, and the blood-red hue of their tongues and jaws. These images are in strict accordance with the solar character of Achilles, and the expression *lukoi* thus at once suggests a comparison with the myths of Lycaon, Calisto, and Arcas, and with the epithet Lycius (*Lukios*) applied to Phœbus (*Æschylus, Theb.* 145). The Myrmidons would thus be the streaming rays which break forth when the sun reappears after being veiled by clouds.

—A desperado; a rough soldier; a bully; a ruffian under some unscrupulous leader.

"Clodius and Curio, at the head of their *myrmidons*." — *Swift.*

Myrmido'nian, *a.* Belonging, or having reference to myrmidons.

Myrob'olan, *n.* [Fr.; Lat. *myrobolanum.*] (*Bot.*) See COMBRETACEÆ.

My'ron, a very celebrated Greek sculptor, B. at Eleutheræ, in Bœotia, about B. C. 480. He was a pupil of Ageladas, and the rival of Polycletus. He worked in marble, wood, and metal, and especially distinguished himself by his skilful representations of animals. His most admired work was the bronze figure of a *Cow lowing*, which was still extant at Athens in the time of Cicero.

Myrosper'mum, *n.* [Gr. *myron*, myrrh; *sperma*, seed.] (*Bot.*) A gen. of balsamiferous trees, belonging to the nat. ord. *Leguminosæ*. The species are natives of South America and the West Indies. *M. toluiferum* is the source of balsam of Tolu, and *M. periera* that of balsam of Peru. The former product is chiefly imported from Carthagena in gourds and other vessels, usually in the solid state; the latter, which is of a viscid syrupy consistence, is imported from Sonsonate, in the State of St. Salvador, Guatemala. Both are obtained by making incisions in the bark of the trees. They are largely used in medicine for their stimulant and expectorant properties. Two other medicinal products are also derived from *M. pereira*, namely, white balsam, which is obtained from the interior of the fruit and seed by cold pressure; and *balsamito*, or tincture of Virgin Balsam, which is made by digesting the fruit (deprived of its winged appendages) in rum.

Myrrh, (*mir,*) *n.* [Ar. *murr*; Lat. *myrrha.*] A fragrant, bitter, aromatic gum-resin, which occurs in tears of different size; they are reddish-brown, semi-transparent, brittle, of a shining fracture, and have a greasy appearance under the pestle. Notwithstanding the early knowledge of myrrh, there was no accurate account of the tree which yielded it until the return of Ehrenberg from his travels, during 1820–25, in various parts of Africa and Asia. The tree, of which he brought a specimen, is described, under the name of *Balsamodendron myrrha*, by Nes von Esenbeck. This plant was noticed and described by Humboldt in 1826. Myrrh flows from incisions made in the tree. It consists of resin and gum in proportions, stated by Pelletier as 31 of the former and 66 of the latter.

Myr'rhic Acid, *n.* (*Chem.*) A substance obtained by heating the resin of myrrh.

Myr'rhine, *a.* [Lat. *myrrhinus.*] Made of the murrhine stone, or fluor-spar.

Myr'rhine, *n.* Same as MURRHINE, *q. v.*

Myrsina'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Cortusales*. — DIAG. Stamens opposite the petals, indehiscent drupaceous fruit, and woody stem. — They consist of trees or shrubby plants, with smooth, coriaceous, exstipulate leaves and small flowers. They are chiefly natives of the islands of the southern hemisphere. The greater number are unimportant in an economic sense. The fruit of *Myrsine Africana* is used by the Abyssinians to mix with the barley given to their mules and asses. The seeds of *Theophrasta Jussiæi* are used in St Domingo for making a kind of bread. The order has 320 species in 30 genera.

Myrta'ceæ, *n. pl.* (*Bot.*) The Myrtle family, an order of plants, alliance *Myrtales*. DIAG. Pluriloculer ovary, polypetalous or apetalous flowers, an imbricated calyx, oblong anthers, and usually dotted leaves. — They consist of about 1,300 species of trees and shrubs, natives of the tropics and of the warmer regions of the temperate zones. They are generally remarkable for pungent and aromatic properties, due to the presence of a volatile oil. The fruits of some are edible, as the *pomegranate* and the *guava*. Among the useful products of the order are the well-known spices *cloves* and *allspice*; and the medicinal agents *cajeput oil*, and *Botany Bay kino*.

Myrtaceous, (*mur-ta'shus,*) *a.* [Lat. *myrtaceus.*] Pertaining or relating to the myrtles.

Myr'tales, *n. pl.* (*Bot.*) An alliance of plants, subclass *Epigynous Exogens*. DIAG. Polypetalous dichlamydeous flowers, axile placentæ, and embryo with little or no albumen. The alliance is divided into 10 orders, viz.: COMBRETACEÆ, ALANGIACEÆ, CHAMÆLAUCIACEÆ, HALORAGACEÆ, ONAGRACEÆ, RHIZOPHORACEÆ, BELVISIACEÆ, MELASTOMACEÆ, MYRTACEÆ, and LECYTHIDACEÆ, *q. v.*

Myrtiform, (*mêr'ti-fórm.*) *a.* [Lat. *myrtus*, myrtle, and *forma*, shape.] Resembling myrtle or myrtleberries.

Myrtle, (*mêr'tl,*) *n.* [Lat. *myrtus*; Gr. *myrtos.*] (*Bot.*) See MYRTUS.

Myr'tle Creek, in *Oregon*, a post-village and precinct of Douglas co., abt. 16 m. S. of Rosebnrg; *pop.* of precinct, abt. 400.

Myr'tle-wax, *n.* (*Bot.*) See MYRICACEÆ

Myr'tus, *n.* [Gr. *murtos.*] (*Bot.*) The typical genus of the order *Myrtaceæ*. *M. communis*, the common Myrtle, is a native of South Europe. Its dried flower-buds and unripe fruits were used as spices by the ancients, and are still so employed in Tuscany. The agreeable perfume known as *eau d'auge* is prepared by distilling myrtle-flowers with water. Among the ancients this plant was a great favorite for its elegance of form, and its fragrant, evergreen leaves. It was dedicated to Venus. The brows of bloodless victors were adorned with myrtle wreaths, and at Athens it was an emblem of civic authority.

Fig. 1905. — MYRTLE, (*Myrtus communis.*)
1, Flower of the myrtle, cut vertically; 2, Myrtle in flower.

Myself, *pron.* [*My* and *self.*] I, or me, in person: — a compound pronoun used after *I*, to express emphasis, marking emphatically the distinction between the speaker and another person; as, *I myself* will do it; used, also, as the reciprocal of *I*, in the objective case; as, I will protect *myself*; again, *I* is sometimes omitted, to give greater force to the sentence.

"*Myself* shall mount the rostrum in his favor." — *Addison.*

My'soł Isle, an island of the Eastern Archipelago, between Ceram and Papua; Lat. 2° S., Lon. 130° E. *Ext.* 50 m. long, and 15 broad.

Mysore, (*mi-sor'*,) a prov. of S. Hindostan, presidency of Madras, between Lat. 11° 30′ and 15° N., Lon. 74° 45′ and 78° 40′ E.; *area*, 30,886 sq. m. It consists of a high table-land, inclosed on the E., W., and S by the Ghauts; and varying in height from 1,900 to 4,600 feet above the sea, with a gentle slope towards the N. The climate is one of the most salubrious within the tropics. The soil is very fertile. The principal rivers are, the Zoongabnddra, Penaar, Colair, and Coleroon. *Prod.* Rice, sesamum, sugar, coffee, betel-leaf, castor-oil, cocoa-nuts, &c. *Cap.* Mysore. *Pop.* 3,500,000.

Mysore, a town, cap. of the above prov., 9 miles S.W. of Seringapatam, Lat. 12° 19′ N., Lon. 76° 42′ E. It was suffered to decay by Hyder Ali, the last independent sovereign previous to the occupation of the British, but it has since been rebuilt, and contains, besides the rajah's palace, several fine public buildings and temples. *Pop.* 50,000.

Mysorine, *n.* (*Min.*) An anhydrous carbonate of copper found at Mysore in India.

Mystagogic, Mystagogical, *a.* Relating to the interpretation of mysteries.

Mystagogue, (*mys'ta-gôg,*) *n.* [Fr., from Gr. *mystagōgos.*] One who interprets mysteries. — One who is the custodian of church relics, and exhibits them to strangers.

Mystagogy, *n.* Interpretation of mysteries. (R.)

Mysterious, *a.* [Fr. *mystérieux.*] Containing mystery; secret; obscure; hid from the understanding; not clearly understood; not revealed or explained; beyond human comprehension; partaking of the nature or character of mystery; occult; enigmatical; unintelligible.

Mysteriously, *adv.* In a mysterious manner; obscurely; enigmatically; unintelligibly.

Mysteriousness, *n.* Quality of being mysterious, or being concealed from the understanding, and, hence, causative of curiosity, awe, or wonder; obscurity; artful perplexity. — That which is occult, mysterious, or unintelligible; a mystery; an enigma.

Mysterize, *v. a.* To express enigmas.

Mystery, *n.* [Fr. *mystère*; Lat. *mystērium* = Gr. *mystērion*, the secret worship of the Deity, a secret thing, from *mēuō*, to initiate into the mysteries, from *mūō*, to close, to be shut; Sansk. *mū*, to bind, to close.] That which is closed, shut up, or concealed, so that nothing can reach or penetrate it; something above human intelligence; something awfully or occultly obscure; a profound secret; something wholly unknown; something not revealed to man; that which is above human comprehension until explained. — An enigma; anything artfully made complex or difficult. — A trade; a calling; a handicraft; any manual or mechanical occupation which implies peculiar skill or knowledge on the part of its professors, and therefore a secret to outsiders.

"Instruction, manners, *mysteries*, and trades."—*Shaks.*

—A kind of dramatic spectacle of a religious character, performed in mediæval times; — so called from its representing the early miracles of Christianity. See MORALITIES.

—*pl.* A kind of secret religious festivals, into which none were admitted except those who had undergone initiation by certain preparatory rites. The Pagan mysteries originated in Egypt, where Isis and Osiris were worshipped with secret rites at a very early period. The earliest mysteries practised by the Greeks were those of the *Cabiri*, which were celebrated at Samothrace. The mysteries of the *Curetes*, who existed as early as B. C. 1534, and of the *Corybantes*, rank next in point of antiquity. The most celebrated were the Eleusinian Mysteries (*q. v.*), which were introduced at Eleusis, in Attica, by Eumolpus the Hierophant, B. C. 1356. This festival was sacred to Ceres, and was observed with such strict secrecy that death was the penalty for intruding during the ceremonies without initiation. It was introduced at Rome in the reign of Hadrian (117–138), and ceased in 396.

Mystic, (*mis'tik,*) *n.* One who holds the doctrines of mysticism, or of the MYSTICS, *q. v.*

Mystic, Mystical, *a.* [Lat. *mysticus*; Gr. *mystikos.*] Relating to, or containing mystery or mysticism; obscure; hid; secret; occult; sacredly obscure or secret; remote from human comprehension. — Involving mysticism, or some secret meaning; implying mystery; allegorical; emblematical.

Mystic, in *Connecticut*, a small river flowing into Long Island Sound from New London co.

—A post-village of New London co., abt. 8 m. E. by S. of New London. *Pop.* (1897) 4,000.—A village of New London co., about 10 m. E.N.E. of New London. It is sometimes called HEAD OF MYSTIC.

Mystic Bridge, in *Connecticut*, a former post-village of New London co., on the E. side of Mystic river, about 63 m. E. of New Haven. Now part of Mystic.

Mystically, *adv.* In a manner or by an act implying a secret meaning.

Mysticalness, *n.* Quality of being mystical; involution of some secret meaning.

Mystics, *n. pl.* (*Eccl. Hist.*) A sect of Christians which arose in the 2d century. The system of the *M.* proceeded upon the known doctrine of the Platonic school, which was also adopted by Origen and his disciples, that the divine nature was diffused through the human soul, or that the faculty of reason was an emanation from God into the human soul, and comprehended in it the principles and elements of all truth, human and divine. They denied that men could excite this celestial flame by labor or study; but they maintained that silence, tranquillity, repose, and solitude, accompanied by such acts as might tend to exhaust and attenuate the body, were the means by which the hidden and internal word was excited to produce its latent virtues, and to instruct men in the knowledge of divine things. The *M.* increased in number in the 4th century, under the influence of a Greek fanatic, who gave himself out to be Dionysius the Areopagite, one of St. Paul's converts (*Acts* xvii. 34). A copy of the pretended works of Dionysius was sent by Balbus to Louis the Meek, A. D. 824, which kindled the flame of Mysticism in the western provinces, and filled the Latins with the most enthusiastic admiration of this new system. In the 12th cent. the *M.* took the lead in their method of expounding the Scriptures; in the 13th they were the most formidable antagonists of the Schoolmen; and toward the close of the 14th many of them resided and propagated their tenets in almost every part of Europe. In the 15th and 16th centuries they had many persons of distinguished merit in their number. In the 17th century, the radical principle of Mysticism was adopted by many descriptions of religionists without being confined to any particular denomination of Christians. Among the number of *M* may be mentioned many singular characters, especially Behmen, a shoemaker at Görlitz, in Germany; Molinos, a Spanish priest, in the 17th century; Madame Guyon, a French lady, who made a great noise in the religious world; and the celebrated Madame Bourgignon, who wrote a mystic work entitled *The Light of the World*. Fenelon also harbored similar sentiments, for which he was reprimanded by the Pope. The *M.* were called *Quietists* in the 17th century.

Mysticism, *n.* [Fr *mysticisme.*] The tenets of the MYSTICS, *q. v.*

Mystification, *n.* [Fr.] Act of rendering anything mysterious; also, something intended to mystify.

Mystificator, *n.* One who mystifies.

Mystify, *v. a.* [Eng *mystery*, and Lat. *facio*, to make.] To make or render mystical or mysterious; to involve in mystery so as to mislead; to render obscure or difficult; to perplex designedly; to play upon the credulity of.

Myth, *n.* [Gr. *mūthos.*] A fable or fabulous story; a fictitious or fanciful narrative having an analogy more or less remote to some real event; an allegory, religious or historical, involving some preternatural power or condition.

Myth'-history, *n.* Mythical history; history abounding in mythic passages.

Mythic, Mythical, *a.* [Gr. *mūthikos*, legendary, from Gr. *mūthos*, fable.] Pertaining or having relation to, or resembling a myth; of the nature of a myth; fabulous; imaginary.

Mythically, *adv.* After the manner of a myth; fabulously.

Mythographer, *n.* [From Gr. *mūthos*, fable, and *graphein*, to write.] A writer of myths; a fabulist.

Mythologic, Mythological, *a.* [Gr. *mūthologikos.*] Relating or pertaining to mythology; fabulous.

Mythologically, *adv.* In a way or manner applicable to the system of fables.

Mythologist, *n.* [Fr. *mythologiste.*] One versed in mythology; a writer on mythology; a relator or expositor of heathen fables.

Mythologize, *v. a.* To relate or elucidate heathen fables.

Mythology, (*mi-thol'o-je,*) *n.* [Fr. *mythologie*; Lat. *mythologia*; from Gr. *mythologia* — *mythos*, a fable, and *logos*, a discourse.] A term which originally signified any fabulous doctrine. In a more general sense, it now means the whole body of the traditions of a nation respecting its gods and fabulous heroes. *M.* is not confined to the stories of the gods which constitute the myths of a nation, but also to the scientific study of these delic tales and conceptions. Much attention has been given to this study, with very varied results, due to the different points of view from which the subject has been regarded. To the ancient Greeks, the first people who ventured to subject the stories of the gods to study, an intricate series of extraordinary tales presented themselves, descriptive of the lives and actions of a large number of imaginary beings, some constituting the great gods and goddesses, each ruling over some department of nature, others the minor deities, dwelling on the earth or in the waters, and having individual duties of lesser scope. The Greek philosophers came to look upon these stories as of human invention, but made the mistake of supposing that they had been invented by men with intellects like their own, and had originally an allegorical significance. Others considered mythology to be modified history, and the gods to have been originally men. In India also one school of philosophy looked upon the Vedic mythology as history in the garb of the supernatural. The Stoics of Rome adopted the other view, and sought to explain myths as allegorical explanations of the facts of physical nature. For many centuries this allegorical theory held its own in Europe, the latest and most learned work on the subject being the *Symbolik und Mythologie der alten Völker* of Creuzer (1810–12), whose effect was to overthrow the theory which it was designed to illustrate and prove. Its statements induced scholars to examine critically the assumption on which they had been based, namely, the prehistoric existence of a philosophic priesthood, learned in the laws of nature and teaching them by means of parables. No evidence could be found that such a class had ever existed in any of the Aryan nations, and the *Aglaophamus* of Loheck (1829) gave a death-blow to the allegorical theory. The overthrow of this left the way clear to the growth of a new doctrine of mythology, in which men recognized the uselessness of attempting to explain these religious fables from the standpoint of enlightened men, and the necessity, in the words of Grote, of seeing them "in the light in which they presented themselves to the Homeric or Hesiodic audiences." This course of study rendered it evident that primitive man, among whom these myths arose, was incapable of any philosophical interpretation of facts. He was intellectually a child, living in a world of fears and fancies, which to him were facts, his active imagination weaving a multitude of conceptions about the phenomena of nature, turning all things into stories, and investing all nature with life and thought similar to his own. It is this view which rules in the modern study of mythology, and to which a vitally different method of explanation from that named has arisen. The brothers Grimm, in their study of folk-tales, found evidence that myths were not the product of the thought of the leaders of the people, as had been held, but arose among the common people, and as they grew in consistency and gave origin to a definite religion, priests came to perform the rites and philosophers to study the origin of these myths. In the endeavor to explain the extraordinary and often contradictory stories told about the gods a new science arose, that of Comparative Mythology, originated by two scholars, Adelbert Kuhn and Max Müller, in which the various myths of the Aryan peoples were studied and compared, and an endeavor made to trace them back to a primitive Aryan people. In the Vedas, they claimed that we may see myths in the making. In their belief, the primitive Aryan looked upon all objects as living things, and spoke of them as of beings possessed of life and thought, the myth being at first a simile in essence, but when the meaning of the simile in time was forgotten, it was looked upon as an actual fact. This philological theory, while possessing elements of truth, was much overworked by its originators, and the belief is growing that mythology is not a matter of simple, but one of highly composite origin. That metaphorical descriptions of the sun, the dawn, the clouds, the wind, &c., in time grew into stories that held little hint of their origin, cannot well be doubted, in view of the many evidences in its favor, but later consideration has shown that this theory has been over-expanded, and a natural revulsion from the extreme views of its supporters took place. Gruppe, the greatest of these revolters, rejects the comparative method altogether, and believes that myths have been borrowed by one people from another, and not handed down from a common ancestor. *M.*, as formerly studied, was mainly confined to the myths of the Aryan peoples, but later study has shown that it is world-wide, nearly every people, even those of savage habits, having some mythological beliefs. The application of the comparative method to these various myths shows a striking degree of consonance of ideas, and goes far to sustain the most recent theory, viz., that myths are survivals from a primitive stage of culture through which all races pass, and in which conceptions of great similarity arise among widely-removed peoples. Primitive man thought in much the same way about the same things, gave the same vital interpretation to the phenomena, and everywhere spoke of objects as living, breathing, and thinking beings. The same problems presented themselves to all peoples, and were solved in much the same way: Why does the wind blow? Why does the sun rise and set? What is the origin of clouds, &c. The answers to these and similar questions, the primitive theory of nature, as we may call it, constituted the basis of mythological conceptions, yielding stories instead of scientific explanations, which stories eventually drifted so far away from their origin that the latter was lost to sight, leaving them standing alone in men's minds as the history of a celestial hierarchy under whose dominion lay the heavens, the earth, and the seas, with all that they contained. No attempt has been made here to describe the various national mythologies, the Zeus and his court of the Greeks, the similar Jupiter and his followers of the Romans, the related conceptions of the Germans, Scandinavians and Hindus, the analogous myths of the Egyptians, Babylonians, and Assyrians, and the multitudinous mythical conceptions of other tribes and peoples, the whole forming an extensive series of deific names and stories far beyond our power to consider in our necessarily brief space. The subject has been treated in numerous works, general or special in treatment, of which we may refer to the chapters on *Mythology* and *Animism* in Taylor's *Primitive Culture*, one of the best treatments of the subject; Andrew Lang's *Custom and Myth*, and *Myth, Ritual, and Religion*; Meyer's *Indogermanische Mythen*; Spencer's *Principles of Sociology*; Saussaye's *Lehrbuch der Religionsgeschichte*; Breal's *Melanges de Mythologie et de Linguistique*; Max Müller's *Oxford Essays*; Kuhn's *Die Herabkunft des Feuers*, &c.; and Gruppe's *Die Griechischen Culte und Mythen*, &c.

Mythoplasm, *n.* [Gr. *mūthos*, fable, and *plasma*, figure of speech.] A mere fabulous narration.

Mythopœic, (*-pē'ik,*) *a.* [From Gr. *mūthos*, and *poiein*, to make.] Creating myths; inceptive to mythical stories.

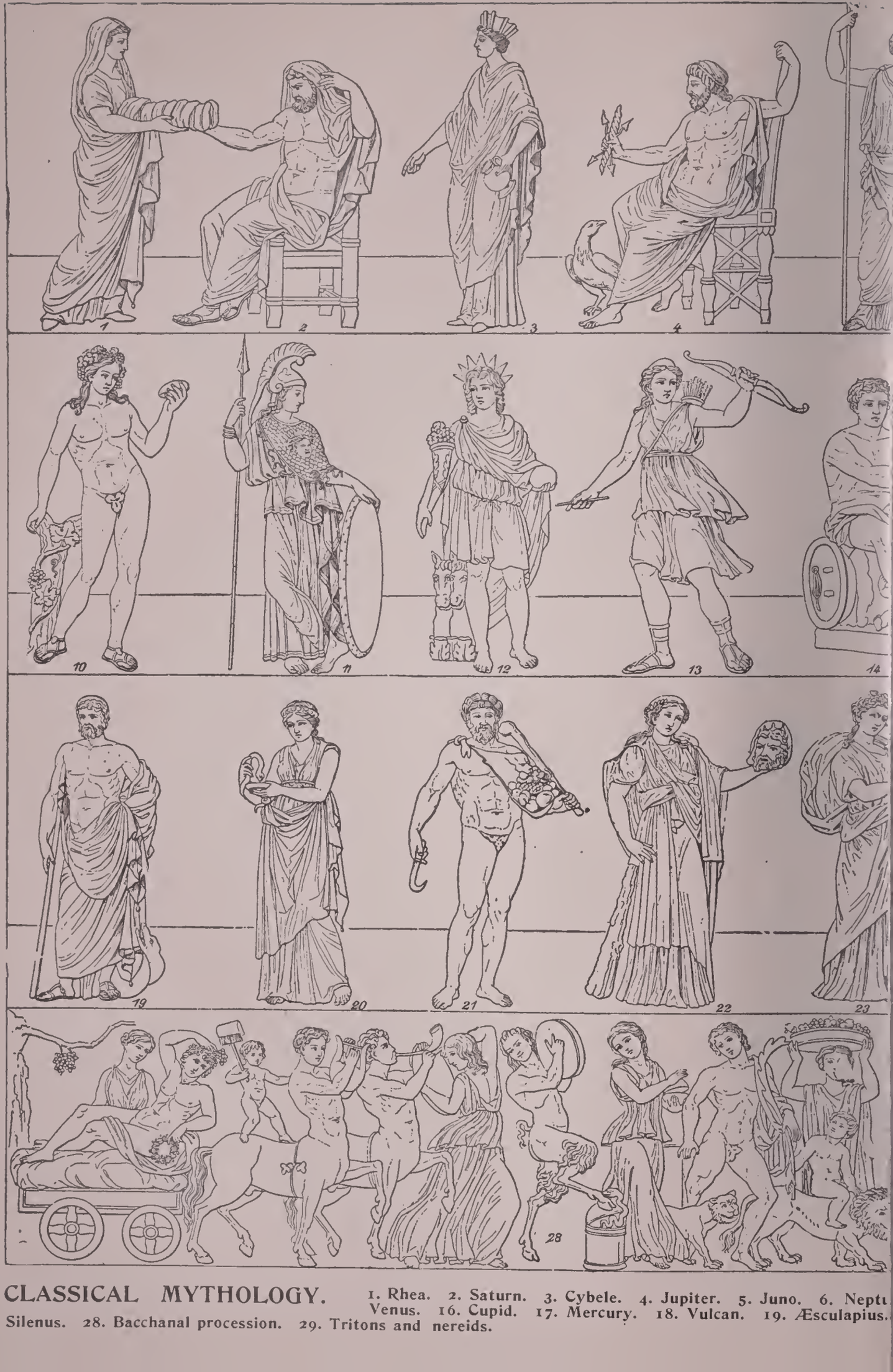
Mythopoetic, *a.* [Gr. *mūthos*, and *poiētikos*, producing.] Making myths, or fabulous histories.

Mytilene. (*Anc. Geog.*) See MITYLENE.

Mytilite, *n.* (*Pal.*) A petrified shell of the genus Mitylene.

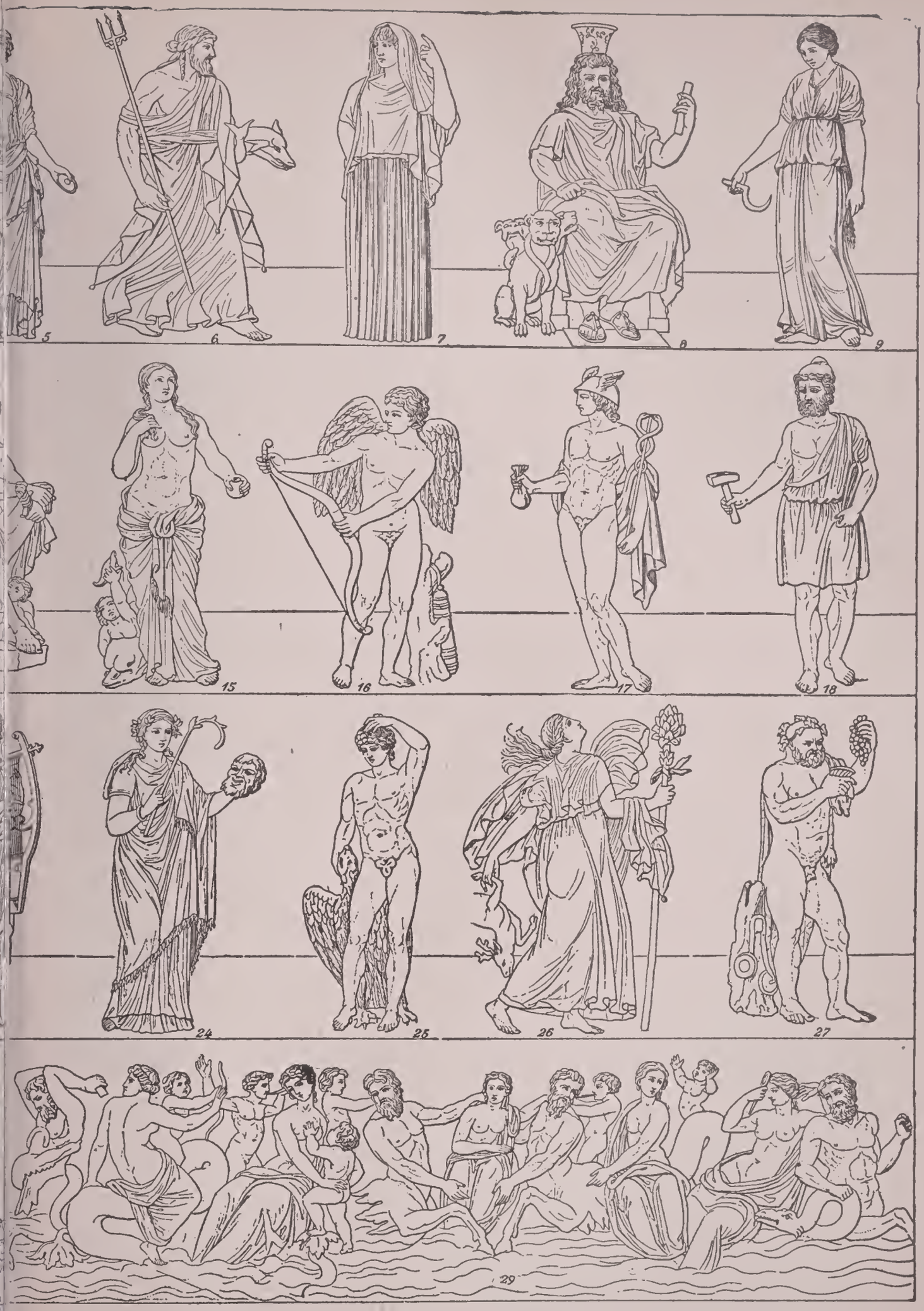
Myxine, *n.* [Gr. *myxa*, mucus.] (*Zoöl.*) A genus of Cyclostomot fishes, of the *Petromyzonidæ* or Lamprey family, remarkable for their mucous, slippery integument. *M. limosa*, common in the waters about Grand Menan, is from 6 to 8 inches long.

Mzensk, or **Mtzensk,** (*m-zensk'*,) a town of European Russia, govt. of Orel, on the Mzena, 70 m. N.E. of Orel. It has a large trade in corn and hemp, and was formerly a strong military post. *Pop.* 9,500.



CLASSICAL MYTHOLOGY.

1. Rhea. 2. Saturn. 3. Cybele. 4. Jupiter. 5. Juno. 6. Neptu
Venus. 16. Cupid. 17. Mercury. 18. Vulcan. 19. Æsculapius.
Silenus. 28. Bacchanal procession. 29. Tritons and nereids.



7. Vesta. 8. Pluto. 9. Ceres. 10. Bacchus. 11. Minerva. 12. Apollo. 13. Diana. 14. Mars. 15.
0. Hygeia. 21. Vertumnus. 22. Melpomene. 23. Erato. 24. Thalia. 25. Ganymede. 26. Bacchante. 27.

M.—SECTION II.

MACD

MACH

Maar'tens, MAARTIN, pen-name of J. M. W. VAN DER POORTEN-SCHWARTZ, was born in Holland, and educated in Germany and at Utrecht University. He is a barrister by profession, but devoted to literary work. As a writer of powerful novels he holds conspicuous place among the authors of the present day. Among his books, originally written in English, are: *The Sin of Joost Avelingh*, *An Old Maid's Love*, *A Question of Taste*, *God's Fool*, *The Greater Glory*, and *My Lady Nobody*.

Maca'co-worm, *n.* (*Zoöl.*) The maggot of a Mexican bot-fly (*Dermatobia noxialis*), which burrows under the skin of men and domestic animals.

Macaque', *n.* Any of several large Asiatic monkeys of the family *Cereopithecidæ*, especially those of the genus *Macacus*, characterized by stoutness of build, prolonged snouts, naked callosities on the buttocks, and short tails; all inhabit southeastern Asia, except one—the magot of Barbary and Gibraltar. Well known species are the bonnet-monkey (*Macacus sinicus*) of southern India, the lion-tailed monkey (*M. silenus*) of western India, and the Bengal monkey (*M. rhesus*), numerous all over India and common in menageries everywhere. Fossil remains of extinct macaques are found in pleistocene deposits in Europe, as well as in India, especially in the bone-caves of Madras.

Macart'ney Cock. (*Ornith.*) The fire-backed pheasant (*Euplocamus ignitis*), a splendid bird of the Indian archipelago. The sides of the head are covered with a bluish-purple skin. The crown has an upright crest of feathers with naked shaft, and a number of slender spreading barbs at the tip. The tail, when depressed,

Fig. 2976.—MACARTNEY COCK.

is forked; when erect, it is slightly folded, as in the common fowl. The general color is a deep black, with blue metallic reflections; the middle of the back, brilliant orange; the tail, bluish green, orange, and white. The female is smaller, and almost entirely of a rich brown color. The head is not crested, as in the male, but the hind feathers are lengthened.

MacComb', in *Mississippi*, a post-town of Pike co., 8 m. N. of Magnolia, on Ill. Cen. R.R. *Pop.* (1897) 2,540.

Macdon'ald, SIR JOHN ALEXANDER, Canadian statesman, was born on Jan. 11, 1815. He was educated at the Royal Grammar School of Kingston, and admitted to the bar in 1835. He entered the parliament of Upper Canada in 1844 as Conservative member from Kingston, representing this constituency for many years. When the Liberals came into power, in 1850, he left the cabinet. From 1854 to 1862 he was attorney-general, acting as Premier during part of that time. Upon the organization of the Dominion government, he became a member of the new privy council, and was appointed minister of justice and attorney-general. In the same year (1867) he was made a K. C. B. His executive ability and power in debate made him prominent and influential. The adoption of the Canadian protective tariff was largely due to his efforts. In 1878, he became Premier of the Dominion government, remaining, in this capacity as always, the firm supporter of the Conservative party principles. Died in 1891.

MacDon'ald, in *Pennsylvania*, a post-borough of Washington co., 18 m. W.S.W. of Pittsburg on P., C., C. & St. L. R.R.; has oil and coal interests and some manufacturing. *Pop.* (1897) 1,890.

Maceo (*mä-sā'ō*), ANTONIO, Cuban patriot, was born in Santiago de Cuba, on July 14, 1848. His parents were highly respected mulattoes, who came from Central America when its independence of the Spanish crown was declared, and when the Cuban insurrection of 1868 broke out the father advised his sons to remain neutral; but the murder of one of them by a Spanish officer so exasperated him that he burned the buildings on his plantation, and went over to the patriot ranks with his family, all of whom fought bravely in the earlier war for independence, in which Antonio reached the rank of general, and José that of colonel. Antonio was wounded twenty-three times by the Spanish troops, and his chest was pierced through. He was a farm hand when the war broke out, and joined the ranks as a private soldier, but his intrepid daring, his natural leadership among the colored people, and his strategic ability brought him to the front. After Gomez, he was the most important leader of the ten-years' war. At Demajagua, and at La Galleta, he defeated General Martinez Campos. His campaign at Baracoa was brilliant; and at San Ulpiano, in 1878, he routed the column of San Quintin, commanded by Fidel Santocildes, who met Maceo again in 1895, and was killed at Paralejo. When the peace of Zanjon was arranged in 1878, Maceo was the only general who refused to lay down his arms. He issued a protest, and continued fighting for two months. He did not sign the peace, but went to Jamaica, and then to the U. S., remaining there for some time; then went to South America, and finally to Costa Rica, always preaching the cause of Cuban independence, and conspiring against Spain. In 1890 he tried in vain to start a fresh revolution in Cuba. In 1894, as he was leaving a theater in Costa Rica, he was set upon by a party of Spaniards, one of whom he killed, after receiving a severe wound himself. He was active in preparing the rebellion of 1895, and in March of that year he landed again in Cuba, followed a few days later by Martí and Gomez. Delegates appointed by the revolutionary party held a meeting in August, 1895, and proclaimed a Cuban Republic, consisting of five states, and elected the Marquis Santa Lucia as President. Maceo was appointed general of the forces in Santiago. The blacks of this section, many of whom had fought under his lead in the former war, now flocked to his standard. His two invasions of Pinar del Rio, his campaigns in that province against picked troops led by the ablest of Spanish generals, and his actions at Paralejo, Jobito, Mal Tiempo, Sao del Indio, and Candelaria are the most brilliant feats of arms in the Cuban war. He crossed the trocha between Mariel and Majana once again to join Gomez, and pilot him in a new invasion of the western provinces. Having only his staff with him, he was surprised and surrounded by a large Spanish force, and fell fighting, on December 6, 1896, betrayed to his death—it is believed—through the venal treachery of Dr. Zertucha, his chief medical officer. General Weyler returned to Havana to celebrate with public rejoicing the death of this brilliant and magnetic Cuban general.

Maceo, José, Cuban patriot, was born in Santiago de Cuba, in 1846. Like his brother Antonio, he won distinction in the war for independence, though in a different part of the field. He signed his brother's protest of Baragua, in which he refused to join in the surrender of the patriot force. He planned to surprise and capture General Martinez Campos, but gave up the project when he learned that Antonio had opened negotiations with the Captain-General. José did not follow Antonio into exile, but remained in Santiago, and was one of the leading spirits of the new insurrection in 1879. He was taken prisoner and deported to Spain; he attempted to escape to Gibraltar, but was recaptured by the police and sent to the fortress of La Mola, at Mahon, in the Balearic Islands; he finally made his escape from there on a passing schooner, which took him to Algiers. In 1885 he went to Costa Rica, where he lived till the rebellion broke out afresh in Cuba. He immediately set out for Cuba, arriving on March 31, 1895. In a very short time he raised a large force, with which he defeated the Spaniards at Jobito in May; and in Sept. he won a signal victory over Colonel Cañellas at Sao del Indio. He was killed at La Lama del Gato, on July 5, 1896, in a fierce engagement in which the Spaniards were finally compelled to retreat.

Macfar'ren, SIR GEORGE ALEXANDER, an English composer, was born in London in 1813. His principal operas are *Robin Hood* and *The Devil's Opera*, the first of which is highly esteemed. He also composed the cantatas *Lenora*, *May-Day*, and *Christmas*, and was an indefatigable writer on musical matters until his eyesight gradually failed and he became in 1860 totally blind. Died in 1887.

Macgreg'or, JOHN, author, was born at Gravesend, England, in 1825, graduated at Cambridge in 1847. In 1866 he published *A Thousand Miles in the Rob Roy Canoe on Rivers and Lakes of Europe*. He next voyaged in a skiff, 71 lbs. in weight, through Schleswig-Holstein, Denmark, Sweden, and the Baltic, an account of which appears in his *The Rob Roy on the Baltic*. In 1869 he gave the story of his Eastern canoe-voyaging in *The Rob Roy on the Jordan*. His works have been republished in the United States. Died in 1892.

Machæ'rodus, *n.* (*Paleon.*) A extinct genus of large cats (*Felidæ*) found fossil in pleistocene deposits of South America, southern Europe, and Asia. Many species are distinguished, some as large as modern lions in size, and characterized by their enormous, curved upper canine teeth, or fangs, with peculiarities giving the name *machærodont* to this style of dentition. The best known is the great "sabre-toothed tiger" (*Machærodus neogeus*) of the cave-deposits of Brazil and the Argentine; and *M. latidens* of British caverns. It was one of the most powerful carnivores of the close of the Tertiary age.

Machine' Tools. (*Mech.*) Under this title may be classed all machines used in the making of other machines and tools. The lathe, drill, and planer are the primary machine tools, but the number and variety of others is so great that it is impossible to do more than summarize the most important forms.—*Boring-machines*, or boring-mills, are made both vertical and horizontal.

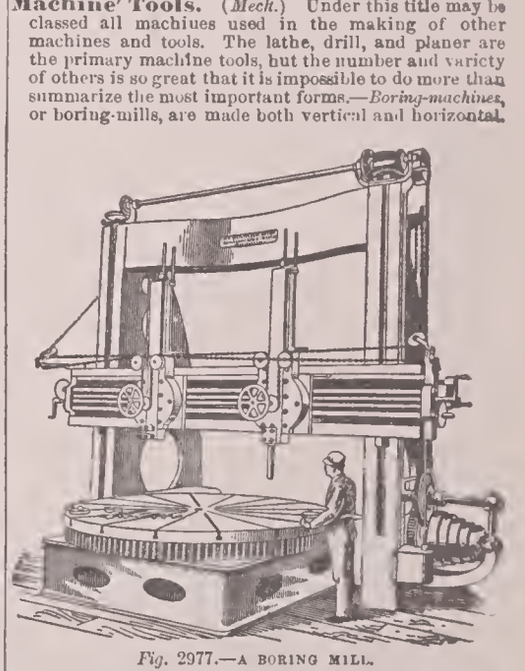


Fig. 2977.—A BORING MILL.

They have usually a large circular table in front, with housing or upright members behind, on which are mounted the slide-rests that carry the boring tools. Boring is distinguished from drilling in being properly the enlarging and accurate turning of a hole already formed, while drilling is the forming of a hole out of the solid metal by a drill or bit. Boring-mills are used to turn out and shape the interior of cylinders, and for similar work. The articles to be bored are mounted on the great circular table, which rotates them, while the cutting-tool is held to its work and fed along by the slide-rest. For the purpose of bolting the work solidly to the table large slots are provided. For very heavy castings, which cannot readily be mounted on a rotating table, horizontal boring-mills are made, which to some extent accommodate themselves to the work

handled. The mill shown in the illustration is designed for heavy work, such as steel tires, gun-rings, &c.—*Shearing machines* are built for cutting up bars and sheets of metal, up to a thickness of 2 inches, or a plate 60 inches long and an inch thick may be severed at one stroke by the larger sizes. The most common form is that shown, having a frame of exceeding solidity and strength, to brace the cutting blade, which operates scissor-fashion. They are often made in combination with punching machines, the framework and driving mechanism required being similar. When arranged entirely for punching, a punch and die, or several

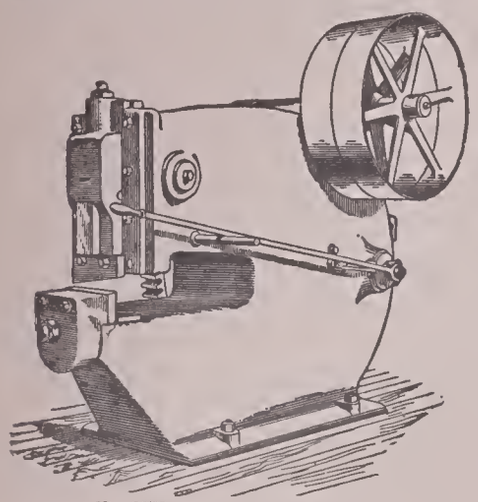


Fig. 2978.—A SHEARING MACHINE.

punches and dies, are inserted in the place of the shearing blades. Other machines are made with jaws on opposing sides, one jaw having punches, the other shears. Multiple punching machines are made with very wide jaws, taking in a whole row of punches, as for making holes in railway fish-plates, &c. The steel girders and beams used in modern steel buildings and bridges are usually fitted with holes entirely by punching. The process has been developed so that large, fairly smooth holes can be punched in the thickest beams with a single stroke. The material is slightly weaker after punching than if the holes were drilled, but the operation is so much cheaper and quicker as to more than offset the loss in strength.—*Riveting machines*, for large boilers and similar heavy work, are made in sizes up to 16½ feet overreach—that is, of a size capable of fixing a rivet in a plate 16½ feet from the edge. Both steam and hydraulic power are used to operate the compression of the rivet. The steam riveting machines make use of a principle somewhat similar to

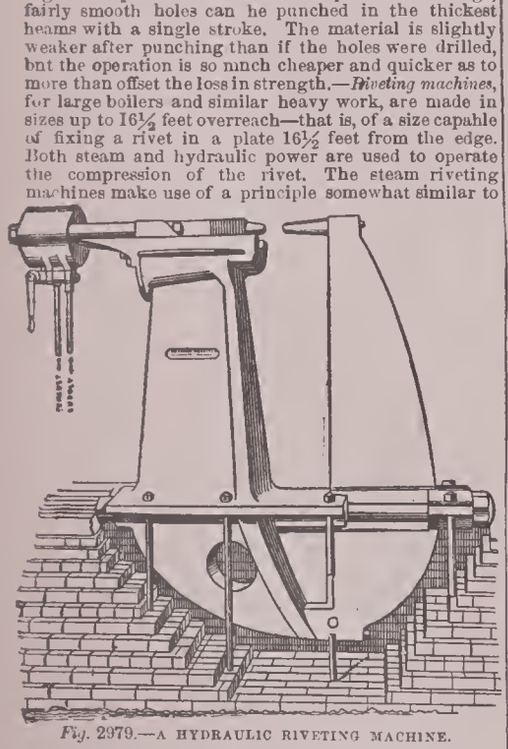


Fig. 2979.—A HYDRAULIC RIVETING MACHINE.

that of the steam hammer, a piston actuated by live steam being used to force the rivet into place, and a by-pass allowing the steam to flow in front of the piston again so that it may be withdrawn for the next stroke. The hydraulic riveters are very similar, and are sometimes made with a plate-closing cylinder, which is an advantage in heavy boiler work. Either of these machines, operating as they do by pressure, do much more satisfactory riveting than can be done by hammers, since they tend to upset or spread the rivet through its entire length, so that it may completely fill its hole.—*Straightening machines*, for shafts, beams, &c., are very useful mechanisms, since the steel or iron from the mill is apt to be more or less bent or warped. The machines have clamps for holding the beams, while powerful plungers are worked against the bulging parts that require depressing. Smaller machines for straightening wire are made with a large number of rolls, placed horizontally and perpendicularly, so that when the wire is run through the bends are all taken out.—*Bending rolls* are made for giving the proper curve to boiler-plates, ship-plates, and the like. These consist of several stout steel rollers mounted in a frame, and arranged to rotate by means of gears and pulleys. By crowding three rollers together and passing a plate between them it may be curved.—*Planing, shaping,*

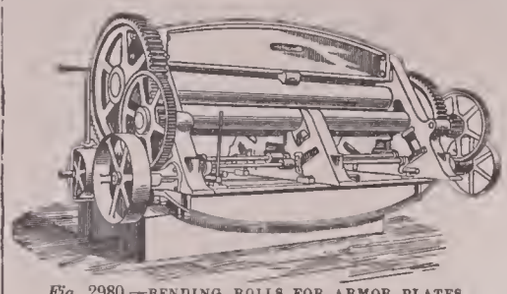


Fig. 2980.—BENDING ROLLS FOR ARMOR PLATES.

and *slotting machines* are often made in combination, some of these being of enormous size, as the one shown in the illustration. The work, which is usually some casting of great size, is laid on the floor, and the machine run up to it on the track below the floor surface. The operating tools are on a platform where the attendant stands, and may be hoisted or lowered until brought to the proper point for cutting. By such means a variety of planing and slotting operations can be performed on a heavy piece of mechanism with little actual labor. *Plate planing machines* are built with a long open frame, and a cutting-tool that travels back and forth along the whole length of the opening.—*Large lathes*, for special work, are made in many peculiar forms. One of these is the wheel-turning lathe shown, for turning the driving wheels of locomotives. The boring is done from between the wheels toward the large face-plates. Wheel-quartering attachments are provided. Turret or monitor lathes are made with a circular turret, having drills or other tools fixed on the several sides of the turret, so that any of

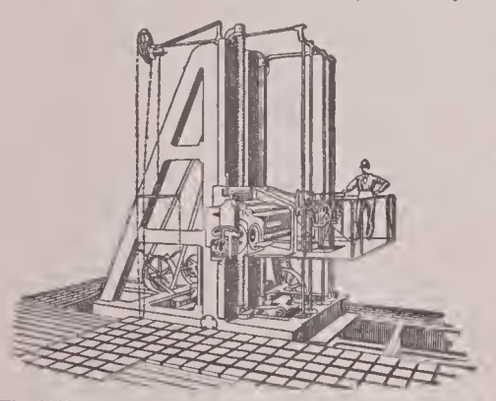


Fig. 2981.—PLANING, SHAPING, AND SLOTTING MACHINE.

the set may be brought quickly into position for use. Bolt and nut-screwing machines are made with rotating dies that do the cutting at a single operation, and allow the bolt or nut to remain stationary, so that it may be shifted and another fed in by a workman without stopping the machine. An index or pointer is provided, which, being set according to certain directions, brings to place the dies required for cutting any of the staudard threads on the bolt or nut. The dies are also adjustable, so as to compensate for wear. An automatic device supplies the oil, and wipes out the chips as they are cut.—Other important machine-tools are: axle-centering and sizing machines, gear-cutting and dividing machines, drill-presses, forcing-machines (as for crowding car-wheels on their axles), milling and key-seating machines, rifling machines, slabbing machines, testing machines, drop-presses, and stamping machines.

Mack'ay, CHARLES, author, was born in Perth, Scotland, in 1812. He was a journalist, and a most industrious writer of miscellany, best known by his spirited songs, of which *Cleon and I* and *Clear the Way!* are examples. Died in December, 1889, in London.—His son ERIC is the author of *The Love-letters of a Violinist*, &c. A sister of Charles *M.*, under the pseudonym of MARIE CORELLI, has written *A Romance of Two Worlds*, and other novels of extremely imaginative nature.

Mack'aye, JAMES STEELE, actor and critic, was born in Buffalo, N. Y., in 1842. In 1868 he went to Paris, with the intention of studying painting; but becoming acquainted with François Delsarte, and impressed with his theories of dramatic expression, he abandoned his original project, and studied with Delsarte, until the opening of the Franco-Prussian War, when he returned to the U. S., and lectured on the science of dramatic art and expression, and produced two plays in New York. From that date onward he led an active life as actor, playwright, lecturer, and expert critic of dramatic technique, until the date of his death, at Tempas, California, February 25, 1894.

Macken'zie, SIR ALEXANDER CAMPBELL, musical composer, was born in Edinburgh, August 22, 1847. He studied music at Soudershausen, Germany, and at the Royal Academy in London. After several years spent in London as music teacher and violinist, he removed to Italy, and thenceforth devoted himself chiefly to composition. His works include almost every form of composition, cantatas, orchestral works, organ studies, songs, &c., and show a thorough mastery of the branches of his art. He received the degree of Mus. Doc. from St. Andrew's University in 1886, and was appointed principal of the Royal Academy of Music, in London, in 1888. His opera *Columba* was produced at Drury Lane in 1883; then followed *The Troubadour*, *The Rose of Sharon*, and *The Lord of Life*. He was made a Knight Bachelor in 1895.

Mackenzie, SIR MORELL, M. D., laryngologist, was born at Leytonstone, England, July 7, 1837. He was the son of a physician, and was educated at London University, graduating M. D. in 1862. He studied in Paris in 1858, and in Budapest in 1859, where he learned the use of the newly introduced laryngoscope. He filled various responsible posts in the London Hospital until 1874. During 1863 he founded the Throat Hospital. He established his reputation as the leading expert in his specialty; and became popularly known all over the world by his attendance on the Crown Prince, afterwards Frederick III., of Germany. His distinguished services to the prince were rewarded by a knighthood, conferred by the Queen of England, and the Grand Cross and Star of the Hohenzollern Order of Germany. He was president of the laryngological section of the International Medical Congress at Copenhagen in 1884, and was the first president of the British Laryngological Society. His various published treatises on the subject are considered of the highest value. Died in London, February 13, 1892.

Mackenzie, in *Tennessee*, a post-town of Carroll co., 117 m. W. of Nashville, on L. & N. and N. C. & St. L. R. Rs.; has mills and cotton gins. Here are Bethel College (Cumberland Presbyterian) and McTyeire Institute (Meth.) *Pop.* (1890) 1,166.

Mack'inaw-boat, *n.* A wherry-like, double-ended boat, with flat bottom and sides; named from Mackinaw, in Michigan, and formerly much used by traders and explorers on the Great Lakes and the Missouri river, on account of its great cargo capacity.

Maclar'en, IAN (pen-name of REV. JOHN WATSON, M.A., D.D.), was born in 1850, of Scottish parents, in Essex, England, the family removing to Perthshire four years later. He graduated at Edinburgh University in 1870, and studied theology in Edinburgh and at Tübingen. He was ordained a minister of the Free Church in Logiealmond, Perthshire, in 1875; was called to Free St. Matthew's, Glasgow, in 1878; was transferred to Sefton Park Church, Liverpool, in 1880. He received the degree of Doctor of Divinity from St. Andrew's University in 1895. In 1893 he acquired distinction by his sketches of Scottish character. These, collected in the volume *Beside the Bonnie Briar Bush*, became known all over the world. Another series, *The Days of Auld Lang Syne*, appeared in 1895. Other books of later date are: *The Mind of the Master*, *Kate Carnegie, and Graham of Claverhouse*. During 1896 and 1907 Dr. Watson lectured in the U. S., and everywhere received an ovation. Died at Mount Pleasant, Iowa, May 6, 1907.

Maclean (*măk-lān'*), LETITIA ELIZABETH LANDON, poet, was born at Brompton, England, Aug. 14, 1802; died Oct. 15, 1838. She was a voluminous writer of reviews, essays, and poems, over the signature of "L. E. L." She contributed to the leading magazines and newspapers of her day, and many of her poems rank with the best poetry of the heart in recent literature.

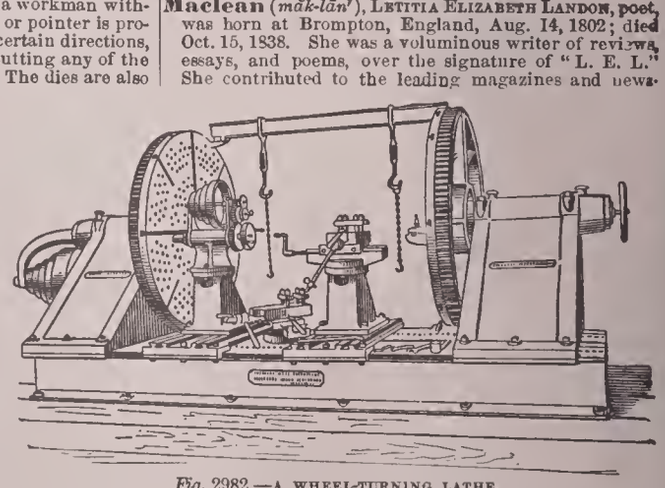


Fig. 2982.—A WHEEL-TURNING LATHE.

Maclure', WILLIAM, geologist, was born at Ayr, Scotland, in 1763; early became a citizen of the U. S., and in 1806 made an elaborate survey of the country, the results of which are embodied in his *Observations on the Geology of the United States*, published in 1817. From the latter to 1839 he filled the position of president of

the Academy of Natural Sciences, Philadelphia. Died in 1840.

Mac-Nab′, Sir Allan Napier, a Canadian officer and statesman, was born in 1798; commanded the troops that suppressed the outbreak of 1837, and later became prime minister under Lord Elgin's viceroyalty. Died in 1862.

Macomb′, Alexander, soldier, was born at Detroit in 1782; brigadier-general in command at the victory gained over the British troops at Plattsburg in 1814, and in 1835 became commander-in-chief of the American army. Died in 1841.

Macramé (*măk-rä-mā′*), *n.* An Italian lace made from twine, used as a fringe or trimming, and extensively employed in church decorations. The *M. cord* is used for crochetting borders, &c.

Macrea′dy, William Charles, tragedian, was born in London in 1793. He entered upon a stage career of more than 40 years in 1810, and became, excepting the elder Kean and G. P. Cooke, the best tragic actor of his time and country. *Coriolanus, Virginius,* and *Richard III.* were, perhaps, his best three parts. In 1848–49 he performed in the U. S. with great applause, incurring much professional jealousy, which led to a serious riot in the city of New York in the latter year. He took leave of the stage in 1851. Died in 1873.

Macro-, a prefix [derived from the Greek *makros,* long or large] which gives the idea of increased size; as *macropet′alous,* having large petals; *macropho′nous,* loud-voiced.

Madeir′a, *n.* An ornamental climbing plant (*Boussingaultia basselloides*) from the Andes, having long, fleshy, green leaves, clusters of small whitish flowers, and a tuberous root. It is a perennial. (Sometimes called *Mexican vine.*)

Made′ra, in *California,* a post-town, cap. of Fresno co., 22 m. N.W. of Fresno; has sash and door factory, planing mill. *Pop.* (1897) 1,125.

Mad′ison, in *Minnesota,* a post-village of Lac-qui-Parle co., 170 m. W. of St. Paul. *Pop.* (1895) 915.

Madison, in *Montana,* a S.W. co.; *area,* 4,250 sq. m. *Rivers,* Madison and Beaver Head. *Surface,* mountainous with extensive pine forests. *Mining,* gold, silver, lead and coal. *Cap.* Virginia City. *Pop.* (1890) 4,692.

Madison, in *Nebraska,* a N.E. central co.; *area,* 576 sq. m., intersected by Elkhorn River. *Surface,* undulating; *soil,* fertile. *Cap.* Madison. *Pop.* (1890) 13,669. —A post-village, cap. of above co., 35 m. N. of Columbus. *Pop.* (1897) 1,095.

Madison, in *South Dakota,* a city, cap. of Lake co., 60 m. E. of Woonsocket; here is a State Normal School. *Pop.* (1895) 2,006.

Mad′ler, Johann Heinrich, astronomer, was born at Berlin, Germany, on May 26, 1794, and became a teacher in the Berlin Normal School. In 1834 his map of the moon was published; and soon after he was appointed director of the Berlin observatory. In 1840 the Russian government gave him charge of the observatory at Dorpat, where he remained until 1865, when a disease of the eyes compelled him to return to Germany. His observations on Jupiter and Mars, and on double stars and variable stars, are valuable. In his work, *Die Centralsonne,* he presents the hypothesis of a central sun for the entire stellar universe. He also published other astronomical works.

Mad′rid, in *Iowa,* a post-town of Boone co., 36 m. N.W. of Des Moines; fire and potter's clay and coal in vicinity. *Pop.* (1895) 804.

Madro′ña, or **Madroñe,** *n.* (*Bot.*) A handsome evergreen tree of eastern North America (*Arbutus menziesii*), which toward the south becomes a shrub. It has white flowers and dry, yellow berries, which are eaten by the Indians. The bark is used for tanning, and the wood, which is very hard, in the manufacture of gunpowder.

Mad′stone, *n.* A stone about the size and shape of an egg, preserved by superstitious people in some parts of the U. S. under the impression that it absorbs venom and will cure hydrophobia.

Mænad (*mē′năd*), *n.* In Greek mythology, a priestess of Bacchus, whose festivals were celebrated with mad songs and dances.—Any woman under the influence of great frenzy or unnatural excitement.

Ma′fia, or **Maf′fia,** *n.* A Sicilian society, of the nature of which different accounts are given. Some represent it as a vast association, having for its aim the substitution of its own authority for that of the law, regularly organized under chiefs whom the members pledge themselves by a solemn oath to obey, under pain of assassination in case of disobedience. This seems quite an erroneous idea. The most recent and reliable information seems to indicate that the society originated at a time when the lower classes of Sicily, more or less oppressed by those above them, cast about for some means to protect themselves, and banded together in a loose sort of way to exert such influence as they could in social and political affairs, and to mitigate the harshness of the lawe. The members of the society, in protecting themselves and each other, had sometimes to resort to violent methods. As the influence of the society increased, it undertook to get work for its members by forcing landlords to employ none but members. To effect thie the usual weapon resorted to has been boycotting. It is said that Italian emigrants have founded branches of the society in New York, New Orleans, and other cities of the U. S., though there is no sufficient proof of this. In New Orleans, however, there is so strong a suspicion against the Mafia that, when the chief of police was murdered in 1890, it was charged that the murder was committed by members of the Mafia. Some of the alleged murderers were tried and acquitted. Whereupon a mob, enraged at the acquittal, broke into the jail and murdered eleven of the prisoners, including those who had been acquitted. As there was much delay in bringing to justice those who had been arrested for murdering the Italians, the government of Italy protested, and the U. S. paid a sum of money to indemnify the relatives of the victims. Much light is thrown on the nature of the society by Alongia, *La Maffia* (Turin, 1887), and Le Faure, *La Maffia* (Paris, 1892).

Mag′azine Guns. (*Ordn.*) This name is generally restricted to that class of rifled small arms carrying from five to twelve extra cartridges. These have come into very general use within the past fifteen years, and the armies of the world are now generally supplied with them. They may be divided into three classes: (1) Those in which the cartridges are carried side by side or one above the other in a mazagine just below

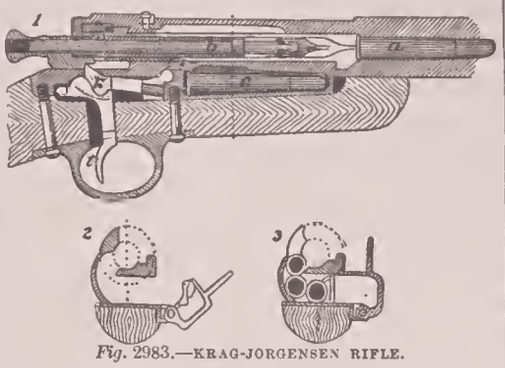


Fig. 2983.—KRAG-JORGENSEN RIFLE.

the rear of the barrel. (2) Those in which there is a tube below the bevel in which the cartridges are carried lengthwise. (3) Those in which there is a tube through the stock, in which the cartridges are pushed forward as used. The first class have proven the most popular, the tubular magaziues requiring too much time for recharging, as the cartridges had to be inserted endwise, one by one. The box form of magazine, however, admits of the insertion of a whole handful of cartridges at one operation, in only a few seconds of time. Some of the French troops and those of Portugal are the only ones among the military powers which now regularly use the tubular magazine. The United States army and the soldiers of Denmark and Norway use the Krag-Jorgensen; Great Britain, the Lee-Metford; France, the Berthier; Germany, the Mauser-Mannlicher; Russia, the Monzin; Belginm, Spain, Sweden, and Turkey, the Mauser; Austria, Mexico, Chile, and Holland, the Mannlicher; Italy, the Mann-Cancarco; and Switzerland, the Schmidt. Many of the tubular magazine guns are still in use in the armies of the nations named, as the process of re-arming proceeds slowly. Familiarly known among these tube magazines are the Spencer, Meigs, Evans, Hotchkiss, Henry, Winchester, Colt, Lebel, Kropatschek, Marlin, and Rees. A description of the American Winchester will serve to give some idea of the type: It has a tube below the barrel, in which is inserted a number of cartridges. A spring presses against the

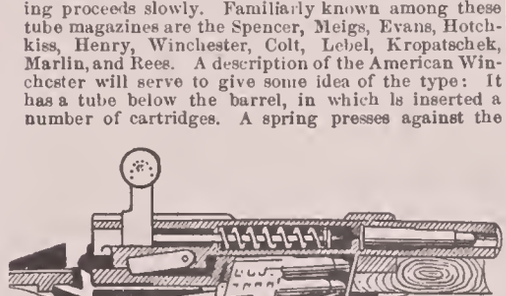


Fig. 2984.—MAUSER-MANNLICHER RIFLE.

foremost cartridge, so that, whether there is one or more in the magazine-tube, one will always be found at the rear, ready to be thrust into the barrel when the cartridge shell last exploded is ejected. A finger lever is used to throw the fresh cartridges up into the gun-barrel. The Lee and the Livermore-Russell were among the first of the box-type of magazine guns, and the others which have been named all partake more or less of their characteristics. The Lee is the weapon of the United States navy. Its magazine is detachable, and is placed on the under side, the cartridges, five in number, being laid directly on top of each other. Each magazine has a follower for pushing the cartridges to the top, so that one may always be ready for insertion in the barrel. The magazines are made detachable, so that a number of them can be carried in a cartridge-belt, and shifted to the gun as fast as the contents are exhausted. In the Livermore-Russell the magazine is fixed, and being placed on the side, at the rear of the barrel, may be filled very quickly. Cartridges may be inserted one at a time with the fingers, or a special case, called a magazine filler, can be used to supply the whole at once. In the Mauser magazine gun, the magazine is under the barrel, but it is filled from above. In the Krag-Jorgensen rifle, the cartridges, five in number, lie side by side in the magazine, with the exception of the one that is to be used first, which is pushed up toward the barrel, as shown in Fig. 2983. The Mannlicher magazine gun holds the cartridges in a clip, which is inserted into the magazine. When the cartridges are used up, the clip is dropped out.

Other well-known magazine rifles are the Freddl, in which the barrel is slipped back by each discharge, and actuates the mechanism for ejecting the cartridge shell, pushing a new cartridge into place, thus enabling the user to keep up a continuous fire as fast as he can operate the trigger; the Schulhoff, in which nine cartridges are placed circularly in a drum-like magazine; the Hebler, in partial use in the Prussian army; the Lee-Barton, Elliott, &c. The weight of the magazine guns is from 6½ to 10 pounds. The bullets weigh from 155 to 246 grains, and are of ·256 to ·315 caliber. The initial velocity attained is from 1,968 to 2,395 feet per second, the latter figure being attained by the lightest bullet, that of the Mannlicher.

Magne′sium Light. A light made by the burning of the metal magnesium in the form of a ribbon, wire, or powder. An intensely bright flame results, but so much oxide is given off that it is objected to for indoor use. Thurston's lamp has a clockwork arrangement, driving small rollers that feed a ribbon to the flame. Cutters are used to get rid of the ashes periodically. The Larkins lamp uses a powder, which is fed to the light somewhat as the sand flows from an hour-glass. Sand is mixed with the magnesium for dilution, and to assist its flow. The powder is vaporized (*i. e.,* turns into a gas), and is lighted in a metallic tube, from which the flame ascends.

Magno′lia, in *South Carolina,* a post-town of Sumter co. *Pop.* (1897) 520.

Mahaf′fey, in *Pennsylvania,* a post-borough of Clearfield co. *Pop.* (1897) 840.

Mahaf′fy, John Pentland, was born at Chafonnaire, Switzerland, Feb. 26, 1839. He was educated in Germany and at Trinity College, Dublin, graduating in 1859. He won a fellowship there, and was tutor and lecturer, and, in 1869, professor of Ancient History; in 1873–74 he was Donnellan lecturer on Theology. He is a disciple of Kant, and has published *Kant's Critical Philosophy for English Readers.* He has published several works on classic subjects, besides contributing articles on various subjects to current magazines.

Mahan′, Alfred Thayer, U. S. N., was born at West Point, N. Y., Sept. 27, 1840, son of Dennis H. *M.,* who was at that time professor of Civil Engineering at the U. S. Military Academy; graduated at Annapolis (1859); served in the South Atlantic and Gulf squadrons during the Civil War; head of the department of gunnery in the U. S. Naval Academy (1877–80); chief of the U. S. Naval War College at Newport, R. I. (1886–89 and 1890–93); afterward commanded the cruiser *Chicago,* this vessel being assigned to the European station on May 11, 1893. Capt. *M.* is the author of several notable works, chief of which are *The Influence of Sea Power upon History, 1660–1783* (1890), and *The Influence of Sea Power upon the French Revolution and Empire* (1894), which gave him an international reputation and won for him many honors, including the degrees of LL. D. from Cambridge and D. C. L. from Oxford, his reference to British prowess on the sea being particularly appreciated by the English and their admirers. His *Life of Admiral Farragut* appeared in 1892, and his *Life of Nelson* (2 vols.) in 1897. Retired, at his own request, Nov. 17, 1896.

Mahat′ma, *n.* In Brahmanism, the religion of the Hindus, Brahmanical pantheism is not to be understood by every one. It is the special property of the spiritually enlightened, who are called adepts. Among the adepts there are various degrees, some possessing more spiritual enlightenment than others. An adept of the highest order, one who has reached or is supposed to have reached the highest possible point of spiritual enlightenment, is called a mahatma, meaning "the great-souled one," used as a title of respect.

Mahdi (*mä′-dee*) **and His Kingdom.** The Shiites, or heterodox Persian sect of Mohammedans, had a long succession of leaders, each of whom bore the title of Imaum (high priest). This title is also borne by the Sultan of Turkey. The twelfth and last Imaum of the Shiites, Mohammed by name, after being in captivity, entered a cave at the age of 12 and was never seen again. The founder of Mohammedanism is said to have promised, though not in the Koran, that, to complete his work in filling the world as full of righteousness as it is of iniquity, there should appear on earth a restorer of all things, a Mahdi, "the well directed one." The idea is similar to that of the Jewish and Christian Messiah. Popular superstition seized on this idea in connection with the Imaum who disappeared in the cave, and maintained that he would return as Mahdi to destroy or convert to Islâm all mankind and to put all things right. Then will follow the resurrection and the final judgment. Many pretenders have come forward from time to time and claimed to be the expected Mahdi. The last one was Mohammed Ahmed who was born in Dongola, Egypt, toward 1843. He was for a time in the Egyptian civil service, but, disagreeing with the governor, became a trader and slave-dealer. About the age of 40 he set up in business as the Mahdi, and found so many devoted followers that the Eastern Soudan, at his summons, revolted. He defeated four expeditions sent against him by the Egyptians, captured El Obeid, the chief city of Kordofan, and made it his capital in 1883. On Nov. 5 in that year he annihilated the Anglo-Indian army commanded by Hicks Pasha, composed of 10,000 soldiers, with 40 European

officers. Only two persons escaped death. In 1885 he took Khartoum by treachery, and Gen. Gordon, whom the British government had sent to pacify the Soudan, was killed. This was the last of the Mahdi's exploits. He was attacked by the smallpox, of which disease he died at Omdurman on June 22, 1885. The Khalifa Abdulla succeeded him, but never wielded his power.

Mah'mal, *n.* [Arab.] The richly turnished litter sent annually on camel-back to Mecca, as a symbol of Turkish royalty; a vicarious means of making the royal pilgrimage.

Mah'moud Pasha', an eminent Turkish statesman, was born in the early part of the present century. After holding the high positions of governor-general of Syria, and of Tripoli and Barbary, he became minister of foreign affairs In 1857, and, two years later, minister of marine, where he introduced most important reforms. In Sept., 1861, he succeeded Ali Pasha as Grand Vizier of the empire, a post that he held until 1872, showing high intelligence and great administrative ability.

Mahone', WILLIAM, soldier and politician, was born in Virginia, Dec. 1, 1826. He was a civil engineer; joined the Confederate army in 1861, and rose to the rank of major-general. After the war, resumed his business, and became president of the Norfolk & Tennessee R. R.; was defeated as candidate for governor of Virginia (1878); then led a "Readjuster party," which, in 1880, elected him to the U. S. Senate, where he joined the leaders of the Republican party on the issue of protection. Died Oct. 8, 1895.

Maho'ney, FRANCIS (pseudonym, FATHER PROUT), was born in Cork, Ireland, in 1805. He was educated at a Jesuit college in Paris, and in Rome, where he was ordained to the priesthood; but he soon took up the profession of journalism, as editor and newspaper correspondent, contributing also to current magazines. Collections of his articles have been published under the titles, *Reliques of Father Prout*, and *Facts and Figures from Italy*. His poems, *The Bells of Shandon* and *The Lady of Lee*, are known the world over. He retired to a monastery in 1846, where he remained until his death, on May 19, 1866.

Mahrat'tas, *n. pl.* [E. Ind.] When the Europeans appeared in force in India, they found their most formidable opponents in the Mahrattas (*Maráthás* or *Marhatas*). These people were low-caste Hindus, with an hereditary Brahmin chief, having the title of *Peshwá*. They had, in fact, absorbed the Mohammedan Mogul empire, the great Mogul being then tool. After his fall, four new Mohammedan kingdoms arose and became prominent in the 18th century. These were the kingdom of the Nawab Wazir of Oudh, that of the Nizam of Hyderabad in the Deccan, that of the Nawab of the Carnatic, and that of Hyder Ali and Tippoo at Seringapatam in Mysore. Although the Mahrattas never overcame these four Mohammedan states, they were the principal power in India in the middle of the 18th century. Tho battle of Plassy, won by Clive in 1757, giving to England the dominion of Bengal and Behar, the most populous provinces in the whole country, was the first severe blow the Mahrattas received. This was followed by a frightful defeat at the hands of Ahmed Shah Duráni, the ruler of Afghanistan, on the field of Panipat, in January, 1761, when the Mahrattas lost 50,000 men and all their chiefs except Holkar. Still, they showed wonderful vitality. It required long and bloody contests before they were subdued by the British. In one of these contests General Wellesley, afterward the Duke of Wellington, fought the most brilliant battle in his military career. He engaged the Mahrattas at Assaye, an Indian village in the extreme northeast of tho Nizam's dominions. His opponents had from 40,000 to 50,000 men, with 100 guns. Wellesley had but little more than 7,000 men. Ot these his loss was 2,500 men, yet he gained a complete victory, capturing all the Mahratta guns. The Mahratta power was completely broken. The origin, geographical and ethnological, of the Mahrattas and their early history are quite unknown. Their physical appearance, however, customs, religion, and language, seem to indicate that they were part of one or several Turanian races who made irruptions into India in the 7th century, A. D., before the rise of Mohammedanism. The dignity of Peshwá lasted until 1818, when it was abolished and his territories occupied by the British. Gwalior, Indore, and Baroda are still called Mahratta states, but in them only the prince and his relatives are Mahrattas, the people being of the other stock.

Mah'sir, or **Mah'seer,** *n.* (*Ichth.*) The principal game-fish of India, a barbel (*Barbus mosal*), characterized by its great scales, and often exceeding 100 pounds in weight. It lives in the hill streams of northern India, and is highly valued for its gamey qualities and delicate flesh.

Mai'gre or **Mea'gre,** *n.* (*Ichth.*) A large sciænoid food fish (*Sciæna aquila*) of the eastern Atlantic and Indian Oceans, noted for its peculiar grunting noises. It is the object of a regular net-fishery in the Mediterranean, where it has been a favorite delicacy since classical times. The Romans not only esteemed it highly for the table, but connected it with many curious superstitions.

Mail'ing-machine', *n.* A mechanism for placing addresses on newspapers or periodicals, for mailing. The most common form is the Dick, in which a strip of paper is provided, on which names and addresses are printed at intervals of about half an inch. This strip is fed over a paste-roller which covers the back with moist paste. Each address is then cut off with a broad, hinged blade, which presses down the piece of paper containing the address by the same movement with which it is cut off. A direct-printing machine is also used, which carries the type on galleys. Recent patents have been obtained for other quite complicated machines to be attached to web printing-presses, by which newspapers may be folded, wrapped and addressed.

Maize, *n.* See INDIAN CORN.

Makaroff, STEPHAN OSIPORRICH, a Russian admiral, born in 1848; commanded a gunboat in the 1877 war with Turkey and made gallant attacks on Turkish ships. Subsequently he commanded the Mediterranean, the Black Sea and the Oriental squadrons, and was made commander of the Baltic fleet in 1896. The powerful ice-breaker, *Yermak*, was designed by him. In 1904 he took command of the Port Arthur fleet, and met a tragic end when his flag-ship, the *Petropavlovsk*, struck a Japanese mine and sank with nearly all on board. His death occurred April 13, 1904.

Makart', HANS, an Austrian painter, was born in Salzburg, in 1840; his pictures were noted for their brilliant and harmonious coloring. Among his many paintings may be named *Catharine Cornaro*, *The Chase of Diana*, *Entry of Charles V. into Antwerp*, *The Plague in Florence*, *Modern Amorettes*, *Abundance*, *Cleopatra*, and *Judith*, his last work. In flesh painting, in the treatment of stuffs, in chiaroscuro and brilliant effect of color he produced remarkable results. Died at Vienna Oct. 3, 1884.

Malay'an Races and Lan'guages. The races comprehended under the term Malays live on the islands of the Malay Archipelago—the largest island group of the inhabited earth—from Further India to the west coast of New Guinea. We meet with them over on the Nicobar Islands under Further Indian, especially Burmese, influences, while a branch of them peopled Madagascar. The Malayan and Polynesian races belong to one stock. Among the more important bodily characteristics of both races may be mentioned the predominance of short skulls, often exaggerated by artificial deformation; low but generally well-shaped foreheads, often causing the facial angle to be equal to that of Europeans; noses oftener snub than curved; eyes small, lively, usually placed horizontally, with remarkably wide opeuings and eloquent expression; cheek bones projecting forward rather than sideways; and, lastly, mouths well shaped, in spite of thick lips. The family of languages spokeu by the Malayan or Malaysian races extends throughout the island-area from Madagascar to Easter Island and from Hawaii to New Zealand. All of these languages are characterized by great phonetic and grammatical simplicity. They have been divided by ethnographers into various classes: (1) The Malay or Malayan, or Malaysiau proper, spoken in Malacca and the adjacent islands, called Malaysia. (2) Sub-Malayan West, including Java and other islands. (3) Sub-Malayan East, comprising Celebes, Borneo, and other islands. (4) Northeast branch, covering the Philippines, Formosa, and other places. (5) Southwest branch, including Madagascar, Hora, and others. (6) The Malayo-Polynesian, spoken by the brown peoples of the Indian and Pacific Oceans, excluding Australians and Melanesians. (7) The Malayo-Papuan, confined principally to New Guinea.

Mal'den, in *Missouri*, a post-village of Dunklin co., 27 m. W. of New Madrid. *Pop.* (1897) 1,122.

Mal'heur, in *Oregon*, a S.E. co.; *area*, 9,936 sq. m.; intersected by the Owyhee and the Malheur rivers. *Surface*, rolling; *soil*, black, sandy loam; timber scarce. *Cap.* Vale. *Pop.* (1897) 3,000.

Ma'likite, *n.* A follower of that one of the four great sects of Sunni Moslems which was named from its founder—MALIK, the Imam.

Mal'lock, WILLIAM HURRELL, writer, was born in Devonshire, England, in 1849; was educated at Oxford, and gained the Newdegate prize for an English poem, in 1871. He is the author of *Every Man His Own Poet*, and established his reputation as a satirist by his *New Republic*, following which came *The New Paul and Virginia, or Positivism on an Island*, and *Is Life Worth Living?*—the latter a work that has attracted wide attention.

Mal'ta Bend, in *Missouri*, a post-town in Saline co., 30 m. E. of Lexington. *Pop.* ((1897) 494.

Maltine (*măl-tēn'*), *n.* The fermentative principle of malt; also the name of several medicinal preparations from malt.

Mal'vern, *Arkansas*, a post-town, cap. of Hot Springs co., 43 m. W.S.W. of Little Rock.; has mills and cotton gins. *Pop.* (1897) 1,624.

Malvern, in *Iowa*, a post-village of Mills co., 27 m. S.E. of Omaha, Neb. *Pop.* (1895) 1,091.

Malvern, in *Pennsylvania*, a post-borough of Chester co., 21 m. W. of Philadelphia, on Penna. R. R. *Pop.* (1897) 765.

Manasquan', in *New Jersey*, a post-town of Monmouth co., 12½ m. S. of Long Branch, ½ m. from the Atlantic Ocean; a summer resort. *Pop.* (1895) 1,427.

Manas'sa, in *Colorado*, a post-village of Conejos co. *Pop.* (1890) 642.

Manatee', in *Florida*, a S.W. co.; *area*, 1,240 sq. m. *Surface*, low and level; *soil*, adapted to pasturage; vegetables raised for northern markets; cattle raised in large quantities. *Cap.* Braidentown. *Pop.* (1897) 3,875.

Mancelo'na, in *Michigan*, a post-village of Antrim co., 13 m. S.E. of Bellaire; has a blast furnace and various factories. *Pop.* (1894) 1,230.

Man'chester, in *Oklahoma*, a village of Grant co. Its P. O. is CAMERON, KANSAS. *Pop.* (1897) 105.

Manchu'ria, *n.* (*Geog.*) The northeasternmost division of the Chinese Empire, which consists of China proper and *M.* All China proper is, in fact, a subject territory of *M.* and has been so since 1644, when a Manchu chief conquered China. From him is descended the present or Ch'ing dynasty. The province of *M.* has an area of 280,000 sq. m., with a population of about 21,000,000, of whom the Manchus do not amount to more than a million, the remainder being Chinese. Yet tho Manchus are the aristocracy of tho country, furnishing its magistrates and soldiers, its police and its hunters. Tho Manchu language is a branch of the Mongol system, but is practically dead, Chinese being the only language now taught in the schools. Manchuria was the scene of some severe fighting in the war between China and Japan (1894). At the extremity of its southern province, Shin-King, is the naval station of Port Arthur, which tho Japanese took on Nov. 22, 1894. Through the intervention of Russia, France and Germany, Port Arthur was restored to China on the conclusion of peace, though she had to pay an increased war indemnity of $80,000,000, guaranteed by Russia. The lease of Port Arthur to Russia by China, and tho apparent intention of Russia to take possession of *M.* after the Boxer outbreak, aroused the indignation of Japan, and the war of 1904-05 followed, of which *M.* was at once the cause and the seat. It ended in the complete defeat of Russia and the restoration of *M.* to China, but with Japanese control of Port Arthur and of the Manchurian Railway built by Russia and extending from Harbin to Port Arthur, and a hold upon the country which threatened to make Japan eventually the dominant power in that province of the Chinese Empire.

Man'dalay, *n.* (*Geog.*) This city, which stands 2 miles from the left bank of the Irawaddi, and 410 miles by rail from Rangoon, has been the capital of Upper Burma since the English came into possession of the country in 1886. In the center of the city, which forms a square, each side a mile long, and is surrounded by a brick wall 26 feet high and a moat, are the royal palaces, constructed principally of teak-wood. These buildings possess little interest or beauty. A more famous structure is the Aracan Pagoda, containing a brazen image of Buddha, 12 feet high, which is an object of veneration to thousands of pilgrims. Outside the walls of the city was, until the British conquest, a dirty, crowded native town, which has been cleared away to make room for a British cantonment. The native population now lives outside tho fortified city. The town has suffered much from fire and inundation in 1878, in 1886, and again in March, 1892. The population in 1897 was estimated at 201,200.

Man'dan, in *North Lakota*, a city, cap. of Morton co., on Nor. Pac. R. R., 5 m. from Bismarck; has car repair shops, sash and wood-working factory, and mills. *Pop.* 1,618.

Man'gabey, *n.* (*Zoöl.*) A cercopithecid monkey of the genus *Cercocebus*. The mangabeys, or white-eyelid monkeys, are closely allied to the macaques and guenons, and inhabit West Africa. There are four species, of which the best known is the black *Cercocebus fuliginosus*.

Man'gle, *n.* See LAUNDRY MACHINERY.

Man'gum, a city of Asia Minor, in the vilayet of Aidin, on the S. bank of the Hermus, about 20 m. N.E. of Smyrna. Its commerce is very active, the principal export being cotton. *Pop.* estimated (1897) 30,000 to 60,000, chiefly Turks.

Man'hole, *n.* A opening into a cesspool, drain, boiler, tank, or a recess in an electric subway, or a chamber or compartment of an iron ship, designed to allow the entrance of a man for examination, cleansing, and repairs. In boilers and tanks it is commonly secured by a bridge and bolt, so as to render it water, steam or air-tight, as the case may be. In drains, the cover is a lid with a stink trap joint.

Man'icure, *n* [Lat. *manus*, hand; *cura*, care.] The professional care or treatment of the hands, especially the nails.—One who makes a business of caring for or treating the hands and nails.

—*v.* To attend to the hands and nails, treating the blemishes of the hands and trimming and polishing the nails.

Manil'la, in *Iowa*, a post-town of Crawford co., 60 m. N.N.E. of Council Bluffs. *Pop.* (1895) 636.

Manistique, in *Michigan*, a post-village, cap. of Schoolcraft co., on Lake Michigan, 75 m. E. of Escanaba; has extensive lumber manufactures, and is a summer and sportsmen's resort. *Pop.* (1894) 2,083.

Manito'ba, *n.* (*Geog.*) The central province of the Dominion of Canada, formerly known as the Red River Country (*q. v.*). It has an area of 116,021 sq. m. (nearly 74,000,000 acres), almost equal to that of the United Kingdom. It had, in 1897, a population of about 200,000, the larger portion of which is from Great Britain and other portions of Canada. A large part of its area consists in an alluvial plain drained by the Red River of the North and its large western tributaries, the Assiniboine and Souris. The soil is a rich, deep, argillaceous mould, especially adapted to wheat-growing, and yields the best quality of that grain, Manitoba "No. 1 hard" wheat taking the first place in the markets of the world. In 1895 tho wheat crop was over 31,000,000 bushels, besides nearly 30,000,000 bushels of coarser grains, raised by about 25,000 farmers. All sorts of root crops do extremely well there, but Indian corn is too uncertain to repay large investment. An extensive business is also done in raising horses and beef cattle, of which some are exported to eastern Canada and England. Dairying is advancing, about 1,500,000 lbs. of dairy butter and 1,000,000 lbs. of cheese being now sold annually. Forests skirt the eastern edge of the province and all the northern part about the

Henry Edward Manning

1808–1892

shores of the three great lakes, Winnipeg, Manitoba, and Winnipegosis, which lie mainly within the borders of the province, and yield great quantities of fish, the catching and marketing of which is already an important industry, great quantities of frozen white-fish being sent to St. Paul and other distant points each winter. In this rocky and inclement northern part of *M.* have been settled several colonies of northern Scandinavians and Icelanders. Mining is also a source of income along the eastern border of the province, where gold and silver occur in the rocks bordering the Lake of the Woods. The capital of *M.*, which has a full provincial government, is Winnipeg, a city of 40,000 inhabitants that has grown up on the site of the old Red river settlements or Fort Garry—a post of the Hudson's Bay Company until 1870, when that company relinquished its charter control of the Red River valley to the Dominion of Canada. This new possession was at once explored and advertised, and attracted adventurers and pioneer agriculturists. A route by steamboat and stage was opened to St. Paul, and Winnipeg was born and grew rapidly. Meanwhile efforts were making to construct railroads eastward and southward, and by 1880 the young city was connected with the steamship lines on Lake Superior and with St. Paul, Minn., by railways. It then became the headquarters for the construction of the Canadian Pacific Railway Company's transcontinental line and the distributing point for the rapidly developing province. It thus easily became the emporium and center of the whole Canadian Northwest, and is likely to remain so. Winnipeg is a well-built, handsome prairie city, having all the appurtenances of a modern town and social advantages of a very high order. It has numerous churches and higher schools of learning of all denominations, outside of the admirable public school system with which the whole province is furnished. In this direction lay a local question of such serious import as nearly, at one time, threatened political disruption. The Roman Catholics of Manitoba had, until 1890, separate schools, but in that year denominational schools were abolished by the legislative authority of the province. The Canadian Government interfered to protect the privileges of the Roman Catholic minority, and ultimately, in 1896, a compromise was arrived at. No less than ten railways radiate from Winnipeg to all the fertile southern half of the province, and one has progressed northward some distance, with the ultimate intention of reaching Hudson Bay and establishing thence a line of steamship communication with Europe. Other flourishing towns in Manitoba are Portage la Prairie (pop. 3,500), Brandon (pop. 6,000), Minnedosa, Virden, Elkhorn, and Moosomin, in the western part; Estevan, Oxbow, Lander, and Deloraine, in the southwest; Glenboro, Pilot Mound, Rosenfeld, and Gretna, in the south; and Selkirk and Stone Wall, northward.

Man'itou Springs, in *Colorado*, a post-town of El Paso co., 5 m. N.W. of Colorado Springs. Here are soda and iron springs, with beautiful mountain scenery; a summer and health resort. *Pop.* (1897) 2,150.

Manka'to, in *Kansas*, a post-village, cap. of Jewell co., about 100 m. N.W. of Junction City. *Pop.* (1897) 865.

Man'ning, Henry Edward, an eminent English Roman Catholic prelate and theologian, was born in Herts in 1808; graduated at Oxford, and took orders in the Anglican Church, from which he withdrew in 1851. In 1865 he was appointed by the Pope Archbishop of Westminster in succession to Cardinal Wiseman. He was author of numerous works, the principal of them being: *The Temporal Sovereignty of the Popes* (1860); *The Temporal Mission of the Holy Ghost, or Reason and Revelation* (1865); *The Reunion of Christendom* (1867); *The Vatican Council and Its Definitions* (1870); and *The Fourfold Sovereignty of God* (1871). Died June 14, 1892.

Man'ning, in *Iowa*, a post-town of Carroll co., 17 m. S.W. of Carroll; trade center of a grain and live stock district. Pop. (1895) 1,144.

Man'or, in *Texas*, a post-town of Travis co., 12 m. N.E. of Austin. *Pop.* (1897) 510.

Manor Station, in *Pennsylvania*, a post-village of Westmoreland co., 7 m. W. of Greensburg, on Penna. R.R. Immense quantities of gas-coal of fine quality are shipped from this point, from the extensive mines that exist in the vicinity. *Pop.* (1897) 650.

Mans'field, Richard, actor, was born on the island of Heligoland, May 24, 1857; spent his early youth in the United States. He is the son of Mme. Mansfield-Rudersdorff, the singer; he studied for the East Indian civil service, but abandoned that idea, and went into business, and later attempted literary and artistic work, without notable success. During 1877 he travelled through the English provinces, playing small parts in the Gilbert and Sullivan comic operas; and also appeared in London in comic opera, comedy, and tragedy. He made his first appearance in the United States at the Standard Theater in New York, as *Dromeo* in the opera *Les Monteaux Noirs*, and was favorably received. His first decided success was in *A Parisian Romance* (1883). In 1886 he began his career as a star, and has enjoyed uninterrupted success. His interpretation of *Dr. Jekyll and Mr. Hyde* was the first ever given on the stage, and remains the best, in the estimation of the public. Other plays that have become associated with his name are *Beau Brummell* and *The Scarlet Letter*. Several other strong plays are included in his repertoire. During the season of 1896–97 *M.* made a successful tour in the United States.

Mansfield, in *Illinois*, a post-village of Piatt co., 32 m. S.E. of Bloomington. *Pop.* (1897) 640.

Mansfield, in *Texas*, a post-town of Tarrant co., 19 m. S.E. of Fort Worth. *Pop.* (1897) 600.

Man'son, in *Iowa*, a post-town of Calhoun co., 18 m. W. of Fort Dodge, on C., M. & St. P. and C. & N. W. R. R. *Pop.* (1895) 1,214.

Mantenffel (*mahn'-toi-fel*), Baron Karl Rochus Edwin von, an eminent German general, was born in Dresden, 1809. He entered the Prussian army in 1827, and in 1861 became adjutant-general, with the rank of lieutenant-general. In Jan., 1864, he was sent by his government to Vienna, there to concert measures for the combined military action of Austria and Prussia against Denmark. He was afterward made governor of Schleswig, and given the command of the Prussian troops in Holstein. The Austro-Prussian war of 1866 brought him again into active service. He occupied Altona and Hanover, and, taking command of the Army of the Main, fought a series of successful battles. He was nominated general-in-chief of the first army corps, which, in the war with France (1870), came under fire first at Courcelles and Noisseville, defeated the French Army of the North organized under Gen. Bourbaki at Amiens; was transferred with a corps to the South in 1871, and commanded the army of occupation in France, 1871–73; and was appointed governor of Alsace-Lorraine in 1879. Died in 1885.

Mantis'ia, *n.* (*Bot.*) A genus of plants, order *Zingiberaceæ*. One species (Fig. 2985) has long been grown in hot-houses in this country, under the name *dancing-girl*, from the singularity and beauty of its flowers, which present some resemblance to a ballet-dancer.

Fig. 2985.—MANTISIA SALTATORIA.

Man'ton, in *Michigan*, a post-village of Wexford co., 12 m. N. of Cadillac; has several saw mills, and a wood-turning and last factory. *Pop.* (1894) 809.

Manu (*mah'nu*), *n.* [From the Sanskrit *man*, to think; literally, *the thinking being.*] The reputed author of the most renowned law-book of the ancient Hindoos; and likewise of an ancient Kalpa work on Vedic rites. Hindoo mythology knows, however, a succession of Manus, each of whom created, in his own period, the world anew after it had perished at the end of a mundane age. The word *M.*—kindred with our "man"—belongs therefore, properly speaking, to ancient Hindoo mythology, and it was connected with the renowned law-book in order to impart to the latter the sanctity on which its authority rests. This work is not merely a law-book in the European sense of the word—it is likewise a system of cosmogeny; it propounds metaphysical doctrines, teaches the art of government, and, among other things, treats of the state of the soul after death.

Man'ual Train'ing. (*Educ.*) The practical education of the hands in the use of implements, considered as a part of general culture. It does not include the work of scientific laboratories, or the teaching of trades. Before 1876 nearly all training of the hand had been special, leading to professions or craftmanship, instead of being general and simply educative, although there were schools in Russia and Finland where the idea was beginning to develop. Victor Della Vos, the director of the Imperial Technical School for Government Engineers, at St. Petersburg, had thought out a plan for the systematic teaching of the elements of manual work, and in 1876 the Russian exhibit at the American Centennial attracted the attention of many educators, and was the beginning of a general movement for educative manual training in the schools. In 1877 the work was begun in the Massachusetts Institute of Technology, and at Washington University, St. Louis. Special and secondary schools were soon asked for, and the St. Louis Manual Training School was opened in 1880. This school met with such success that others similar to it were very soon organized in Chicago, Baltimore, Toledo, and Philadelphia. Since 1885, manual training has become a part of the courses of study in all agricultural and mechanical colleges, and in most high schools. The special manual training schools have increased, also; and among the most important of the newer institutions are those of Louisville, Providence, Denver, the Drexel Institute of Philadelphia, the Armour Institute of Chicago, and the Teachers' College of New York. The Swedish *sloyd*, or dexterity system, was introduced into the United States after manual training was already firmly established, and its later and broader developments are due to outside rather than to Swedish thought.

Man'ward, (*adv.*) Toward man; in the interest of man.—Also used adjectively.

Manzani'ta, *n.* (*Bot.*) One of the many shrubs or small trees of the Western United States (*Arctostaphylos*): (1) The great-berried manzanita, whose fruit is three-fourths of an inch in diameter; (2) the California manzanita, which is only a small shrub on the mountains, but grows to a height of 20 or 30 feet on the lowlands.

Ma'ple Rapids, in *Michigan*, a post-village of Clinton co.; 17 m. N.W. of St. Johns; has flour and lumber mills. *Pop.* (1894) 548.

Ma'pleson, Lauba Schirmer, singer, was born in Boston, March 4, 1862. She was educated in music in the United States, and at Leipsic, Berlin, and Vienna; made her first professional appearance in 1879, and afterward had an active and successful career in America and Europe. She was married on March 17, 1891, to Col. Henry Mapleson, under whose management she sang in opera in the United States and in Vienna. Died January 24, 1894.

Mar'bles of the United States. The principal sources of marbles in the Eastern U. S. are beds of Paleozic limestone and dolomite bordering the Appalachian Mountain system. Belts of these marbles extend throughout Connecticut, Massachusetts, and western Vermont, generally in a north and south direction. The finest grades, mostly white or deep blue-gray in color, occur in Vermont; that State alone now produces 60 per cent. of the entire out-put in the U. S., principally in and about the towns of West Rutland and Proctor, in Rutland co. A coarse, snow-white Archæan dolomite, quarried in Westchester co., N. Y., has been extensively used for building purposes under the name of *snowflake marble*. Building marbles of various qualities are quarried in northern Georgia. A calcareous conglomerate, or breccia, occurring in Frederick co., Md., has been used as a marble in the columns of the old Hall of Representatives at Washington. Throughout the valley of East Tennessee beds of limestone furnish the highest grade of decorative marble at present known in the eastern U. S. The colors are gray, pink, chocolate-red, and brown, the latter variety being variegated with white, and very fossiliferous. In the Rocky Mountain region are many important sources of marble which are beginning to attract attention. What are called onyx marbles are, in reality, not marbles at all—that is, they result not from the metamorphosis of calcareous organisms, but are chemical deposits from the waters of springs and streams. These are among the most beautiful of what are popularly called marbles. The only source in the U. S. of this stone is in Yavapai co., Arizona. The prevailing color of the Arizona stone is green, with shades of yellow, brown, and opaque red. The so-called verd-antique marbles, which are only serpentinous rocks, have been operated upon at Deer Isle, Me.; Roxbury, Vt.; Lynnfield, Mass.; Milford, Conn.; Essex co., N. Y.; Harford co., Md.; on the Gila river in New Mexico, and near the town of Victor in San Bernardino co., Cal. In all these places, however, the stone is of an inferior quality, and of a kind which can be used for interior work alone. The value of all the marbles produced in the U. S. exceeds $4,000,000 annually.

Mar'celine, in *Missouri*, a post-village of Linn co., on A., T. & S. Fé R. R. Coal, limestone, granite, and fire and brick clay in immense quantities are found in the vicinity. *Pop.* (1897) 2,160.

March, Francis Andrew, philologist, was born at Millbury, Mass., Oct. 25, 1825; graduated from Amherst College (1845), and was tutor there from 1847 to 1849; was admitted to the bar in 1850, though still engaged in teaching; was appointed tutor in Lafayette College (1855); adjunct professor (1856), and professor of the English Language and Comparative Philology (1858). As an Anglo-Saxon scholar he has taken high rank; was elected president of the American Philological Association in 1873. He has published *A Method of Philological Study of the English Language*; *An Anglo-Saxon Grammar*, &c.; has also contributed articles to the *Princeton Review*, and presented papers before the learned societies.

Marconi, (*mar-kō-nē*) Guglielmo, an electrical engineer, born at Marzobotto, Italy, September 23, 1875. Educated at Leghorn, Bologna and Padua, he began experiments in telegraphing without wires in 1890, and in a few years devised the most promising apparatus of all the experimenters in that field. After much success in England he came to America in 1899. The distance to which wireless messages could be sent rapidly increased, and in 1902 he attempted to send signals across the Atlantic, with apparent success.

Marcou', Jules, geologist, was born at Salins, Jura, France, April 20, 1824; educated at the College St. Louis, Paris, and afterward studied with Louis Agassiz; was employed in the Palæontological Department of the Sorbonne (1847), for which he made extensive geological investigations in Europe; and (with Agassiz) in Canada and the United States (1848–50). He was employed by the U. S. government to make an exploration of the Rocky Mountains in 1853–54, and again in 1860, being in the interim professor of Palæontology at Zurich. He has published a geological map of the U. S., with English explanatory text; also *Geology of North America*. Other works of a general scope were written in French and published in Europe.

Mar'cy, William Learned, statesman and diplomat, was born in Southbridge, Mass., Dec. 12, 1786; was educated at Brown University, and became a teacher at Newport, R. I., but subsequently practiced law in Troy, N. Y. He was a soldier in the War of 1812, and at St. Regis he captured the first prisoners and the first flag taken on land. He edited the *Troy Budget* (1818); became adjutant-general of New York (1821); comptroller (1823); judge of the State Supreme Court (1829); was elected to the U. S. Senate in 1831, but resigned the the following year on being elected governor of New York, an office to which he was twice reelected; was appointed by President Van Buren, to decide on the Mexican claims (1839–42); was Secretary of War in 1845, under President Polk, and was retained in the Cabinet as Secretary of State when President Pierce

came into office. Retired from public life in March, 1857, and died July 4, of the same year.

Mardi Gras (*mär'-di-grä*), *n.* Shrove Tnesday, the last day before Lent. In many places, among which New Orleans is notable in the U. S., it is celebrated with brilliant processions, masquerade balls, and, to some extent, masking and revelry upon the street.

Mare Island, in *California*, in San Pablo Bay, 28 m. N. of San Francisco, was purchased by the U. S. government in 1854, for the purpose of making on it a naval dockyard and arsenal. These include wet and dry docks, marine barracks, ordnauce yards, a hospital, and extensive repair-shops.

Maren'go, in *Indiana*, a post-town of Crawford co., 13 m. N. of Leavenworth. *Pop.* (1897) 750.

Marey (*mä-rā'*), Étienne Jules, physiologist, was born on March 5, 1830, at Beaune, France; studied medicine in Paris, receiving his degree in 1859. He founded a laboratory for the purpose of physiological research and experiments; was appointed professor of Natural History in the Collége de France (1869), and succeeded Claude Bernard in the Academy of Sciences (1878). He is the inventor of many instruments for recording the movements of the heart, lungs, arteries, mnscles, &c., and the flight of birds and insects. Has puhlished several volumes which embody the results of his stndies and experiments.

Marian'na, in *Arkansas*, a post-village, cap. of Lee co., 25 m. N.N.W. of Helena, on St. L., I. Mt. & S. R.R.; has mills and cotton gins, and ships cotton. *Pop.* (1897) 1,440.

Marice' City, or Continental, in *Ohio*, a post-village of Putnam co., 45 m. E. of Fort Wayne, Ind. Its post-office is Continental. *Pop.* (1897) 1,050.

Maricopa, in *Arizona*, a S.W. central co.; *area*, 9,892 sq. m. *Rivers.* Gila, Salt, and smaller streams. *Surface*, partly mountainous; *soil*, fertile in places. *County-seat* and Territorial capital, Phœnix. *Pop.* (1897) 23,650.

Mariette (*mä-re-ĕt'*), Auguste Edouard, archæologist, was horn at Boulogne-sur-Mer, in 1821; became early so accomplished in the study of Egyptian antiquities that in 1850, at the recommendation of the Institute, he was sent hy the French government on a scientific mission to Egypt. There his attention was chiefly directed to the remains of Memphis, the ancient capital, and he began a series of excavations, which, carried on with skill and energy, led to the most important discoveries. In particular, he bronght to light the Temple of Serapis and the colossal figure of the Sphinx. He was appointed, by the Khedive of Egypt, inspector-general and keeper of the national monuments of that country. Died 1891. His works include: *Le Sérapéum de Memphis* (1857–60); *Karnak*, *&c.* (1875); *Monuments divers* (1876); *Itinéraire de la haute Egypte*; and *Mastabas*.

Marine Corps. See Navy of the United States.

Marine' En'gine. (*Mech.*) The development of the steam-engine for propelling steamships has been along somewhat different lines from those on which stationary and locomotive engines have been developed. The necessity for saving space and the impracticability of using mechanical stokers have assisted in evolving a type of engine quite distinctive in appearance. The cylinders are usually set upright, and in a row fore and aft, so as to be directly over the crank-shaft. In case they are of the triple-expansion type, which now meets with most favor, the arrangement is usually that of three combined engines, the first being

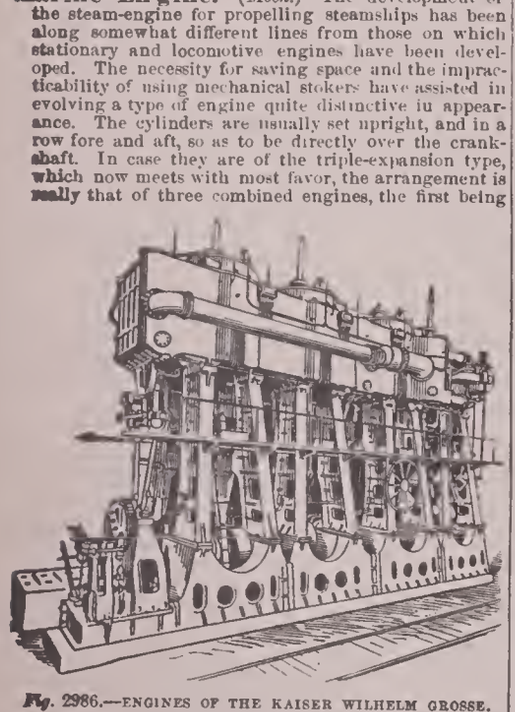


Fig. 2986.—ENGINES OF THE KAISER WILHELM GROSSE.
Owned by the North German Lloyds Steamship Co. 28,000 horse-power; built in 1897.

a high-pressure engine, receiving the steam directly from the boilers, at a pressure of perhaps 150 to 200 ponnds, and having a comparatively small cylinder; the second is an intermediate engine, receiving the steam exhausted from the cylinder of the first engine, at a much lower pressure, through very large pipes. This cylinder is necessarily much larger than the first, and sometimes it is divided into two cylinders. The third or low-pressure engine receives its steam from the exhanst of the intermediate cylinder or cylinders, and resembles the intermediate in construction, except that the cylinder or cylinders are still larger, being designed to expand the steam to the last useful degree. If the vessel is twin-screw, there are commonly twin engines, of the sort described, each operating a separate crank-shaft, which turns its appropriate thrust-shaft and screw-propeller. The enormous size to which marine engines have attained may be understood by the following figures regarding the 30,000 horse-power twin engines of the *Campania:* Height, 47 feet; cylinders, 98 inches diameter; number of cylinders in both engines, 10; cylinder-stroke, 69 inches—being 2½ times that of the largest locomotives; diameter of low-pressure cylinders, 98 inches; total weight of the two crank-shafts and thrust-shafts, 220 tons. The improvements in engine-design within 50 years are so great that 16 to 20 times as much power is now developed with the same weight of machinery. In other words, marine engines are now made that weigh hut 50 pounds per horse-power, whereas in 1847 they weighed 800 to 1,000 pounds per horse-power.—The engines of torpedo-boats are built with reference to sustaining great speed for a short time. The latest development in them is the Thorneycroft turbine-engine placed in the new English torpedo-boat *Turbinia*, which has broken all speed records. This engine dispenses entirely with cylinders, and delivers the steam directly against deflecting plates, mounted in cylindrical cases on the shafts. By introducing the steam so that it tends to push the shaft aft, the thrust of the propeller-screw on the shaft is counterbalanced, and the enormous friction on the thrust-blocks, common in other steamships, is so entirely avoided that the thrust-blocks themselves are dispensed with. The engines of war-ships and of the best class of river steamboats resemble those of the Atlantic liners. The tendency in construction is toward higher steam pressures, as showing more economy. It is thought that 300 or 400 pounds of pressure may in time be available for the engines of steamships, as the mechanical difficulties in the way are being rapidly overcome.

Marinette', in *Wisconsin*, a N. E. co.; *area*, 1,118 sq. m. *Rivers.* Peshtigo, Pike, and Menominee. Lumher is the chief article of export. *Cap.* Marinette. *Pop.* (1895) 27,271.

Ma'rion, in *Wisconsin*, a post-village of Wanpaca co., 28 m. N. E. of Waupaca. *Pop.* (1895) 500.

Ma'rionville, in *Missouri*, a post-town of Lawrence co., 24 m. S.W. of Springfield; has flour mills, saw mills, and fruit evaporators. *Pop.* (1897) 1,250.

Marionville, in *Pennsylvania*, a post-village of Forest co., 28 m. E. hy S. of Tionesta. *Pop.* (1897) 550.

Mark Twain. See Clemens, Samuel L.

Mark'ham, Clements Robert, geographer and writer, was born at Stillingfleet near York, England, on July 20, 1830; was educated at Westminster; entered the navy (1844); took part in the Arctic expedition of 1851 in search of Sir Johu Frankliu; passed as lieutenant in 1851, and resigned the same year. He travelled in Peru (1852–54), and in 1860 visited Peru and India as commissioner to introduce cinchona plants into India. He was secretary of the Royal Geographical Society (1863–88), and was attached to the Abyssinian expedition of 1867–68. His works include: *Travels in Peru and India* (1862); *History of the Abyssinian Expedition* (1869); *The War Between Peru and Chile* (1882); *History of Peru* (1892); works on Arctic exploration, &c. He has edited various reprints of works on South America for the Hakluyt Society.

Markhoor', *n.* (*Zoöl.*) A large wild goat of the high Himalaya (*Caprus falconeri*), having enormous, spirally-twisted horns, and an object of sport.

Mar'kle, in *Indiana* a post-town of Huntington co., 10 m. S.E. of Huntington, on Ch. & Erie R. R. *Pop.* (1897) 780.

Mar'litt, Eugenie (the pen name of E. John), was born at Arnstadt, in Thuringia, on Dec. 5, 1825. Her beautiful voice gained her the favor of the Princess Schwarzburg, who sent her to Vienna for a three-years' course of study, with a view to a stage career. Compelled by illness to abandon this object, she acted as reader to her patroness until 1863, when she retired to private life, and devoted herself to the writing of romances, which have been very popnlar, the English translations passing through many editions. Among the titles are: *The Old Mam'selle's Secret; Gold Elsie; Countess Gesela; The Second Wife*, &c. Died at Arnstadt June 22, 1887.

Marls in the United States. (*Geol.*) Marls, in the strict sense of the term, are not numerous in the U. S. Clay or sand that can be used as a fertilizer is often called marl. Of these the best known is greensand, which owes its peculiarities to a green silicate of iron and potash which forms the bulk of it, and sometimes even 90 per cent., the rest being ordinary sand. There is a trace of phosphate of lime, evidently derived from animal remains—as animal membranes and shells contain a small percentage of phosphates. Its valne in agriculture is due to the potash and phosphates. This greensand is found mainly in New Jersey.

Mar'riotsville, in *Maryland*, a post-village of Howard co., about 27 m. W. of Baltimore.

Mar'ron', in *Pennsylvania*, a post-village of Clearfield co., abont 30 m. N.N.W. of Altoona.

Marron (*ma-roŏn'*), *n.* [See Maroon.] Chestnut-color.

Marroon, *n.* and *a.* Same as Maaoon (*q. v.*).

Marrow, *n.* [A.S. *mearh mearg;* D. *merg;* Ger. *mark.*] (*Anat.*) A llglit, fatty substance lodged in the interior of the bones. Like ordinary adipose tissue, it consists of vesicles containing fat, with hlood-vessels distributed through them. It is usually yellow in color, with 96 parts of fat, 3 of water, and 1 of areolar tissue, in 100 parts. In some parts it is of a reddish color. In birds, for the sake of lightness, the larger bones, instead of being filled with marrow, contain air, which passes into them from the lungs. In the fœtus the bones do not contain marrow, but a transpareut, reddish fluid like bloody serum, ouly more consistent.—The marrow of sheep and oxen is highly esteemed by perfumers for the manufacture of pomatums, and other applications for the human hair, but it is doubtful if any grease or oil surpasses castor-oil for that purpose.

—The essence; the choicest part.

"The pith and *marrow* o an attribnte."—*Shaks.*

—[From Fr. *mari*, husband.] A Scotticism for a comrade; a boon-companion; an intimate associate; as "a thief and his *marrow*." (*Tusser.*)—It also implies an equal match; as, he met with his *marrow*.

—*v. a.* To fill with fat or marrow.

Mar'row-bone, *n.* A bone coutaining marrow; a bone boiled for the sake of the marrow.—(*pl.*) The knees; the jolnts of the knees;—used in a burlesqne or ludicrous seuse.

"Down on yonr *marrow-bones*, . . . and make acknowledgment of your offences."—*Dryden.*

Mar'row-fat, *n.* A rich variety of pea, appearing late in season.

Mar'rowish, *a.* Fat; unctuous; possessing the nature of marrow.

Mar'rowless, *a.* Void of marrow; lacking fatty matter.

"Avannt! thy bones are *marrowless*."—*Shaks.*

Mar'row-pud'ding, *n.* A pudding made with the marrow of beef-bones, or of the cucurbitaceous plant called *vegetable-marrow*.

Marrow-squash, *n.* (Called also *vegetable-marrow.*) (*Bot.*) See Cucubita.

Mar'rowy, *a.* Full of marrow; fatty; pithy.

Marrs, or **Mars,** in *Indiana*, a township of Posey co. *Pop.* abont 1,740.

Mar'rubium, *n.* [Lat.] (*Bot.*) A genns of plants, order *Lamiaceæ*, including the Horehound, an erect branching grayish-looking herb, with roundish wrinkled leaves, and whitish flowers crowded in the axils. It is found wild throughout Northern Asia and Europe, and has bitter tonic properties. It is a favorite domestic remedy in chest complaints.

Mar'ry, *v. a.* (*Imp.* and *pp.* Maraien) [Fr. *marier*, from *mari*, husband; Lat. *maritus*, *maritare*, to marry.] To unite in wedlock, marriage, or matrimony; to join, as a man or woman, for life; to perform the connubial rite

"Tell him, that he shall *marry* the couple himself."—*Gay.*

—To dispose of in marriage; to bestow as wife.—To take for husband or wife; as, a man may not *marry* his aunt.—To unite in immediate or most intimate connection;—used in a figurative sense.

—*v. n.* To enter into the conjugal state; to participate as one of the principals in the rite of matrimony; to take a husband or a wife; to be united as husband and wife by the connubial band.

"Choose not alone a proper mate, hut proper time to marry."
Cowper.

Mar'ry, *interj.* [*i. e.*, by the Virgin Mary!] Indeed! in truth! is it possible! verily!—an old form of exclamation, indicative of surprise or incredulity.

Mar'ryat, Frederic, a British naval officer and well-known novelist, was born in London, 1792, and at the usual age for the sea-service entered the navy as midshipman in the *Impérieuse*, a 44-gun frigate, sharing during the first three years of his new profession, from 1806 to 1809, in not less than 50 actions. During this term he obtained a reputation for courage and daring that his after career fully bore out and confirmed. In 1815 he was made a commander, and in 1823, when in command of the *Sabine*, 18-gun sloop, he took part in the attack on Rangoon, receiving the thanks of the governor-general, and the honor on his return home of C. B. From 1828 to 1831 he served with the Channel fleet, and in 1837 wrote a hook on *Naval Signals for the Commercial Marine;* for this valuable work the king of the French hestowed on him the order of the Legion of Honor. The system or code of signals there suggested is now generally adopted by the merchant-service of Europe. Two years after quitting the Chanuel fleet he adopted literature as a profession, and produced a series of nautical stories that for vigor of dialogue and graphic description have not been surpassed by the most gifted author of the present time. Of these works the most celebrated were *Peter Simple*, *The King's Own*, *Jacob Faithful*, *Newton Foster*, *Japhet in Search of a Father*, *Midshipman Easy*, and *Rattlin the Reefer*. For his courage in saving the lives of several seamen, the Royal Society conferred on him its gold medal. Died in 1848.

Marsa'la (anc. Lilybæum), a seaport-town of Italy, in the W. extremity of the island of Sicily, 16 m. S.S.W. of Trapani. It exports wine, oil, wheat, and harilla. The *M.* wine is one of the best among the Sicilian wines. *M.* was the ancient cap. of the Carthaginian dominions in Sicily. Its present name of *M.* was derived from the Saracens, who esteemed its harbor so highly that they called it Marsa Alla, *i. e.*, the port of God. In the 16th cent. the harbor was blocked up with a mound of sunken rocks, by order of Charles V., to protect it from the Barhary corsairs. Garibaldi selected it as a landing place on his invasion of Sicily, in 1860. *Pop.* 25,000.

Marseillan (*mar'sa-yon*), a town of France, dept. Hérault, on the lagoon of Thau, 15 m. E. of Béziers. *Pop.* (1897) abont 4,100.

Marseillais, Marseillaise (*mär-sāl-yāz'*), *n. m.* and *f.* (*Geog.*) A native or inhabitant of Marseilles, France.

Marseillaise (*mar-sale-yaise'*), or MARSEILLAISE HYMN, *n.* A celebrated national song of France. It was composed by Rouget de l'Isle, an officer in the engineer corps at Strasburg, early in the French revolution. It was first called *L'Offrande à la Liberté*, and soon became very popular throughout the country, contributing in no small degree to the success of the revolutionary arms. It received its present name from being sung for the first time in Paris, by a band of men who were brought from Marseilles by Barbaroux, to aid in the revolution of Aug. 10, 1792. It has since continued to be the favorite song in all popular movements in France.

Marsh, GEORGE PERKINS, author and diplomatist, was born at Woodstock, Vt., in 1801. He graduated at Dartmouth College, N. H., in 1820, and, after being called to the bar and elected a member of the Supreme Executive Council of his State, was elected to Congress 1842–49. From 1849 till 1853 he held the post of American Minister at Constantinople, during which period he was charged with a special mission to Greece, in 1852. A great part of this time he passed in extensive travel over the North of Europe, where he had already attained a high reputation as a Scandinavian scholar. In 1861 he was appointed U. S. Minister to Italy, which position he held at his death in 1882.

Mar'shall, HUMPHREY, soldier and politician, was born at Frankfort, Ky., Jan. 13, 1812. Graduating from West Point in 1832, he served one year with the Mountain Rangers, resigning in 1833. He then studied law, and was admitted to the bar. He was colonel of the First Kentucky Cavalry in the Mexican War; was elected to Congress in 1849; was appointed by President Fillmore U. S. Commissioner to China in 1852; was reelected to Congress in 1855, serving two terms. Though personally opposed to secession, he went with his State, entering the Confederate service as a brigadier-general; he became a member of the Confederate Congress, and practiced law in Richmond, Va. Died April 17, 1871.

Marshall, THOMAS FRANCIS, lawyer, was born at Frankfort, Ky., June 7, 1801; settled in Louisville (1831), and became prominent as a pleader and political speaker. He served several terms in the legislature; was judge of the Louisville Circuit Court; was elected to Congress as a Whig, in 1841, but subsequently joined the Democratic party. His *Writings and Speeches* were edited by W. L. Barre. Died Sept. 22, 1864.

Marshall, WILLIAM CALDER, sculptor, was born at Edinburgh in 1813, studied his art under Chantrey and Baily, and in 1852 became a Royal Academician. Among his finest works are *The Dancing Girl Reposing; Sabrina;* and the statues of *Lords Clarendon* and *Somers* in the Houses of Parliament, London, and that for the national monument erected to the *Duke of Wellington* in St. Paul's Cathedral. Died in 1894.

Marshall, in *Minnesota*, a N.W. co.; *area*, 1,810 sq. m.; watered by Middle, Snake, Thief, and Tamarac rivers, and bounded on the W. by the Red River of the North. *Surface*, level, sloping partially to the Red river; *soil*, very fertile, producing excellent wheat. *Cap.* Warren. *Pop.* (1895) 12,072.

—A post-village, cap. of Lyon co., 108 m. W. of St. Peter. *Pop.* (1895) 1,744.

Marshall, in *Oklahoma*, a post-village of Logan co. *Pop.* (1897), 265.

Marshall, in *South Dakota*, a N.E. co.; *area*, 900 sq. m.; watered by small streams and numerous lakes. *Surface*, rolling; black soil, with clay subsoil. *Cap.* Britton. *Pop.* (1895) 4,503.

Marshall Islands. (*Geog.*) A group in the North Pacific, which has been under German protection since 1885. It consists of two chains of islands lying nearly parallel to each other, and running N.W. and S.E. from Lat. 11° 50′ to 4° 30′ N., and from Lon. 167° to 173° E., covering an area of over 350 to 400 m. in extent. The eastern chain is known as the Radack, and the western as the Ralick, each numbering from 15 to 18 groups of low coralline islands. This archipelago was discovered by Saavedra in 1529, and explored by Marshall and Gilbert in 1788. A mission was established on one of these islands in 1857, which continues to be successful. The inhabitants number about 15,000. They are Micronesians, dark in color, with straight hair, are intelligent and hospitable, and are remarkably expert as navigators.

Marsh'field, in *Oregon*, a post-village of Coos co., on Coos Bay, 6 m. from Empire City; has saw mills, box and barrel factory, and tannery; coal and lumber are shipped. *Pop.* (1897) 1,950.

Marshfield, in *Wisconsin*, a city of Wood co., 26 m. N.W. of Grand Rapids; has furniture, stave, wood veneer, and other factories. *Pop.* (1895) 4,586.

Mar'ston, PHILIP BOURKE, poet, was born in London in 1850, the son of John Westland *M.*, playwright and novelist. He was blind from early childhood; was the subject of Dinah Mulock Craik's poem, *Philip, My King;* and also of Hake's poem, *The Blind Boy.* His published books are entitled: *Long Tide* (1871); *All in All* (1874); *Wind Voices* (1884); *For a Song's Sake* (1887); *Garden Secrets* (1887). Died Feb. 14, 1887.

Martel'lo Tow'er. (*Fortif.*) The name of a kind of fort, small, circular, with very thick walls and a shell-proof roof. The cellar and first floor are used for ammunition and supplies, the second and third for living rooms and armory for the garrison, and the roof is provided with a parapet, and mounts one or more heavy guns. The name is derived either from the Italian word for hammer, on account of the heavy hammers used to strike the alarm bells with which these forts were often provided, from the name of the inventor of the structure, or from the town of Mortello, in Corsica. Tower Dupré, in Louisiana, and the tower on Tybee Island, Georgia, belong to this class, and others stand at Kingston, Ontario, and in New Brunswick.

Mar'tin, in *Kentucky*, an E. co.; *area*, 235 sq. m.; bounded on the E. by the Tug Fork of Big Sandy River. *Surface*, hilly; *soil*, fertile. *Min.* coal, iron, and salt; has oil and natural gas. *Cap.* Inez. *Pop.* (1890) 4,209.

Martin, in *South Dakota*, a N.W. co.; *area*, 755 sq. m. Unorganized.

Martin, in *Texas*, a W. co.; *area*, 900 sq. m. *Surface*, rolling, and table-lands; *soil*, very fertile and well watered. Stock and sheep raising is largely carried on. *Cap.* Stanton. *Pop.* (1890) 264.

Martin's Fer'ry, in *Ohio*, a city of Belmont co., on Ohio river, 2 m. above Wheeling, W. Va.; has blast furnace and stove foundry, several glass works, machine and engine works, &c. *Pop.* (1897) 6,850.

Martineau (*mär'tin-ō*), JAMES, an English divine and theologian, born in 1805; became professor of Meutal and Moral Philosophy of Manchester New College, in 1857, and its principal in 1868; retired in 1886. His leading works were: *The Rationale of Religious Inquiry* (1845); *Studies of Christianity* (1858); and *Essays, Philosophical and Theological* (1866–9); *Study of Religion* (1888); *The Seat of Authority in Religion* (1890). He was a brother of the celebrated Harriet Martineau (*q. v.*). Died Jan. 12, 1900.

Marx, KARL, Socialistic leader and writer, was born at Cologne in 1818; was educated at the universities of Bonn and Berlin. He edited a newspaper in Cologne, which was suppressed (1843) for its radical utterances. He then removed to France, and studied political economy and sociology; contributed satirical articles to German newspapers until, at the request of Prussia, he was expelled from France, and found refuge in Belgium. He took part in the Workingmen's Congress at London (1847), and returning to Cologne, established a paper in which he advocated socialism and refusal to pay taxes. He founded the famous society known as The International (*q. v.*), which at first was very radical. His leadership was rejected by British workingmen, and Marx was compelled to resign his office in 1872. With other extreme socialists he established a central council in New York, though he himself resided in London. His tactless radicalism in speech and action constantly defeated the best arguments of his theory; but his published work on *Capital* is of the highest logical merit, and has strongly influenced recent economic thought. Died May 14, 1883.

Masai Land, and the Masai. (*Geog.* and *Anthrop.*) The Masai country of East Africa comprises the area between 1° N. Lat. and 5° S. Lat. In breadth it is very irregular, with an average of 90 miles. The country is quite markedly divided into two distinct regions, the southerly one being a desert area and the northerly a high plateau region. The southerly part, comparatively low in altitude, owes its desert appearance and extreme unproductiveness to the scantiness of the rainfall, which for three months in the year barely gives sufficient sustenance to scattered tufts of grass. Still, to this part of the country belongs the colossal mass of Kilima-njaro, and there are other huge metamorphic and volcanic masses. The northerly, or high plateau part, rises from an elevation of nearly 5,000 feet on either side to little short of 9,000 feet in the center. It is a charming region, characterized by everything that makes a pleasing landscape, with dense patches of flowering shrubs and noble forests. Here and there you find a park-like country, enlivened by groups of game. There is a network of babbling brooks and streams, and a rainfall of from 30 to 40 inches a year, while the desert region has but 15 inches. On the eastern half of the plateau rises the snow-clad peak of Mt. Kenia. The Masai who inhabit this beautiful country are eminently a pastoral people. They cling devotedly to their own customs, and have maintained the purity of their race, not intermarrying with other tribes. There is nothing of the negro type in their appearance. With clear chocolate-brown skins, their hair is frizzy, but thinner and much finer than that of the negro. Their limbs are beautifully formed and developed, their feet and hands being remarkably small. The boys, on approaching the age of 14, are circumcised by a method cognate with that of certain other Central African tribes, and not like that practiced by the Jews. Shortly after undergoing that rite, the youth is sent to live in the warriors' *kraal*. Here he is not allowed to eat vegetables, but is obliged to confine his diet to milk and meat. He cannot, however, mix these, and before changing from one to the other he has to take a powerful purgative. Both sexes are very dissolute before marriage, the young warriors and unmarried girls living together in free love. A man rarely marries before the age of 25, or a woman before she is 20. Once married, the husband, from a lusty, blood-thirsty fiend, becomes a staid, courteous, and reasonable man, looking closely after his flocks and herds, and living on whatever diet may suit his fancy. For information about this interesting country and people, should be consulted *Through Masai Land*, by Joseph Thomson, 1885; *The Kilima-njaro Expedition*, by H. H. Johnston, 1886; and Ludwig von Höhnel's *Discovery of Lakes Rudolf and Stephanie.*

Mascagni (*mäs-cän'yi*), PIETRO, musician, was born in Leghorn, Italy, Dec. 7, 1863; studied for a brief period at the Milan Conservatory; conducted various travelling opera companies, and settled (1886) at Cerignola, where he taught music and composed his *Cavalleria Rusticana*, a one-act opera. Later works are: *L'Amico Fritz*, *I Rantzau*, and *Ratcliffe.*

Mas'cot, *n.* Some object which brings good fortune to its owner, or a person whose interest or companionship assures good luck to his associates; opposed to *hoodoo.*

Mash, *v.* (*Slang.*) To flirt indiscriminately, or impertinently seek acquaintance with one of the opposite sex.—*To make a mash:* to win the acquaintance or attention sought.—*To be mashed:* to be infatuated with.

Mash'er, *n.* One who flirts indiscriminately, or impertinently addresses one of the opposite sex; generally applied, in contempt, to one who erroneously believes himself to be attractive, if not irresistible.

Mash'ie, or **Mash'y,** *n.* A club used in golf.

Masho'naland, *n.* (*Geog.*) This territory, since August, 1890, has been part of the possessions of the British South Africa Company. Lying to the northeast of Matabeleland, to the ruler of which Mashonaland was subject before it was acquired from him by the British Company, it embraces a plateau (4,000 to 4,600 feet high) reported to be the healthiest part of South Africa, with rich soil, grass all the year round, and an abundance of running streams. Immense quantities of gold, as well as iron and copper, exist in the country, although for mining the gold expensive machinery is required. The native Mashonas are a peaceful and industrious people of Bantu race, who, before the British protectorate was established in the country, lived in perpetual fear of the Matabeles. A considerable number of very ancient stone structures and walls, large, solidly built, and considerably ornamented, are found in Mashonaland. What race built these structures and for what purpose are quite unknown. See *The Ruined Cities of Mashonaland*, by J. Theodore Bent (1892).

Ma'son, GEORGE, statesman, was born in Virginia, 1725; was author of the Declaration of Rights and Constitution of that State, and a member of its legislature. In 1777 he entered the Continental Congress, and sat in the National Convention which framed the Constitution of the U. S., a document which he refused to sign on the ground that it opened a door to monarchy, and with Patrick Henry led the opposition in the Virginia Convention of 1788. Died in 1792.

Mason, JAMES MURRAY, diplomatist, was born in Virginia, 1798. He held a seat in the U. S. Senate from 1847 till 1861, during which period he brought forward the Fugitive Slave law of 1850. After the breaking out of the Civil War in 1861, he was nominated by the Confederate Government Mr. Slidell's colleague, as commissioner to England. On their way thither, in Nov., they were seized on board the British mail-steamer *Trent*, by Com. Wilkes, U. S. N. This act nearly led to a war with England, and on the demand of the latter, both commissioners were liberated in January, 1862, and allowed to pursue their mission.

Mason, SIR JOSIAH, manufacturer and philanthropist, was born at Kidderminster, England, February 23, 1795. In youth he was poor, and, after trying various employments, he began to make pens for Perry & Co. This business increased until he became the largest manufacturer of pens in the world. In 1842 he became a partner with Elkington in the electro-plating trade. He used his wealth to build and endow almshouses and orphanages, at a cost of £260,000; and also founded the Josiah Mason College at Birmingham. Died June 16, 1881.

Mason, LOWELL, musician, was born in Medfield, Mass., January 8, 1792; began his career as instructor and leader of choirs in Savannah, Ga., in 1812; in 1821 published the *Handel and Haydn Collection of Church Music;* removed to Boston in 1827, and devoted his entire time to teaching classes in vocal music and encouraging popular musical taste. The range of his influence extended throughout New England and the Middle States. He issued over 40 collections of sacred and secular music for church choirs, glee-clubs, schools, and Sunday-schools, with several text-books for singing-classes, &c. The amount of work done in this field by Dr. *M.* exceeds that accomplished by any other musician. In 1855 the University of New York conferred on him the degree of Doctor of Music. Died August 11, 1872.

Mason, WILLIAM, son of Dr. Lowell *M.*, was born in Boston, January 24, 1829. At 20 years of age he went to Europe, and spent 5 years in study at Leipsic, Prague, and Weimar, under the instruction of Moscheles, Moritz Hauptmann, and E. F. Richter, and finally with Franz Liszt. During 1853, his last year in Europe, he made a concert tour as a pianist, and in 1854 returned to America as a professional pianist. In 1855 he established the Mason and Thomas soirees of chamber music, in association with Theodore Thomas, George Matzka, Joseph Mosenthal, and Carl Bergmann; these were continued until 1868. He was the first artist to give "piano recitals" exclusively. His life has been devoted mainly to teaching, his studio being in New York city. Besides numerous compositions for the piano, he has published, in collaboration with Eli L. Hoadley, *A Method for the Piano-forte*, and *System for Beginners in the Art of Playing Upon the Piano-forte.* His latest work, embodying his ripe experience as a pianist and teacher, is *Touch and Technic*, in four parts; in the preparation of this he has been ably assisted by his pupil, W. S. B. Matthews. Dr. *M.* received the degree of Doctor of Music from Yale College in 1872.

Mason, in *Washington*, a W. co.; *area*, 996 sq. m. *Surface*, hilly, with broad and fertile valleys; Olympic Mountains traverse the northwest corner. Lumbering, milling, and oystering are the chief industries. *Cap.* Shelton. *Pop.* (1897) 3,500.

Mason, in *West Virginia*, a post-village of Mason co. *Pop.* (1897) 1,085.

Mason and Dixon's Line. The S. boundary of Pennsylvania, separating it from Virginia and Delaware. So called from the commissioners (Charles Mason and Jeremiah Dixon) who surveyed the line as a Colonial boundary in 1763. As this line, extended, separated the slave-holding Southern from the free Northern States, it became synonymous with the distinction between Unionism and Disunionism preceding and during the Civil War.

Mason Val'ley, in *Nevada*, a post-village of Lyon co. Its P. O. is YERINGTON. *Pop.* (1897) 670.

Maspe'ro, GASTON CAMILLE CHARLES, Egyptologist, was born of Italian parents, at Paris, on June 24, 1846. In 1869 he began lecturing on Egyptology at the School of Higher Studies in Paris; was appointed professor of Egyptology in the College of France (1873); was chosen to succeed Mariette as director of explorations and custodian of the Boulak Museum (1881); and became professor at the Institute of Paris (1886). In his explorations he has opened the pyramids of the kings belonging to the fifth and sixth dynasties, discovered new sepulchral sites at Deir-el-Bahiri, and at other places. He has published several volumes, which record the results of his researches, with critical comments; his *Manual of Egyptian Archæology* appeared in 1895. See EGYPT, &c.

Mass, *n.* (*Physics.*) The quantity of matter in a body, or the measure or expression of the amount of force necessary to produce a given amount of motion in the body within a specified time. In order to measure mass, we assume that the attraction of the earth on all particles of matter is the same, and is not dependent on the nature of the matter attracted. This assumption seems to be justified by the fact that bodies of all kinds fall with equal velocity in the exhausted receiver of an air-pump. Hence we measure the mass of a body by its weight, but we must not confound weight and mass, since the mass always remains the same, while the weight may vary with location. If at the same spot on the earth's surface one body is twice as heavy as another, the mass of the first is twice that of the second. Suppose, however, that a body be weighed by a spring-balance at a certain place, and weighed again by the same instrument at another place nearer the equator, it will be found that the body is lighter at the latter place, although the mass has not been altered.

Massage (*mäs-säzh'*), *n.* A mechanical form of medical treatment, consisting of an intelligent fingering of the muscles, intended to reproduce as nearly as possible natural exercise. The word, which is from the Greek, means *to knead*, and the system is undoubtedly of very ancient origin, though it was not developed as now practiced until about 1860. There are many different processes, the principal ones being rubbing, stroking, tapping, and kneading, each process being subject to many changes, according to the patient or the nature of the disease which is being treated. It is now largely used as a treatment for nervous diseases especially, and is administered by trained persons called *masseurs* (masculine) or *masseuses* (feminine).

—*v. a.* To treat by massage.

Massé (*mäs-sa'*), FELIX MARIE VICTOR, a popular French composer, was born at Lorient, 1822; became, in 1866, professor of Composition at the Conservatory of Music, Paris. Among his admired comic operas are *Les Noces de Jeannette* (1853), and *Galathée* (1854). He was elected a member of the Académie des Beaux Arts in the place of Auber, in 1872. Died 1884.

Massé, *n.* [*Fr.*] (*Billiards.*) A stroke with a cue held perpendicularly for the purpose of causing the ball to return in a straight line, or to make a curve around another ball.

Massenet (*mä-sẽn-nā'*). JULES ÉMILE FRÉNÉRIC, musical composer, was born at Montaud, France, May 12, 1842; entered the Conservatory at Paris when 9 years of age; was forced through poverty to give up his studies, but afterward was aided by a relative and returned to the Conservatory, where he secured a first prize in 1859. His compositions are numerous and include the operas *Le Cid*, *Don César de Bazan*, &c.

Mas'sey, GERALD, an English poet, was born at Tring, 1828, became an errand-boy in London, and an entirely self-educated man. He has since raised himself to a high position in the world of poetry by his *Poems and Chansons* (1846); *Voices of Freedom and Lyrics of Love* (1849); *The Ballad of Babe Christabel* (1855); *Havelock's March* (1861); and *A Tale of Eternity, and other Poems* (1869).

Massif (*mas-sēf'*), *n.* [*Fr.*] (*Geol.*) Any isolated, central, independent mass.—The central mass of a mountain range, more or less defined by longitudinal or transverse valleys.

Mat, or **Matt,** *n.* [Ger. *matt*, dull, dim, said of metals.] A dull or lusterless surface of a metal, produced by a matting-tool, or the tool which is used to produce it.

—*v. a.* To produce a dull or dead surface (on metal).

Matabele'land, *n.* (*Geog.*) An inland country, north of the Transvaal, and extending as far north as Mashonaland. The Matabeles are a tribe of the Zulus, who were the predominant native element and an important factor in South Africa until their war with Great Britain in 1879. About 1830, the Matabeles emigrated north of the present limits of the Transvaal and lived chiefly by raids on adjoining tribes, especially the Mashonas, for women and cattle. In 1890, Matabeleland was handed over to the British South Africa Company. As the raids were still continued, the Company organized an expedition against the Metabeles, who, led by their king, Lobeugula, were defeated in several engagements, and their military organization broken up. Lobengula died in hiding in February, 1894. The Metabeles, not satisfied with the chastisement they had received, rose again at the beginning of 1896, but by the latter part of the year, after much hard fighting and the aid of British troops, the country was pacified.

Mat'grass, *n.* A kind of grass that by its net-work of roots is adopted to bind together sandy soils; as beech-grass, lyme-grass, &c.

Math, *n.* [A. S., *máth.*] A mowing, or the crop gathered therefrom; nearly obsolete, except in *aftermath* and *latter-math*.

Mathu'rin, *n.* (*Eccles.*) A member of a monastic order named from the church of St. Mathurin in Paris. The order, which was a branch of the Trinitarians, was founded in the 12th century, and devoted a large part of its revenue to the liberation of Christians held in Turkish captivity.

Matoa'ca, in *Virginia*, a post-village of Chesterfield co. *Pop.* (1897) 550.

Matronym'ic, *n.* [Lat. *mater*, mother, and Gr. *onyma*, name.] A name derived from a mother or a maternal ancestor.

Mat'su, *n.* (*Bot.*) A pine tree of China and Japan (*Pinus Massoniana*) which grows to great age and size. It is the most common tree in Japan. Its wood, which is very tough and durable, is used for furniture and house carpentry.

Mattawam'keag, in *Maine*, a post-town of Penobscot co. *Pop.* (1897) 660.

Mat'thews, JAMES BRANDER, dramatic writer and critic, was born in New Orleans, La., February 21, 1852; graduated at Columbia College, and entered upon the profession of literature. He has written many plays, and is regarded as one of the leading dramatic critics of the day. In 1892 he was appointed lecturer on Literature at Columbia College.

Mat'toid, *n.* [L. Lat. *mattus*, dull.] A kind of monomaniac characterized by stupidity.

Man'li, *n.* [E. Ind.] One of a Mohammedan sect in the East Indies that allow wine-drinking.

Maul-in-goal, *n.* (*Foot-ball.*) Contest for the ball carried over the goal-line but not yet touched down.

Mau'na Ke'a, *n.* (*Geog.*) "The White Mountain," as the words mean, is one of the volcanoes of the island of Hawaii, and a colossus among the volcanoes of the world, being 13,900 feet high, a trifle higher than its neighbor, Mauna Loa (*q. v.*) Mauna Kea is not an active volcano and has every appearance of having been in repose for thousands of years. The summit platform of the mountain has an altitude varying somewhat with its inequalities, but averaging probably 12,500 feet. Upon this platform, about five miles in length and two miles in width, stand about a dozen large cinder-cones, from 700 to 1,000 feet in height. Vegetation is not left behind until there is attained an altitude of nearly 11,000 feet. No signs of any recent volcanic activity are to be seen. All the lava-beds look old and greatly weather-worn. In some of them the decay and disintegration are so great that they are reduced to mere heaps of weather-beaten fragments. See HAWAII.

Mauna Lo'a, *n.* (*Geog.*) These words mean "The Great Mountain," which is one of the active volcanoes on the island of Hawaii. It soars to the height of 13,700 feet, and Capt. Clarence DUTTON, in a report to the director of the U. S. Geological Survey, calls Mauna Loa "the king of modern volcanoes. No other in the world approaches it in the vastness of its mass or in the magnitude of its eruptive activity." The eruption of 1880–81 poured forth for nine months a river of lava which ran fifty miles, varying from a few hundred yards to three miles in width. Deep-sea soundings in the vicinity of the island of Hawaii have recently disclosed the fact that Mauna Loa, as well as all the other volcanic piles on the Hawaiian Islands, are only the summits of gigantic mountain-masses rising suddenly from the bottom of the Pacific; so that Mauna Loa, as well as Mauna Kea, referred to its true base, is not far from 30,000 feet in height. The pit, or *caldera*, of Mauna Loa is a little more than 600 feet in depth, and the encircling walls are precipitous and continuous. The length of the caldera is a little less than three miles and its width about a mile and three-quarters. See HAWAII.

Maupassant (*mō-pās-sänġ'*), GUY DE, novelist, was born in Normandy, Aug. 5, 1850; served in the Franco-German war. As an author he was one of the younger branch of the naturalistic school. His writings include a volume of poems, *Des Vers*, and the novels, *La Maison Tellier; Contes Du Jour; Monsieur Parent; Bel-Ami; La Petite Roque; Pierre et Jean;* &c. Died July 6, 1893.

May'erick, *n.* [Western U. S.] An unbranded animal which the finder brands for himself or his employer:—hence, something dishonestly appropriated. The name is peculiar to the great United States cattle ranges, where the cattle of many owners herd together and must therefore be branded to prove ownership. The calves, before they are branded, are known by their mothers; but if one strays away, it may be illegally branded and thus become a *maverick*. The name is also applied to the unbranded animals driven in at the general round-up and equitably divided among the owners. The use of the word is said to have originated in the fact that Samuel Maverick, a Texan cattleman, chose to distinguish his cattle by giving them no brand, and consequently, when they became mixed with other herds, he claimed all the unbranded animals as "Maverick's."

Max'imal, *a.* Of the greatest or highest possible value.

Max'ton, in *North Carolina*, a post-town of Robeson co., 36 m. S.W. of Fayetteville. *Pop.* (1897) 725.

Max'well, JAMES CLERK, physicist, was born at Edinburgh, Scotland, June 13, 1831; graduated at Cambridge (1854); was professor of Natural Philosophy at Aberdeen (1856–60), and at King's College, London (1860–65); became professor of Experimental Physics at Cambridge in 1871. His *Treatise on Electricity and Magnetism*, published (1873) in 2 volumes, is the crowning work of his life, and is regarded as a classic in that branch of physics. (See ELECTRICITY.) Died Nov. 5, 1879.

Maxwell, in *California*, a post-town of Calusa co. *Pop.* (1897) 620.

Maxwell, in *Iowa*, a post-town of Story co., 28 m. N. of Des Moines. *Pop.* (1895) 690.

May'er, ALFRED MARSHALL, physicist, was born at Baltimore, Md., Nov. 13, 1836; educated at St. Mary's College; appointed professor of Physics in the University of Maryland (1856); held a similar position in Westminster College, Missouri (1859); in Pennsylvania College, at Gettysburg (1865); in Lehigh University (1867), and in Stevens Institute (1871). His researches in astronomy, acoustics, and general physics made him eminent in the scientific world. Died July 13, 1897.

Mayes'ville, in *S. Carolina*, a post-village of Sumter co. *Pop.* (1897) 762.

Mayhaw', *n.* The apple-haw, a hawthorn of the S. United States, growing on the edges of streams, and bearing a red juicy fruit that ripens in May and is used for jellies.

May'hew, HENRY, journalist and miscellaneous writer, was born in London, England, Nov. 25, 1812. He ran away from Westminster School, and for discipline was sent on a voyage to Calcutta. On his return he was apprenticed to his father, who was a solicitor. With Gilbert à Becket he started *The Cerberus*, which was stopped by Beckett's father. The two boys then went to Edinburgh, hoping to make their fortunes as actors and authors, at the theater of which Mayhew's brother (Edward) was lessee—an attempt that failed, as they were promptly sent home again. These irrepressible youths started *Figaro*, in London, in 1831, and the following year, *The Thief*. Mayhew produced *The Wandering Minstrel*, in 1841, and soon after joined his brother Augustus in a successful literary partnership. As the Brothers Mayhew, they published: *The Good Genius that Turned Everything to Gold; The Greatest Plague of Life; The Image of His Father*, &c. *M.* was one of the originators and the first editor of *Punch*, and was also a prolific writer on many subjects. His great work is *London Labor and the London Poor*. Died July 25, 1887.

May'hew, HORACE, brother of Henry *M.*, was born in 1816; was at one time sub-editor of *Punch*, to which he contributed; also made some mark as a current writer in other lines. Died in 1872.

May'nard, HORACE, statesman, was born at Westborough, Mass., Aug. 30, 1814; graduated at Amherst College (1838); was tutor and professor in East Tennessee University; admitted to the bar (1844); represented Tennessee in Congress (1857–63); was a Union man during the Civil War, and suffered heavy losses of property in 1861–65; was in Congress again, 1866–75. He received the degree of doctor of laws from Amherst, in 1862. In 1875 was U. S. Minister to Constantinople, and in 1880 became U. S. Postmaster-General. Died May 3, 1883.

Maynard, in *Massachusetts*, a post-town of Middlesex co., 25 m. W. of Boston, on Fitchburg R. R.; has large woollen factories. *Pop.* (1895) 3,090.

Mayonnaise (*mi-o-nāz'*), *n.* [Fr.] A sauce or salad-dressing made with yolk of eggs, olive oil, vinegar, &c.; or the dish of which this sauce forms the dressing.

May'ville, in *Michigan*, a post-village of Tuscola co., 32 m. E. of Saginaw; has planing, saw and flour mills, and other manufactures. *Pop.* (1894) 769.

Mayville, in *North Dakota*, a post-village of Traill co., 40 m. N.W. of Fargo. *Pop.* (1897) 820.

Mazama. See ROCKY MOUNTAIN GOAT-ANTELOPE.

Mazarine' Bi'ble. An edition of the Latin Vulgate, discovered in the library of Cardinal Mazarin. It was from this that John Guttenburg (1450–55) printed the first book in the production of which cut metal types were used.

Maz'da, *n.* [Zend.] In the Zend-Avesta, the Creator of the world.—*Mazdaism*, the same as Zoroastrianism. See ZOROASTER.

Mazoma'nie, in *Wisconsin*, a post-village of Dane co., 23 m. N.W. of Madison; has various manufactures. *Pop.* (1895) 1,015.

Mboundou Poi'son. The extract of an African plant; used for ordeals on the Gaboon; described by African travellers and analyzed by French chemists. It acts rapidly, producing violent tetanic convulsions, followed by death if the dose is sufficient. Artificial respiration is an antidote.

McCall, GEORGE ARCHIBALD, soldier, was born in Philadelphia, March 16, 1802. He graduated from West Point, and served with distinction in the Florida and the Mexican Wars. In 1853 he resigned; but in 1861, he organized the Pennsylvania Reserve Corps of 15,000 men, and reëntered the service as a brigadier-general of volunteers. He was the projector of the brilliant movement culminating at Dranesville, Va., Dec. 30, 1861; and he won distinction during the "Seven Days' Fight" before Richmond, in June, 1862. On July 30, 1862, he was captured by the enemy, and confined for several months in a Southern prison. In 1863, he resigned his commission on account of impaired health. He died on Feb. 25, 1868, at West Chester, Pa. General *M.* published *Letters from the Frontier*.

William McKinley.

1843 1901

McCarthy (*māk-kär'te*), DENIS FLORENCE, an Irish poet, was born in 1820. He is author of *Ballads, Poems, and Lyrics*, mostly founded on Irish traditions, and written in a patriotic spirit, published in 1850. This volume embraces translations from nearly all modern European languages. He also produced (1857) *Under-Glimpses and Other Poems*, and *The Bell-Founder*, &c. He was appointed professor of Poetry in the Catholic University of Dublin, and in 1871 was conferred a literary pension of £100 per annum. Died in 1882.

McCarthy, JUSTIN, political leader and author, was born in Cork, Ireland, Nov. 22, 1830. He received a liberal education, and devoted himself to journalism in Liverpool and in London. During 1868–70 he travelled and lectured in the U. S., continuing to write for current magazines, and becoming editorially connected with the New York *Independent*. He returned to England; was elected to Parliament in 1880, and identified himself with the Irish Home-Rule party. He revisited the U. S. in 1886. On the disruption of the Irish Parliamentary party (1890), he was elected chairman of that section which repudiated the leadership of Mr. Parnell. At the election of 1892 he was unsuccessful at Derry, but was returned for North Longford, and again in 1895. In 1896 he resigned the chairmanship of the party in the House of Commons. He has published many books of a political and historical character, besides several novels—*A Fair Saxon*, *Dear Lady Disdain*, &c. His later books are *The Dictator* (1892) and *Red Diamond* (1893).

McClin'tock, JOHN, divine and editor, was born in Philadelphia in 1814, was professor of the Classics in Dickinson College (1836–48), and editor of the *Methodist Quarterly Review* (1848–56). In 1860 he entered upon the pastoral charge of the American Chapel in Paris, and in 1867 became the first president of Drew Theological Seminary. He was engaged for many years in the preparation of McClintock and Strong's *Cyclopædia of Biblical, Theological, and Ecclesiastical Literature*. Died in 1870.

McClos'key, JOHN, ecclesiastic, was born in Brooklyn, N. Y., 1810; was president of St. John's College, Fordham, N. Y. (1841–42); bishop of Albany (1847–64); in 1864 he became archbishop of New York. He was raised to the dignity of a Cardinal Priest by Pope Pius IX., March 15, 1875. The "title" assigned to him was Santa Maria Sopra Minerva. Pope Leo XIII. conferred the Red Hat on him in the Consistory held on March 28, 1878. Died in 1885.

McClure, SIR ROBERT JOHN LE MESURIER, a British explorer, was born in 1807, at Wexford, Ireland. Accompanied Sir James Ross in search of Sir John Franklin in 1848, and in 1850 set out in command of an expedition to the Arctic Sea. In the winter of the same year he claimed to have discovered the Northwest Passage, and in 1851 a second passage to the N. side of Baring Island. Died in 1873.

McCook, ALEXANDER MCDOWELL, U. S. A., was born in Columbiana co., Ohio, April 22, 1831; graduated from the Military Academy (1852), and served in Mexico against Indians (1852–57); commanded the 1st Ohio Regiment of Volunteers at Bull Run, and was brevetted major; became brigadier-general of volunteers in Sept., 1861, and major-general in 1862; fought at Shiloh, Murfreesboro, Chickamauga, and elsewhere; was brevetted brigadier-general in the regular U. S. A. in 1865. In 1880 he became colonel of the 6th Infantry, and later was appointed head of the military school at Fort Leavenworth; reached the full rank of major-general, U. S. A., in 1894, and was retired April 22, 1895.

McCook, DAN, soldier, was born in Carrollton, Ohio, July 22, 1834; was colonel of the 52d Ohio Regiment of Volunteers, and afterward commanded a brigade. Killed at Kenesaw Mountain, July 17, 1864.

McCook, EDWARD M., soldier, was born in Steubenville, Ohio, in June, 1834; served in the Civil War for the Union; became a brigadier-general in April, 1864, and brevet major-general in 1865; U. S. Minister to the Sandwich Islands (1866–69); and governor of Colorado (1869–73).

McCook, EDWIN STANTON, soldier, was born at New Lisbon, Ohio, in 1840; served in the Federal volunteer army during the Civil War, attaining the rank of brevet brigadier-general; was afterward secretary and acting governor of Dakota. Assassinated at Yankton, Dakota, September, 1873.

McCook, GEORGE WILLIAM, was born in Carrollton, Ohio, in 1822. He was educated at the Ohio University, and practiced law in partnership with E. M. Stanton. For the Mexican War he organized the 1st and for the Civil War the 157th Regiments of Ohio Volunteers. In the interim, and also after the close of the Civil War, he was active as a lawyer, and in Ohio politics. Retiring in 1870, he lived in Europe several years. Died Dec. 28, 1877.

McCook, HENRY CHRISTOPHER, clergyman and naturalist, was born at New Lisbon, Ohio, on July 3, 1837. He is a cousin of the "fighting McCooks;" was educated at Jefferson College, Canonsburg, Pa., and at the Western Theological Seminary, at Allegheny, Pa. In 1869 he was called to the pastorate of the Tabernacle Presbyterian Church in Phila., which position he filled till 1902, when he retired. Dr. *McC.* is an able pulpit orator and a writer on various subjects. He has for years found recreation in scientific study and research, and especially in investigating the habits of ants and spiders, on which he has written several works of inestimable value, including, *Mound-making Ants, Agricultural Ants of Texas, Honey and Occident Ants*, and an elaborate systematic work on the spiders which has the highest scientific standing. His *Tenants of an Old Farm* is an interesting work of popular entomology.

McCook, ROBERT LATIMER, soldier, was born in Cumberland co., Ohio, December 28, 1827. He studied law at Columbus, and practiced successfully in Cincinnati. In 1861 he raised a regiment of Germans (the 9th Ohio Vols.); commanded a brigade in West Virginia under General Rosecrans; distinguished himself at Rich Mountain, Carnifex Ferry, and Mill Spring, where he was wounded; was appointed brigadier-general of volunteers, on March 21, 1862, and was in command of a division in Thomas' corps of Buell's army, when he was shot by guerrillas while lying sick near Salem, Alabama—dying the next day, August 6, 1862.

McCook, RONERICK S., U. S. N., was born in Ohio, March 10, 1839; graduated from the Naval Academy (1859); became a lieutenant (1861), lieutenant-commander (1865), and commander (1873); was in various engagements on the James river and in the sounds of North Carolina, and in both the Fort Fisher fights; commanded a battery of naval howitzers at the battle of New Berne, March 14, 1862, where he displayed coolness, sound judgment, and gallantry.

McCook, in *Nebraska*, a city of Red Willow co., 53 m. W. of Oxford, on the B. M. R. R. R.; has a large lumber yard, creamery, flour mills, and brick yards. *Pop.* (1890) 2,346.

McCook, in *South Dakota*, a S.E. co.; *area*, 580 sq. m.; intersected by the East and West Forks of Vermilion river. *Surface*, undulating prairie; *soil*, fertile. *Products*, wheat, corn, oats, rye, barley, potatoes, and other vegetables. Sheep and stock raising is carried on extensively. *Cap.* Salem. *Pop.* (1895) 7,206.

McCosh, JAMES (*-kŏsh*), divine and metaphysician, was born in Ayrshire, Scotland, in 1811; entered holy orders, and in 1851 became professor of Logic in Belfast University, where he remained until he was appointed president of Princeton College, N. J., in 1868. Among his works are: *The Method of the Divine Government, Physical and Moral* (1850); *Typical Forms and Special Ends in Creation* (1869); *The Supernatural in Relation to the Natural* (1862); *Examination of Mills' Philosophy*, &c. (1866); *Laws of Discursive Thought* (1869); *Christianity and Positivism* (1871); *Psychology*, &c. (1887); *Religious Aspects of Evolution* (1888). Died 1894.

McCul'lagh, JOSEPH BURBRIDGE, journalist, was born in Dublin, Ireland, in Nov., 1842; came to America (1853) and became a printers' apprentice, then a reporter, until 1861; was a lieutenant in the Federal army; resigned, but remained in the field as war correspondent of the Cincinnati *Commercial*. After the war he edited several dailies successively, until he became editor-in-chief of the consolidated *Times-Globe-Democrat* of St. Louis. Died Dec. 31, 1896.

McCul'loch, HUGH, financier, was born in Kennebunk, Me., Dec. 7, 1808; educated at Bowdoin College; studied law, removed to Ft. Wayne, Ind., and began practice there in 1833. In 1835, he went into the banking business, first as manager and director of the State Bank of Indiana, president of the New State Bank, &c., until 1873, when he was made Comptroller of the Currency under the National Banking Law; was appointed Secretary of the Treasury by President Lincoln, in 1865. Within six months after his appointment the government had paid off and discharged over 500,000 soldiers and sailors of the Civil War; and, under Secretary McCulloch's management, had converted about 1,000,000,000 of short-time obligations into a funded debt; and within two years had placed the whole National debt in orderly shape, and begun upon its systematic payment. He held this office until 1869. From 1871 to 1878 he conducted a banking business in London. During 1884–85 he was again Secretary of the Treasury under President Arthur. He published *Men and Measures of Half a Century* (1888). He was the last survivor of Lincoln's Cabinet officers. Died May 24, 1895.

McCul'loch, in *Texas*, a W. central co.; *area*, 1,000 sq. m. *Rivers*, Colorado, San Saba, and Brady's Creek. *Surface*, hilly and rugged; *soil*, fit for cultivation along the river. Stock raising is the chief industry. *Cap.* Brady. *Pop.* (1897) 3,350.

McCune, in *Kansas*, a post-village of Crawford co., 15 m. E. of Parsons, on K. C., Ft. S. & M. R. R. Coal in the vicinity. *Pop.* (1895) 700.

McDon'ald, GEORGE, author, was born at Huntley, Aberdeenshire, Scotland, in 1824; graduated at King's College, Aberdeen; studied theology in the Independent College at Highbury, near London, and became a Congregational minister. He afterward joined the Church of England, and settled to a literary career in London. His earlier publications were short stories, poems, and books for children. He has written many novels, in most of which the north-country Scotch dialect figures conspicuously. His works include: *At the Back of the North Wind; Annals of a Quiet Neighborhood; Robert Falconer; Wilfred Cumbermede; The Marquis of Lossie; David Elginbrod*, &c.

McDon'ough, THOMAS, naval officer, was born in New Castle co., Delaware, in 1783. In 1814 he commanded a squadron on Lake Champlain, and on September 3 of that year gained a very important victory over a British squadron commanded by Commodore George Downie. For this service he was promoted to the rank of captain and received a gold medal from Congress. Died at sea, 1825.

McDow'ell, IRWIN, soldier, was born at Columbus, O., Oct. 15, 1818; was educated at the College de Troyes, France, and at the U. S. Military Academy, graduating July 1, 1838; served in the Mexican war; was ordered to Washington, February, 1861, as inspector of troops; engaged in mustering and organizing volunteers; appointed brigadier-general, May 14, 1861; commanded the Army of the Potomac at the battle of Bull Run. He was a department commander at different stations in the army throughout the Civil War; became major-general U. S. A., in November, 1872; was in command of the division of the South (1872–76), and then of the division of the Pacific till his retirement, Oct. 15, 1882. Died May 4, 1885.

McDuf'fie, in *Georgia*, a N. E. cen. co.; *area*, 235 sq. m.; bounded on the N. by Little river, and also drained by Upton creek. *Surface*, rolling, well wooded; *soil*, productive. *Products*, cotton, corn, oats, pork. *Cap.* Towner. *Pop.* (1897) 1,840.

McHen'ry, in *North Dakota*, a N. cen. co.; *area*, 1,908 sq. m.; drained by Mouse river and its tributaries. *Surface*, undulating; *soil*, sandy loam with clay subsoil, well watered; has extensive hay meadows on river bottoms. *Cap.* Towner. *Pop.* (1897) 1,840.

McIl'vaine, CHARLES PETTIT, divine and theologian, was born at Burlington, N. J., in 1799, became professor of Ethics and chaplain at West Point in 1825, and five years later was inducted into the Episcopate of Ohio. His *Evidences of Christianity* (1832) have passed through many editions both in the United States and Great Britain. Died March 13, 1873.

McIn'tosh, in *North Dakota*, a S. co.; *area*, 1,008 sq. m.; watered by numerous small streams and lakes. *Surface*, undulating; *soil*, very fertile. Grazing is a leading industry. *Products*, wheat, rye, barley, hay, &c. *Cap.* Ashley. *Pop.* (1890) 3,248.

McKean, THOMAS, an American patriot, was born in Chester co., Penna., in 1734. In 1774 he became a member of the Continental Congress, and as such signed the Declaration of Independence. Three years afterward he was elected executive of the State of Delaware, and in 1799 governor of Pennsylvania. Died in 1817.

McKee's Rocks, in *Pennsylvania*, a post-village of Allegheny co., 5 m. S. W. of Pittsburg, on P., C. & Y. and P. & L. E. R.Rs. Steel and iron manufacture is the leading industry; has railroad car shops; natural gas fuel; coal and lumber are shipped. *Pop.* (1897) 2,150.

McKen'zie, in *North Dakota*, a W. co.; *area*, 1,080 sq. m.; intersected by the Little Missouri river. Unorganized.

McKin'ley, WILLIAM, twenty-fifth President of the United States, was born at Niles, Ohio, January 29, 1843. His father, William McKinley, was one of the pioneers of the Western Reserve. In May, 1861, young McKinley enlisted in the 23rd Ohio Volunteer Infantry, mustered in by General Fremont; he served with the same regiment throughout the Civil War, and was mustered out a captain and brevet-major, in 1865. He settled at Canton, Ohio, where he has since resided. Entering the legal profession, he filled his first political office as prosecuting attorney of Stark county (1869–71). He was elected to the House of Representatives consecutively from the 45th to the 51st Congresses, though in the 48th Congress his election was contested, and his opponent was seated, late in the season. From the first, the tariff was Mr. McKinley's objective point, and he became a leader of the protective tariff party in the House, and a recognized authority on import duties. In the 51st Congress he was made chairman of the Committee on Ways and Means, and in that capacity prepared the tariff bill since identified with his name. This bill passed the House May 21, 1890; passed the Senate September 10; was then sent to the conference committee, whose report was adopted by the House September 27, and by the Senate September 30, and was signed by the President October 1. In the following congressional elections Major *McK.* was defeated; but in November, 1891, he was elected governor of Ohio by a majority of about 21,000, in a contest chiefly turning on the tariff issue. At the Republican national convention at Minneapolis, in 1892, *McK.* was made permanent chairman, and received 182 votes for nomination for President. In November, 1893, he was re-elected governor of Ohio, by a majority of over 81,000. In June, 1896, the Republican national convention nominated him for President; he was elected in November, and inaugurated March 4, 1897. His term of office was made notable by the Spanish-American war and the acquisition of island territory by the United States. He was elected to a second term in 1900, inaugurated March 4, 1901, and was shot by Leon Czolgosz, an Anarchist assassin, at Buffalo, N. Y., September 6, 1901, dying of his wound on the 14th.

McLane, LOUIS, statesman, was born at Smyrna, Del., in 1786. He sat in Congress for Delaware from 1817 to 1827, in which latter year he entered the U. S. Senate. From 1829–31 he was minister to England. He afterward held in succession the posts of Secretary of the Treasury and Secretary of State, and in 1845 proceeded again as Minister to England, where he settled the Oregon question. Died in 1857.

McLean, JOHN, jurist and statesman, was born in Morris co., N. J., in 1785. In 1807 he became a member of the bar in Ohio, and in 1812 was elected as a Democrat to Congress. After filling the office of governor of Ohio from 1816 to 1822, he became Postmaster-general of the U. S., a position he held with high credit for six years (1823–29). In the last-named year a judge of the U. S. Supreme Court, and the unsuccessful Republican candidate for the Presidency in 1856 and 1860. Died in 1861.

McLeu'uan, JOHN FERGUSON, was born at Inverness, Scotland, Oct. 14, 1827; educated at King's College, Aberdeen, and at Trinity College, Cambridge, and was admitted to the bar, but devoted his life to the study of the usages of early civilization. As a writer he is

chiefly known by his *Studies in Ancient History*. Died Jnne 16, 1881.

McLoud, in *Oklahoma*, a post-village of Pottawatomie co., about 35 m. E. of Oklahoma.

McMullen, in *Texas*, a S. co.; *area*, 1,200 sq. m.; watered by the Erie and Nueces rivers and their tributaries. *Surface*, undulating; *soil*, best euited to stock raising, which is the chief occupation. *Cap.* Tilden. *Pop.* (1890) 1,038.

McPher'son, Enwarn, journalist, was born at Gettysbnrg, Pa., on July 31, 1830; educated iu the law, bnt adopted journalism; was elected to Congress from Pennsylvania iu 1858 and 1860. In 1863 he was deputy Commissioner of Internal Revenue, bnt resigned on being elected clerk of the national House of Representatives, which office he held until 1873, aud again, 1881–83, and 1889–91. He was for several years American editor of the *Almanack de Gotha*, and from 1877 editor of *The Tribune Almanac*. From 1878–1880, he was editor of the Philadelphia *Press*, and, after 1880, editor and proprietor of a paper at Gettysbnrg. He wrote a *Political History of the U. S. during the Great Rebellion* (1865), and also a similar chronicle of the Reconstruction period (1870). Diol Dec. 14, 1895.

McPher'son, in *Kansas*, a central co.; *area*, 900 sq. m.; intersected hy Smoky Hill and Little Arkansas rivers. *Surface*, rolling prairie; *soil*, fertile; scarcely any timher. *Products*, wheat, corn, broom-corn; oats, &c. *Cap.* McPherson. *Pop.* (1895) 20,317.

—A clty, cap. of above co., 36 m. S. of Salina, on A., T. & S. Fé, C., R. I. & P., and 2 other R. Rs.; has carriage and machine works and other manufactnres. *Pop.* (1895) 2,666.

McPherson, in *Nebraska*, a W. co.; *area*, 1,340 sq. m.; *Surface*, nndulating prairie; *soil*, a very productive biack sand; no timber. Stock raising and grazing. *Cap.* Tryon. *Pop.* (1890) 492.

McPherson, iu *South Dakota*, a N. co.; *area*, 975 sq. m.; watered hy nnmerous small streams. *Surface*, eastern part level, western undulating; *soil*, productive. *Products*, wheat, oats, flax, barley, corn, potatoes, hay. Stock raising is a leading industry. *Cap.* Leola. *Pop.* (1895) 6,238.

McVeagh, Wayne, lawyer and diplomat, was horn at Phœnixville, Pa., April 19, 1833; educated at Yale College; was admitted to the bar (1856), and became district attorney of Chester co., Pa.; was captain in the cavalry force raised in 1862 to repel the Confederate invasion of Pennsylvania; chairman of Republican central committee of Pennsylvania (1863); appointed hy President Grant minister to Constantinople (1870); was a leading memher of the U. S. "McVeagh commission" to Louisiana, in 1877, to investigate political affairs; appointed U. S. attorney-general by Presideut Garfield, in 1881, but resigned the same year; ambassador to Italy by appointment of President Cleveland 1893–97.

McVicker, John, clergyman, was born at New York, Aug. 10, 1787; he was educated at Columhia College and at Cambridge, England; ordained to the Episcopal ministry in 1811, and became rector of a church in Hyde Park. In 1817 he was called to fill the chair of Moral Philosophy, Rhetoric and Belles-Lettres in Colnmhia College, a position which he held uutil 1864, when he was made professor emeritus. From 1844 to 1862 he was chaplain at Fort Columbus, Governor's Island. He was influential in securing the adoption of the free banking system. He wrote *Outlines of Political Economy*, and several biographical works. He died Oct. 29, 1868.

Mead, Larkin Goldsmith, scnlptor, was horn at Chesterfield, N. H., Jan. 3, 1835; became a pupil of Henry Kirke Brown in 1852. In 1855 he produced in marble his first work, *The Recording Angel;* went to Florence, Italy (1862), and has since resided there. His later works include the statue of Lincoln, at Springfield, Ill., and the statue of Ethan Allen, in the Capitol at Washington; also four colossal groups representing different branches of the army and navy service.

Meade, Richard Worsam, U. S. N., was born in New York city, October 3, 1837; was appointed midshipman in the U. S. N., from California, October 2, 1850. He served on the *St. Louis*, and was with Commodore Ingraham (*q. v.*) during the celebrated Koszta affair at Smyrna in 1853; became lientenant-commander in 1862, and was given command of the *Louisville*, of the Mississippl fiotilla; commanded the naval batallion during the New York riots in July, 1863; for "gallant conduct" while in command of the *Marblehead*, at Stono River, S. C., was publicly thanked hy Admiral Dahlgren, and recommended for promotion; commanded the *Chocuva*, of the West Gulf Squadron, in 1864, and captured 7 hlockade-runners in qnick succession; commanded the American yacht *America* in her famous race with the British *Cambria* (1870). From 1871 to 1873 *M.* commanded the *Narragansett*, in which he cruised 60,000 miles in the Pacific, visiting every important island and negotiating the famous Samson treaty. He became captain in 1880, and upon relinquishing his command of the *Vandalia*, his admiral reported to the department that "as a commanding officer he has no superior." After some years of shore duty, during which he had command of the Washington Navy Yard (1887), which he transformed into the great naval ordnance bureau it is to-day, *M.* was commissioned commodore (1892) and rear-admiral (1894). He was retired at his own request on May 7, 1895, after having been in command of the North Atlantic Squadron for a short period, during which there was some unpleasant friction between *M.* and President Cleveland, dne to the former's alleged sharp criticism of the latter's foreign policy. Died May 4, 1897.

Meade, in *Kansas*, a S. W. co.; *area*, 975 sq. m.; intersected by Crooked creek. *Surface*, gently undulating; scarcely any timher; *soil*, fertile. *Cap.* Meade. *Pop.* (1895) 1,741.

—A post-village, cap. of Meade co., 32 m. S. W. of Dodge City. *Pop.* (1895) 266.

Meade, in *South Dakota*, a S. W. co.; *area*, 1,405 sq. m.; partly bounded by the North and the Forks of Cheyenne river, and intersected by Elk creek. *Surface*, rolliug; *soil*, black, deep, and very fertile. Abuudant pine forests and fine buildiug stone. *Cap.* Sturgis. *Pop.* (1895) 3,553.

Mead'ville, in *Missouri*, a post-town of Linn co., 90 m. E. of St. Joseph; has extensive poultry houses and refrigerators, and ships poultry to Eastern cities. *Pop.* (1897) 761.

Mea'gher, Thomas Francis, agitator and soldier, was born at Waterford, Irelaud, August 3, 1823; educated at Stonyhurst College; was admitted to the bar, and became noted for his oratorical gift. For his part in the "Yonng Ireland" movement he was seized (1848) aud tried for high treason; a sentence of death was commuted to transportation for life to Tasmania, from which place he escaped to New York in 1852. He lectured iu the chief cities of the U. S. on Irish independence, and established the *Irish News;* organized the "Irish Brigade" in New York early in the Civil War; was appointed brigadier-general of volunteers, February 3, 1862, and was engaged in the most important battles of the Army of the Potomac; resigned in 1863, but was recalled (1864) to the command of the district of Etowah. He was made secretary of Montana (1865), and later became acting-governor (1866); was the author of a volume of *Speeches*, and a narrative of his regimental experiences. His death was accidental; while travelling, he fell from the deck of a steamboat, aud was drowned, on July 1, 1867.

Meagher, in *Montana*, a ceutral co.; *area*, 17,000 sq. m.; bounded on the N. by the Missouri river and intersected by the North Fork of Musselshell river. *Surface*, mouutaiuous, large treeless plains and fertile valleys. *Min.* gold and silver. *Cap.* White Sulphnr Spriugs. *Pop.* (1890) 4,749.

Meat, *n.* (*Agric.* and *Com.*) The lean portions of meat, made up of the muscnlar tissues, constitnte a stimulating food, which is 70 to 80 per cent. water, the balance being proteids, extractives, fats, salts, and a few indigestihle snbstances. The extractives of meat are valnable as stimnlants of digestion. The proteids are tissne-formers and heat-prodncers. Contrary to existing practices, meat is better if cooked directly after killing, heing both tenderer and more palatable. When kept a few hours and drained of the blood, it becomes stiff and tough, and is not so easily digested. Further keeping for a considerable period, and pounding with steak-hammers, is often resorted to with the object of making the meat again tender. Nearly all the States have legislated against the exposure for sale of tainted meat, providing severe penalties.

Most of the beef raised in the United States comes from the Western cattle ranches, and a great deal is slaughtered at Chicago, where there are extensive packing-houses. Cincinnati is headquarters for the pork trade. Meat is transported all over the United States in refrigerator cars, and the East receives nearly its whole supply from the West. The British United Kingdom depends very largely on the United States for its supply of meat, receiving ahout nine-tenths of the export. A great deal of it is shipped on the hoof, Great Britain paying nearly $31,000,000 in 1895 for the live animals she imported from the United States. The total exports of live animals for meat from the United States durlng 1896 were: of cattle, $35,000,000 worth, a gain of $4,000,000 over the preceding year; hogs, $227,000, more than double the amount of the previous year, and nearly all to Mexico; sheep, $3,000,000, a gain of about $500,000. Nearly all the cattle and sheep were taken by the United Kingdom, bnt Europe does not care for the American hog.

The exportation of fresh beef in 1896 was $19,000,000, a gain of $2,000,000 over 1895. Stated iu ponnds, the export of beef was 225,000,000, a gain of 34,000,000. The canned heef exports during 1896 were $5, 600,000, or 64,000,000 pounds, a trifle less than the year previous. To this should be added $4,000,000, or 71,000,000 pounds, of pickled and cured beef, making a grand total of about $65,000,000 worth of beef exported annually, of which about $60,000,000 goes to the United Kingdom. Our pork export goes mostly in the form of bacon and ham, which are not snbject to the same prejudice in Europe as exists against the fresh pork. The export of these in 1896 was $50,000,000, or 625,000,000 pounds. The mutton exports are trifling, being $31,000, or 422,000 pounds, in 1896, less than two-thirds of the previous year's export.

Mecos'ta, in *Michigan*, a post-village of Macosta co., 15 m. S.E. of Big Rapids. *Pop.* (1894) 562.

Medes, *n. pl.* The people of the ancient kingdom of Media.

Med'ford, in *Oklahoma*, a post-village of Grant co., 17 m. from Caldwell, Kansas, on C., R. I. & P. and H. & S. R. Rs. *Pop.* (1897) 424.

Medford, in *Oregon*, a post-village of Jackson co., 5 m. E. of Jacksonville; center of a fine fruit and mining helt. *Pop.* (1897) 1,102.

Mediap'olis, in *Iowa*, a post-town of Des Moines co., 5 m. N. of Burlington. *Pop.* (1895) 665.

Medica'go, *n.* (*Bot.*) See Lucerne.

Med'ical Lake, in *Washington*, a post-town of Spokane co., 16 m. S. W. of Spokane Falls, on Medical Lake, which is much visited hy invalids; medicinal salts are manufactnred from its waters and exported. *Pop.* (1897) 825.

Med'icine Lodge, in *Kansas*, a city, cap. of Barber co., 45 m. S. W. of Kingman. *Pop.* (1895) 659.

Med'ico-chirur'gical, *a.* (*Med.*) Pertaining to both medicine and surgery; as, *medico-chirurgical* college.

Medill', Joseph, journalist, was born in New Brunswick, Canada, April 6, 1823. His life has been devoted to newspaper publication and politics. He was (1854) one of the orgauizers of the Republican party in Ohio; soon after went to Chicago, and with two partners bought *The Tribune*, in May, 1855; was active in State politics, and iu 1871 was appointed a member of the Civil Service Commission, and elected Mayor of Chicago. He spent a year in Europe; and on his return purchased a controlling interest in *The Tribune*, of which he became editor-in-chief. Died March 16, 1899.

Medjidie (*med'je-de*), *n.* A Turkish order instituted in 1852 by the Sultan Abdul-Medjid, and conferred on many of the foreign officers who fought with Turkey in the Crimean war. It has five classes; and the decoration, which differs in size for the different classes, is a silver sun of seven triple rays, with the device of the crescent and star alternating with the rays. On a circle of red enamel, in the center of the decoration, is "Zeal, honor, and loyalty," and the date 1268, the Mohammedan year corresponding to 1852; the Sultan's name is inscribed on a gold field within this circle. The first three classes suspend the badge around the neck from a red ribbon having green borders, and the fourth and fifth classes wear it attached to a similar ribbon on the left breast. A star, in design closely resembling the badge, is worn on the left breast by the first class, and on the right breast by the second.—A Turkish coin of silver worth about 85 cents, aud coined by the Sultan Abdul-Medjid in 1844.

Me'do-Per'sian, *a.* Belonging or pertaining to the Medes and Persians.

Medo'ra, in *Illinois*, a post-village of Macoupin co., 22 m. S. W. of Carlinville. *Pop.* (1897) 545.

Med'way, in *Maine*, a post-town of Penobscot co. *Pop.* (1897) 690.

Meet'ing-post, *n.* (*Hydraul. Engin.*) That style of canal-lock gate which meets the corresponding style of the other gate at the mid-width of the bay.

Meet'ing-seed, *n.* (*New Eng.*) Aromatic seed, green or dry, such as caraway, dill, or fennel, taken to a religious service and eaten to prevent drowsiness.

Megalith'ic Mon'uments. (*Archæo.*) Large, nnhewn, or partly hewn stones, or structures of such stones, erected in prehistoric times as burial monuments, or in memory of important events. They are a feature of the remote part of nearly all countries, but are found most abundantly from the north of Africa, through Europe, to Scandinavia, in Great Britain and Ireland, and in India; they also exist in South America, but not in North America. These monnments are divided into four classes: (1) *Menhirs:* tall, massive pillars, or monoliths, standing upright on the ground, or with their bases imbedded. (2) *Alignments:* monoliths arranged in lines. (3) *Dolmens:* groups of close-standing monoliths, roofed over by one or more cap-stones, so as to form a megalithic chamber or vault, often imbedded in earth or stones, forming a tumnlne or cairn. (4). *Cromlechs:* in France and other countries on the Continent, circular, oval, or irregular enclosures formed hy monoliths standing at greater or less distance apart; in Great Britain, however, the name has been applied to free-standing dolmens—*i. e.*, dolmens not surronnded by monnds of earth or stones. The present tendency is to discontinue this confusing British nse, and apply the term *cromlech* only to stone circles, leaving *dolmen* for all varieties of tombs with rude stone chambers, whether they stand free or are enclosed in tumuli or caverns. *Menhirs*, being the first and simplest form of monument, are found in all megalithic countries, and seem to have had a variety of commemorative and religious purposes. The "Tanist Stones" in Scotland were monoliths ceremonially nsed on the accession of kings and chiefs. The most celebrated of them is the Lia Fail, on which the Scotch kings nsed to be crowned. It is now at Westminster Abbey. Menhirs were also nsed as records of events and landmarks, a usage common in Bible times, as shown hy such instances as where a boundary stone was set up hy Bohan, the son of Reuben, aud Laban and Jacob erected "a pillar of witness" at Galeed. Where monoliths are grouped together their nnmber seems often to have had a meaning, and where they have been artificially perforated superstition has added many strange significations to those originally planned. In Great Britain they are sometimes found rudely inscribed, hut most of the eculptured stones are more recent, belonging to early Christian times. Menhirs are numerone in the British Isles, but still more numerous in France, where the most remarkable specimens are found within the confines of old Brittauy. The largest monhir in the world was found at Locbmariaquer (Morbihan); it is broken into four pieces, which together measure about 67 feet. The most remarkable *alignments* are near Carnac, Brittany, in the center of a region which contains the most wonderful megalithic remains in the world. They are situated in groups within a few miles of one auother; the groups at Ménec, Kermario, and Kerlescant are thought by some students to be parts of one original series of alignments nearly 2 miles long. Among the best examples of *dolmens* are the so-called "giant's graves" and "fairy grottoes" (see Figs. 1, 2, and 3) which are constructed of numerous supports and cap-stones, but are a direct development from the

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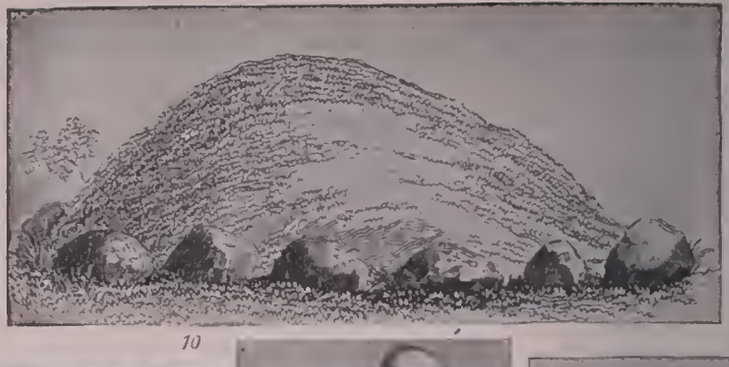

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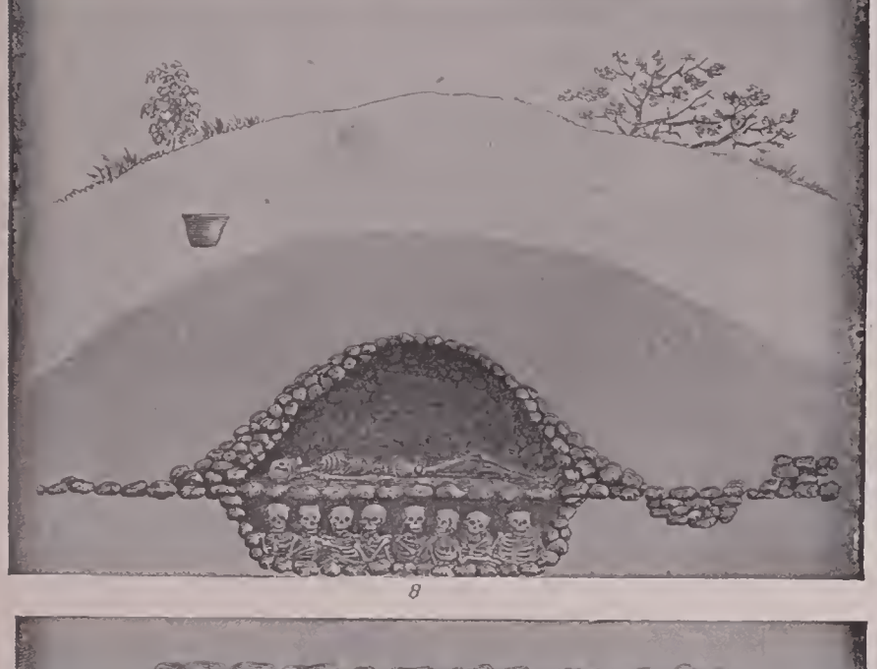

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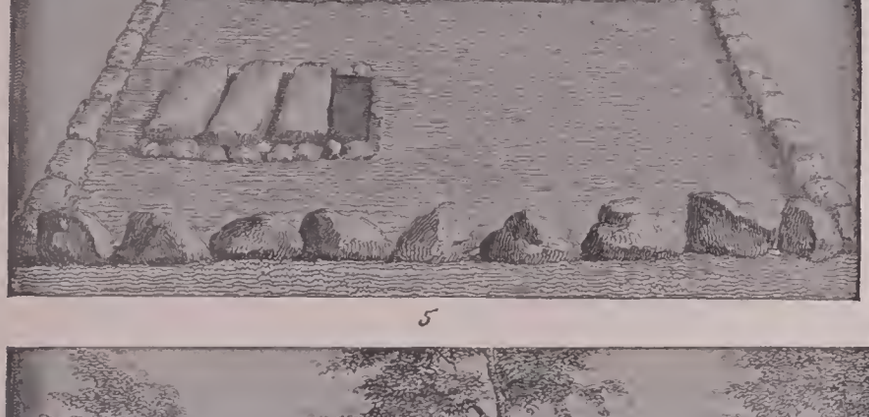

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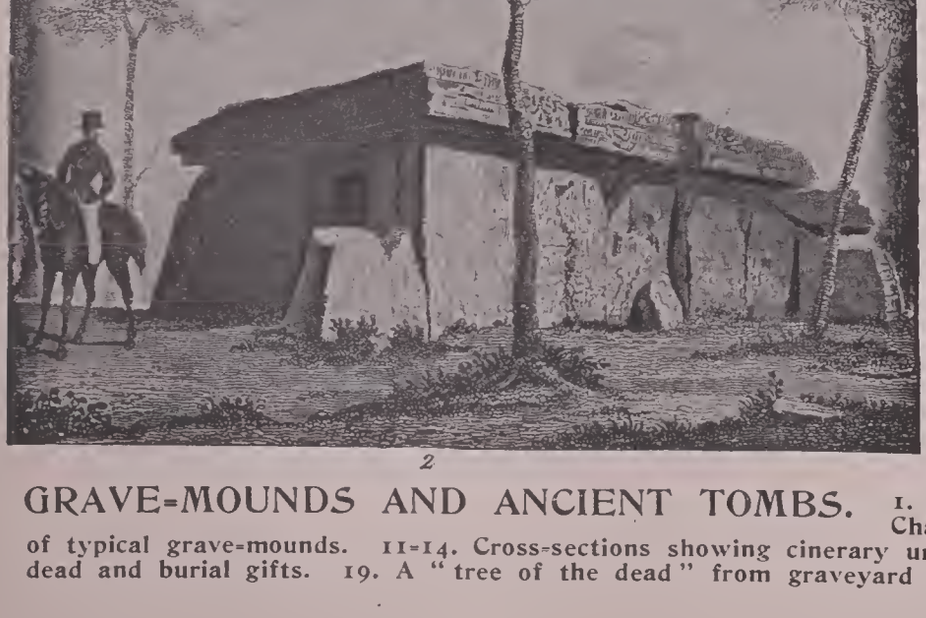

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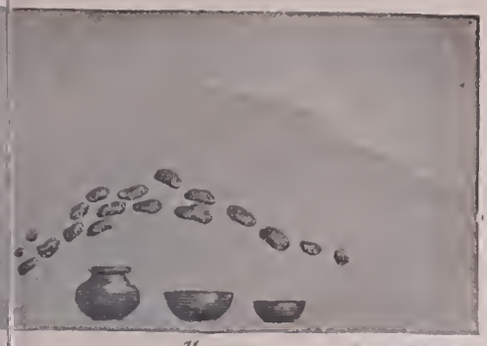
GRAVE-MOUNDS AND ANCIENT TOMBS.

1. Giant's Tomb, Lower Saxony. 2, 3. Fair
Chamber, West Gothland. 7. Cross-section o
of typical grave-mounds. 11-14. Cross-sections showing cinerary urns. 15. Terraced mound, Prussia. 16.
dead and burial gifts. 19. A "tree of the dead" from graveyard near Oberflacht, Suabia. [See TUMULUS.



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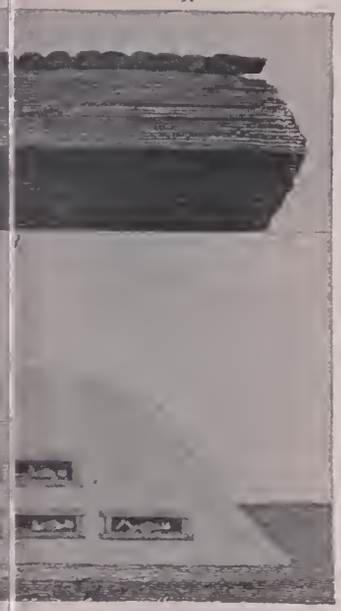

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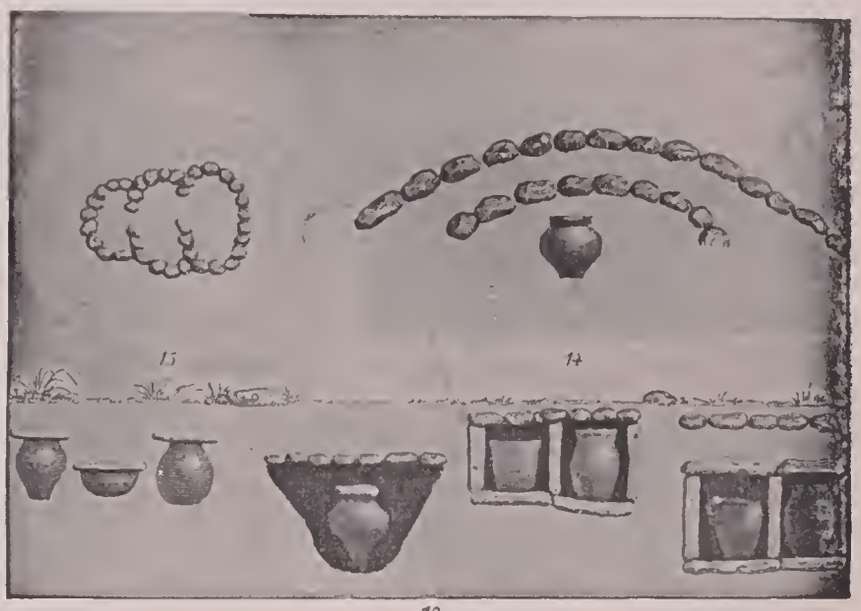

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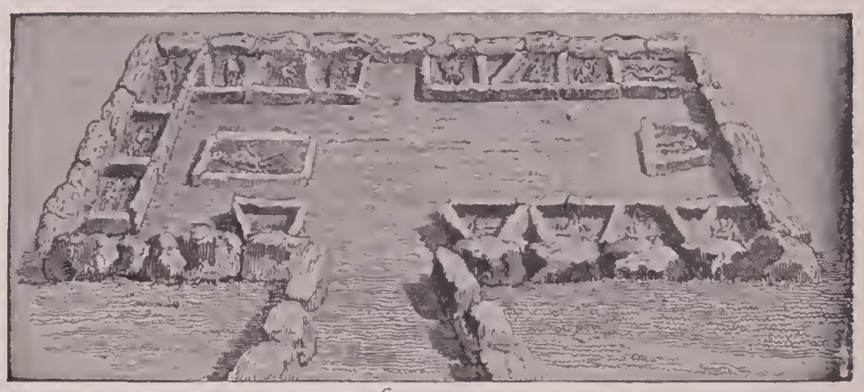

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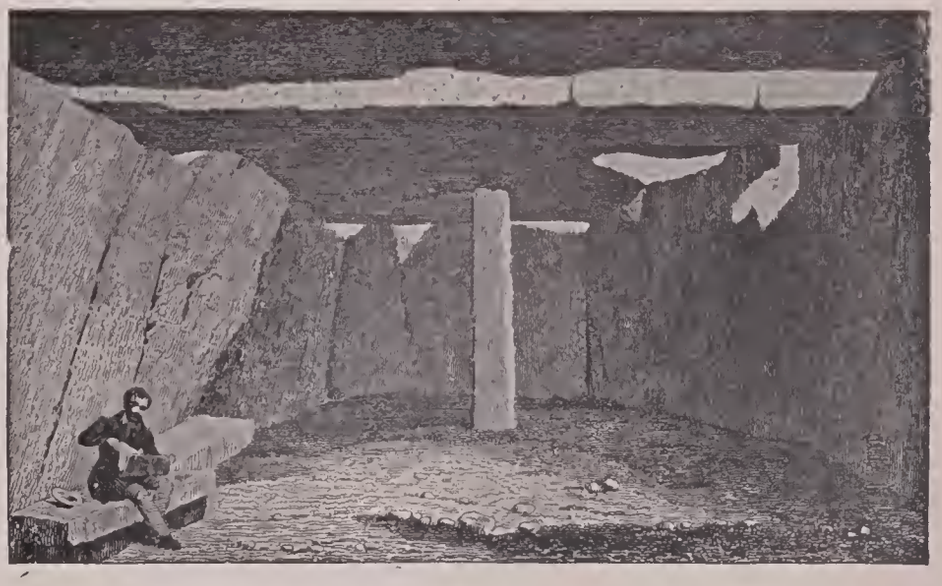


Grotto, Saumur, France. 4. Cromlech at Stenness. 5. Giant's Bed, Mecklenburg, Germany. 6. Giant's Grave-mound, Orkney Islands. 8. Cross-section of tomb of master and slaves, Mecklenburg. 9, 10. Exterior Cross-section showing subterranean interments in cinerary urns. 17, 18. Wooden coffins showing uncremated

simpler forms. Dolmens of such complicated structnre are very rare in Great Britain and Ireland, the only approach to it being shown in one called Calliagh Birra's House, in Ireland. Many of these larger dolmens, as well as of the more simple, show no evidence of having been enclosed in a mound or cairu, although some archæologists claim that such must have been the original condition of all. When a large dolmen was covered over with a tumulus it necessitated the building of a covered stone approach, made by a series of side stones and cap-stones. No dolmens exist to the east of Saxony, in Europe, but they reappear again on the border of Asia and may be traced across the continent to India. In Saxony and to the west in Germany there are many such monuments, and some idea of their various shapes and construction may be gained from the accompanying illustrations. In Holland, where they are called *hunnebedden*, they are found in some numbers; only one has been discovered in Belgium, but in France they are very frequent, particularly in Brittany; they are more sparsely scattered again through Spain, only to be found in large groups on the north African coast. In some cases human skeletons are found enclosed in wooden coffins within the stone vaults, sometimes the bodies had been entombed without coffins, and sometimes they had been burned before entombment and the ashes interred in cinerary urns. *Cromlechs*, or "stone circles," are not necessarily circular in form, but may be oval, irregular or square, and sometimes consist of concentric rows of monoliths; two cromlechs are often connected by an avenue or alignment; the remains of a large circle may be traced at the head of the great Carnac alignments. Sometimes, too, cromlechs surround dolmens, and outside the cromlech may be found a circular ditch or vallum. Stonehenge is the most remarkable monument of this class. It has the vallum and the concentric circles of monoliths, but those of the inner row are partially hewn and attached by transverse lintels, making the structure far too complicated to be typical, like the simple stone circle shown in Fig. 4. All these megalithic monuments, particularly those in Britain and Brittany, have been called *Druids' Stones, Druids' Circles*, &c., from an erroneous idea that they were the temples and altars of the Druids, but careful investigation shows that they were in no way suited to the uses of the Druid priests, and the early writers who mention the Druids do not connect them with these monuments.

Meg'aphone, *n.* An invention of T. A. Edison which consists of two large funnels, with tubes applied to the ears of the hearer. These collect and concentrate vocal sounds from a speaking-trumpet, and enable a conversation to be carried on for a distance of about two miles. Also a large, cone-shaped trumpet by whose aid the sound of the voice can be augmented and made audible for a considerable distance.

Meg'ascope, *n.* [Gr. *megas*, great, and *skopeo*, to see.] (*Opt.*) An instrument for taking magnified drawings of objects. It is the same in principle as the *solar microscope* and *magic lantern*.—An enlarging camera.

Meg'atherm, *n.* A plant that can flourish in such heat and moisture as are found within the tropics or in valleys near the equator, with a temperature not less than 68° F.

Meg'ohm, *n.* (*Elec.*) A million of ohms—a measure of electric resistance.

Meiggs, Henry, contractor, was born in Catskill, N. Y., July 7, 1811. In 1848 he took a cargo of lumber to San Francisco, and established himself there in the lumber business on a large scale; but failing in 1854, he went to South America and engaged in bridge building and railroad construction in Chile, and (after 1867) in Peru, where he carried out expensive public works, the greatest being the Oroya Railroad over the Andes. With the return of his financial prosperity, he discharged in full all of the debts which he had contracted in California. Died in Peru, Sept. 29, 1877.

Meigs, Montoomery Cunningham, U. S. A., was born at Atlanta, Ga., May 3, 1816; graduated at West Point (1836), and was transferred to the corps of engineers in 1837. From 1836 to 1852 he was engaged upon the construction of forts, &c. From 1852 to 1860 he was constructing the Washington aqueduct and the Capitol extension, and other public works. In 1861 he was appointed, through successive rapid promotions, to be quartermaster-general of the army, with rank of brigadier-general. He was an active and responsible officer during the war, not only in his own department, but on the field at Lookout Mountain and Missionary Ridge, and in the emergency defence of Washington. He was brevetted major-general, July 5, 1864. After the war, he visited Europe, and later for several years was occupied in the inspection of his department in the Western territories, and also the Northern Pacific Railway route to the Red River of the North. In 1875 he was sent to Europe to inspect the organization of departments in European armies. Retired in 1882, and died Jan. 2, 1892.

Meis'ter-sing'ers, *n. pl.* [Ger.] A society of Germans formed in the 13th century for the cultivation of poetry—the successors of the Minne singers (*q. v.*). It was incorporated by Charles IV., in 1378. Their poems were often satiric.

Mei'zo-seismal, *a.* [Gr. *meizōn*, greater; *seismos*, earthquake.] Pertaining to the greatest destructive force of an earthquake. A curved line connecting the points of maximum destructive energy of the shock around its epicenter is called the *meizo-seismal*, or *meizo-seismic curve*.

Melanc'sia and the Melanesians. (*Geog.* and *Anthrop.*) The name Melanesia is now given to those islands in the Pacific Ocean, near New Guinea, inhabited by the Papuans. These islands were formerly included in the term Polynesia. The Melanesian archipelagoes comprise, among others, the Solomon Islands, the Santa Cruz Islands, the New Hebrides, New Caledonia, and the Fiji Islands, where, however, the population is so mixed with Polyuesian that it may be indifferently attributed to Melanesia or Polynesia. The population of New Guinea or Papua is, on the whole, closely allied to the Melanesians. If New Guinea be included, the total area of the Melanesian islands is 358,300 square miles, and the population is estimated at 1,150,000 in 1897. Melanesia is so called from the Greek word signifying black, because the Papuan race is blacker in color than the natives of Micronesia and Polynesia. The Melanesians are closely allied to the Negritos, though there are great differences in language. They appear to be the indigenous element in the Pacific, where they formerly occupied a much wider domain than at present, for traces of black blood are found in Samoa and New Zealand. They are also at a lower stage of culture, being undoubted cannibals, in many places head-hunters, extremely savage, blood-thirsty, and treacherous, scarcely recognizing any hereditary chiefs, and often forming hostile groups at perpetual feud with their neighbors. The Melanesians are broad-nosed, prognathous, of a sooty black color. They have black frizzly hair, and are of low stature, their mean height being five feet five inches. They are an ugly race, especially the women.

Mel'anism, *n.* The condition of abuormal blackness, or a tendency to blackness, in the hair or plumage of animals; the opposite of *albinism*. Black squirrels, leopards, &c., are common examples of *melanism*, which, in some animals, is highly persistent as a variety.

Mel'ba, Nellie, operatic vocalist, was born in Australia, on May 19, 1865; received a musical education in Europe, studying under Madame Marchesi, in Paris. On Oct. 15, 1887, she made her stage *début*, in *Rigoletto*, at Théâtre de la Monnaié, Brussels. The next year she appeared as *Lucia*, at Covent Garden, London. In 1889, she played *Ophelia* at Paris Grand Opera, and *Juliet* in London. It was for her that Bemberg specially wrote *Elaine*, produced in London in 1892. She sang in *Pagliacci*, at Covent Garden, in 1893, and in the Handel Festival in 1894; and took prominent part in the American and European opera seasons of 1895–96–97.

Melchiz'edek, *n.* (*Script.*) Mention is made of him in Genesis xiv. 18–20, where he is called king of Salem and priest of the most high God. The story reads that he met Abraham on his return from the rescue of Lot, and offered bread and wine to Abraham and the king of Sodom in the valley of Shaveh, in the neighborhood of Jerusalem. After this he blessed Abraham and received from him tithes of the spoil. Psalm 110 declares "The Lord said unto my Lord: 'Thou art a priest forever after the order of Melchizedek,'" and in Hebrews vi. 20, and vii. 1–21, Melchizedek is mentioned as a type of the kingly priesthood of Christ. These various references to Melchizedek have caused much controversy. Wellhausen considers the chapters in Genesis in which he appears as the latest addition to that book; Ewald and others think it the earliest portion of ancient secular history, while still others regard it as wholly unhistorical. The Targum, as well as many cabalistic and rabbinical writings, identifies Melchizedek with the patriarch Shem, and that view was adopted by Luther and Melancthon, and by Selden and Lightfoot among English writers. A sect, called Melchizedekians, reverenced him as an incarnation of the "great power of God," superior even to Christ.

Mel'ilot, *n.* (*Bot.*) The sweet clover, a plant of the genus *Melilotus*, belonging to the pulse family, natural order *Leguminosæ*. It is an herbaceous plant, having pinnately tri-foliate leaves with adnate stipules. Its flowers are small and fragrant, either white or yellow, and grow in loose racemes. The whole plant when dried has a sweet peculiar odor like that of the Tonka bean. Its chief economic value is as a honey plant, for it furnishes poor forage and is sometimes counted as a weed. In the north temperate and sub-tropical zones, there are about ten different species, of which *M. officinalis*, the yellow melilot, or true sweet clover, and *M. alba*, the white melilot, are best known.

Méline (*mā-lēn'*), Felix Jules, statesman, was born at Remiremont, in the Vosges, France, in 1838. Completing his studies, he studied law, and entered the Chamber in 1872, being appointed Under-Secretary of State for Justice in 1876. He took office under M. Jules Ferry in 1883 as Minister of Agriculture, and became president of the Chamber in 1888. After that he was chosen chairman of the Tariff Commission, on which his strong protective opinions had great weight. He is a member of the moderate Republican party, and after the fall of M. Bourgeois, successfully undertook the task of forming a "conciliation" Cabinet on April 28, 1896.

Mel'iorism, *n.* [Lat. *melior*, better.] (*Philos.*) A term used by George Eliot to denote a mean between optimism and pessimism. The doctrine that everything in nature tends to produce a progressive improvement. —The betterment of society by means that improve man's physical condition without reference to ethical or religious considerations.

Melis'ma, *n.* [Gr.] A melody; a song or tune, as opposed to *recitative*, or musical declamation.

Mel'ligo, *n.* (*Bot.*) Honey-dew; an unnatural secretion of sweet matter on the surface of plants or trees, appearing in warm, dry weather. It is often caused by the presence of aphides, cocci, and other insects which puncture the covering of the stems and leaves in order to feed upon the sap, but the breaking of the tissues from any other cause will produce it; a dry, warm air seems to be required to cause in the plant the superabundance of sugar which characterizes this exudation. Honey-dew is sometimes secreted in such quantities that it drips from the leaves, or even falls to the ground in showers when the tree is stirred, and the manna of the Scriptures has been identified by students with the dried honey-dew of a shrub (*Tamarisk mannifera*). As a rule, however, the honey-dew merely coats the leaves and twigs with a sticky film, which collects dust and upon which molds and fungi thrive, to the injury of the plant.

Melod'icon, *n.* A musical instrument made of steel bars, in different lengths, tuned to the diatonic scale, struck with hammers held in the hand.

Melo'dion, *n.* A musical instrument, invented in 1806 by J. C. Dietz, having graduated metal bars to be sounded by contact with a rotating cylinder.

Mel'ograph, *n.* [Gr. *melos*, song; *graphō*, to write.] An electrical instrument to be attached to a piano for marking on paper the notes played. The paper may then be perforated and used in a melotrope to reproduce the music.

Meloma'nia, *n.* [Gr. *melos*, song; *mania*, madness.] A mania for music, inordinate love of music, or uncontrollable desire for it.

Meloma'niac, *n.* One who is afflicted with melomania.

Mel'rose, in *Ohio*, a post-village of Paulding co. *Pop* (1897) 485.

Mel'vern, in *Kansas*, a post-village of Osage co., 48 m S. of Topeka. *Pop.* (1895) 413.

Mel'ville, George Wallace, U. S. M., was born in New York city, Jan. 10, 1841; was educated at the Brooklyn Polytechnic School, and entered the navy (1861) as third assistant engineer. During the Civil War he frequently volunteered for desperate service. In 1881 he became chief engineer, and in 1887 engineer-in-chief of the navy, a position which he still holds (1897). In 1879 he joined the *Jeannette* Arctic expedition. His heroic conduct in this enterprise was recognized by Congress, in a special act, advancing him one grade, in 1890. *M.* has contributed much to the building up of the new U. S. navy, one of his most remarkable designs being that of the triple-screw machinery for the swift cruisers *Columbia* and *Minneapolis*. See Cruiser.

Mel'vin, in *Illinois*, a post-village of Ford co., 16 m. N.W. of Paxton. *Pop.* (1897) 550.

Memo'rial Day. In the United States a day (May 30) set apart for decorating the graves of Union soldiers; commonly called Decoration Day.

Menard', in *Texas*, a W. central co.; *area*, 880 sq. m.; intersected by the San Saba river. *Surface*, hilly; *soil*, fertile in river bottoms. Stock raising is the chief industry. *Cap.* Menardville. *Pop.* (1897) 1,460.

Men'deleef, Dmitri Ivanovitch, chemist, was born at Tobolsk, Russia, Feb. 7, 1834; was appointed professor of Chemistry in the University of St. Petersburg, in 1866. By his contributions to physical chemistry and chemical philosophy he has enriched every section of chemical science; is especially famous for his "periodic system" of the chemical elements, which is viewed as the greatest discovery in the science in recent times. The accuracy of this theory has been established by the discovery of new elements in accordance therewith.

Mendic'ity Soci'ety. The name by which the Society for the Suppression of Mendicity is commonly designated. Such a society in London and elsewhere has for its object the reduction of the nuisance of street begging. The plan is to issue printed tickets to be given to beggars instead of money, which tickets refer them to offices of the society where their cases are investigated, and those worthy of assistance are relieved, and impostors and vagrants are punished or put to work. Begging-letters are also referred to the society and their authors investigated.

Men'don, in *Ohio*, a post-village of Mercer co., 10 m. from Celina. *Pop.* (1897) 465.

Mendo'ta, in *Missouri*, a post-town of Putnam co. *Pop.* (1897) 920.

Men'elek, the present king or Negus of Abyssinia. His name is not an uncommon one in his kingdom, and is said to have been first borne by a mythical Menelek, the alleged son of King Solomon and the Queen of Sheba. He was unknown outside of his own country until, on the death of John II., in 1889, he became Negus. One of his first acts was to make with the Italian government, which had occupied Massowah, a treaty whereby he agreed that Italy should represent Abyssinia in all foreign relations. He soon repented, however, of having made his country a vassal. Italy undertook to chastise him for violations of the treaty, and sent against him an expedition. All the troops of the expedition were killed or taken prisoners by *M.*, who refused to release his captives until Italy, by a treaty made Nov. 15, 1896, recognized the independence of Abyssinia.

Men'folk, *n.* (*Colloq.*) The male members of a family taken together.

Men'hir, *n.* See Megalithic Monuments.

Men'ifee, in *Kentucky*, an E. co.; *area*, 150 sq. m.; drained by the Licking and Red rivers. *Surface*, broken and hilly; *soil*, partly fertile. *Cap.* Frenchburg. *Pop.* (1890) 4,666.

Men'no, in *South Dakota*, a post-town of Hutchinson co. *Pop.* (1895) 511.

Menom'onee Falls, in *Wisconsin*, a post-village of Waukesha co., 16 m. N.W. of Milwaukee. *Pop.* (1895) 604.

Men'opome, *n.* (*Zoöl.*) The *Protonopsis horrida*, a large batrachian belonging to the fam. *Amphiumidæ*. In form, it resembles the newt and salamander; the head is flat and broad; the teeth in two concentric rows in the upper jaw, and one row in the lower, are numerous and small. Notwithstanding its small teeth,

Fig. 2987.—MENOPOME.

it is fierce and voracious, feeding chiefly on fish and batrachians. It is found in the Ohio and other rivers of the same region, and known on their banks by many names, such as *hellbender*, *mud devil*, *ground puppy*, *young alligator*, and *tweeg*.

Men'thol, *n.* [Lat. *mentha*, mint.] (*Chem.*) A white waxy crystalline substance ($C_{10}H_{20}O$) deposited from oil of peppermint which has been kept a long time. It is soluble in alcohol, ether, and oils, and slightly soluble in water. It is used as a local anæsthetic for neuralgia and similar pains.

Mentif'erous, *a.* [Lat. *mens.* (gen. *mentis*); *fero*, to bear] Mind-bearing, thought-transforming, telepathic.

Men'tone, in *Indiana*, a post-town of Kosciusko co., 50 m. W. of Fort Wayne. *Pop.* (1897) 910.

Mephistoph'eles, *n.* A name known since the Middle Ages as a personification of the principle of evil. "He is frequently referred to as *the* Devil, but it was well understood that he was only a devil," says Bayard Taylor, in a note to *Faust*. It may almost be said that Mephistopheles was created by Goethe, who has made the fiend a permanent figure in literature. Authorities differ greatly as to the origin of the word, Taylor endorsing the opinion of Düntzen—that it was imperfectly formed by some one who knew little Greek and was intended to signify "not loving the light"—while others derive it from a Hebrew root, which signifies "one who loves lies."

Mer'cantile A'gency. (*Com.*) Nearly all commercial lines of business are required to give or receive more or less credit, and a proper knowledge of the financial standing of merchants is essential in the highest degree to business success. To meet this want commercial agencies have been established. The Bradstreet and R. G. Dun & Co. concerns issue quarterly commercial ratings of all houses of any standing in any line throughout the U. S. and Canada. They have headquarters in New York, and sub-agencies in all principal cities. About 1,250,000 business concerns and individuals are regularly rated and classified by them, and the sources of information of the agencies have been sufficiently accurate to attach much value to their ratings. Subscribers to their services are entitled to additional information by letter, or to special inquiries concerning parties not rated. This system enables the solvent merchant to purchase goods anywhere with reasonable certainty that such will be delivered promptly without undue delay consequent to investigating his credit. The agency thus serves as a sort of clearing-house for credit, and good ratings are much sought after in the business world. Credit books are also issued, furnishing the same sort of information to those selling to particular trades. Agencies also exist in Europe, and importing and exporting houses on opposite sides of the globe are thus kept informed as to each other's commercial standing.

Mer'ced, or **Mercede** (*mer-sād'*), in *California*, a central co.; *area*, about 2,270 sq. m. *Rivers*. San Joaquin, Merced, and Mariposa rivers, besides many smaller streams. *Surface*, very much diversified, the Coast Range forming the S.W. border; *soil*, along the rivers fertile. *Products*, wheat and other cereals, fruit, &c. *Cap.* Merced. *Pop.* (1890) 8,085.

—A post-village, cap. of above co., 67 m. S.E. of Stockton; has some manuf., and a large shipping trade in wheat and other products. *Pop.* (1897) 2,270.

Merced River, in *California*, rises on the S.W. slope of the Sierra Nevada, in Tuolumne co., and flowing S.W. enters the San Joaquin river from Merced co.

Mer'cenarily, *adv.* In a sordid or mercenary manner.

Mer'cenariness, *n.* State or quality of being mercenary or venal.

Mer'cenary, *a.* [Lat. *mercenarius*, from *merces*, hire, wages, salary, reward, from *moreo*, to deserve, to merit, to earn.] That works or acts for the sake of payment, reward, or gain; hired; purchased for money; hireling; venal.—Hence, in a bad sense, actuated by the hope of reward; moved by the love of money; greedy of gain; mean; sordid; selfish; contracted from motives of gain.

—*n.* One who works or acts for the sake of reward or gain; hence, specifically, a soldier that is hired into foreign service; a hireling.

Mercer (*mėr'sėr*), *n.* [Fr. *mercier*, from Lat. *merx*, *mercis*, goods, wares, merchandise. See MARKET.] A dealer in silks and woollen cloths.

Mer'cer, in *Illinois*, a N.W. co., adjoining Iowa; *area*, about 555 sq. m. *Rivers*. Mississippi river, Edward's and Pope's creeks. *Surface*, mostly level; *soil*, fertile. *Cap.* Aledo. *Pop.* (1890) 18,545.

Mercer, in *Iowa*, a township of Adams co.

Mercer, in *Kentucky*, an E. central co.; *area*, about 250 sq. m. *Rivers*. Kentucky, Dick's and Salt rivers. *Surface*, undulating; *soil*, fertile. *Cap.* Harrodsburg. *Pop.* (1890) 15,034.

Mercer, in *Maine*, a post-township of Somerset co.

Mercer, in *Missouri*, a N. co., adjoining Iowa; *area*, about 484 sq. m. *Rivers*. Weldon river, and Crooked and East Forks of Grand river, besides some less important streams. *Surface*, generally level; *soil*, fertile. *Cap.* Princeton. *Pop.* (1890) 4,581.

—A post-vill. of Mercer co., abt. 100 m. N.E. of St. Joseph.

Mercer, in *New Jersey*, a central co., adjoining Pennsylvania; *area*, about 225 sq. m. *Rivers*. Delaware and Millstone rivers, and Stony and Assunipsink creeks. *Surface*, generally level; *soil*, very fertile; *Cap.* Trenton (also the State Capital). *Pop.* (1895) 85,538.

Mercer, in *North Dakota*, a W. central co.; *area*, 1,035 sq. m.; bounded on the N. and E. by the Missouri river, and intersected by Knife river. *Surface*, rolling prairie; *soil*, rich black loam, underlaid with a good quality of lignite coal. Grazing and wheat growing are the leading industries. *Cap.* Stanton. *Pop.* (1897) 1,000.

Mercer, in *Ohio*, a W. co., adjoining Indiana; *area*, about 460 sq. m. *Rivers*. Wabash and St. Mary's rivers, besides several smaller streams. *Surface*, mostly level; *soil*, fertile. *Cap.* Celina. *Pop.* (1890) 27,220.

—A post-village of Mercer co., about 9 m. N. of Celina.

Mercer, in *Pennsylvania*, a W. by N. co., adjoining Ohio; *area*, about 660 sq. m. *Rivers*. Shenango river, and French, Neshannock, Sandy, and Pymatuning creeks. *Surface*, undulating or hilly; *soil*, very fertile. *Min.* Limestone and iron. *Cap.* Mercer. *Pop.* (1890) 55,744.

—A township of Butler co., about 20 m. N. by W. of Butler.

—A post-borough, cap. of the above co., about 60 m. N. by W. of Pittsburg. *Pop.* (1897) 2,300.

Mercer, in *West Virginia*, a S.W. co., adjoining Virginia; *area*, about 420 sq. m. *Rivers*. Kanawha and Blue Stone rivers, besides several smaller streams. *Surface*, much diversified, and in the S.E. and N.W. mountainous; *soil*, moderately fertile. *Cap.* Princeton. *Pop.* (1890) 16,002.

Mer'cersburg, in *Pennsylvania*, a post-borough of Franklin co., about 62 m. S.W. of Harrisburg. *Pop.* 1,000.

Mer'cur, JAMES, military engineer and scientist, was born at Towanda, Pa., Nov. 25, 1842; graduated at West Point; by successive promotions became captain of engineers, Dec. 9, 1875; served as assistant engineer on the survey of the Northern and Northwestern lakes (1866–67); at the Military Academy as acting assistant and assistant professor of Natural and Experimental Philosophy (1867–72); with the engineer battalion as adjutant and commanding company (1872–76); as assistant engineer to General Newton in removing the obstructions at Hell Gate, and upon other river and harbor works (1876–81); was charged with various works of river and harbor improvements and surveys in the Southern States, and in New York harbor and vicinity (1881–84); was professor of Civil and Military Engineering at the Military Academy from 1884 until his death; revised and enlarged Mahan's *Permanent Fortification* (1887), and is the author of *Elements of the Art of War* (1888), and *Military Mines, Blasting, and Demolitions* (1892). Died at West Point, April 22, 1896.

Mercuria'lis, *n.* (*Bot.*) A genus of herbaceous plants, order *Euphorbiaceæ*, distinguished by having the barren and fertile flowers separate, the former containing 9 to 12 stamens, the latter two simple styles, and a two-celled

Fig. 2988.—DOG'S MERCURY (*Mercurialis perennis*).

two-seeded capsule. *M. perennis*, the Dog's Mercury, is a common woodland plant in England, often forming dense patches of dark green in places where most other herbage has been consumed, owing to the fact that it is poisonous and avoided by cattle. It turns dull bluish-green in drying, and may be made to furnish a deep blue dye.

Mérimée' (*mā-ri-mā'*), PROSPER, author, was born in Paris, on Sept. 28, 1803. After spending some time in the study of law, he entered public life, and rose to the dignity of senator under the empire (1853). His most brilliant achievements were in literature, his works embracing history, fiction, travels, critiques, &c., many of the papers having been originally contributed to leading French magazines. He was also distinguished as an editor, and a translator of popular Russian authors. His novel *Columba* is regarded as his masterpiece in romance writing. A curious collection of *Letters to One Unknown* was published after his death. *M.* was elected a member of the French Academy in 1844. Died Sept. 23, 1870.

Meringue (*mā-rănġ'*), *n.* [Fr.] (*Cookery.*) A delicate compound for pastry, or as a garnish for pastry, made of sugar, beaten white of eggs, &c., and baked.

Mer'rill, in *Wisconsin*, a city, cap. of Lincoln co., on Wisconsin river, 18 m. N. of Wausau; here is a lumber boom with a capacity for 100,000,000 feet of logs. Lumber, lath and shingles are manufactured and shipped. *Pop.* (1895) 8,607.

Mer'rillon, or MER'RILLAN, in *Wisconsin*, a post-village of Jackson co., 53 m. N. of Grand Rapids. Lumber the principal article of manufacture and export. *Pop.* (1895) 749.

Mer'ritt, WESLEY, U. S. A.; born in New York city, June 16, 1836; graduated at West Point, and entered the army as a brevet second lieutenant of dragoons, 1860; was appointed captain in 2d Cavalry in 1862. Was a staff officer early in the Civil War; commanded the reserve cavalry brigade at Gettysburg; in 1864, commanded a division under Sheridan, participating gallantly in all the battles of the Richmond campaign, and was brevetted lieut.-colonel and colonel; commanded a division in the Shenandoah campaign, and won the brevet of major-general; for further distinguished service was promoted to be major-general from date of the battle of Five Forks; and was brevetted brigadier- and major-general, U. S. A., in March, 1865. After the war he served as chief of cavalry in various departments till February, 1866, when he was mustered out of the volunteer service; became lieut.-colonel of the 9th Cavalry of the regular army (July, 1866), colonel of 5th Cavalry (July, 1876), brigadier-general (April, 1887), and superintendent of U. S. Military Academy at West Point, Sept. 1, 1882, to July 1, 1887; commanded the Department of the Missouri (1887–91), and afterward the Department of Dakota; attained the full rank of major-general on April 24, 1895.

Mer'ry-go-round', *n.* A revolving circle of hobby-horses and little carriages, on or in which people ride for amusement. Called also carousel, flying-horses, Flying Dutchman, and roundabout.

Mer'u, *n.* [Sausk.] In Hindu mythology, the name of a fabulous mountain in the center of the earth, containing the cities of the gods and the abodes of the celestial spirits. It is the *Olympus* of the Hindus. The planets were supposed to revolve around it.

Mes, or **Meso.** A prefix, derived from the Greek *mesos*, middle, denoting position in the middle.

Mesa (*mā'sa*), *n.* [Sp.] A high plain or table-land; especially a table-land of small extent rising abruptly from a surrounding plain; a flat-topped hill; a terrace.

Me'sa, in *Colorado*, a W. co.; *area*, 3,000 sq. m.; watered by Grand river and its tributaries. *Surface*, one great valley, with small tributary valleys surrounded by extensive cattle ranges; *soil*, in valleys very fertile when irrigated; a great fruit region. *Min.* coal oil, silver, and copper. *Cap.* Grand Junction. *Pop.* (1897) 8,500.

Mésalliance (*mā-za-le-ănce'*), *n.* [Fr.] A marriage with one of inferior condition or position.

Met, or **Meta.** A prefix from the Greek *meta*, meaning, in words of Greek origin, between, with, after, behind, over, about, reversely, and, frequently, change or transposition.—(*Chem.*) As applied to *inorganic* substances, it refers to bodies having a similar composition to the ortho-compounds, but in which an obscure change has taken place affecting their chemical properties. In *organic* chemistry, it applies to compounds of identical percentage, composition and molecular weight, in which the carbon nuclei are united to one another by an atom of a polyvalent element.

Metab'olism, *n.* From a Greek word, signifying changeable. In theology, it is used to express the view held by some of the early fathers in regard to the change of the bread and wine in the eucharist—a view which stands midway between transubstantiation and the symbolical view. In biology, the term sums up the changes which take place within the body, or in a single cell, by which, on the one hand, food is changed into living matter, and, on the other hand, food is disorganized and prepared to be expelled from the body—that is to say, it is the sum of the assimilative and destructive processes. In poetry, metabolism means a change from one meter to another.

Metcalf, VICTOR HOWARD, cabinet official; born in Utica, N. Y., Oct. 10, 1853. He removed to California in 1881, was elected to Congress in 1899, was appointed Secretary of Commerce and Labor in 1904 and Secretary of the Navy Dec. 1906.

Meteor'ic Stones. About 153 tons of meteoric stones have been gathered in the Western Continent. Most of them are composed largely of iron, and it is thought that this is because the stony parts are more readily broken up and dissipated in their flight through the earth's atmosphere, so that what we see of them is usually the metallic part, which may have been set in a stony matrix. The so-called iron meteorites contain usually from 80 to 95 per cent. of iron, nickel being usually next in quantity, while traces of cobalt, copper, silicon, phosphorus, sulphur, argon, helium, &c., are also found. Among famous meteoric stones are the Cranborne stone in the British Museum, the Texas stone in the Yale University Museum, the Bendego

stone owned by the Geographical Society of Rio Janeiro, weighing 1,178 pounds, and the Bacubirito, Mexico, stone, which was over 11 feet long and weighed 25 tons. The North American Indians made ornaments from meteoric stones, shaping them by hammering and cutting. Very many figures formed from the stones are found in the mounds. See MOUND-BUILDERS. They were also much used by more recent tribes as charms, &c., being regarded with a certain amount of superstitious reverence.

Meteorol'ogy, *n.* [Gr. *meteora*, things in the air, and *logos*, discourse.] The scientific study of the weather has come to be known by this name, which originally included astronomical phenomena. It is not an exact science, but deals with probabilities and investigations into the atmospheric and magnetic conditions that cause changes in the weather. The history of *M.* is difficult to trace, since little information is cast upon it by the records of antiquity. The observations of the ancients were chiefly directed to changes in the weather; and by personal assidnity they were enabled to prognosticate often with considerable certainty. The philosophers of old were willing to explain the phenomena by the most vague hypotheses, referring them to stellar and planetary influences. In modern times, the study of the weather has been undertaken in a more practical manner. The temperature, atmospheric pressure, humidity, the winds, rainfall, &c., have all been studied exhaustively, each being made to yield up some information of value. It is a matter of common information that the records of temperature show that it rises and falls with the seasons, and with the hour of the day, and that hot and cold waves are carried along by the prevailing directions of the wind, so that on seacoasts a more even temperature is maintained because of the alternating land-breeze and sea-breeze. Barometric records at different points show the pressures of the atmosphere, and that these are also subject to periodic variations. When the pressure is high in a certain area this means that there is a surplus of air there, and because of its gravitation it is sure to disperse more or less in all directions, usually with more or less circular motion, rather than in straight lines, from the point of highest pressure. The gaseous envelope that surrounds the earth consists mainly of two things—dry air, that is oxygen and hydrogen mixed in a fixed gas, and aqueous vapor, which moves irregularly and forms mist, dew, frost, snow, rain, and hail. The extent to which the aqueous vapor mixes with the air determines the humidity, and when the saturation is complete it is registered at 100, at which point the water begins to condense and rain results. The amount of rain which falls upon the earth is greatest in the tropics, and decreases as we approach the poles. The quantity of rain falling at a certain place, however, is considerably influenced by the physical features of the locality. On account of this fact, together with the action of prevailing winds and seasonal peculiarities, the surface of the globe has been divided by meteorologists into *hyetographic* regions. Thus between the tropics of Cancer and Capricorn there is a zone of *periodic rains*, and external on either side zones of *constant precipitations*. The records of rain show that, like temperature and wind, it has a diurnal period, falling in much greater quantities from 11 to 6 o'clock daytime than at other hours. The study of the wind has brought the knowledge that there are prevailing winds more or less all over the globe. The trade winds of the tropics are nearly certain in their movements. In the U. S. the winds prevail from the west to the east, a fact which is of immense value to the Weather Bureau. The magnetic state of the earth has great influence on storms, and the earth's magnetic condition often reflects that of the sun, affording a wide and little understood field for investigation. Meteorology may be divided into four branches: (1) Theoretical meteorology, having to do with the physics and mechanics of the atmosphere, and the effect of solar magnetism, lunar gravity, &c., on the earth's atmosphere. (2) Agricultural meteorology, treating of climatic conditions and weather changes as affecting vegetation. (3) Medical meteorology, showing the effects of weather and climate on the human constitution. (4) Forecasting of the weather, as carried out systematically by the United States, Great Britain, and France. (See WEATHER SERVICE.) This department attracts the greatest popular interest, and involves the first. The observation of the conditions of the sky at sunset by students of the weather enables them to guess correctly the weather of the coming day about three-fourths of the time, but the meteorological information of the Weather Bureau is so perfected that the predictions 24 hours in advance are correct 90 per cent. of the time.

The instruments used in taking weather observations are the thermometer, barometer or barograph, anemometer, pluviograph, nephoscope, sunshine-recorder, &c. There is also a combined instrument, which has been termed the meteorograph, which has a clockwork mechanism connected with several instruments, and making a quarter-hourly record of the temperature, atmospheric pressure, direction and mean force of the wind, and degree of humidity, the whole being operated by a small electric motor. Developments in kite-flying have recently increased the ability of observers to secure information of the conditions prevalent in the upper air, and kites are becoming a regular means of elevating meteorographs for observations. The increased interest in the study of the atmosphere has also given us Prof. S. P. Langley's anemometer, the most delicate wind-gauge ever designed, which has been used to demonstrate many new facts about the internal action of the wind, which is proven to be far from constant in its movements. For further information along these lines see CYCLONE, WEATHER SERVICE, ATMOSPHERE, KITE, and the various instruments referred to in this article.

Methodiza'tion, *n.* Act or operation of methodizing; state or condition of being methodized.

Meth'odize, *v. a.* To reduce to method; to arrange or dispose in just and natural order; to transact in a formal, methodical, or convenient manner.

Meth'odizer, *n.* One who methodizes; one who disposes or arranges in systematic form or order.

Methodol'ogy, *n.* [Gr. *methodos* and *logos*.] A discourse concerning method; the science of method or classification.

(*Logic.*) The division of pure logic which treats of the methods of directing the means of thinking to the end of thinking well; embracing *definition*, *division*, and *proof*; the methods respectively of *clear*, *distinct*, and *connected* thinking.

Methought (*thawt'*), *imp.* of METHINKS (*q. v.*).

Meth'uen, in *Massachusetts*, a post-town of Essex co., about 30 m. N. by W. of Boston. *Pop.* (1895) 5,690.

Methu'selah. (*Script.*) Son of Enoch, and father of Lamech. He is said to have lived 969 years, a longer term of life than is ascribed to any other of the antediluvian patriarchs. (*Gen. v.* 21, 22.)

Meth'ye (*meth-i'*), the name of two lakes in British North America, one about 180 S. of Lake Athabasca, and the other 350 m. further S.W. The first has Fort Methye on its S. shore.

Meth'yl, Meth'yle, Meth'ule, *n.* [Gr. *meta*, with, and *yle*, wood.] (*Chem.*) The first of the hydrocarbonic radicals of the alcohols. It is a gaseous body, slightly heavier than air, and burning with a bluish flame. It is not liquefied by a cold of 0° Fahr. It is obtained by acting on iodide of methyl with zinc. Its most important compound is methylic alcohol, or wood-spirit. It also enters into the composition of the essential of *Gaultheria procumbens*, which is a salicylate of the oxide of methyl, and may be prepared artificially by distilling wood-spirit with sulphuric and salicylic acids. *Form.* CH_3.

Meth'ylamine, *n.* (*Chem.*) Ammonia in which one atom of hydrogen is replaced by methyl. It is an inflammable gas greatly resembling ammonia in its chemical character. It may be formed by the action of iodide of methyl upon ammonia, and subsequent distillation with potash. *Form.* NH_4Me.

Meth'ylated Alcohol or **Spirit,** *n.* (*Chem.*) Spirits of wine to which have been added certain proportions of shellac and methylic alcohol, or wood-spirit, for rendering the mixture unpalatable. The mixture is allowed by the government to be sold without excise duty, for the purpose of manufacture only. Numerous instances have, however, lately occurred in which the methylated spirit has been "doctored," and sold for the purpose of dram-drinking. Methylated spirit is extensively employed as a solvent of resins and gums for varnishes, aniline colors, and for nearly every use to which ordinary alcohol was formerly applied.

Meth'ylene, *n.* (*Chem.*) A bivalent hydrocarbon radical, known only in combination. It is also called *methene*.

Me'tif, *n.* [Fr.; Sp. *mestizo*.] The offspring of a white and quadroon. See MESTIZO.

Metoche (*met'o-ke*), *n.* [Fr., from Gr. *meta*, and *echein*, to have.] (*Arch.*) The interval between two denticuli in the Ionic entablature.

Met'ternich, PRINCE RICHARD, diplomatist, was born in Vienna, Jan. 7, 1829; the eldest son of the great Austrian chancellor of that name. At the age of 22 he entered the diplomatic service, as an *attaché*, in Paris, and in 1859 was appointed Austrian ambassador there. At the imperial court he and his wife, Princess Pauline Metternich, who was an intimate friend of the Empress Eugénie, were prominent figures. He arranged the meeting between Napoleon III. and Franz Josef, at Salzburg. After Sedan, he aided in the escape of the empress. He was recalled to Austria after the fall of the empire, and thenceforth took no part in public affairs, except to vote with the Moderate Conservatives in the Austrian Chamber of Peers. He was a musician and a composer of some ability. Died March 1, 1895.

Mex'ia, in *Texas*, a post-town of Limestone co., 150 m. N.E. of Austin; has mills, gins, and a cotton factory. *Pop.* (1900) 2393.

Mey'er, GEORGE VON LENGERKE, diplomatist, was born at Boston, Mass., June 24, 1858. He became a merchant, and rose to be president or director in a number of manufacturing and banking corporations. Active in Republican politics, he was in the Massachusetts legislature 1892–96, being three years Speaker of the House. He was U. S. Ambassador to Italy 1900–05, and to Russia 1905–07, and succeeded George B. Cortelyou as Postmaster-General March 4, 1907.

Mey'er, in South Dakota, a S. co.; *area*, 1,440 sq. m. *Rivers.* Reya Paha, and South Fork of the White river. Unorganized.

Mich'igan, Univer'sity of. (*Educ.*) A State institution, co-educational, and non-sectarian, its general control being placed in the hands of eight regents, elected by popular suffrage at the biennial spring elections, two regents being chosen at each election. Every graduate of a high school is admitted upon diploma from such a school, under certain restrictions by the university itself. There are no tuition fees, but each student pays a registration fee—$10 if he or she be a resident of the State, $25 if a non-resident. Besides these fees, the university receives a tax of one-sixth of a mill from the State, and each year $6,000 by special act. It has also a U. S. endowment fund, upon which the State pays the university 7 per cent. interest. From all these sources the income of the institution in 1896 was $403,697. The university, located at Ann Arbor, was organized in 1837, the year in which Michigan was admitted as a State. It contains collegiate, medical, and law departments, an observatory, dental college, school of pharmacy, scientific museums, and a library which had on its shelves, at the end of 1896, about 105,000 volumes. At the same time it had 170 instructors and 3,014 students.

Mi'cr-, Mi'cro-. A prefix from the Greek *mikros*, small, and giving the idea of littleness to all words with which it is combined. In electrical terms it sometimes denotes one-millionth; as, *micro*-farad, one-millionth of a farad.

Mi'crobe, *n.* See BACTERIOLOGY.

Mi'crograph, *n.* An instrument invented by Mr. Webb, of London, for executing extremely minute writing and engraving; its general principle is that of the pantograph.

Mi'crograph'ophone, *n.* An instrument for recording and reproducing sounds of exceeding faintness, being a form of graphophone, with specially delicate diaphragms. The sound-delivering funnel is provided with four diaphragms, each being adapted to delivering sounds of a different quality. The talking-tube is arranged on a swivel with the funnel, so that either may be brought to bear on the recording-cylinder. A miniature electric motor is provided to rotate the cylinder.

Mi'cromo'toscope, *n.* A kinetoscope arranged with pictures taken by the aid of a microscope, so that the motions of a rotifer or the like in a drop of water can be reproduced in series on the photograph films. The movement of the blood corpuscles has also been reproduced. In arrangement, the apparatus consists of a microscope having an electric light placed near one end, so as to concentrate the light on the object under observation. The kinetoscopic film is run in front of a tiny window located in the proper focus on a line with the lens and light, and photographs are taken at the speed of 1,000 a minute.

Mi'cron, *n.* [Gr. neuter of *mikros*, small.] One-millionth of a meter, or one-thousandth of a millimeter.

Microne'sia, *n.* (*Geog.*) Formerly, all the intertropical islands of the Pacific Ocean eastward of the Philippine Islands to the north and the New Hebrides to the south of the equator were grouped together under the name Polynesia. Increasing study, however, of the various races inhabiting these islands has led to a subdivision of them. So now, to the Marianne, Caroline, Marshall, and Gilbert groups of islands, and those lying to the north and northeast of the Marianues, is given the name Micronesia, from the Greek, signifying small islands. The Micronesians are closely allied to the Polynesians, the brown or Sawaiori races inhabiting the central and eastern islands, but are quite distinct from the Melanesians, who are closely allied to the Negrites.

Mi'crophone, *n.* An apparatus for magnifying very faint sounds, forming the basic principle involved in the carbon telephone transmitter. It produces a variation in electrical resistance by the variation of pressure on a loose contact. By introducing a loose piece of carbon so as to touch another piece in a telephone circuit, the jarring of the loose carbon by a sound causes a rapid variation of pressure and electric current, producing a magnification of the original sound in the telephone. The principle of the *M.* is also taken advantage of for use as a relay in receiving-telephones. When the *M.* was first introduced, about 1878, much astonishment was created by some experiments, in one of which the sounds of a fly's feet in walking were magnified so that they sounded as loud as the tramp of a horse.

Mi'crotasim'eter, *n.* An instrument devised by Thomas A. Edison for discovering and measuring minute differences in pressure. He made use of a rigid iron frame holding a carbon button, the latter being placed between a movable and a stationary platinum surface. This was so adjusted to the object to be tested that any expansion increased the pressure on the carbon button, and the latter being placed in the circuit of a delicate galvanometer, the changes in electric current afforded a magnified record of pressures too minute to be noted in any other known way.

Mi'crotel'ephone, *n.* A telephone arranged to render audible very faint sounds.

Mid'dle C, *n.* (*Music.*) The note standing on the first leger line above the bass staff and the first leger line below the treble staff.

Mid'dle King'dom. (*Geog.*) This designation grew up in the feudal period of China as a name for the royal domain in the midst of the other states, or for those states as a whole in the midst of the uncivilized states around them. The term was never intended to convey the idea that China was "in the middle of the earth."

Mid'dle-class, *n.* In England, the class of society which occupies a middle position between the working-classes and the aristocracy, including professional men, merchants, bankers, large farmers, &c. In the U. S., the large body of intelligent people who hold an intermediate social position between the ignorant and degraded, and the so-called, or self-styled, "upper" classes, who claim a superior position in society on account of wealth, ancestry, or some other fortuitous circumstance.

Mid'dlefield, in *Connecticut*, a post-town of Middlesex co. *Pop* (1897) 1,084.

Mid'dlepoint, in *Ohio*, a post-village of Van Wert co. *Pop.* (1897) 550.

Mid'dlesborough, in *Kentucky*, a post-town of Bell co. *Pop.* (1897) 3,360.

Mid'dleton, JOHN HENRY, art critic, was born in England, in 1847; educated at Cheltenham School, Exeter College, Oxford, Kings College, Cambridge, and at the University of Bologna; was fellow of Kings College, Slade professor of Art at Cambridge, director of the Fitzwilliam Museum, at Cambridge, art director at South Kensington, in 1893. He was the author of *Ancient Rome* (1885–92), *Engraved Gems* (1891), &c. Died May 10, 1896.

Mid'dletown Springs, in *Vermont*, a post-village of Rutland co. *Pop.* (1897) 810.

Mid'dy, *n.* A colloquial or familiar contraction of *midshipman*.

Mid'gard, *n.* The earth, in Scandinavian mythology, as distinguished from *Asgard*, the home of the gods, and *Utgard*, the dwelling-place of giants. The earth was supposed to have been made out of an eyebrow of the giant Ymer, and to be joined to heaven by the rainbow as a bridge. The MIDGARD SERPENT is the great world.

Mid'hat, PASHA', Turkish politician, was born in Bulgaria, in 1822. He was grand vizier in 1872 and 1876–77. Died May 8, 1884.

Mid'land, in *Texas*, a W. co.; *area*, 900 sq. m. *Surface*, slightly undulating; rich soil, fine climate, pure water. Well adapted to stock farming and fruit growing. *Cap.* Midland. *Pop.* (1890) 1,033.

—A post-town, cap. of above co., 310 m. W. of Fort Worth. Cattle and wool are very largely shipped. *Pop.* (1897) 840.

Mid'shipmite, *n.* (*Humorous.*) A very small midshipman.

Mid'way, in *Alabama*, a post-village of Bullock co. *Pop.* (1897) 680.

Mid'week, *a.* Occurring about the middle of the week; as, a mid-week meeting.

—*n.* The middle of the week.

Migra'tion of An'imals. (*Nat. History.*) The migrations of animals are of two sorts—occasional and periodical. The first may happen in the ranks of any sort of animal capable of moving freely about, and usually results from a surplus of population, due to a succession of fortunate years, to failure of the ordinary food supply in a certain region, or to some external pressure. Such are the vast flights of locusts, the marching of army worms, and sudden multiplication here and there of insect pests so frequently noticed. The same phenomena is presented at long intervals by mice, which have frequently multiplied prodigiously over wide districts, and become for a year or two a highly destructive plague to farmers. In the early years of settlement in the Mississippi Valley hordes of squirrels were observed at intervals of a decade or so, moving eastward and southward from the northwestern forests in countless numbers, often devastating the grain-fields over a wide region; and the famous westward migrations of the lemmings of Lapland furnish a similar example of these occasional and enforced migrations.

The regular and periodic annual, or, rather, seasonal, migrations of many groups of animals are, however, of greater interest. They seem to form a part of the habits of many invertebrates, as crabs and butterflies, but begin to be most marked when we rise to the level of the fishes. It is probable that all fishes living in the sea or large lakes regularly move from deep water in winter to the shallows where they deposit their eggs in summer; and it is this annual shoreward approach from unknown pelagic wanderings that opens the fishing season for each kind that is worth catching, and makes possible the commercial industry of sea-fishing. A certain class, known as anadromous fishes, do more than this, migrating in spring into and up the rivers to lay their eggs in the headwaters, and then endeavoring to return to the sea again. Such are the shad, salmon, sturgeon, and other well-known fishes. Many fishes also make a northward and southward migration with the advancing and receding summer. Sea-turtles come to the shores and river-banks at the egg-laying season, and afterward disappear; but otherwise there is little, if any, migration among the chelonians, amphibians, or reptiles. Most of the larger mammals regularly migrate, however, to a greater or less distance twice a year, moving northward on open plains in the spring, keeping pace with opening grass, or ascending mountain ranges in summer and returning to the lowlands in winter, or otherwise regularly changing their abode. The seals swim away to unknown regions of mid-ocean in the fall, but in the spring return to the chosen coasts or islands where their young are born, and remain there until the pups are able to go away.

The migration of birds, however, presents the most extraordinary aspect of this subject and one of the greatest mysteries of natural history. It may be said, in a general way, that all birds migrate spring and fall, though in some it is scarcely noticeable. The great majority altogether leave their summer breeding haunts and go to a more or less distant winter home. The manner of this seasonal migration varies greatly. Some birds collect in the autumn in flocks often of large size, which together pursue their southward flight; but as a rule they do not return in the spring in large bands. Others steal southward one by one, or in small family groups. Some seem to wait until the last moment, and then make the journey with headlong haste; others start early and move leisurely. As a rule, the females and young precede the adult males on the southward flight in the fall, while the adult males appear a week or two ahead of the females in the spring migrations. The night is a favorite time for migrational journeys, especially when clear, or moonlit, and great distances are covered during the hours of darkness, while the days are devoted to rest and feeding. Although the general direction is back and forth between colder and warmer latitudes, the courses taken are not always, nor, perhaps usually, directly north and south; on the other hand, the courses followed by many birds are east and west for a large part of the flight, or the spring course varies from that in the fall. Each species seems to cling consistently to its traditional path, and most birds follow coast lines, great water-courses or mountain ranges and similar natural guiding lines. Some, however, discard all these, cutting athwart the migration lines of other species. The distances to which migrating birds travel vary from a scarcely perceptible swinging of the species northward and southward, to an annual change of residence from equatorial to polar latitudes; and these sometimes include a flight straight across the sea for many hundreds of miles, as is shown by the fact that remote islands, such as Hawaii, are regularly visited by migrating birds. What motives induce or compel the birds to undertake these long and arduous journeys; how they are able to sustain them; the height and speed at which they fly, and, above all, the means by which they find their way, are all matters of the greatest interest, in respect to which volumes of facts have been recorded and volumes of speculation have been written; but none of these questions have yet been thoroughly answered.

Migra'tion of Mankind'. (*Anthrop.*) That men have had, from the earliest times, an impulse to leave the place of their birth and settle in some other place is certain. This impulse has been due to various causes, among which may be mentioned insufficient food; to difficulties, either natural or governmental, in the way of getting a living; religious persecution and religious fanaticism; the discovery of gold and silver mines; love of change and adventure. All or most of these reasons at the present day impel great numbers of people to seek new homes all over the world. This change, however, is now the work of individuals, each of whom decides to make the change for reasons personal to himself or herself. That such migration in our time has great influence, both over the country which the emigrants leave and that to which they go, is clearly apparent in these days of constant international communication by railway, telegraph, and ocean steamers. Yet this influence is slow and slight, compared with that exercised by the migration of mankind at former periods. Pastoral nations, especially, inasmuch as they can carry with them the flocks and herds from which they derive subsistence, formerly emigrated in very large bodies, and before the invention of gunpowder and other improvements in warfare were very dangerous neighbors. At the dawn of history occurred the great migration of the Aryans, who were a pastoral people, occupying the passes and mountains along the Oxus. This people spread across southwestern Asia and southern Europe, supplying their language to the greater part of Europe and the temperate zone of Asia from the Mediterranean to India. The Greeks sent forth colonies, after solemn religious observances, to establish themselves in countries with a scanty population or where the inhabitants were in a decidedly lower state of civilization. The refinement, ingenuity and industry of the Greek colonists caused the localities to which they went to make rapid progress, so that these places became, in no very long period, populous and powerful states. The irruptions of the northern barbarians, who finally made an end of the Roman empire, were simply migrations on a vast scale. It is estimated that a million Visigoths, including women and children, became Roman subjects on the south side of the Danube. In the case of the northern barbarians, they attacked countries that were densely peopled, and, having subdued the inhabitants, seized upon the whole or upon the greater or less proportion of their lands. It was the migration of great masses of Moors which destroyed the Christian kingdoms of Spain, and caused the Peninsula to be essentially Mohammedan and Arabic for more than three centuries, during which Spain flourished as she has never flourished since. Cordova, the capital, was a center of learning in Europe—not for Arabs only, but for Christians as well. Not in Europe and Asia alone have been witnessed the migration of vast masses of human beings. The Aztecs, who were the rulers and occupiers of Mexico in the 16th century, had migrated centuries before, as their traditions attest, from some place to the northwest of Mexico, the precise locality of which is not known. The traditions are strong and unbroken that it was emigrants who brought to Peru the civilization which Pizarro found there. The Polynesian races have been dispersed over the islands of the Pacific by voluntary emigration. In the world of Polynesian mythology and legend we constantly come across stories of migrations undertaken from the most various motives. Everything important or peculiar has been brought over sea. Lastly should be mentioned what may be called the involuntary migration of the enormous numbers of Africans taken by force from their native country and sold as slaves. This cursory glance at the more important of the innumerable wanderings of human beings to and fro on the face of the earth shows what an important factor the migration of mankind has been in the history of the world, and the far-reaching consequences of such migration.

Mihrab', *n.* [Arab.] A decorated niche or slab in the wall of a mosque; it points in the direction of Mecca, the holy city of the Mohammedans, toward which they must turn when they pray.

Milac'a, in *Minnesota*, a post-village of Mille Lacs co., 18 m. N.W. of Princeton. *Pop.* (1895) 482.

Mil'an, in *Tennessee*, a city of Gibson co., 23 m. N. of Jackson; has carriage and wagon works, flour, saw, and planing mills, factories, and gins. *Pop.* (1897) 1,885.

Mil'bank, in *South Dakota*, a city, cap. of Grant co., 100 m. E. of Aberdeen; has railroad machine shop and round houses, mills and elevators. *Pop.* (1895) 914.

Mil'burn, WILLIAM HENRY, lecturer and preacher, was born in Philadelphia, Pa., September 26, 1823; removed in childhood to Illinois; became a Methodist preacher, travelling through the Southern States; settled for short periods at Montgomery and Mobile, Ala.; became widely known as a popular lecturer. Notwithstanding his affliction in the loss of his eyesight, he led an active life, and annually filled many lecture engagements. He has been six times chaplain to Congress, and in 1893 was chosen as chaplain to the U. S. Senate. He has published several books, chiefly relative to his experience in the South.

Mil'com, *n.* A deity of ancient mythology, sometimes confounded with Molech. He was the god of the Ammonites, whose worship Solomon established in Jerusalem.

Miles, NELSON APPLETON, U. S. A., born at Wachusett-ville, Mass., August 8, 1839; entered the volunteer service as captain in the 22d Massachusetts Volunteers, September, 1861; made a distinguished record throughout the war, becoming major-general of volunteers in 1865. On July 28, 1866, he was commissioned colonel of the 40th Infantry, U. S. A.; transferred to the 5th Infantry March 15, 1869, and commissioned brevet major-general, U. S. A., March 2, 1867; brigadier-general, U. S. A., December, 1880, and major-general April 5, 1890. He commanded several military departments, and is especially distinguished for his success in suppressing Indian outbreaks. On October 5, 1895, he assumed command of the army, and in the summer of 1897 went to Europe to observe the progress of the Turko-Grecian war. He commanded in Porto Rico in 1898, was made lieutenant general June 6, 1900, and retired on age limit, August 8, 1903.

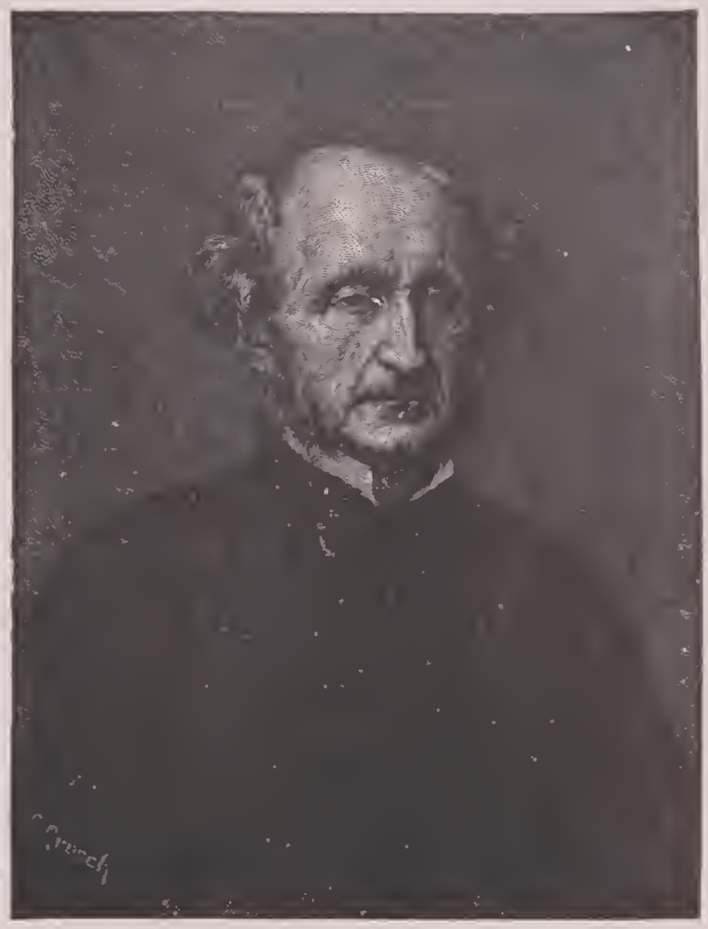
Mil'ford, in *Nebraska*, a post-village of Seward co., 22 m. W. by S. of Lincoln. A summer and health resort. Has large water-power flour mills and creamery. *Pop.* (1897) 750.

Mil'itarism, *n.* That system or policy which causes nations to keep up great armies and to pay excessive attention to military affairs; military or warlike spirit.

Milk'-shake, *n.* An iced beverage made chiefly of sweetened and flavored milk, subjected to violent shaking by means of a small apparatus specially designed for the purpose.

Milk'weed, *n.* A plant of the genus *Asclepias*, of the family *Asclepiodaceæ* (*q. v.*).

Mill, JOHN STUART, philosopher, logician, and political economist, was born in London, England, May 20, 1806. His father was James *M.*, the philosopher, whose remarkable work, *An Analysis of the Phenomena of the Human Mind*, was an exposition of the "associational psychology" which has been more fully expounded since by Herbert Spencer and others. This learned father superintended the education of his son, and, it is said, began to teach him Greek when the child was three years old. At eight years of age, John Stuart Mill was reading Herodotus, Xenophon, and Plato, and before he was twelve he had read the greater part of the Greek and Latin classics, at the same time grappling with the higher mathematics. At fourteen he had gone through a complete course in political economy with the best available text-books, and oral instruction from his father. As a boy he had no playmates, no share in childish sports; his recreations had been the reading of history and books of experimental science, and the long walks with his father, during which they engaged in earnest conversation. The father, originally an adherent of the Scottish National Church, had become a skeptic, and the son was reared in unbelief. He says of himself: "I am one of the very few examples in this country of one who has not thrown off religious belief, but never had it. I looked upon the modern exactly as I did upon the ancient religion, as something which in no way concerned me." When about fourteen he went to the Continent for a year, spent chiefly in the south of France. During this year he continued his studies in the higher mathematics and sciences; but he also, apparently for the first time in his life, recognized the need of physical as well as mental training, for he took lessons in fencing, and other athletic exercises. On his return from France he assisted his father in preparing a work on political economy. Later he studied law with John Austin, a disciple of Jeremy Bentham. The elder Mill had been closely associated with Bentham; and thus John Stuart Mill had been thoroughly imbued with the utilitarian ideas that distinguished Bentham's school of philosophy. In 1823 Mill entered the employ of the East India Company, and remained with that office for thirty-five years, until its dissolution in 1856, beginning at the lowest round, an inferior clerkship, and reaching the highest post in his department, as examiner of the India correspondence. During these years of business routine, his hours of personal leisure were systematically given to his favorite themes, not only as a student, but as a writer of vigorous and original opinions. His *System of Logic* was issued in 1843, and commanded the attention of all scholars. In this he presents the inductive or empirical logic of which he is the founder, and which, harmonizing with the spirit of the times, made him welcome as a leader of



John Stuart Mill

1806–1873

advanced thought. He published works at short intervals throughout his life, aggregating almost a complete library of authoritative books within his special field, and including valuable expositions and criticisms of Bentham, Comte, Sir William Hamiltou, and other prominent writers on metaphysical subjects, among the latter class of his writings being: *Auguste Comte and Positivism*, *Examination of Sir William Hamilton's Philosophy*, and his notes and supplemental chapters to Bentham's *On Evidence*. His original works include, besides *System of Logic: Principles of Political Economy, &c.* (1848), *On Liberty* (1859), *Considerations on Representative Government* (1861), *Utilitarianism* (1862), *England and Ireland* (1868), *The Subjection of Women* (1869), *Chapters and Speeches on the Irish Land Question* (1870); his *Autobiography* appeared in 1873, shortly after his death; and *Three Essays—Nature, The Utility of Religion*, and *Theism*—in 1874. In addition to these, Mr. Mill wrote many critical articles for *The Westminster* and the *Edinburgh Reviews*, which were collected and published in a volume in 1859. In 1865 he was returned to Parliament, but his career was not successful or popular. His chief prominence was in advocating the measure to admit women to the suffrage, which failed. In the next election he was rejected, and retired from public life. Soon after he took up his residence in the south of Europe, near Avignon, where his remaining years were spent, except for a brief visit in London twice a year. In 1851 Mr. Mill married Mrs. Taylor, to whom he had been most devotedly attached for more than twenty years, and who seems to have been his valued counsellor and the inspiration of his best work. He refers to his companionship with her as the "most valued friendship of his life." His idealizing worship of his wife seemed to be the outlet of pent-up reverence that had been denied the usual channels of expression through religious emotion. Mrs. Mill died in 1859, at Avignon, and from that time Mr. Mill remained there with her eldest daughter until his death, on May 8, 1873.

Mill, in *Indiana*, a township of Grant co.

Mill, in *Ohio*, a township of Tuscarawas co.

Millais (*mil-lā'*), Sir J. Everett, was born at Southampton, Eng., in 1829. At 11 he was a student at the Royal Academy, gaining the principal prizes for drawing. His first picture, *Pizarro Seizing the Inca of Peru*, was exhibited at the Academy in 1846. In conjunction with Dante Rossetti and Holman Hunt, he set up a school of painting from nature which obtained the title of "pre-Raphaelite;" and, in support of this school, published (1850) a periodical entitled *The Germ, or Art and Poetry*. He was elected an A.R.A. in 1853, and became R.A. in 1863. A large and representative collection of his paintings, embracing from his earliest to his latest styles, and illustrating his emancipation from the trammels of pre-Raphaelitism, was exhibited at the Grosvenor Gallery, in 1887. A baronetcy was conferred on him in 1885. In 1896 he was chosen president of the Royal Academy. Died on Aug. 13, of the same year.

Millard', Harrison, composer, was born in Boston, Mass., on Nov. 27, 1829; studied music in Italy, and appeared as a tenor singer in grand opera, at Floreuce, in 1852; returned to Boston (1858), and joined the Handel and Haydn Oratorio Society; removed to New York in 1859, and in the same year composed his song *Vive l'America*. In 1861 he enlisted as a private soldier in the 71st New York Regiment, and, while in Washington, he created a sensation by singing *Vive l'America* at a social gathering composed chiefly of Southerners. President Lincoln, hearing of the incident, sent for the composer, and, congratulating him on his patriotism, presented him with a commission as first lieutenant in the 19th Infantry. He served at various times as aid-de-camp and staff officer; was wounded at Chickamanga, Sept. 19, 1863, and resigned from the army soon after. He returned to New York, and was appointed to a place in the Custom House until 1885. During this period he composed most of his popular songs, and also the opera *Leah*. His song, *Waiting*, is the test song of the Paris Conservatory of Music. During 1894, he travelled with his daughter, Marie *M.*, the prima donna of the Sphinx Opera Company. Died Sept. 10, 1895.

Mil'lard, in *Kansas*, a village of Riley co., about 5 m. S.W. of Fort Riley.

Mil'lard, in *Utah*, a W. co., adjoining Nevada; *area*, about 6,762 sq. m. *Rivers.* Sevier river, and several smaller streams, with Lake Sevier in the S. part. *Surface*, mostly mountainous; *soil*, sterile. *Cap.* Fillmore City. *Pop.* (1895) 5,375.

Mill'brook, in *New York*, a post-village of Dutchess co., 10 m. from Auremia. *Pop.* (1897) 720.

Mill'bury, in *Ohio*, a post-village of Wood co. *Pop.* (1897) 665.

Mill'dale, in *Kentucky*, a post-village of Kenton co. *Pop.* (1897) 1,110.

Mil'ler, James Russell, clergyman and editor, was born at Frankfort Springs, Pa., March 8, 1840; educated at Westminster College, Pennsylvania; pastor of the United Presbyterian Church, at New Wilmington, Pa. (1867–69); of the Bethany Presbyterian church, Philadelphia (1869–78); of the Broadway Presbyterian church, Rock Island, Ill. (1878–80); of the Hollond Memorial Mission, Philadelphia (1881). Since 1881 he has been editor for the Presbyterian Board of Publication, and has also published *Week-day Religion* (1880); *Home Making* (1882); *In His Steps* (1884); *Silent Time* (1886); *Come Ye Apart* (1887); *The Marriage Altar* (1887); *Practical Religion* (1888); *Bits of Pasture* (1890); *Making the Most of Life* (1891); *Mary of Bethany* (1891); *Dew of thy Youth* (1891); *The Everyday of Life* (1892); and numerous smaller books, pamphlets and leaflets.

Miller, Joaquin (*Cincinnatus Heine Miller*), poet, was born in Indiana, November 10, 1841; removed with his parents to Oregon (1854), and afterward was a miner in California. In 1860, after studying law, he was admitted to the bar in Oregon. In 1863 he edited a paper, which was suppressed for disloyalty. He was elected judge of Grant county, Oregon (1866–70). After making a visit to Europe he settled in New York in 1874; later, became a journalist in Washington; and in 1887 he returned to Oakland, California, where he has since resided, engaging in literary pursuits. He is the author of *Songs of the Sierras* (1871); *Songs of the Sun Lands* (1872); *The Ship in the Desert* (1875), &c.; among his latest books is *Building of the City Beautiful* (1893). In the summer and autumn of 1897 he made a trip to the Klondike region of Alaska, as special correspondent of a newspaper syndicate.

Miller, Warner, politician, was born in Oswego co., N. Y., Aug. 12, 1838; graduated at Union College (1860); became a teacher in the Fort Edward Collegiate Institute; at the outbreak of the Civil War he enlisted in the 5th New York Cavalry; fought under Gen. Sheridan, and attained the rank of lieutenant; was a delegate to the national Republican conventions of 1872 and 1888; elected to the New York Assembly in 1874 and 1875, and to Congress in 1878 and 1880. On July 16, 1881, he was made U. S. Senator from New York for the unexpired term of Thomas C. Platt, resigned; this term expired in 1887. He was Republican nominee for governor of New York in 1888, but was defeated.

Miller, William, founder of the sect of Millerites, was born at Pittsfield, Mass., Feb. 15, 1782; settled at Poultney, Vt. (1804); removed to Low Hampton, N. Y. (1815); in 1831 began to announce the speedy coming of Christ, which, by his interpretation of Biblical prophecy, he fixed for the year 1843, at which time the world would be destroyed. In a few years he had won many adherents, who were popularly known as "Millerites." The representatives of the sect, that are to-day known as Second Adventists, are scattered throughout the United States, having their headquarters at Battle Creek, Mich.

Miller, in *Arkansas*, a S.W. co.; *area*, 648 sq. m.; bounded on the E. by the Red river and intersected by Sulphur Fork of Red river. *Surface*, diversified; *soil*, fertile. *Cap.* Texarkana. *Pop.* (1890) 14,714.

Miller, in *South Dakota*, a city, cap. of Hand co., 60 m. E. of Pierre; has flour mills and lumber yards. *Pop.* (1897) 565.

Mil'lerton, in *New York*, a post-village of Dutchess co., 28 m. N. E. of Poughkeepsie; has some manufactures. *Pop.* (1897) 660.

Millet (*mē-lā'*), Jean François, genre and landscape painter, was born at Gréville, Manche, France, October 4, 1814; he was a pupil of Mouchel and of Langlois at Cherbourg, and of Paul Delaroche in Paris; was awarded second-class medals at the salons of 1853 and 1864; first-class at the Paris Exposition of 1867; decoration of the Legion of Honor (1868). He was well trained in academic work, but chose to live in the country in order to study his subjects in their true relations and surroundings. He was poor, and for many years his pictures brought him little pecuniary return; but in his later years the critics recognized his merits, and collectors began to buy his canvasses. After his death many of his pictures sold at high figures, notably *The Angelus*, which was sold at auction in Paris (1889) for $100,000. It was exhibited in the U. S., but was purchased by a French amateur, M. Chauchard, and taken back to Paris. *The Gleaners*, painted in 1857, and now in the Louvre, is by many regarded as Millet's masterpiece. Many of his best works are owned in the U. S. Died Jan. 20, 1875.

Mil'let, *n.* (*Bot.*) See Panicum.

Mil'ling, *n.* See Flour, Manufacture of.

Mil'lis, in *Massachusetts*, a post-town of Norfolk co., 19 m. S.W. of Boston. *Pop.* (1895) 1,006.

Mills, Charles Karsner, M.D., alienist and neurologist, was born in Philadelphia, Dec. 4, 1845; graduated M.D. at the University of Pennsylvania (1871); was professor of Physics in the Wagner Institute, Philadelphia (1870–73); lecturer on Physics in Franklin Institute (1872–73); was lecturer on Electro-therapeutics and Nervous Diseases in the Philadelphia School of Anatomy and Surgery in 1876; lecturer on these subjects in the University of Pennsylvania in 1877, and in 1887 was made lecturer on Nervous and Mental Diseases in that institution. He is the editor of a *System of Nervous Diseases*, and is a well-known contributor to medical journals.

Mills, Clark, sculptor, was born in Onondaga co., N. Y., Dec. 1, 1815. He executed a marble bust of John C. Calhoun (1846); then received a commission from Congress for an equestrian statue of Jackson, to be made from cannon which the latter had captured. A special foundry was built for the purpose of casting the metal; the statue was completed, and unveiled in Washington, Jan. 8, 1853. He also prepared a colossal equestrian statue of Washington, and cast in bronze Crawford's statue of Liberty, now on the dome of the capitol at Washington. Died Jan. 12, 1883.

Mills, in *Texas*, a central co.; *area*, 640 sq. m.; drained by the Colorado river and its tributaries. *Surface*, mountainous, with many small, rich valleys. Wool-growing, stock-raising, and agriculture are the chief industries. *Cap.* Goldthwaite. *Pop.* (1890) 5,480.

Milnes, Richard Moncton (first Lord Houghton), poet and critic, was born in London, June 19, 1809, the only son of Robert Pemberton *M.*, M.P. He was a graduate of Trinity College, Cambridge, where he was intimately associated with Tennyson, Hallam, and Thackeray; entered Parliament (1837), and assisted in passing the Copyright Act; was created Baron Houghton in 1863. He visited America in 1875; published several volumes of poems, and is especially known as the biographer and critic of John Keats. Died Aug. 11, 1885.

Milnes'ville, in *Pennsylvania*, a post-village of Luzerne co.

Mil'ton, in *Illinois*, a post-village of Pike co., 30 m. W. S. W. of Jacksonville. *Pop.* (1897) 520.

Milton, in *West Virginia*, a post-town of Cabell co. *Pop.* (1897) 650.

Milton Junction, in *Wisconsin*, a post-village of Rock co., 8 m. N. E. of Janesville. Seat of Milton College (Seventh Day Baptist). *Pop.* (1895) 750.

Mil'tonvale, in *Kansas*, a post-village of Cloud co., 28 m. S. E. of Concordia. *Pop.* (1895) 412.

Mim'eograph, *n.* An apparatus by which copies of written or typewritten manuscripts may be obtained in large quantities in a short time. A thin, fibrous paper, covered with paraffin, is used, through which a porous spot is made by the impression of the pen or type, the ink passing through these porous spots to form the characters or letters.

Mimog'raphy, *n.* The art of writing gesture-language, or the writing itself; as, the sign-language of the North American Indians, or that used by the deaf and dumb.

Mim'usops, *n.* (*Bot.*) A genus of plants, order *Sapotaceæ*, containing 30 or more species of tropical trees. These are generally of great height and solidity of wood, furnishing valuable timber, such as that of the bully-trees (or bullet-tree) of British Guiana. The fruits of many are edible, the seeds yield an oil, and the flowers are employed as material for perfumes; finally, the whole group is characterized by the milky sap, which in some cases is edible and in others has properties similar to gutta-percha.

Mind'-cure, *n.* A system of treatment based upon the idea that all ailments of the body are due to an unnatural state of the mind, and that this state may be remedied without medicine by the influence of the healer's mind upon the mind which is diseased. Similar to *Christian science* and to *Faith-cure.*

Min'den, in *Nebraska*, a city, cap. of Kearney co., 229 m. W. of Lincoln; has creamery, mills, and brick yards. *Pop.* (1897) 1,875.

Mindo'ro Sea, &c. (*Geog.*) The water enclosed by Borneo and the Sulu Archipelago on the south, the Palawan Islands on the west, and the Philippines on the north and east. Named from *Mindoro Island*, one of the Philippines, and entered from the north through *Mindoro Strait.*

Mineo'la, in *Texas*, a post-town of Wood co., 260 m. N. E. of Austin. Cotton, lumber, fruit, and live stock are produced and shipped. *Pop.* (1897) 1,500.

Mi'ner, in *South Dakota*, an E. co.; *area*, 580 sq. m.; intersected by Vermilion river and Red Stone creek. Undulating prairie; *soil*, fertile. *Cap.* Howard. *Pop.* (1895) 5,015.

Miner's Mills, in *Pennsylvania*, a post-borough of Luzerne co. *Pop.* (1897) 2,230.

Min'eral, in *West Virginia*, a N.E. co.; *area*, 370 sq. m.; bounded on the N.W. and N. E. by the North Branch of the Potomac river, and intersected by Patterson's creek. *Cap.* Keyser. *Pop.* (1890) 12,085.

Mineral King'dom. (*Nat. Hist.*) The inorganic portion of nature. To the *M. K.* belong liquid and gaseous, as well as solid, substances; water, atmospheric air, &c., are included in it. All the chemical elements are found in the *M. K.*, from which vegetable and animal organisms derive them.

Mineral Ridge, in *Ohio*, a post-village of Trumbull co. *Pop.* (1897) 1,000.

Mineral Wells, in *Texas*, a post-town of Palo Pinto co., 251 m. N. E. of Austin; a health resort, for its medicinal springs. Deposits of coal, silver, nitre, and alum in vicinity. *Pop.* (1897) 670.

Mineral Wool. (*Metall.*) A vitreous substance formed from the slag of the blast furnace by melting, and blowing it into fine, glassy threads as it flows from a small orifice. The blowing is done by a jet of steam, and the fleecy appearance of the thread-like product is variously called mineral cotton, silicate cotton, and mineral wool, the last name being the most common. It is valued principally because it can be woven up into a fabric which will withstand a great deal of heat, and may be exposed to fire without danger of ignition. It is much used as an insulator, to wrap about boilers, steam-pipes, protect woodwork from the heat of furnaces and stoves, &c. It is equally valuable for retaining cold, since it is a non-conductor, and its use is increasing in the construction of cold-storage buildings, refrigerators, and coolers of all kinds. For the jacketing of steam-cylinders, protection of water-tanks from freezing, and similar uses it is being further introduced, as well as for lining walls in dwellings, filling in spaces in the roofs, &c. Its unusual non-conductivity is attributed to the amount of imprisoned air which the fibers contain, amounting to 94 per cent. of its bulk. It does not decay, and is almost indestructible, and mice and vermin do not readily harbor in it.

Mine'ville in *New York*, a post-village of Essex co. *Pop.* (1897) 1,910.

Minghet'ti, Marco, statesman, was born at Bologna, Italy, Sept. 8, 1818; became minister of the interior under Cavour (1860), and retained the position after Cavour's death, under Ricasoli; was minister of finance under Farini (1862), and Premier (1863–64 and 1873–76). His most notable work is a book on political economy, published in 1859. Died Dec. 10, 1886.

Minier, in *Illinois*, a post-village of Tazewell co., 27 m. S. E. of Peoria. *Pop.* (1897) 770.

Ministe'rium, *n.* (*Luth. Ch.*) A body of ministers and lay representatives who meet to consider the general interests of the churches of a district.

Minneap'olis, in *Kansas*, a city, cap. of Ottawa co., 23 m. N.W. of Solomon City; has carriage works, flour mill, and creamery. *Pop.* (1895) 1,559.

Minne-drinking. In old Teutonic nations, a solemn toast to the gods, or in honor of the absent or the dead. The Christian Church permitted the custom with the substitution of saints for gods, and traces of it survive in certain customs and places.

Mi'not, in *North Dakota*, a post-village, cap. of Ward co., 60 m. W. of Rugby Junction. *Pop.* (1897) 660.

Mins'ter, in *Ohio*, a post-village of Auglaize co., 20 m. from Wapakoneta. *Pop.* (1897) 1,220.

Min'to, in *North Dakota*, a post-village of Walsh co., 30 m. N. of Grand Forks. *Pop.* (1897) 540.

Mi'ophone, *n.* A form of microphone devised by Boudet for making a pathological examination of the muscles.

Mir, *n.* The primary unit of state organization in Russia is the village community, or *mir*. The bonds which unite the peasants in one of these village communities have caused the fact that the dwellings of the peasantry are not scattered over the face of the country, but aggregated in villages, where they are built in a street or streets. A number of these village communities are united into *volosts*, of which the peasant inhabitants elect an elder and a peasants' tribunal. There are also elective districts and provincial assemblies. All this has an appearance of local self-government, but these various institutions are so completely under the control of state officials that they form simply a part of the machinery which directs the absolute and strongly centralized monarchy.

Mi'ra, *n.* [Lat. fem. of *mirus*, wonderful.] A fixed star in the constellation Cetus, situated in the neck. It is variable, or periodic, being usually of the 12th magnitude, but once in about 11 months increases to the 4th or 3d, occupying 100 days in its rise and fall. For about two months it is invisible to the naked eye. Its variability was discovered by Fabricius in 1596.

Mir'amon, MIGUEL, a Mexican general and revolutionist, was born in 1832; became in 1858 the chief of the Clerical party opposed to the presidency of Juarez. After being defeated in a decisive battle fought in Dec., 1860, he left Mexico, to return in 1864 and take an active part in the struggle for the empire under Maximiliau, and was captured and shot with him in June, 1867.

Misanthro'pia, *n.* (*Pathol.*) Aversion to man and society; commonly a symptom of melancholy.

Misericorde', *n.* [Lat.] The small dagger by which, in the Middle Ages, a wounded knight received his final blow through a joint in his armor, or was forced to ask quarter.—[Archaic.] Pity; tender forgiveness.

(*Arch.*) Same as MISERERE.

Missau'kee, in *Michigan*, a N. central co.; *area*, 580 sq. m.; watered by the Muskegon, Clam, and Mauistee rivers. *Surface*, undulating; *soil*, moderately fertile. Extensive lumbering interests. *Cap.* Lake City. *Pop.* (1894) 6,956.

Mississip'pi, in *Arkansas*, a N.E. co.; *area*, 808 sq. m.; bounded on the E. by the Mississippi river and intersected by the Little river. *Surface*, level, with numerous lakes and cypress swamps; *soil*, of drier section, very fertile. *Cap.* Osceola. *Pop.* (1890) 11,635.

Mississippi, in *Missouri*, a S. E. co.; *area*, 430 sq. m.; bounded on the N. and E. by the Mississippi river. *Surface*, level; *soil*, fertile. *Cap.* Charleston. *Pop.* (1897) 10,650.

Mississippi, Univer'sity of. (*Educ.*) A co-educational, non-sectarian institution, situated at the town of University. It had 15 instructors and 285 students, with about 13,000 volumes in its library, at the close of 1896. During that year its income from all sources amounted to about $37,000.

Missou'la, in *Montana*, a N.W. co.; *area*, 18,550 sq. m.; intersected by the Missoula river. *Surface*, mountainous; *soil*, of the valleys and prairies, fertile. *Min.*, gold, silver, and copper. *Cap.* Missoula. *Pop.* (1897) 15,000.—A thriving city, cap. of above co., on the Nor. Pac. R.R., about 100 m. N.W. of Helena; in a lumbering, mining, and agricultural region. *Pop.* (1897) 4,500.

Missou'ri, Univer'sity of. Situated at Columbia, and organized in 1839, this co-educational, non-sectarian institution had, at the beginning of 1897, 52 instructors and 681 students, with about 20,000 volumes in its library. During 1896, its total income from all sources was about $175,000.

Missouri Val'ley, in *Iowa*, a post-town of Harrison co., 21 m. N. of Council Bluffs; has railroad shops and stock-yards. *Pop.* (1895) 3,350.

Mis'tral, FREDERIC, poet, was born in Maillane, Bouches-du-Rhône, France, Sept. 8, 1830. He belongs to the brotherhood of modern Provençal poets known as "*Les Félibriges*." His first notable work was the narrative poem *Mirèio*, for which the French Academy awarded him the chief poetic prize in 1861. This poem has been rendered into English and several other languages. Besides many other poems and romances, he has published (1878–86) a dictionary of the dialects of Provence, a work of great philological value.

Mitch'ell, DONALD G., well known as "Ik Marvel," was born in Connecticut in 1822; graduated at Yale in 1841; appointed U. S. Consul at Venice in 1853. His best known works are: *The Lorgnette; Reveries of a Bachelor; Dream Life; Fudge Doings.*

Mitchell, MARIA, an American astronomer, was born at Nantucket, Mass., 1818. She early evinced a strong predilection for astronomy and its cognate branches of science, and on Oct. 1, 1847, she discovered a telescopic comet, subsequently discovered by Father da Vico at Rome, and by other astronomers. For this discovery she received a gold medal from the king of Denmark. She calculated the elements of this comet, and communicated them to the Smithsonian Institute; and was subsequently employed in observations connected with the Coast Survey, and in the compilation of the *U. S. Nautical Almanac*. Received the degree of LL.D. from Dartmouth in 1852; from Columbia in 1887, and was the first woman to be elected to the American Academy of Arts and Sciences. In 1865 she was appointed professor of Astronomy in Vassar College, N. Y., which she held until near her death, in 1889.

Mitchell, S. WEIR, alienist, neurologist, and author, was born in Philadelphia, Pa., February 15, 1829; graduated at Jefferson Medical College (1850), and gave his attention chiefly to researches in toxicology, the nervous system, &c. On these subjects he has written many papers of value to the medical world. As a physician he has been a conspicuous advocate of the "rest-cure," the value of which he has demonstrated in his practice. Since 1880 he has become prominent as a writer in the purely literary fields of poetry and fiction, publishing several volumes of poems and a number of novels, among which *Hugh Wynne, Free Quaker*, attained high popularity. Others are *In War Time*, *The Adventures of François*, etc.

Mitch'ell, in *Kansas*, a N. cen. co.; *area*, 720 sq. m.; drained by the Solomon river and its tributaries. *Surface*, nearly all prairie; *soil*, fertile. *Cap.* Beloit. *Pop.* (1895) 13,327.

Mitchell, in *North Carolina*, a W. co.; *area*, 324 sq. m.; drained by the Nolachucky river. *Surface*, mountainous; iron ore, mica, and asbestos abundant. *Cap.* Bakersville. *Pop.* (1860) 12,807.

Mitchell, in *South Dakota*, a city, cap. of Davidson co., 70 m. N. W. of Yankton; has railroad repair shops, mills, and factories. Here is the Dakota University (Meth.) *Pop.* (1895) 2,579.

Mitchell, in *Texas*, a N. W. co.; *area*, 900 sq. m.; drained by Colorado river and Girand creek. *Surface*, rolling prairie; *soil*, good for agriculture by irrigating; chiefly devoted to sheep and cattle raising. The river valley at Colorado is underlaid with a bed of pure rock-salt 69 ft. thick, from which large quantities of salt are exported. *Cap.* Colorado. *Pop.* (1890) 2,059.

Mitch'ellville, in *Iowa*, a post-town of Polk co., 17 m. E. N. E. of Des Moines; seat of the State Industrial School for Girls. *Pop.* (1895) 667.

Mi'ter-box, *n.* (*Carp.*) A trough with vertical kerfs, which intersect the sides at angles of 45°, 90°, &c., to form guides for a saw in sawing the ends of pieces to make miter-joints.

(*Print.*) A box in which rules are placed while the ends are cut obliquely, so as to make a miter-joint with another rule.

Mi'ter-joint, *n.* A joint made by pieces matched and united on a line bisecting the angle of junction, as by the beveled ends of two pieces of molding or brass rule. Said especially of pieces that form a right angle.

Mit'ford, MARY RUSSELL, author, was born at Arlesford, Hampshire, Eng., Dec. 16, 1787. She was a writer of miscellaneous poems, but chiefly distinguished for her successful plays, *Julian*, a tragedy, accepted by Macready, and *The Foscari*, produced by Charles Kemble. Her best play is *Rienzi*, which was produced at Drury Lane Theater in 1828, and which has held place among the standard plays of the century. Miss M. also wrote simple sketches of village life and several novels, juvenile stories, etc. Died at Swallowfield, Jan. 10, 1855.

Mitrailleuse', *n.* [Fr.] See GUNS, MACHINE AND RAPID-FIRE.

Mitre (*mē'trā'*), BARTOLOMMEO, ex-President of the Argentine Republic, was born in 1821. He early entered into official life, and distinguished himself as an orator in the Assembly of Representatives. In 1859, being then Minister of War, he took command of the army sent against the Federal forces under General Urquiza, and lost the battle of Cepeda, Oct. 23. In May, 1860, he was appointed governor of Buenos Ayres, and on Sept. 17, defeated Urquiza at Pavon, and after invading the province of Santa Fé, received the adhesion of that of Cordova, and entered Rosario in triumph. In 1861 he made peace with Urquiza, leaving the latter in possession of the government of the province of Entre-Rios, and in Oct., 1862, was elected President of the Republic, which office he held with signal ability till succeeded in Oct., 1868, by General Sarmiento. He published two historical works: *The Historia del Belgrano* (1857), and *The Historia de San Martin* (1884).

Mi'vart, ST. GEORGE, naturalist, was born in London, Nov. 30, 1827; was educated in the law, but preferred scientific studies; became professor of Biology in University College, Kensington (1874). He is a familiar magazine writer on scientific topics, and has been one of the ablest opponents of the Darwinian theory of the origin of species, which he has combatted from a strictly scientific point of view. He has published: *Genesis of Species; Contemporary Evolution; Man and Apes; Lessons from Nature*, &c.

Moa, *n.* See DINORNIS.

Moabite Stone. (*Archæol.*) A slab of black basalt, now in the Museum of the Louvre, bearing an inscription of 34 lines. It was found in 1868 on the site of ancient Dihon, the capital of the kingdom of Moab, which was on the east of the Jordan. Before the stone could be removed, it was broken in pieces through the silly jealousy of Arab tribes, and is now badly damaged. Luckily, however, a squeeze of the inscription had been taken before it was broken. The inscription records the defeat of Mesha, king of Moab, by the combined forces of Joram, king of Israel, and Jehosbaphat, king of Judah, as narrated in the third chapter of the second Book of Kings, and is believed to have been written about 850 B. C. It is thus the oldest Semitic monument known. It is the only non-Israelite source from which any knowledge of ancient Hebrew can be obtained. Before the stone was found, it was thought probable that some of the peoples who were neighbors to the Israelites spoke Hebrew, but nothing whatever was known on the subject. The discovery proved that one of these peoples, the Moabites, spoke the same language as the writers of the Old Testament. These writers and the inscription scarcely differ at all.

Mo'berly, in *Missouri*, a city of Randolph co., 23 m. S. of Macon City; has large shipments of farm produce, live stock, wool, hides, and hardwood lumber. *Pop.* (1897) 9,450.

Moc'casin, *n.* (*Zoöl.*) A venomous snake of the S. United States, of the genus *Ancistrodon*. The water-moccasin *A. piscivorus* (fish-eating), usually found in or near water, is olive-brown, barred with black above, while beneath it is brownish yellow, mottled with darker. The upland *M.* is *A. atrofuscus*, sometimes called cotton mouth. They resemble rattlesnakes, but neither has a rattle. The name *M.* is sometimes improperly given to the copperhead, *A. contortrix*.

Mock'ernut, *n.* (*Bot.*) The common hickory-tree, *Carya tomentosa*, or its fruit. The bark is rough, but not scaly, and the nut is thick-shelled and inferior to that of the shellbark.

Mock-orange, *n.* (*Bot.*) The sweet syringa (*Philadelphus coronarius*); a shrub whose creamy white flowers somewhat resemble orange blossoms in appearance and odor. Also other species of the genus *Philadelphus*. The osage orange (*Maclura aurantiaca*), whose ornamental yellow fruit is called mock-orange in the Southern U. S. See MACLURA.

Mod'ena, *n.* [From *Modena*, in Italy.] A color resembling crimson.

Modes'to, in *California*, a post-town, cap. of Stanislaus co., 30 m. S. of Stockton, on So. Pac. R.R.; has mills and a foundry. *Pop.* (1897) 2,640.

Modiste (*mō-dēst'*), *n.* [Fr.] A woman who makes or deals in fashionable articles of ladies' dress; a dress-maker or milliner.

Mo'dius, *n.* A Roman cylindrical dry measure holding one-third of the amphora, or about 2 gallons.—A classical headdress resembling the *M.*, characteristic of the images of certain divinities.

Modjes'ka, HELENA, Polish actress, was born in Cracow, October 12, 1844. After several years of experimental acting with a travelling company, she achieved a decided success at Cracow (1865), and was ranked first in her profession in Warsaw from 1868 to 1876. She then retired, and, going to California, purchased a farm at Los Angeles. Not succeeding with her farming project, she returned to the stage, and gained a complete triumph at San Francisco, in the *rôle* of *Adrienne Lecouvreur*, and has since been regarded as one of the best of modern emotional actresses. She is popular in *Juliet*, *Rosalind*, and *Beatrice*, and in the characters of *Camille* and *Odette*. Mme. *M.* spends much of her leisure at her California home.

Mo'doc, in *California*, ex. N.E. co.; *area*, 4,198 sq. m.; drained by Pitt river, and contains several lakes. *Surface* is generally mountainous or hilly and in part occupied by the lava beds. Agricultural products small. *Cap.* Alturas. *Pop.* (1890) 4,986.

Mo'does, *n.* (*Anthrop.*) A tribe of North American Indians, formerly belonging to the Klamath nation, originally seated about Klamath Lake, Cal. From 1847, they commenced a predatory and treacherous warfare against the whites; continued until 1864, when the *M.* ceded their lands to the U. S. government, and agreed to settle on a reservation. This treaty, however, was not ratified till Feb., 1870, or the reservation allotted them till March, 1871. In the interim, the *M.* had been consigned to the Klamath reservation, but there found it impossible to live, and were, besides, defrauded and harassed by their enemies, the Klamaths. Ultimately, the band of Captain Jack (Krentpoos), who had constituted himself a rival to Schonchin, the legitimate chief, returned, in Feb., 1868, to their old grounds on Lost river—the other and peaceable band remaining on Hot creek. Captain Jack soon proceeded to depredations on the whites, and desultory warfare followed amid the almost impregnable "lava-beds" of that region. The government appointed a commission to investigate the causes of the *M.* dissatisfaction; and, at a conference held on April 11, 1873, the commissioners were attacked by Captain Jack and his band, with the loss of Gen. Canby and others. After this, active measures were taken, and the *M.*, after a long and determined resistance, at length surrendered to Gen. Davis, on the 1st of June. Captain Jack and others of the leading Indians were tried and executed at Fort Klamath, Oct. 3, while the rest of the prisoners, numbering 148, were deported to the Indian Territory.

Mo'dus viven'di. [Lat.] This phrase, meaning literally "mode of living," has become a recognized term in diplomacy to signify a temporary arrangement between two sovereignties providing for the conduct of certain affairs pending negotiations for a treaty on the same subject-matter.

Mœs'ogoths. (*Anc. Geog.*) The territory immediately south of the Danube, correspondiog in the main to tbe present Servia and Bulgaria, was known in aucient geography as Mœsia. It became a Roman province about 16 B. C. In 250 A. D. the Goths invaded Mœsia, and at last, in 395, a number of them, afterward known as Mœsogoths, obtained permission to settle in the province.

Mofus'sil, *n.* The country, in India, as distinguished from the town or the residence district of the officials arouod a station.

Mogigraph'ia (*Path.*). [From Gr. *mogis*, with difficulty, and *graphō*, I write.] Writers' cramp; spasmodic rigidity of some of the muscles of the fingers and arms, in consequence of close application with the pen or pencil.

Moles'worth, Sir William, was born in London, May 23, 1810; eotered Parliament in 1832; was associated with Grote and J. S. Mill, and was unpopular becanse of his infidel views. In April, 1835, he started the *London Review*. Duriug 1839–45 he was engaged in editing and publishing an edition of Hobbes' works, which was issued in ten volumes, at a great expense, copies being presented to all of the leading libraries. In July, 1855, he was appointed colouial secretary, and died Oct. 22 in the same year.

Moline (*mo-lēn'*), in *Kansas*, a post-village of Elk co., 8 m. S. of Howard; ships live stock, wool and grain. *Pop.* (1895) 618.

Mol'ly Maguires', *n. pl.* In Ireland, a secret society formed in 1843 to intimidate bailiffs or process-servers distraining for rent, or others impounding the cattle of non-rent payers. They were mostly young men dressed in female attire (whence their name), and had their faces blackened or otherwise disgnised.—In the United States, a similar secret society that terrorized the coal regions of eastern Pennsylania (1867–77), whose threatening letters were signed "Molly Maguires." Many murders and other outrages were committed, aod the band was only broken up by the execution of several of the ring-leaders.

Momba'sa, *n.* (*Geog.*) An importaut town now, but which bids fair to be far more important in the future. It is a seaport with a harbor which is the largest, safest, and healthiest on the east coast of Africa. It is built on a coral island, 3 miles long by 2½ broad, close to the coast, in 4° 4′ S. Lat. Founded by the Arabs after they began their occupation of the coast in the 8th century, Mombasa was a large and prosperous town when visited by Vasco da Gama in 1497. After long possession by the Portuguese, it was seized by the Sultan of Zanzibar, which is 150 miles from *M.* The Sultan ceded it in 1890 to the British East Africa Company. It is now connected with Zanzibar by telegraph, and in 1890 the company began the constructioo of a railway to Lake Victoria Nyanza, distant 400 miles. The population in 1897 is 25,000, mostly Africans, with some Arabs and Banyans.

Momin'sen, Theodor, historian, was born at Garding, in Schleswig, on Nov. 30, 1817; educated at Kiel, aod travelled for three years in France and Italy studying Roman inscriptions for the Berlin Academy; appointed to the chair of Jurisprndence at Leipsic, a position of which he was deprived for political reasons; accepted the chair of Roman Law at Zurich in 1852, at Breslau in 1854, and the chair of Ancieut History at Berlin in 1857. He has written maoy books on Roman history and law. As secretery (after 1873) of the Berlin Academy, he was the editor of the great *Corpus inscriptionum latinarum*, published by that body. At varions times he has taken an active part io politics, and has been a member of the Prussian House of Delegates, where his political views were those of the National Liberal party. Died Nov. 1, 1903.

Mon-, or **Mono-.** A prefix derived from the Greek *monos*, one, and signifying unity or singleness.

(*Chem.*) It indicates the presence of a single atom of the element specified.

Mo'nazite, *n.* (*Chem.*) This resinous-appearing substance was so named from its supposed rarity, and attracted much attention in 1893 and 1894 because it contained so many of the rare earths of chemistry, which were coming ioto demand just then for use in manufacturiog mantles for iocandescent gas-lamps. It is a phosphate of cerium, lanthanum, praseodymium, and neodymium, and coutains also both silicon and thorium. These salts are among the most refractory substances known, and are hence specially suitable for making gas-mantles, which are required to withstand great heat for a long period. Monazite was first found in Norway, and was supposed to be confined to that section. About 1893 it was found in North Carolina, and since then in a great many other places. When discovered in North Carolina, a great sensation followed, often referred to as the monazite boom, and its value was so exaggerated that the price of monazite sand was temporarily inflated to over $200 a ton. It was found, however, that there was not so much money in it as at first supposed, as the sand did not yield very largely the desired earths, and the price has since fallen materially.

Moncrieff', Lord James Wellwood, Scottish jurist, was born in Edinburgh, in 1811; educated at the University there, and began a brilliant career in the law in 1833. He became Solicitor-Geoeral (1850), Lord Advocate (1857), holding the latter post in all the Liberal Ministries, sitting for Leith, Edinburgh, and the Universities of Aberdeen and Glasgow in the House of Commons until raised to the beoch (1869) as Lord Justice Clerk. In Parliament he labored for a national system of education in Scotland, with measurable success. He was elected rector of Edinburgh University in 1868; was made a baronet in 1871, and in 1874 was raised to the peerage as Baron Moncrieff. He was a frequent contributor to the *Edinburgh Review*, and other magazines. He retired in 1888, and died April 27, 1895.

Mond, Ludwio, technical chemist and inventor, was born at Cassel, Germany, on March 7, 1839. In his scientific training he was a pupil of Kolbe and Bunsen; has made important additions to chemical industrial processes and products, especially with reference to the alkali industry, having improved the mode of manufacture of carbonate of soda, caustic soda, hydrochloric acid, chlorine, &c. In 1863 he developed the Mond process of sulphur recovery from alkali waste; and in 1873 founded the ammonia-soda works of Messrs. Brunner, Mond & Co., at Winnington, Cheshire, of which he is still managing director. His discovery of a very interesting compound of nickel with carbonic oxide has furnished means for extracting nickel from its ores and applying it to various useful purposes. In 1894 he made a munificent offer to the Royal Institution, namely, the establishment and endowment of a physical and chemical laboratory, to be called the "Davy-Faraday Research Laboratory," involving an expense of nearly £100,000.

Mon'ergism, *n.* (*Eccles.*) A theological term, signifying that regeneration is entirely the work of the Holy Spirit, the unregenerate will having no power of coöperation. It is opposed to *synergism*, a doctrine held by Erasmus and Melaocthon and the Council of Trent, aod which holds that humao effort coöperates with divine grace in the salvation of the soul, teaching that "God does not deal with man as a block, but draws him so that his will coöperates."

Mone'sia Bark. (*Bot.*) The bark *Chrysophyllum glycyphlœum*, a tree native of the south of Brazil. The bark is lactesceot; but when dried it is thick, flat, compact, heavy, brown and hard, with a taste at first sweet, afterward astringent aod bitter. A substance called *Monesia* is extracted from it, which is almost black, at first sweet, then astringent, and finally acrid, and contains a principle called *Monesin*.

Mon'etary Staud'ards. (*Finance.*) "Monetary standard" is a better name for that which is so frequently termed a "standard of value." It is created by an act of legislation which decrees that a fixed quantity of a certain metal, when duly refined and stamped, shall coostitute the unit of the currency. Thus, under the present laws of the U. S., a qnautity of 25·8 grains of gold, 900 fine, is the one legal "unit of valuo" and the monetary standard of our currency. This constitutes monometallism (*q. v.*). Prior to 1873 the U. S. had two monetary uuits of equal legal valne, one being the silver dollar of 412½ grains of standard fineness, the other the gold dollar of 25·8 grains. This was true bimetallism (*q. v.*), notwithstanding the fact that practically no silver had been iu circulatiou io this country after 1834, and neither silver nor gold after 1861 up to the date of the law which constituted gold the sole standard.

The professed purpose of maiutaining a monetary standard is to secure a stable unit of valuation, so that money acquired and unexpended shall neither lose nor gain by keeping for a time, but shall have equal purchasing power when eventually exchauged for goods; also to prevent either gain or loss through fluctuations in the purchasiug power of the monetary unit, to the end that contracts iovolving the future payment of money may be entered upon with no daoger of inequity in the settlement as the result of a depreciation or an appreciation of the currency.

Since all commodities—there is not a single exception—are subject to the law of supply and demand, no intelligent man now claims that either gold or silver, or a combiuation of the two, provides ao absolutely stable monetary unit; on the other hand, it is freely admitted all around that perfection in this respect is not ooly unattained but unattainable. The advocates of gold assert that that metal is the most nearly perfect standard that has yet been discovered, while the adherents of bimetallism, with at least equal force, maintain that the alternativo (misnamed "double") standard will better provide this first requiremeot of safe, honest money—*i. e.*, an invariable unit. The best that can be said, then, is that we have been striviog for generations to secure that which has no existence, aod confessedly cannot have.

Still more difficult is it to conceive of a "double" monetary standard. To attain this it would be requisite to find two substances—silver aod gold, if you choose—that will permanently maintain with each other a given value relation. To accomplish this the immutable laws of supply and demand would have to be abolished, unless, indeed, two substances could be found which were no longer either supplied or demanded—produced or consumed. Such a solution of the monetary problem is, of course, not expected; yet it is undoubtedly the only one which could establish a permaneotly equitable metallic monetary unit.

It may be profitable to exaoine the process by which a monetary standard is first selected and made legal. In establishing a monetary system of its own, a new nation must first of all decide upon its money of account. What shall we call our money? Say dollars, cents, mills; the uoit shall be the dollar. Next, the staodard; what shall that be? It is decided that a piece of gold 900 fine, weighing 25·8 grains, shall be the dollar and the unit of valne, when officially stamped in the manoer provided; the cent shall be one-hundredth of that amount, &c. Although it is true that thenceforth, while that law stands and is enforced, each dollar of that nation will be equivalent in exchange valuation to 25·8 grains of gold, there is no assurance of even a close approximation to a stable monetary unit. The purchasing power of each dollar (and of its paper representatives, if not discredited) will follow and conform to the varying valuatioo of that much gold, be the same more or less. Since that metal may, and does, fuctuate in common with all other commodities, as now admitted by economists of every school, it follows that by such procedure we not ooly do not acquire a stable monetary unit, or standard, but actually secure ourselves against the slightest hope of so doing.

In this respect the bimetallic plan is an improvement ouly in degree; but the employment of two metals for the manufacture of coins or as a basis for a paper circulation would assuredly provide for the use of much less purely "credit" money. If for every dollar of paper currency in circulation there should be at all times reserved in the Treasury or bank vaults a legal equivalent in coiu or bullion, there would be an end to inflation properly so called—*i. e.*, the issue of promises to redeem in excess of the actual supply (in hand) of the metal oi redemption. No ooe wants to handle either gold or silver in large quantities; paper is the money of the preseut and of fntnre civilization, the only question being the conditions of its issue. Who could doubt the integrity of the notes of a baok or of the national Treasury, if it were positively known that for every dollar of its paper extant there was a metallic dollar held waiting for its redemptioo? If, therefore, the bimetallic system would provide for the retirement of all purely credit paper, and furnish an ample supply of couvenient paper currency whose metallic basis had a known, constant existence, would not that be far more desirable than the continuance of a vast body of currency either incoovertible or subject to doubt as to possibility of its redemption? Uncovered bank notes and Treasury notes are simply evidences of debt, protected by a fractional reserve. Their existence provides the meaos for finaucial panic; in the case of the Treasury notes it furnishes a conveuient way to build up the national debt and create commercial disorder. Until it can be shown that debt is a desirable condition, it cannot be proved that credit money is a blessing, when issued on a metallic margin so narrow as to constantly iovite a disastrous overturn.

In the article Bimetallism we have discussed the merits of that system at some length, and while it is not within the provioce of this work to go beyond the mere statement of facts and obvious conclusions, we wish to note here that the considerable fall in the (gold) price of silver during the summer of 1897 was entirely consistent with the course of events. The action of Japan and other nations in the direction of silver demonetization would naturally have the effect of depressing the price of that metal, even in the face of a diminished outpnt and an increased production of gold. That it has done so proves the truth of two claims made by the more intelligent bimetallists: (1) That the relative production of gold and silver has little to do with their relative value where one (or both) is an established money metal, aod (2) that the coioage laws of nations can aod do very seriously affect the relativo values of the money metals without regard to their relativo production. Aud if the abolition of silver coinage by one or two comparatively oinor nations will reduce the purchasiog power of silver, how can it be doubted that its resumption by leadiog nations would greatly increase that power—perhaps even restore its former ratio of 16 to 1 as compared with gold?

But for the wide employment of credits—aud this is only another term for the enormous extension of debt—there would be little occasion to bother with the qnestioo of a monetary standard. The man who spends on Saturday all that he has earned through the week cares nothing for ratios; but the man who saves and lends to his neighbor aod he who borrows are interested in the stability of their curreocy. Economists can as yet offer them nothing but partial security. No monetary standard has yet beeu discovered that can be truly pronounced safe, sound and honest. In the absence of a practical plan for a thoroughly scientific credit currency, based npon the whole resources of the issuing nations, in which the dangers due to the unstable "standards" have heeu eliminated by the substitution of of the only possible scieotific unit of value—the integer 1—there seems to be only one means by which to escape the inevitable inequities of prevailing methods, viz.: an abolition of the credit system. Thi is doubtless a visionary proposition under existing conditions, and would certainly be impossible, at least in the U. S., without a considerable increase in the volume of the currency, such as might follow the remonetization of silver and the resultiog "flood" of bullion. It is difficult to believe that Jones, the country merchant, would prefer to give four months' notes for his goods, if Smith, the carpenter, could pay cash for his muslins; and this Smith could do, if Brown, the butcher, would pay cash for the repairs to his shop; while Brown would gladly settle his carpenter's bills on sight, if Jenkins, the carpet-weaver, could pay for his steaks and chops on delivery; and so on, *ad infinitum*. Each owes the other and must eventually pay, while no one is actually enriched by the operation except the man who discounts the resulting notes. Under a cash system of trade, the perils and perplexities due to an unstable monetary uoit would largely vanish.

It would seem, without going further into the relative merits of monometallism or bimetallism in respect to the monetary standard, that the systems now exist-

ing are by no means safe or sound; and this knowledge should stimulate our people to a closer study of the economic principles that underlie this momentous question rather than spend their energies in useless debate upon the more prominent though minor considerations that lie near the surface. See MONEY; MONOMETALLISM; FIAT MONEY; GRESHAM'S LAW; BIMETALLISM; VALUE; &c.

Mon'ey of account. (*Fin.*) A monetary denomination used in keeping accounts for which there may or may not be an equivalent coin. The mill of the U. S. is a *money of account*, but not a coin.

Monier-Williams, SIR MONIÈR, Sanskrit scholar and Indologist, was born at Bombay, India, in 1819; has had a brilliant record as student and professor of Sanskrit; and was chosen Boden professor of Sanskrit at Oxford in Dec., 1860. He is the author of numerous text-books of the Sanskrit language, and is a voluminous writer on Indian subjects. He was raised to the knighthood in 1886.

Mon'ism, *n.* [Gr *monos*, one.] (*Philos.*) The doctrine that holds to the theory of one ultimate principle of being, in opposition to *dualism*, which refers phenomena to two principles—mind and matter. *M.* may be *idealistic*, explaining matter and its phenomena as a modification of mind; or *materialistic*, holding that all phenomena are from matter; or *pantheistic*, referring both mind and matter to one original substance.

(*Biol.*) Same as MONOGENESIS (*q. v.*).

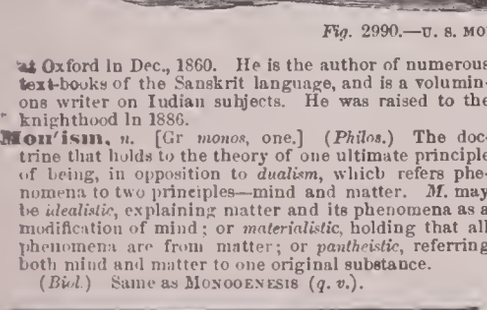


Fig. 2991.—THE PNEUMATIC AMMUNITION HOIST—U. S. MONITOR "AMPHITRITE."

Mon'itor, *n.* [Name of the first vessel of the type.] (*Navy.*) In addition to the old monitors of the Civil War period, the U. S. now possesses six formidable warships of the monitor type, viz., *Amphitrite*, *Mantowomah*, *Monadnock*, *Monterey*, *Puritan*, and *Terror*. Of these the *Puritan* is the largest and most speedy; for their respective dimensions, armament, &c., see NAVY OF THE UNITED STATES. Monitors of to-day are provided with military masts, and, but for their low free board, resemble the battleships in general outward appearance. Though more seaworthy than the original vessel designed by Ericsson, they are best adapted for harbor duty and coast defence. The new monitors, above enumerated, are furnished with modern guns, while the older ones would be of comparatively little practical value in case of war until refitted with ordnance of late design, and even then could be employed with safety only in smooth waters. See MONITOR in SECTION I.

Monk'ey-puzzle, *n.* (*Bot.*) The Chilean pine, so called because difficult for monkeys to climb. See ARAUCARIA.

Mon'ocle, *n.* An eyeglass for one eye.—A monaculo.

Mon'ocycle, *n.* [Gr. *monokyklos*, one-wheeled.] A one-wheeled vehicle.

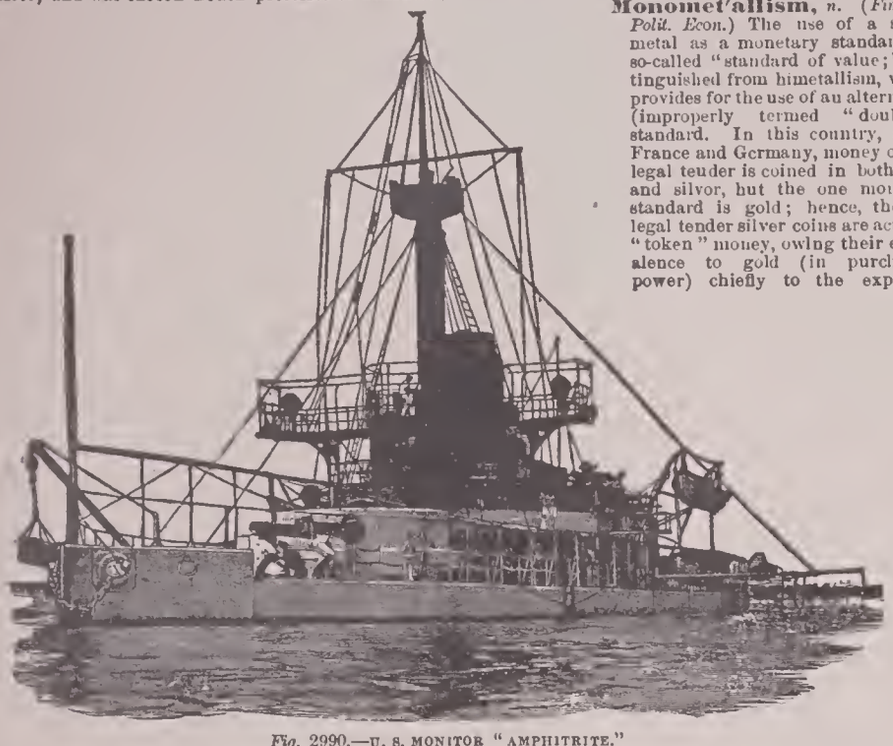


Fig. 2990.—U. S. MONITOR "AMPHITRITE."

Monomet'allism, *n.* (*Fin. and Polit. Econ.*) The use of a single metal as a monetary standard, or so-called "standard of value;" distinguished from bimetallism, which provides for the use of an alternative (improperly termed "double") standard. In this country, as in France and Germany, money of full legal tender is coined in both gold and silver, but the one monetary standard is gold; hence, the full legal tender silver coins are actually "token" money, owing their equivalence to gold (in purchasing power) chiefly to the expressed determination of government to maintain them upon an equality with gold. This is accomplished by making silver currency virtually convertible into gold; not by direct legislation, but by custom. In fact, by no other means could such parity be maintained. It should be clearly understood, however, that the presence in the currency of full legal tender coins of two different metals is not inconsistent with monometallism; and that those countries which maintain such a currency—as the United States, France, and Germany—but which have the single monetary standard, are practicing absolute monometallism. See MONEY; MONETARY STANDARDS; FIAT MONEY; BIMETALLISM, &c.

Monroe, in *Utah*, a post-village of Sevier co. *Pop.* (1895) 1,151.

Monroe City, in *Indiana*, a post-town of Knox co. *Pop.* (1897) 670.

Monroe City, in *Missouri*, a post-town of Monroe co., 22 m. W. by S. of Hannibal; has several factories, flour and saw mills. *Pop.* (1897) 2,120.

Monroe' Doc'trine. (*Am. Pol.*) The principle that the extension of the power of any European State over any of the free governments of America must be regarded by the U. S. as threatening their peace and safety; named from its enunciation by President Monroe, in his annual message, Dec. 2, 1823.

The message was suggested by the following circumstances: The Emperors of Austria and Russia and the King of Prussia formed in 1815 the treaty known as the Holy Alliance, at first to defend their governments against revolutionary overthrow. They induced the King of France to assist in the overthrow of the liberal government of Spain, and proposed to suppress the revolutionary spirit in Central and South America, and to restore the Spanish-American colonies to Spain. The British Minister of Foreign Affairs (Canning) opposed the Alliance. He said to the French Ambassador that England would remain neutral in the war between Spain and her colonies, but would regard the junction of any foreign power with Spain for their subduing as constituting "an entirely new question;" and to Richard Rush, Minister from the U. S., he said that he "conceived the recovery of the colonies of Spain as hopeless." John Quincy Adams, American Secretary of State, in 1820 had written that, "with the exception of the British establishment north of the U. S., the remainder of both the American continents must henceforth be left to the management of American hands;" and now he consulted with Thomas Jefferson, who said: "Our first and fundamental maxim should be never to entangle ourselves in the broils of Europe; our second, never to suffer Europe to intermeddle with cis-Atlantic affairs."

As a result of this consultation Mr. Monroe issued his message. The most essential parts, with reference to the "Monroe Doctrine," were as follows: "We should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. . . . With the governments who have declared their independence and maintained it, and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them, or controlling in any other manner their destiny, by any European power, in any other light than as the manifestation of an unfriendly disposition towards the United States."

This famous doctrine, not originating in President Monroe's message, has been endorsed and expounded by the most distinguished statesmen in many later utterances. Henry Clay, Jan. 20, 1824, offered a joint resolution in the House of Representatives, that "the people of the United States would not see without serious inquietude any forcible intervention by the allied powers of Europe in behalf of Spain to reduce her colonies to subjection." In 1825, President John Quincy Adams reaffirmed the doctrine; as did Daniel Webster, in 1826. In accordance with this principle, William H. Seward, in 1865, gave the French peremptory notice to withdraw from Mexico. In 1870, President Grant declared that existing dependencies were no longer a subject of transfer from one European power to another. In 1895, Richard Olney applied the doctrine to the request by the U. S. that the boundary dispute between England and Venezuela be submitted to arbitration. Lord Salisbury, in resisting this request, held that the Monroe Doctrine was not a part of international law; but President Cleveland, in his message of Dec. 17, 1895, held that while it might not have been admitted in so many words to the code of international law, "it finds its recognition in the principles of international law which are based upon the theory that every nation shall have its rights protected and its just claims enforced."

There was some difference of opinion as to the application of the doctrine to the Venezuelan dispute, and the President was thought by some to have used a tone needlessly unfriendly in his message; but the substance of the Monroe Doctrine was approved both in England and in America; and the request of the U. S. that the Venezuelan question be arbitrated was practically conceded by a satisfactory settlement without external assistance.

The doctrine does not establish a protectorate of the U. S. over the smaller American republics, nor prevent the enforcement of foreign claims upon them, even by war; but it opposes any permanent occupation of their territory or the extension over them of any European power or control.

Monroe'ville, in *Indiana*, a post-town of Allen co., 16 m. E. S. E. of Fort Wayne. *Pop.* (1897) 750.

Monro'via, in *California*, a post-town of Los Angeles co., 17 m. N. E. of Los Angeles. *Pop.* (1897) 1,200.

Monsignor (*mon-sēn'-nyor*), *n.* [It., my lord.] The title of a Roman Catholic prelate; an ecclesiastical dignity conferred by the Pope; abbreviated **Mgr.**

Mon'son, SIR EDMUND, English ambassador to Paris (appointed in 1896), was born in 1834; was educated at Eton, and Baliol, Oxford; entered the diplomatic service in 1856, since which date he has been constantly in diplomatic life, as consul, attaché, minister, and ambassador, to numerous courts of Europe and countries of South America.

Mon'stera, *n.* (*Bot.*) See ARACEÆ.

Mont Al'to, in *Pennsylvania*, a post-village of Franklin co. *Pop.* (1897) 710.

Mont Ce'nis. (*Geog.*) This is the French name for the Italian mountain which the Italians call Monte Cenisio. The height of its peak is 11,451 feet, but there is a pass over the mountain between Savoy and and Piedmont at an elevation of 6,773 feet. A fine carriage road was constructed over the pass by orders of Napoleon I., in 1803–10. A railway, running for the most part by the side of the carriage road, was built in 1867. It never paid, however, and was discontinued in 1871. The mountain was therefore pierced by a tunnel, which, begun in Aug., 1857, on the Italian side, and in 1863 on the French side, was completed on Christmas Day, 1870, at a cost of about $15,000,000. The tunnel, which is nearly 8 miles long, does not run directly under the pass, but 13 miles west of it. Its north end is 3,942 feet above the sea, its south end 4,380, and the middle is about 15 feet higher than the south end. The work of drilling the headings of the tunnel was performed by machine-drills operated by compressed air, and invented by the famous engineer, Germano Sommeiller, who died just one week before its opening. A railway traverses the tunnel from Turin, Italy, to Fourneaux, France, and trains take about 20 minutes in passing from the one place to the other.

Mont Clare, in *Pennsylvania*, a post-village of Montgomery co. *Pop.* (1897) 720.

Mon'tague, in *Michigan*, a post-village of Muskegon co., 17 m. N. of Muskegon; has important lumber and wooden-ware manufactures. *Pop.* (1894) 1,410.

Montague, in *New York*, a post-town of Lewis co. *Pop.* (1897) 964.

Monte Vis'ta, in *Colorado*, a post-town of Rio Grande, 18 m. W. of Alamosa. *Pop.* (1897) 880.

Montefi'ore, SIR MOSES HAIRN, English-Jewish philanthropist, was born at Leghorn, Italy, Oct. 24, 1784. He was the son of a London merchant, and amassed a fortune as a stock-broker in that city, retiring in 1824, and devoting his life to improving the condi-

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John Pierpont Morgan.

1837–

tion of the Jews, especially in the Russian and Ottoman empires. He secured important concessions from the Turkish government in 1840, and from the Czar in 1846. He was a generous giver to hospitals and other charities. The Jews throughout the world celebrated the one-hundredth anniversary of his birth. Died on July 28, 1885.

Monteval'lo, in *Alabama*, a post-village of Shelby co., 18 m. W. of Columbiana, on Southern R. R. *Pop.* (1897) 680.

Montevid'eo, in *Minnesota*, a post-village, cap. of Chippewa co., on Minnesota river, 83 m. W. of Glencoe. *Pop.* (1895) 1,800.

Montezu'ma, in *Colorado*, a S. W. co.; *area*, 2,640 sq. m.; drained by the Rio Dolores and numerous smaller streams. *Surface*, part mountainous, part level or undulating; *soil*, a fertile, sandy loam. *Min.*, gold, silver, coppor, lead, iron, coal; has gray and red sandstone, and white and yellow pine. *Cap.* Cortez. *Pop.* (1897) 2,200.

Montgom'ery, in *Indiana*, a post-town of Daviess co. *Pop.* (1897) 520.

Montgomery, in *Kansas*, a S. E. co.; *area*, 648 sq. m.; intersected by the Verdigris river, and also drained by Elk and Fall rivers. *Surface*, chiefly rolling prairie; *soil*, fertile. *Products*, corn, wheat, and oats. *Cap.* Independence. *Pop.* (1895) 23,948.

Montgomery, in *Mississippi*, a N. central co.; *area*, 395 sq. m.; intersected by the Big Black river. *Surface*, nearly level; *soil*, fertile. *Products*, cotton, corn, wheat, pork; live stock. *Cap.* Winona. *Pop.* (1890) 14,459.

Montmoren'cy, in *Michigan*, a N. E. co.; *area*, 580 sq. m.; drained by Thunder Bay river and its branches. *Surface*, rolling; *soil*, sandy loam; very fertile and well watered. Lumbering is the chief industry. *Cap.* Atlanta. *Pop.* (1894) 2,435.

Montour', in *Iowa*, a post-town of Tama co. *Pop.* (1895) 449.

Montpe'lier, in *Idaho*, a post-village of Bear Lake co., 10 m. N. E. of Paris; has gold, silver, and copper in the vicinity. *Pop.* (1897) 1,250.

Montpelier, in *Ohio*, a post-village of Williams co., 60 m. W. of Toledo. *Pop.* (1897) 1,365.

Montrose', in *Colorado*, a W. co.; *area*, 2,300 sq. m.; intersected by Rio Dolores and the Uncompahgre river; *soil*, fertile when irrigated. *Min.* gold, gypsum, and stone. *Cap.* Montrose. *Pop.* (1890) 3,980.

Montrose, in *Colorado*, a post-village, cap. of Montrose co., 63 m. W. of Gunnison. *Pop.* (1897) 1,250.

Montrose, in *Missouri*, a post-town of Henry co., 53 m. S. W. of Sedalia. *Pop.* (1897) 750.

Mood'y, DWIGHT LYMAN, evangelist, was born at Northfield, Mass., Feb. 5, 1837; went to Chicago in 1856 and engaged in Sunday-school missionary work, and during the Civil War was an active member of the Christian Commission. He subsequently became city missionary of the Y. M. C. A. of Chicago. His conspicuous evangelical work began after 1871, when he made religious addresses in various parts of the United States, accompanied by Ira D. Sankey, of Newcastle, Pa., who sang evangelical hymns. They went to Great Britain in 1873, meeting with large success in the principal towns; returned to the United States in 1875, where Mr. Moody has continued uninterruptedly his evangelical work. The profits from the sale of *Gospel Hymns* have been devoted to the education of Christian workers. Mr. Moody has established four schools—three at Northfield, Mass., and one at Chicago; two of the Northfield schools are academies fitting pupils for college, and the third is a woman's training-school; the Chicago school is for Biblical instruction. Besides several collections of sermons Mr. Moody has published *Arrows and Anecdotes*, *Bible Characters*, &c. D. 1899.

Moody, in *South Dakota*, an E. co.; *area*, 500 sq. m.; intersected by the Big Sioux river. *Surface*, undulating prairie; *soil*, fertile; dairying is especially profitable.

Moody, WILLIAM HENRY, attorney general, was born at Newbury, Mass., Dec. 23, 1853. He studied law; was city solicitor of Haverhill (1888–89); district attorney of Eastern Massachusetts (1890–95), and was elected to Congress in 1895. He succeeded John D. Long as secretary of the navy in 1902, and Philander C. Knox, as attorney general of the United States July 1, 1904.

Moon'-flower. (*Bot.*) A tropical night-blooming morning-glory (*Ipomæa bonarox*), cultivated as a summer plant northward; also, *I. grandiflora*.—The ox-eye daisy (*Chrysanthemum leucanthemum*).

Moon'shee, *n.* [Hind. and Ar. *munshi*.] In Hindostan, a teacher of languages; an interpreter; a dragoman.

Moon'shiner, *n.* In the Southern United States, an illicit distiller; more broadly, any one, like a smuggler, who carries on an unlawful business at night.

Moon'stone, *n.* (*Min.*) A transparent or translucent variety of Adularia, which, by reflected light, presents a pearly or silvery play of color, not unlike that of the moon. It is held in considerable estimation as an ornamental stone, and is sometimes cut into ring- and brooch-stones. The finest specimens are brought from Ceylon.

Moon'-struck, *a.* Lunatic; affected with dementia by the influence of the moon.

Moon'-wort, *n.* A fern of the genus *Botrichyum*, *B. rutaceum*.

Moore, SIR JOHN, a British military commander, was born in Glasgow, Nov. 13, 1761; entered the army in 1776; served in Minorca and North America; distinguished himself in Corsica, 1794; became major-general in 1795, and the year following captured the island of St. Lucia, of which he became governor. He next served in Ireland, on the Walcheren expedition, and in Egypt, Sicily, and Sweden, which latter country he aided to defend against Napoleon I. Early in 1808, he was appointed commander-in-chief of the English troops sent to act in conjunction with the Portuguese and Spaniards against the French invaders. His allies being defeated, Sir John was forced to retreat in December, reaching Corunna, Jan. 11, 1809. Here, on the 16th, he gave battle to the French under Soult, and defeated them, but he fell in the action and was buried on the field. His adversary, Soult, there erected a monument to his memory; besides which his countrymen at home raised another to him near to that of Nelson, in St. Paul's Cathedral. Wolfe's famous *Elegy on the Death of Sir John Moore*, however, will probably outlast them both.

Moore, in *Oklahoma*, a post-village of Cleveland co., 9 m. from Oklahoma City. *Pop.* (1897) 150.

Moore, in *Tennessee*, a S. co.; *area*, 170 sq. m.; bounded on the S. by Elk river. *Surface*, diversified; *soil*, fertile. *Products*, cotton, corn, wheat, oats, white and sweet potatoes, butter, wool, and pork; live stock. Whisky is extensively manufactured. *Cap.* Lynchburg. *Pop.* (1890) 5,975.

Moore, in *Texas*, a N. co.; *area*, 900 sq. m.; traversed by the Canadian river. Unorganized.

Moor'head, in *Minnesota*, a city, cap. of Clay co., 1 m. E. of Fargo, North Dakota. A trade center. *Pop.* (1895) 3,290.

Moo'ruk, *n.* The cassowary (*Casuarius bennettii*) peculiar to New Britain. It is about 5 feet in full height,

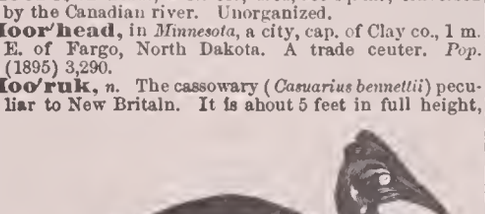

Fig. 2992.—MOORUK.

of a reddish color, mixed with black, and has a horny plate instead of a helmet-like protuberance on the top of the head. It becomes extremely tame and familiar in captivity.

Moquette (*mō-kĕt'*), *n.* [Fr.] A carpet having a long, loose velvety pile, differing from Brussels or Wilton in the weaving, and in having the back covered with a heavy jute or cotton cloth.

Mo'qui, *n.* (*Anthrop.*) A tribe of Indians living in fixed villages (pueblos) of stone and adobe houses upon certain table-lands in northern New Mexico. (See PUEBLOS.) They are agriculturists and fruit raisers, and own large herds of sheep and goats and a considerable number of cattle, horses, and donkeys. They are nominally Roman Catholics, and all speak Spanish, but retain many pagan customs, and are divided into secret societies, partly social and political, but largely religious in character. They make blankets, poorer than those of the Navajoes, and excellent pottery. The latest and most complete information in regard to them is contained in the annual reports of the Bureau of Ethnology. Compare JUÑI.

Mo'ra, in *New Mexico*, a N.E. co.; *area*, 4,000 sq. m.; intersected by the Red or Canadian river. *Surface*, partly mountainous; contains also arid plains and fertile valleys. Cattle raising is the chief industry. *Cap.* Mora. *Pop.* (1890) 10,618.

Moran', EDWARD, was born at Bolton, England, Aug. 19, 1829; an English-American marine and figure painter, who came to America in 1844. He has exhibited in Paris and London.

Moran, LEON, was born in Philadelphia, Pa., in 1863; a marine and figure painter, son of Thomas *M.*, and pupil of Edward *M.*

Moran, PERCY, was born in Philadelphia in 1862; a genre painter, son of Thomas, and pupil of Edward *M.*

Moran, PETER, was born at Bolton, England, March 4, 1842; an English-American painter of landscape and animals; a brother and pupil of Thomas and Edward *M.*

Moran, THOMAS, was born at Bolton, England, Jan. 12, 1837; an English-American landscape painter; a brother and pupil of Edward *M.* He came to America in 1844; went to the Yellowstone Park in 1871, and many of his best subjects are from that region, and from Mexico.

Morgan, GEORGE WASHINGTON, soldier, was born in Washington co., Pa., Sept. 20, 1820. He fought in the Texan army, spent two years at West Point, served as colonel in the Mexican War and as brigadier-general in the Civil War. He was consul at Marseilles (1855–58), and afterward U. S. minister to Portugal. Was elected to Congress in 1866 and 1870. Died July 27, 1893.

Morgan, JOHN HUNT, soldier, was born at Huntsville, Ala., June 1, 1826. He entered the Confederate service in the Civil War as a captain, and in 1862 was made major-general. He made a cavalry raid north of the Ohio in 1863; was captured and imprisoned. Escaping, he made a raid into Tennessee, in which he was killed, Sept. 4, 1864.

Morgan, JOHN PIERPONT, financier, was born at Hartford, Conn., April 17, 1837. Graduating at the University of Göttingen, he engaged in the banking business, formed the firm of Dabney, Morgan & Co. in 1864, and became a member of the firm of Drexel, Morgan & Co. in 1871. He became head of this firm on the death of A. J. Drexel in 1893, giving it in 1895 the title of J. P. Morgan & Co. He also became head of J. S. Morgan & Co. of London, Morgan, Harjes & Co. of Paris, and Drexel & Co. of Philadelphia. To his banking business he added a large control of railroad interests, placing many bankrupt roads on a firm basis. He took part in financial undertakings of great extent, including the U. S. Steel Corporation, and in 1902 formed a great combination of the Atlantic steamship lines. His control of financial interests is of unprecedented magnitude.

Morgan, LEWIS HENRY, ethnologist and archæologist, was born near Aurora, N. Y., Nov. 21, 1818. He held high rank in his special department of research, and wrote several works—*The League of the Iroquois*; *Ancient Society*, &c. His studies of the North American Indian race are especially valuable. Died Dec. 17, 1881.

Morgan, in *Colorado*, a N.E. co.; *area*, 1,290 sq. m.; intersected by the South Platte river. *Surface*, undulating; *soil*, dark, sandy loam. Coal in small quantities. Timber only along streams. *Cap.* Fort Morgan

Morgan City, in *Louisiana*, a post-village in St. Mary parish, 80 m. W. of New Orleans. *Pop.* (1897) 2,400.

Morgan Park, in *Illinois*, a suburban town of Cook co., 13 m. S. of Chicago. *Pop.* (1897), about 2,000.

Mo'rion, *n.* An iron hat, or plain, vizorless helmet, used in England in the early part of the 16th century.

Mor'ley, HENRY, author, was born at London, September 15, 1822; practiced medicine (1844–48), but afterward was devoted to letters as a magazine writer and editor, and as professor of the English Language and Literature, holding the latter post at University College from 1865 to 1889, and at Queen's College, London, from 1878; became principal of University Hall in 1882. He wrote constantly on his special theme; his work on *English Writers*, which was begun in 1887, had reached the tenth volume at the time of his death, on May 14, 1894.

Morley, JOHN, statesman and author, was born at Blackburn, Lancashire, England, December 24, 1838. Graduating from Lincoln College, Oxford, he was admitted to the bar in 1859. From 1867 to 1882 he edited the *Fortnightly Review*; from 1880 to 1883, the *Pall Mall Gazette*; and from 1883 to 1885, *Macmillan's Magazine*. Since 1883 he has been a member of Parliament for Newcastle-on-Tyne. He has been a supporter of Gladstone's Irish and general policy; was chief secretary for Ireland in 1886, and was re-appointed in 1892. He has written critical biographies of Edmund Burke, Voltaire, Rousseau, Cobden, and Ralph Waldo Emerson; and other works on popular political themes.

Morley, in *Michigan*, a post-village of Mecosta co., 14 m. S. of Big Rapids; has some manufactures. *Pop.* (1894) 391.

Mor'rillton, in *Arkansas*, a city, cap. of Conway co., 50 m. W. of Little Rock. *Pop.* (1897) 1,820.

Mor'ris, WILLIAM, artist and poet, was born at Walthamstow, Eng., in 1834; educated at Marlborough and Exeter College, Oxford; turned his attention for some time to the study of architecture, and in 1861, together with his friends Dante G. Rossetti, Ford Madox Brown, and Edward Burne-Jones, he endeavored to elevate the artistic taste of the public by means of a business of "art fabrics"—wall-papers and stained glass. He also carried on the Kelmscott Press, which has issued some extremely beautiful reprints of old works. He published, in 1867, his poem, *The Life and Death of Jason*, which was followed, in 1868–70, by *The Earthly Paradise*, a series of 24 romantic tales; *Love is Enough*, *The Story of Sigurd the Volsung*, and *Hopes and Fears for Art*. He translated Homer and Virgil; and in conjunction with Mr. Eirikr Magnusson rendered into English prose and verse a number of Icelandic stories. He published *The Story of the Glittering Plain*, *News from Nowhere* (1891), *Poems by the Way* (1892), *The Wood beyond the World* (1894), a translation of *Beowulf* (1895), *The Well at the World's End* (1896), *The Water of the Wondrous Isles* (1897). In his later years he was one of the leaders of the Socialistic movement in England, and, in conjunction with Mr. Belfort Bax, published *Socialism, its Growth and Outcome* (1893). Died Oct. 3, 1896.

Morris, in *Connecticut*, a post-town of Litchfield co. *Pop.* (1897) 610.

Morris, in *Minnesota*, a post-village, cap. of Stevens co., 25 m. N.N.W. of Benson. *Pop.* (1895) 1,417.

Morris, in *Texas*, a N.E. co.; *area*, 260 sq. m.; bounded N. by the Sulphur Fork of Red river, and is also drained by Big Cypress and White Oak Bayous. *Surface*, undulating; *soil*, mostly sandy, but productive; considerable cotton grown. *Cap.* Daingerfield. *Pop.* (1890) 6,580.

Mor'risonville, in *Illinois*, a post-village of Christian co., 40 m. S.W. of Decatur; has a nursery, and a brick and tile factory. *Pop.* (1897) 1,000.

Mor'row, in *Oregon*, a N.E. central co.; *area*, 2,020 sq. m.; bounded N. by the Columbia river, and drained by its tributaries. *Surface*, undulating; *soil*, very fertile. *Min.* Coal, gold, and traces of silver. Fir and pine timber. Stock raising is a prominent industry. *Cap.* Heppner. *Pop.* (1897) 4,500.

Morse, EDWARD SYLVESTER, zoölogist, was born at Portland, Me., June 18, 1838. Under the advice of Louis Agassiz, he studied at Lawrence Scientific School, Harvard, where he was assistant until 1862. With

others he established the *American Naturalist* at Salem, Mass., about 1866; and also founded the Peabody Academy of Sciences there, of which he was curator and president in 1881. He was professor of Comparative Anatomy and Zoölogy at Bowdoin College, 1871–74; visited Japan in 1877, and became professor of Zoölogy in the Imperial University of Tokio; returned later to the U. S. In 1885 he was president of the American Association for the Advancement of Science. Among his works are: *First Book in Zoölogy* (1875); *Japanese Homes* (1885), &c., besides numerous scientific and popular papers.

Mor'tising Machine'. (*Mech.*) Two types of machines are manufactured for mortising wood, as for doors, window sashes, and cabinet work. The chisel mortiser is the older type, having a table on which the work is placed, and a reciprocating mechanism, usually upright, in which chisels of various forms are fixed. The reciprocation of the chisel is accomplished by a wheel crank, and the table is brought within its range by means of a foot lever; boring mechanism is often added. The chain mortiser, which is a recent type, has an endless chain, on each link of which is a sharp tooth or cutter. When the chain is run rapidly, and worked up against the wood, it cuts a mortise by taking off minute bits, much as a milling machine works in iron. It works very fast, and cuts closer to the edge than any other style of mortising machine.

Mor'ton, Henry, scientist, was born in New York, Dec. 11, 1836; educated at the University of Pennsylvania, and studied law, but subsequently gave his attention to physical and chemical science; was professor of Chemistry in the Philadelphia Dental College (1863); secretary of the Franklin Institute (1864). His course of lectures on *Light*, delivered in 1864, attracted much attention. He was appointed professor of Chemistry in the University of Pennsylvania (1869); and was made president of the Stevens Institute of Technology Hoboken, N. J., in 1870, a position which he held until his death. He was a frequent contributor to scientific journals. Died May 9, 1902.

Morton, Levi Parsons, financier and statesman, was born at Shoreham, Vt., May 16, 1824; was clerk in a country store, then partner in the firm of Beebe, Morgan & Cory, of Boston; afterward senior partner in the firm of Morton & Grinnell, New York dry-goods merchants (1854). In 1863 he founded the banking firm of Morton, Bliss & Co., in New York, their London branch being Morton, Rose & Co., which firms acted as fiscal agents of the U. S. government from 1873 to 1884, and as such handled the funds pertaining to the Geneva and Halifax awards. *M.* was elected to Congress in 1878 and 1880; was U. S. minister to France (1881–85); Vice-President of the U. S. (1889–93), and governor of New York (1894–97).

Morton, Paul, Secretary of the navy; was born in Detroit, Mich., May 22, 1857. He engaged in railroading as freight and passenger agent, and became in 1898 second vice-president of the Atchison, Topeka and Santa Fé R. R. Co. On July 1, 1904, he succeeded William H. Moody as Secretary of the Navy of the United States.

Morton, in *North Dakota*, a S.W. co.; *area*, 3,168 sq. m.; bounded E. by the Missouri river, and drained by numerous tributaries; has several fine lakes. *Surface*, rolling prairie; *soil*, fertile, a deep, dark vegetable mould on a clay subsoil. Extensive coal mines. Sheep and cattle raising. *Cap.* Mandan. *Pop.* (1890) 4,728.

Morton, in *Pennsylvania*, a post-village of Delaware co., 9 m. W.S.W. of Philadelphia. *Pop.* (1897) about 1,500.

Moss'back, *n.* An old fish with a growth of algæ or the like on its back.

(*Slang.*) A person of antiquated notions, especially in politics; one so conservative as to resemble an old moss-covered tree.—In the U. S., South, during the Civil War, one who attempted to avoid conscription by concealment.

Mote. [A. S. *môt.* See Moot.] A term employed in composition, and signifying a meeting or assembly; as, folk-*mote*.

Mote, *n.* [A. S. *mot.*; W. *ysmot.*] A speck; a spot; a small patch; a particle; anything proverbially small.

"The gay *motes* that people the sunbeams."—*Milton.*

Motet', *n.* [Fr., from It. *mottetto.*] (*Sacred Mus.*) The Latin psalms and hymns sung in the Romish church are so called. The term was formerly applied to certain elaborate vocal compositions in several parts, generally on sacred subjects; in fact, any sacred composition which does not come under the denomination of *mass* or *anthem*, may be called a motet.

Moth'er Hub'bard. The subject of a well-known nursery rhyme.—A loose-flowing gown for a woman or child, ungirded at the waist.

Moth-mul'lein, *n.* (*Bot.*) *Verbascum blattaria*; a plant of the same genus as the common mullein, but smooth and much slenderer, bearing longer flowers, which grow in a loose raceme and are white, tinged with purple. Common throughout the Eastern United States.

Mot'ley, in *Minnesota*, a post-village of Morrison co. *Pop.* (1895) 458.

Motley, in *Texas*, a N. W. co.; *area*, 1,080 sq. m.; drained by Pease river, its South Fork, and smaller streams. *Surface*, rolling; *soil*, a fertile sandy loam; some timber. *Cap.* Matador. *Pop.* 139.

Mo'tograph, *n.* One of Thos. A. Edison's inventions (called also *electromotograph*), involving the basic principle of a loud-sounding telephone, which is sometimes known by the same name. The mechanism may also be used in place of an electrical magnet, though weaker and more complicated in its action. It consists of a universally hinged lever bearing a platinum point that is allowed to bear upon the surface of a moist paper, which is carried on a chalk drum. The drum rotates in one direction, and a spring tends to draw the lever in the other. When the two are placed in an electric circuit the friction is reduced, so that the platinum point has a motion varying with the strength of the current.

Mo'tophone, *n.* A form of sound-engine invented by Thos. A. Edison. It has a diaphragm which vibrates with the waves of sound that strike it, and these vibrations are transformed into rotary motion by means of a pawl-and-ratchet mechanism.

Mo'tor Car'riages. See Carriages, Motor.

Mott, Henry Augustus, chemist, was born Oct. 22, 1852; a grandson of Valentine Mott, Sr.; graduated from the Columbia School of Mines (1873), receiving the degree of Ph.D. in 1875; gave especial attention to the analyses of food preparations, and the exposure of adulterations in these products, and was also frequently called as an expert witness in court proceedings. He was official chemist of the Medico-Legal Society, and contributed articles to scientific journals. Died Nov. 8, 1896.

Mott, Lucretia, social reformer, was born at Nantucket, Mass., Jan. 3, 1793. She was a preacher in the Society of Friends, and was active in behalf of abolition, woman suffrage, and universal peace. Died Nov. 11, 1880.

Mott, Valentine, surgeon, was born on Long Island, N. Y., in 1785. After graduating at Columbia College, and completing his professional studies in Edinburgh and London, he became professor of Surgery in Columbia College in 1809; was one of the founders of the Rutgers Medical College, and, later, professor of Surgery and Relative Anatomy in the College of Physicians and Surgeons, New York. His fame as a surgeon and operator was world-wide, and his *Cliniques*, a work published in 1860, more than sustains his reputation. Died in 1865.

Moulin (*moo-lang'*), *n.* [Fr. a mill.] (*Geol.*) A hollow or vertical shaft in a glacier, worn by a waterfall, which sometimes breaks through it, carrying with the current fragments of rock, gravel, &c., to lower levels.

Moul'ton, Ellen Louise Chandler, poet and story-writer, was born in Pomfret, Conn., April, 1835. In 1855 she was married to William U. Moulton, a Boston publisher. She has furnished many contributions of prose and verse to periodical literature, several collections of which have been published in book form.

Moulton, in *Iowa*, a post-town of Appanoose co., 100 m. W. by S. of Burlington. *Pop.* (1895) 1,123.

Mound Build'ers. (*Anthrop.*) The title here given is specifically applied to the native inhabitants of the U. S. at a period preceding occupation by the whites, but its significance might be extended to cover nearly the whole race of primitive man, since mounds of earth of prehistoric and early historic construction are very widespread, and may be found in all the continents. The throwing up of the soil into rounded heaps, great or small, seems to have been one of the earliest architectural efforts of mankind, the mounds produced being most generally intended for purposes of burial, but to some extent for other purposes. Some of them, for instance, served as bases for altars, others as foundations for temples, and still others, of an elongated shape, were apparently intended as works of defence. Stone work often accompanied this earth work, many of the funereal mounds covering tombs made of great slabs of stone, forming a stone burial chamber, over which the

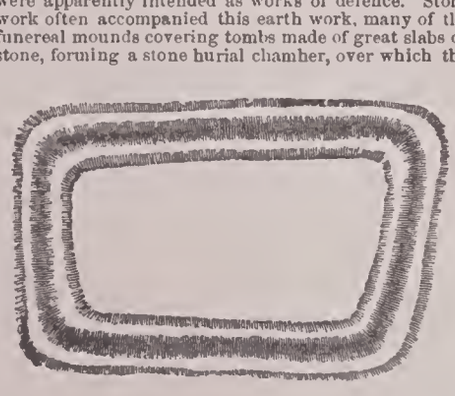

Fig. 2993.—DOUBLE ENCLOSURE ON WISCONSIN RIVER.

earth was heaped in rounded masses. The earth work was finally replaced entirely by stone work, and the age of the mound builder gradually passed away as civilization advanced and man learned the art of quarrying, shaping, and moving large masses of stone.

The title of "Mound Builders," however, is restricted to the vanished race of North American natives to whose labors is due the remarkable multiplicity of earth mounds found in the United States, which greatly exceed in number, and in some instances in dimensions, those found elsewhere upon the earth. These erections exist in extraordinary abundance throughout the valley of the Mississippi and its tributaries, extending from the Rocky Mountains to the Alleghenies, and being found sparsely east of the latter range. They exist most abundantly in the States of Ohio, Indiana, Illinois, and Missouri, are found in large numbers in all the Gulf States, and extend northward to and beyond the Great Lakes. Ohio is particularly rich in these curious relics of a vanished people, more than 10,000 of them occurring within the borders of that State, while they are found profusely westward to the Mississippi. The great majority of these erections are simply conical burial mounds, of comparatively small size, their usual height varying from 6 to 30 feet, and being mostly between 15 and 25 feet long, with a diameter at base of from 40 to 100 feet. But these dimensions are occasionally exceeded, and one in West Virginia is said to be 70 feet in height and over 300 feet in diameter.—*Altars.* A second class of mounds are known by the name of altars, though their purpose is problematical. These are low mounds of small dimensions, occasionally reaching the size of 50 by 15 feet, but often being very small.—*Temples.* Those known, and with good

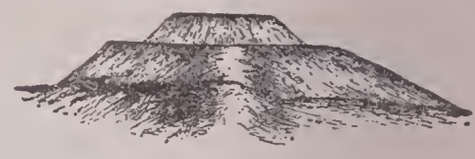

Fig. 2994.—ANCIENT GRAVE MOUND NEAR AZTALAN.

reason, as temple mounds, are numerous, and some of them are very large. One in Illinois reaches the great height of 90 feet, and measures 700 by 500 feet at the base. The amount of labor indicated by such a structure, very probably built in the primitive method of carrying earth in baskets from the river bottoms, must have been enormous, though it is possible that a natural hill may have formed the basis of this great heap of earth. Temple mounds occur in considerable abundance in the Southern States, and occasionally of great size, there being one in Mississippi said to be 80 feet high and 600 by 400 feet at base. Their purpose is well known, since temples existed on some of them at the time of the early settlement of the South by the whites, and the temple service was carried on with a somewhat elaborate ceremonial and by the aid of a considerable priestly establishment. Others of these large mounds seem to have borne villages on their summits, whether

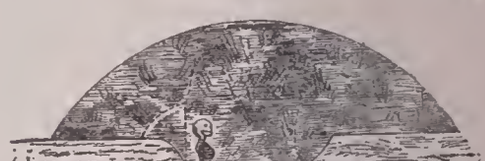

Fig. 2995.—SECTION OF A MOUND NEAR MILWAUKEE.

or not they were formed originally for that purpose.—*Defensive Works.* Again, many of these earthworks were evidently made for defensive purposes, and show no small skill in construction. These consist of walls, trenches, watch-towers, &c., and are usually constructed on heights near some stream, and built too elaborately to have been intended as temporary works of defence. In the opinion of many archæologists, there existed a connected line of defences extending from New York to Ohio. These fortifications cease to appear in the more immediate valley of the Mississippi, the locality of the largest mounds. This seems to indicate that the Mound Builders were exposed to persistent assaults from an enemy dwelling in the east, perhaps in the Allegheny region, whose attacks kept the dwellers on the frontier engaged, while further west the population were more at peace and capable of indulging in more extensive labors. Some of the earthworks in Ohio

Fig. 2996.—ANCIENT ARTIFICIAL MOUND, CROSS SHAPE, WITH SO-CALLED "GARDEN-BEDS."

possess walls of earth winding in and out over a length of several miles, embracing within them an area of 100 acres or more.—*Sacred Enclosures.* In the alluvial valleys of Ohio works of a different character are found, evidently having no defensive intention. These have been given the name of "sacred enclosures," though their real purpose remains unknown. They are of large dimensions and of geometrically regular shape, usually forming circles or squares, with openings for entrance or exit, and small mounds within the enclosure or at the entrances. One of these on the Little Miami river, called Fort Ancient, has four miles of embankment. Many hundreds of them have been found, and their purpose has given rise to much speculation on the part of archæologists.—*Animal Mounds.* Among the

most curious forms of mounds are a series of animal figures, of gigantic dimensions, sometimes exteudlug to a length of 400 feet. One of the most interesting of these is the figure of a serpent, near Bush creek, Ohio, which winds through a length of several hundred feet on the summit of a low hill, its open jaws holding a rounded figure. The animal mounds are the most numerous in the northern regiou, particutarly in Wisconsin, and form rude representations of several of the animals of tbe country, such as the wolf, bear, great birds, &c. The most remarkable of these is a form with a trunk like that of the elephant. It suggests the possibility that the American mastodon might have survived until a late period, and have been seen

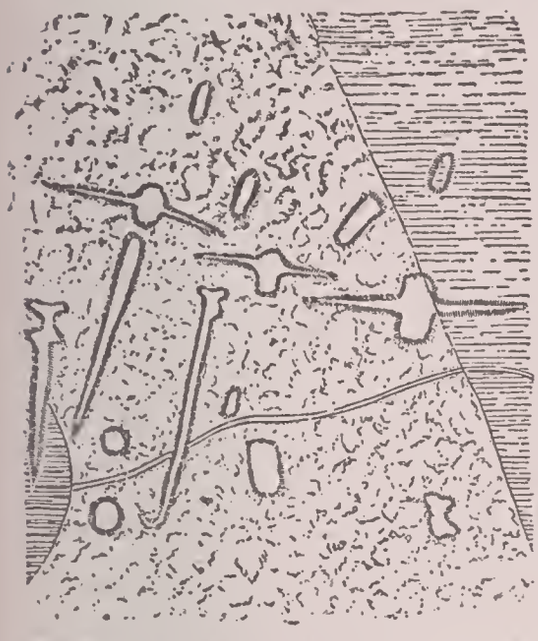

Fig. 2997.—ANCIENT EARTHWORKS, NEAR MILWAUKEE, WIS.

and figured by the old earth sculptors.—*Contents of the Mounds.* Many of the mounds have beeu excavated and their contents examined, with excellent results. In addition to the remains of human beiugs fouud in them, large numbers of implements and ornaments have been exhumed, which serve to give us soue fair idea of the degree of civilization possessed by their builders. There are stone weapons and tools; pipes, often skilfully carved in animal or other forms; articles of earthenware, plates of mica, sea-shells, some of them evidently brought from the Florida coast, and articles of native copper. The latter was seemingly made from the copper veins near Lake Superior, where evidences of ancient mining operations still exist, and was shaped by hammering witb stones, the art of smelting being evidently unknown. The arts and manufactures of the Mound Builders were thus very primitive and indicated a low level of development, though their great mounds are evidence of a somewbat dense population and of power in the rulers to set their

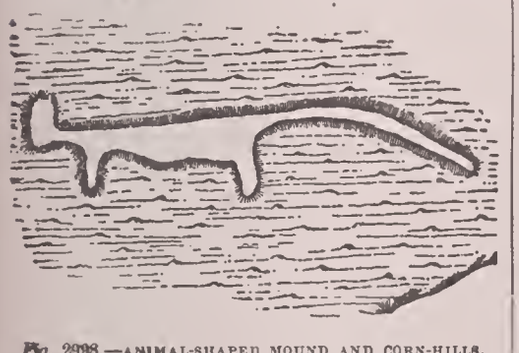

Fig. 2998.—ANIMAL-SHAPED MOUND AND CORN-HILLS.

people at severe and long-continued labor. Tbe pyramidal form of their temple mounds is generally similar to the *teocalli*, of Mexico, and indicates some connectiou between tbe peoples of tbe north and the south. There are also certain evidences in the sepulchral mounds of cruel funeral rites, which may bear a relation to the sacrificial customs of the Aztecs.

WHO WERE THE MOUND BUILDERS?—This question has been abundantly asked, and is not yet fully answered. The theory long entertained was that they were a race different from those of the modern Indians, and possessed of a much superior civilization. Extended inquiry, however, has served to throw much doubt upon this theory, and archæologists now generally hold the view that they were the direct ancestors of the present Indians. Their arts are not superior to those found among modern Indians; their mound-building propensity was still possessed by the Indians at the period of white settlement, and many of the larger mounds were still in use, perhaps for their original purposes. And among the Indian nations or organizations of the Gulf States religious and political conditions existed at that period probably in no sense different from those possessed by tbe Mound Builders. If we may venture upon theoretical considerations, founded on the facts given by the degree of civilization found by DeSoto and his followers in tbe districts traversed by them, it would be to advance the following opinions: At a period perhaps not remotely beyond the date of the coming of the whites, though reaching back, it may be, for many centuries earlier, tbe Gulf States and the valleys of the Mississippi and its tributaries, northward to tbe Great Lakes and extending beyond tbem into Canada, were occupied by an agricultural people, of some density of population and somewhat advanced religious and governmental organization. Beyond these, on tbe north and east, were warlike tribes of the same race, but much inferior culture, between whom and the Mound Builders hostile relations long existed, the incursions of these hunting tribes forcing the nations of Mound Builders to throw up an extensive series of defensive works. In the end, after a protracted resistance, the savage assailants seem to have prevailed, overrunning the domain of the Mound Builders, and either driving them southward or in a measure annihilating them. The result was the occupation of the valley of the Ohio and tbe region west and north by the hunting tribes, while Indian nations akin to the Mound Builders continued to exist in the Gulf States, where they were found by tbe early Spanish and French explorers possessed of a culture and organization differing little, if at all, from that of the preceding mound-building people. Instead of the simple religious ideas possessed by the northern tribes, these people had an intricate and well-defined worship of the sun, with their temples, their high priest and lower priestly and other temple attendants, their conjurors—resembling the medicine men of the North—their ceremonial, and their sacred fire, the extinguishment of which would have been considered disastrous, yet which they themselves extinguished at certain periodical intervals, replacing it with "new fire" obtained by friction, and which was sent to replace the hearth fires throughout the tribe or nation. Such a religious organization must have given great authority to the high priest, and have enabled him to order works of severe labor for religious purposes. Tbe governmental organization was as strong. The "Mico," as the ruler was called, had absolute authority, his power having a religious basis, since he was at the head of the sacerdotal establishment and the superior of the high priest. He governed by the aid of a council, and an interesting feature of the government was a public store-house, in which a fixed proportion of all food, whether that of the farmer or tbe hunter, had to be placed, as public stores for the general good of the community and under the control of the Mico. A similar institution existed in Mexico. Of these southern nations of Indians one of the most interesting was that known as the Natchez, who dwelt on tbe Mississippi above New Orleans, and were destroyed by the early French settlers in that region. Tbeir destruction was a serious loss to archæological science, as enough is known about their habits and customs to show that they possessed a very interesting organization, religious and political, which may have closely approximated to that of the Mound Builders. Tbey possessed temples, with idols and an elaborate sacerdotal organization, with numbers of priests, interesting ceremonies, and human sacrifices, which in a lesser degree resembled those of the Aztecs. The worship was that of the sun, and at its head was tbe ruler, who bore the title of the Sun, and whose original ancestor was believed to have come down to earth from the solar orb, being a direct offspring of the deity of the race. All his family were known as suns, and constituted a superior order of nobility, under whom was a class of nobles of inferior rank, and below these again the common people, who were virtually slaves to their rulers. The Sun was an irresponsible despot, from whose edicts there was no appeal. It would certainly

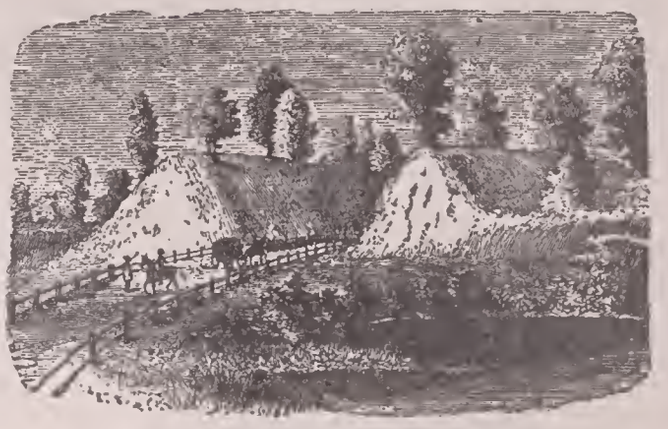

Fig. 2999.—PARALLEL MOUNDS, NEAR PIKETON, OHIO.

seem probable, from what we know of the vast labors performed by the Mound Builders—which certainly could not have been obtained from the modern Indians under any authority possessed by their chiefs or any influence of their medicine men—that a despotic power resembling that of the Great Sun of tbe Natchez must have been possessed by their rulers, based on the influence of an equally intricate religious system. This renders it easy to accept the prevailing theory that the Mound Builders were the immediate ancestors of the modern Indians, or at least those of the South, and the suggestion above given that their religion, government, arts and customs differed in no essential features from those possessed by the Southern nations at the time of the coming of the whites. See Squier and Davis's *Ancient Monuments of the Mississippi Valley* (1848); Thruston's *Antiquities of Tennessee* (1890); and Shepherd's *Antiquities of Ohio* (1890); also for the conditions of the Indians of the South, see Jones's *Antiquities of the Southern Indians.*

Mound'ridge, in *Kansas,* a post-village of McPherson co., 19 m. S.E. of McPherson. *Pop.* (1895) 404.

Mounds'ville, in *West Virginia,* a city, cap. of Marshall co., on Ohio river, 12 m. below Wheeling. *Pop.* (1897) 3,100. See GRAVE CREEK.

Mount Hol'ly Springs, in *Pennsylvania,* a post-borough of Cumberland co. *Pop.* (1897) 1,320.

Mount Hol'yoke Sem'inary. SEE WOMEN'S COLLEGES.

Mount Kis'co, in *New York,* a post-village of Westchester co., 37 m. N. of New York. *Pop.* (1897) 1,150.

Mount Ol'ive, in *Illinois,* a post-village of Macoupin co., 68 m. S.W. of Decatur; coal mines in the vicinity. *Pop.* (1897) 2,120.

Mount Pleas'ant, in *South Carolina,* a post-town, cap. of Berkeley co., 3½ m. E. of Charleston. *Pop.* (1897) 1,250.

Mount Ver'non, in *Washington,* a post-town, cap. of Skagit co., 68 m. N. of Seattle. *Pop.* (1897) 1,000.

Mount Vic'tory, in *Ohio,* a post-village of Hardin co., 19 m. N.E. of Bellefontaine; has some manufactures. *Pop.* (1897) 750.

Fig. 3000.—EARTHWORKS, NEAR HOPETON, OHIO.

Mount Wi'nans, in *Maryland*, a suburb of Baltimore.

Moun'tain Grove, in *Missouri*, a post-village of Wright co., 68 m. S. E. of Springfield. *Pop.* (1897) 960.

Moun'tain Rail'ways. See INCLINED PLANES.

Moun'taintop, in *Pennsylvania*, a post-village of Luzerne co. *Pop.* (1897) 1,020.

Moun'tainville, in *Pennsylvania*, a post-village of Lehigh co. *Pop.* (1897) 815.

Mousquetaire (*mūs-kē-tār'*), *n.* A musketeer.—A cloth cloak worn by women about 1855, and trimmed with ribbons and fastened with big buttons.—A turnover collar of lineu worn by women about 1850.—A long loose glove of soft kid, so named from its resemblance to a military glove.

Mowea'qua, in *Illinois*, a post-village of Shelby co., 36 m. E.S.E. of Springfield. *Pop.* (1897) 1,050.

Muc'kers, *n. pl.* (*Eccl. Hist.*) An extraordinary sect, which sprang up at Königsberg, in Germany, in 1805. The movement seems to have originated in the dualistic and Gnostic views of John Henry Schönherr (who died at Königsberg in 1826) concerning the origination of the universe by the combination of two spiritual and sensual principles. His followers carried out his system much more completely than himself. The most notable of them were two clergymen, Ebel and Diestel, the former an archdeacon. By them sexual connection would seem to have been elevated into an act of worship, and the chief means of the sanctification of the flesh, by which the paradisiac state was to be restored. Ere long, public feeling was excited against the *M.*, who were said to be guilty, under forms of piety, of the most odious licentiousness in their meetings. The subject was brought before the courts (1839–1842), and the result was that certain leaders were punished by imprisonment. It is, however, believed that the evidence gives no support to the charge of licentiousness.

Mud'-bath, *n.* (*Therap.*) Immersion of the body of a patient in mud for the cure of rheumatism, &c.; a treatment at some mineral springs, the mud containing various mineral salts and being artificially heated.

Muer'mo, *n.* (*Bot.*) A Chilean tree (*Eucryphia cordifolia*), the wood of which is highly valued in Chile for oars and rudders; according to Bentham it belongs to the saxifrage family, but looken places it in the rose family. It grows 100 feet tall, and is evergreen. Also called *ulmo*.

Mug'gins, *n.* The name of a children's game of cards, also of a game in which, when two players expose cards that match, the one that first says "Muggins" is privileged to give his card to the other.—A game of dominoes, in which the players count by five or multiples of five.

Muggletonians (*mŭg-gl-tō'-ne-ānz*), *n. pl.* (*Eccl. Hist.*) A sect founded in England about 1651 by John Reeve and Ludovic Muggleton (born 1607, died 1698), obscure men, who claimed to have the spirit of prophecy. Muggleton was a journeyman tailor. He professed to be the "mouth" of Reeve, as Aaron was of Moses. They affirmed themselves to be the *two witnesses* of Rev. xi. 3–6. They declared that there is no distinction between the persons of the Trinity, that God has a human body, and that Elijah represented Him in Heaven when He was on earth in the person of Christ. The last member of the sect is supposed to have died in 1868.

Mug'wump, *n.* [N. A. Ind., a chief.] (*U. S. Polit.*) In 1884, when James G. Blaine was nominated for the Presidency by the Republican Convention, certain Independent members of the Republican party refused to support the nominee, and were given in derision the name of Mugwumps, a title accepted by the Independents as an honorable one. The name has ever since been used in political slang and generally to designate an independent, in politics or otherwise. This was, however, by no means the first appearance of the word, which had been long applied as a satirical term to a person who thinks himself of great consequence. As a serious name for a chief or leader it is said to have been in use among the Indians and whites in Massachusetts and Connecticut in the seventeenth and eighteenth centuries. It is an Algonquin word, *mugquomp*, and appears in Eliot's Bible (1661) as a version of the words captain, centurion, duke, and the like.

Muhar'ram, *n.* [Arab.] The first month of the Mohammedan year, and a religious festival celebrated during its first ten days. The ceremonies are a lamentation over the martyrdom of Husain, the grandson of Mohammed. (Also spelled MOHARRAM, and MOHARRAN.)

Muhl'bach, LOUISE (pseudonym of Madame KLARA MULLER MUNDT, wife of Theodor Mundt, novelist and critic), novelist, was born at Neubrandenburg, Germany, Jan. 2, 1814. She wrote *Frederick the Great and His Court* (1853), and other romances on Prussian, French, Austrian, &c., history. Died Sept. 26, 1873.

Muhl'enberg, HENRY MELCHIOR, an eminent Lutheran clergyman, was born in Hanover, Germany, in 1711; came to America in 1742, and labored among the German Lutherans, chiefly in Pennsylvania, and is regarded as the father of that Church in this country. Died in 1787.

Muhlenberg, JOHN, a Lutheran minister; became major-general in the Revolutionary Army, and U. S. senator in 1801; was born in Pennsylvania in 1746, and died in 1807.

Muhlenberg, WILLIAM AUGUSTUS, D. D., was born in Philadelphia, Pa., Sept. 16, 1796; a great-grandson of HENRY MELCHIOR *M.* He was the first superintendent and pastor of St. Luke's Hospital, in New York, with which his name is inseparably associated. He was also prominent as a hymn-writer and hymnologist. One of his best-known hymns begins with the line, "I would not live alway." Died April 8, 1877.

Muhl'enberg, in *Kentucky*, a W. co.; *area*, 484 sq. m.; bounded N. E. by Green river, E. by Muddy river, and also drained by Pond river. *Surface*, hilly; *soil*, generally fertile; rich coal and mineral deposits. *Cap.* Greenville. *Pop.* (1890) 17,955.

Muir, JOHN, naturalist and explorer, was born at Dunbar, Scotland, in 1836. For a number of years he made the Yosemite region his especial study, demonstrating the theory of its glacial formation, and making a careful analysis of the geological and botanical features of the Sierra Nevada. In 1879 he explored the region north of Fort Wrangel, in Alaska, Glacier Bay and the great Muir Glacier being among his discoveries. He was also a member of one of the expeditions which, in 1881, went to the Arctic regions in search of the *Jeannette*. His book, the *Mountains of California*, was published in 1894.

Muir, JOHN, a learned English Orientalist; born in 1810. He has published *Mythical and Legendary Accounts of Caste* (2d ed., 1868); *Trans-Himalayan Origin of the Hindoos* (2d ed., 1872); *The Vedas: Opinions of Indian Authors on their Origin, Inspiration, and Authority* (2d. ed., 1868); and *Cosmogony and Mythology of the Indians in the Vedic Age* (1870). Died 1882.

Muk'ti, *n.* [Sansk.] A Hindo name for the final state of blessedness; the restful freedom from the bonds of existence; *Nirvâna*.

Mul'berry, in *Indiana*, a post-town of Clinton co., 15 m. E. S. E. of Lafayette. *Pop.* (1897) 670.

Mule-deer, *n.* (*Zoöl.*) The common large deer (*Cervus cariacus*) of the Great Plains and Rocky Mountain region of the U. S. It is of the usual tawny hue, changing to gray in winter, with the buttocks and the slender cylindrical tail white—the latter largely tipped with black; hence the common name *black-tail*, in distinction from the smaller Virginia deer (see DEER), which in the West is usually called *white-tailed* or willow deer. The most striking characteristic of this numerous and widely-distributed species is, however, the very long ears, suggesting those of a mule. The antlers are similar in shape to those of the Virginia deer, but proportionately larger. The flesh is highly esteemed as venison.

Mul'hall, in *Oklahoma*, a post-village of Logan co. *Pop.* (1897) 1,000.

Mu'lock, DINAH MARIA, an English writer of fiction, was born in 1826. Her first novel, *The Ogilvies*, appeared in 1849, followed by many others, the most successful of which was *John Halifax, Gentleman* (1857). Died in 1887. She married, in 1865, GEORGE LILLIE CRAIK, a British writer (born, 1799; died, 1866). He wrote several works, the last one, *A Compendium of English Literature and Language* (1861).

Mult-, multi-. A prefix derived from the Lat. *multus*, many.

Mul'vane, in *Kansas*, a post-village of Sumner co., 15 m. S. of Wichita. *Pop.* (1895) 379.

Munic'ipal Leagues. (*Am. Pol.*) Associations for the reform or improving of city government. Temporary committees of citizens have often been formed to meet particular exigencies, where the ordinary administration of government or the action of political parties seemed inadequate; as Sept. 6, 1894, a public meeting of citizens in New York, called together in view of the revelation of police corruption by the investigation of a legislative committee, directed its chairman, Mr. Joseph Larocque, to appoint a committee of seventy citizens. This Committee of Seventy was appointed Sept. 15, from the best known citizens of New York, without regard to party, and formally organizing Sept. 19, took a conspicuous part in the ensuing election, advising the different political organizations, and securing among them union in the choice of a mayor and other city officers. After the election the committee continued its organization for some months, and made important non-partisan recommendations. A similar committee, called the Committee of Safety, was formed in Chicago, Feb. 14, 1896, and did there a somewhat similar work. Besides such temporary committees, a number of societies and clubs have been organized in cities for permanent work to like ends. One of the oldest of such societies is the Citizens' Association, of Chicago, organized July 24, 1874. These organizations applied themselves to various problems of city government, in different parts of the country, but they were few, and there was a common feeling that city government was the unsolved American problem. The legislative investigations in New York, in 1894, excited intense interest, and Good-Government Clubs and citizens' associations began to multiply. Six such organizations were formed in 1892, and ten in 1893, but about fifty were organized in 1894, of which half were in New York city. In January, 1894, a conference as to municipal reform was held in Philadelphia, on the invitation of the Municipal League of that city, with the co-operation of the City Club of New York. This conference continued two days, and was attended by prominent citizens of New York, Baltimore, Brooklyn, Milwaukee, Minneapolis, Boston, Indianapolis, and other cities, and its discussions awakened such interest that arrangements were made for the holding of other similar conferences, and a committee was directed to prepare a plan of organization of a National Municipal League, to be composed of societies for the improvement of municipal government in different cities. During this year twenty-one Good Government Clubs in New York city united in forming the Council of Confederated Good-Government Clubs of New York, by which they secured harmonious action, and gave the force of their united recommendation to important measures. The National Municipal League, organized by the committee of the Philadelphia conference of 1894, has held regular sessions each year, meeting in Cleveland, O., May 29–30, 1895; in Baltimore, Md., May 6–7, 1896; and in Louisville, Ky., May 6–7, 1897. These delegated meetings have reported that there were 44 local societies associated with them in 1894, 176 in 1895, and 267 in 1896. The leagues have been a means of education in respect to municipal government, and the reports of their sessions furnish an important discussion of the subject by the ablest men. The points of doctrine almost unanimously urged by them are the separation of municipal elections from elections of State or national officers, and the choice of municipal officers without regard to national party lines; the concentration of power in the hands of the mayor, giving him alone the power to appoint and dismiss the heads of city departments; and the establishing of the merit system in all municipal appointments.

Munkac'sy, or **Muncac'zy,** MIHALY (real name, MICHAEL LIEB), historical and genre painter, was born at Munkacs, Hungary, Oct. 10, 1846; studied under a portrait-painter, at Gyula, at the Vienna Academy, at Munich with Franz Adam (where he won three prizes), and at Düsseldorf, where he devoted himself to genre painting. In 1869 his *Last Day of a Condemned Man* made him famous. He went to Paris in 1872, and a few years later began to paint Parisian scenes. Here he took the medal of honor in 1878; and he won the Vienna medal in 1882. He was elected to the Munich Academy in 1881, and came to New York in 1886. Among his works are: *Milton Dictating Paradise Lost* (1878); *Christ before Pilate* (1881); *Christ on Calvary* (1884); *Last Moments of Mozart* (1885), &c. D. May 1, 1900.

Mur'doch, JAMES EDWARD, actor and teacher of elocution, was born in Philadelphia, June 25, 1811; made his first stage appearance in that city in 1829. He was versatile, and played many leading parts; after devoting five years to study, he appeared as *Hamlet* (1845), and was thenceforth recognized as a leading actor. During the Civil War he devoted himself to the care of the sick and wounded, while his two sons were in the Federal army, and he also gave readings for the benefit of the Sanitary Commission. One of the now historic incidents is that of *M.*'s magnetic rendering of *Sheridan's Ride*, written by T. Buchanan Read just after the event, and read by *M.* within twenty-four hours after the writing. He was the author of several text-books on elocution. Retired from the stage in 1882, and gave a series of farewell readings during the next five years. Died May 19, 1893.

Mur'dock, JAMES, a divine and litterateur, was born at Westbrook, Conn., in 1776; was a graduate of Yale College, professor of Ancient Languages in the University of Vermont, and afterward of Sacred Rhetoric and Ecclesiastical History in Andover Theological Seminary. He published translations from the German of Mosheim's *Institutes of Ecclesiastical History*, and Munscher's *Elements of Dogmatic History*, and translated the New Testament from the Peshito Version. Died in 1856.

Mur'free, MARY NOAILLES (pseudonym, CHARLES EGBERT CRADDOCK), was born at Murfreesboro, Tenn., about 1850. She is a writer of novels, mainly contributed as serials to the leading magazines. Her plots and scenes are chiefly laid in the Tennessee mountains.

Mur'ger, HENRI, novelist and poet, was born in Paris, March 24, 1822; was a notary's clerk, and for a time acted as secretary to Count Tolstoi. He afterward turned his attention to literature, and for some years led a life of privation and adventure, which he has described in his *Scenes de la Vie de Bohème*. His genius was finally recognized by Arsène Houssaye, editor of *L'Artiste*, and from that time all journals were open to him. Several of his poems have been translated by Andrew Lang, in his *Lays of Old France*.

Mur'ray, DAVID CHRISTIE, novelist, was born April 13, 1847, at West Brunswick, in Staffordshire, England. From 1877 to 1878 he served as reporter and war correspondent for several newspapers. He published *A Life's Atonement* in *Chambers' Journal* (1879), and has since written and published many other stories of similar character.

Murray, JAMES AUGUSTUS HENAY, philologist and lexicographer, was born at Denholm, Roxboroughshire, England, in 1837; graduate of London University, and twice president of the Philological Society. He is one of the recognized authorities on the history and derivation of words. In 1879 he entered upon the editorship of the Philological Society's *New English Dictionary*, succeeding Herbert Coleridge and Dr. Furnivall. Since 1890, Henry Bradley has been joint editor. Part 1. of this work was issued in 1884.

Murray, in *Minnesota*, a S.W. co.; *area*, 720 sq. m.; watered by the Des Moines river and smaller streams, and contains numerous lakes. *Surface*, rolling prairie; little timber; *soil*, fertile. *Cap.* Slayton. *Pop.* (1895) 9,322.

Mus'cle-reading, *n.* The ability to understand and explain involuntary muscular contortions.

Muse'ums of the United States. The modern museum is the latest of the great agencies which have been developed for the increase and diffusion of knowledge, and is quite as much in touch with the masses as the public library. Within a recent period the development in the U. S. of museums devoted to particular objects has been enormous. The collections in the interest of art, anthropology, natural history, and tech-

nology are large and valuable, and are constantly increasing. In the department of art, the most important museums are the Metropolitan Museum of Art in New York, the Museum of Fine Arts in Boston, the Museum of Fine Arts in Cincinnati, the Corcoran Art Gallery in Washington, the Academy of Fine Arts in Philadelphia, the Art Institute of Chicago, and the Museum of Fine Arts in St. Louis. All of these, however, are deficient in materials illustrating the earlier periods in the history of painting and sculpture. Worthy of mention are the collections of the Wadsworth Athenæum, Hartford, Conn.; the Art Museum, Springfield, Mass.; and the private Walters collection, Baltimore. Museums of anthropology and ethnology include such objects as illustrate the natural history of man; his classification into races and tribes; his geographical distribution, past and present; the origin, history, and methods of his arts, industries, customs, and languages, particularly among primitive and semi-civilized peoples. Museums of anthropology and history meet on common ground in the field of archæology. The principal museums arranged on the ethnographic plan are the Peabody Museum of American Archæology and Ethnology of Harvard University, and the collections in the Peabody Academy of Sciences at Salem, Mass., and the American Museum of Natural History at New York. Besides these there are the vast ethnological collection in the National Museum at Washington. In this and the Peabody Museum of Harvard, and the Museum of Natural History at New York, are immense collections of the remains of man in America in the pre-Columbian period—collections which are yearly growing in significance, as they are made the subject of investigation. Museums of natural history contain those objects which illustrate the phenomena of nature in animals, minerals, and plants, and whatever illustrates their origin, growth, functions, structure, and geographical distribution, in the present and in the past. In the National Museum at Washington are enormous collections, anthropological, zoölogical, botanical, mineralogical, and geological. The Peabody Museum of Natural History of Yale University contains fine geological and mineralogical cabinets, and a very large collection of specimens illustrative of zoölogy, palæontology, and American archæology. The American Museum of Natural History is especially rich in its ornithological collections. Among specialized natural history collections, the most noteworthy are those devoted to zoölogy, and chief among them is the Museum of Comparative Zoölogy at Harvard, founded by Agassiz "to illustrate the history of creation as far as the present state of knowledge reveals that history." The English naturalist Alfred Russell Wallace, in 1887, pronounced this museum to be "far in advance of similar institutions in Europe, whether as regards the general public, the private student, or the specialist." Besides those just named, important are the collections of the Museum of the Academy of Natural Sciences in Philadelphia, of the Boston Society of Natural History, of the California Academy of Sciences, of the Museum of Geology and Archæology at Princeton University, of the Museum of Archæology and Palæontology of the University of Pennsylvania, and of the Milwaukee Public Museum. The department of economic geology in the Field Columbian Museum in Chicago, an outgrowth of the department of mines in the exhibition of 1893, is one of the most striking features. **Museums of technology**, or **industrial museums**, are devoted to the industrial arts and to manufactures. An admirable type of such is the Pennsylvania Museum and School of Industrial Art at Philadelphia. Among such must be reckoned the exhibits of the U. S. Department of Agriculture in Washington and the fisheries section of the National Museum in the same city. The Field Columbian Museum in Chicago has a railway museum and important collections in other technical fields. To the various kinds of museums mentioned may be added commercial museums, exhibiting salable articles of all kinds, with illustrations of markets, means of commercial distribution, prices, and commercial demand and supply. The finest type of this sort of museum in the U. S. is the Philadelphia Commercial Museum, established by order of the City Councils of Philadelphia in 1894, and formally opened by President McKinley in the summer of 1897. The purpose of this vast establishment is to familiarize Americans with the products of other countries, and to stimulate the favorable interchange of native commodities and manufactured specialties.

Mu'sic, Ton'ic Sol-Fa' Sys'tem. An important modern method of teaching the facts of music. The idea upon which it is based is said to have occurred to an English music teacher, Miss Sarah A. Glover, about 1812, but her experimental efforts were improved and developed into a scientific system, about 38 years later, by the Rev. John Curwen (b. Yorkshire, England, 1816; d. 1880). The notational difference between this and the staff consists in the use of the initial letters of the solnization syllables (*do, re, mi, fa, sol,* &c.) instead of notes placed on the lines and spaces. Superscript and subscript numerals added to the letters indicate the higher and lower octaves, and time values are shown pictorially by spacing the letters on a line. The pulse, or heavy beat, at the beginning of a measure, is marked by a vertical bar, while a pulse-mark like a colon indicates the other pulses, thus:—(*Key A.*) | d : d : r | t :—, d : r | m : God save our gracious Queen. One of the chief characteristics of this system is that it holds the voice as the principal instrument of all performances, doing away as far as possible with the complexities of the old system of notation, and with helpless reliance upon the keyboards. It has become very popular in England. In June, 1875, the *Tonic Sol-Fa* College of London was incorporated, and it is now the center of authority of this movement in all parts of the world.

Mu'sical-box, or **mu'sic-box**, n. A portable instrument, the notes of which are produced by the vibrations of steel comb-teeth, which are struck by pegs in a metal cylinder revolved by clockwork. A set of reeds is sometimes inserted.

Musicale (*mu-zi-käl'*), *n.* [Fr.] A musical party, or concert, informal and social.

Mus'keg, *n.* [N. A. Ind.] A bog, more or less overgrown with vegetation, such as is frequently met with in the rocky forests of Northwestern Canada.

Muskhoge'an, *n.* A North American language-stock spoken by the Indians of the Creek Confederacy, which at the time of the settlement of this country occupied the district from the Savannah river west to the Mississippi, and from the Gulf of Mexico north to the Tennessee river. The principal tribes in this stock were the Creeks or Maskoki proper, Choctaws, Chicasawa, Alabamn, and Seminoles. Most of these are gathered in the Indian Territory, where some 26,000 still survive.

Mutsuhi'to, present Emperor (or Mikado) of Japan, was born in 1852. He became Emperor by succession in 1867; and in 1869 married the Princess Haruko. His children are Prince Yoshihito, born in 1879, and proclaimed Crown Prince in 1889, and four princesses. His reign has been marked by great reforms, and the feudal system which has impeded the general progress of the country has been abolished. Under his rule Japan has entered upon an unprecedented era of prosperity. Civilization has made rapid progress, and the introduction of Western arts and ideas has secured for Japan a foremost place amongst the Asiatic nations. He has given the Japanese a parliamentary Constitution, based on European principles.

My-, myo-. A prefix, from the Greek *mys*, muscle.

Myel-, myelo-. A prefix derived from the Greek *myelos*, marrow.

My'er, Albert James, meteorologist, was born at Newburg, N. Y., September 20, 1827; became chief signal-officer in the United States Army in 1860, and was in charge of the Weather Bureau in 1870. He published *Manual of Signals* (1868). Died August 24, 1880.

My'ograph, n. An instrument for making a record of the contractions and relaxations of a muscle. In the form devised by M. Helmholtz, the muscle was positively fixed at one end, while a tendon of the other was tied to a lever, whose movements were electrically conveyed to a recording cylinder. M. Marey made a somewhat similar instrument, and M. F. Laulanie another, the latter being styled a *myoscope* (*q. v.*).

My'oscope, n. An instrument for making observations of muscular movements. See Myograph.

My'osin, *n.* A proteid formed after the death of a muscle by the separation of the muscle-plasma, which is the chief ingredient, the remainder being muscle-serum. As it separates into clots a stiffening of the muscle results, known as *rigor mortis*. Myosin is insoluble in water, but may be readily converted into acid albumen by a weak hydrochloric acid. The source of myosin in the living muscle is called *myosinogen*.

Myri-, myria-, myrio-. A prefix derived from the Greek *myrios*, countless.

Myrioram'a, n. A picture made up of many separate parts, which may be recombined into different views; used as to toy.

My'rioscope, *n.* A kind of kaleidoscope; in particular, an instrument by which samples of carpet are exhibited, a small piece seeming, by multiplied reflection, to cover the whole floor.

Mys'tic, in *Iowa*, a post-town of Appanoose co., 5½ m. from Centerville; has coal mines. *Pop.* (1895) 2,300.

Myth'o-. A prefix derived from the Greek *mythos*, fable, legend, myth.

Mytho'nomy, *n.* [Gr., *mythos, nomos*, law.] The last stage in the investigation of myths, in which certain truths regarding a people may be deduced or predicted by familiarity with their myths.

Mythope'ic, *a.* [Gr., *mythopoios.*] Myth-making; suggesting or giving rise to myths.

Myx-, myxo-. A prefix derived from the Greek *myxa*, mucous.

Myxomyce'tæ (or **-tes**), *n. pl.* [Gr., *myxa*, mucous, and *mykēs*, fungus.] (*Bot.*) A doubtful order of fungals. Alone among plants they have three cells, without a cell-wall, in their vegetative period, and not combined into a tissue. They live on decaying animal and vegetable substances. By some they are regarded as animals and called *Mycetozoa*.

N, the fourteenth letter of the English alphabet, is a nasal consonaut of the liquid series. It is common to all known languages, and is interchangeable, more particularly with the Latin, Greek, and other cognate dialects, with a variety of letters. Its principal sound is that heard in *can*, *fun*, *noon*, &c.; but when immediately preceding *g* or *k*, or their equivaleuts, it bears a sound closely approaching that of *ng*, as in *finger*, *think*, &c. This is sometimes exemplified by *ng*, as in *linger*. As a terminal letter of the *m*, it is muts, as in *damn* and *limn*. As an abbrsviation, N is used for *north*, *numero*, &c.; N. B., for *nota bene* (note well); N. L. for *non liquet* (*i. e.*, the case is not clear enough to decids upou); N. P. for *notarius publicus* (public notary), &c. Among the ancients, N, as a numeral, denoted 900, and with a dash over it, thus N̄, 9,000.

Naa'man's Creek, in *Delaware*, a villags of Nsw Castle co.

Na'as, a town and parish of Irsland, in Lelnster, co. Kildare, abt. 9 m. S.W. of Dublin; *pop.* 2,971.

Naau'say, in *Illinois*, a towuship of Kendall county.

Nab, *n.* [A. S. *cnæp.*] Ths summit of a headland, mountain, or promontory.

Nab, *v. a.* [D. and Ger. *knappen.*] To snatch suddenly; to catch nnexpectedly; to seizs without warning. (Colloquial and vulgar.)

Nab, or **Naab,** a navlgable river of Bavaria, which, after a S. courss of 90 m., joins the Danube 3 m. W. of Ratisbon.

Nabajoa, (*na-va-ho'a,*) in *Arizona Territory*, a river rising amoug ths Pinaleno Mountains, and flowing N. W. into the Colorado River. *Length*, abont 25 m. It received its name from the Navajo Indiaus who iuhabited the region through wbich it passes.

Na'bal. (*Script.*) A rich and influential Isrselite of the tribe of Judah. David, having afforded protectiou to *N.*, and saved his flocks and herds, his property, and eveu his life when iu danger, some time after sent to him to supply his troops with provisions, his forces beiug iu want of immediate provender. This *N.* refused; upon which David, stung with tbe ingratituds of the man to whom he had shown so mucb favor, and to whom hs had been of such signal nse, vowed to take summary justice on tbe ungrateful Jew, and exterminate his family; and taking with him 400 men, set out for the residence of the mercenary Hebrew. Abigail, *N.*'s wife, hearing of her husbaud's conduct, and David's resolve, collected such provisious as the army required, and, atteaded by a train of servants, set out to meet the approaching king. Her beautiful person, combined with ths excuses she made for her husband's conduct, so softened the heart of Davld, that he accepted her gifts, averted his wrath, and *N.* haviug been "smitten by the Lord" a few days after, David married his widow.

Nabis, (*nai'bis,*) Tyrant of Sparta, whom Philip, king of Macedon, appointed governor of Argos. He was guilty of the greatest crueltiss, and had a statue carved to resemble his wife, which, by springs, would embrace any one that touched it, and then pierce the victim through the body with spikes. This machine Nabie devised as a means of extorting money from his people; aud when any one refused, he threatsned to introdnce bim to his wife. He was slain B. C. 192.

Na'bit, *n.* Powdered sugar-candy.

Nab'lum, Ne'bel, *n.* [Heb.] (*Mus.*) One of the most famous musical instruments among the Jews. Its form and nature are so little known that Calmet thinks it was a harp; Kircher, a psaltery or stringed instrument of percussion played on by sticks; and Harmer, again, hints at its being a bagpips. Bythner says thnt it was like a leather bottle, explaining his meaning to be that it bore a resemblance to the ancieat Greek and Roiaan lyre, the body of which was made of the shell of the tortoise.

Nab'lus, or **Nab'ulus,** (derived from *Neapolis*, or New City, so named by Vespasian, the aucient SICHEM, or SHECHEM, of the Old, and LYCHAR of the New Testament,) a city of Palestine, cap. of Samaria, 32 m. from Jerusalem. It lies in the valley between Mount Ebal and Mount Gerizim, and contains several mosques and bazaars. *Manuf.* Soap and cotton; nnd has a trade in oil, cotton, and other agricultural produce. *Pop.* 8,000.

Na'bob, *n.* [A corruption of Hind. *nawāb*, *nawaub* — *nail*, a deputy or vicegerent.] Formerly, the title of the goveruor of a province, or commander of an army, in Iudia, under the rule of the Mongols. The *N.* was, properly speaking, a subordinate provincial governor under the *subahdar*; *i. e.*, governor of a *subah*, or larger province. After the decay of the Mogul empire, many of tbe *N.* bccame virtually independeut, until their dominions were reduced by the English; as, the *Nabob* of Arcot. — A term vulgarly applied to Europeans who, having amassed a large fortune in the E. Indies, after their return home live in Eastern splendor.

Nabonas'sar. (**Æra of.**) (*Astron.*) An æra followed by Hipparchus and Ptolemy, and adopted from the Chaldean astronomers, who had been in the habit of referring tbe observations of cclipses to the beginning of the reign of Nabonassar, or NEBUCHADNEZZAR, *q. v.*, the alleged founder of the Babylonish empire. This æra Niebubr (*Lectures on Ancient History*, i. 29) regards as "firmly established in history," while he looks on Nabonassar as a prince who shook off tbe Assyrian yoke, and re-established the independence of Babylon. But while Niebuhr regards this fact as placed beyond all doubt, Sir G. C. Lewis (*Astronomy of the Ancients*) regards the astronomical canon for the period before Cyrus as "a complets historical puzzle," and rsmarks that "ths name of Nabonassar is unknown to us from any other sources." Hls conclnsion is that the canou is refsrred to an arbitrary date, altogether beyond ths evidence of history. Mr. Grote (*History of Greece*, part ii. ch. xlx.) states that "the earliest Chaldean astronomical obssrvation, known to the astronomer Ptolemy, both precise and of ascertained dats to a degree sufficient for scientific use, was a lunar eclipse of the 19th of March, 721 B. C., ths 27th year of the æra of Nabonassar, which begins with February 26, 747 B. C.

Naboth, (*nai'both.*) (*Script.*) An Israelite of the city of Jezreel, who had a vineyard near the palace of Ahab. Ahab coveted the inheritancs of his subject, and, to gain possession of it, caused Naboth to be stoned to death.

Nac'arat, *n.* [Fr., from Sp. *nacar*, mother-of-pearl.] A term applied to a pale-red color with an orange cast. — A fiue craps or linen fabric fugitivsly dyed of such color. The hrlghtest red crapes of this kind are mannfactured at Constantlnople.

Nach, *n.* Same as NATCH, *q. v.*

Nach'er, *n.* See KNACKER.

Nachu'sa, in *Illinois*, a post-village of Lee co., abt. 5 m. E. of Dickson.

Nack'er, Ne'cre, *n.* [Fr. and Sp. *nacar.*] Same as MOTHER-OF-PEARL, *q. v.*

Nacogdoches, (*nak-o-do'chiz,*) in *Texas*, an E. co.; *area*, abt. 930 sq. m. *Rivers.* Angeliua and Atoyac rivers, with soms smaller streams. *Surface*, undulating; *soil*, fertils. *Cap.* Nacogdoches.

—A post-villags, cap. of the ahove co., abt. 250 m. N.E. of Austin.

Nacoo'chee, in *Georgia*, a post-vllllage of Wbite co., abt. 145 m. N. of Millsdgeville.

Nacre'ous, *a.* Consisting of, or resembling, mother-of-psarl.

Na'crite, *n.* [Fr. *nacre*, mother-of-pearl.] A talcoss silicate of alumina, consisting of minute scales, with a glimmering pearly lustre.

Nadab, (*nai'dăb.*) (*Script.*) A king of Israel, and son of Jeroboam, whom he succeeded B. C. 954. In the second year of his reign, he led "all Israel" against Gibbethon, but was slain during his siege of that city, by Bnasha, son of Ahijah, who mounted the throne, and reigued 23 years, during which hs "smots all the house of Jeroboam; hs left not to Jeroboam any that hreathed," as was prophesied by Ahijah tbe Sbilonite.

Na'dab, *n.* A Persian high-priest, corresponding to ths Turkish *mufti*.

Na'dir, *n.* [Ar. *nazir*, alike, resembling, equal to.] (*Astron.* and *Geog.*) Tbat point of ths lower hemisphere of the heavens corresponding to the point in the upper hemisphere occupied by the zenith; the point of the hcavens diametrically opposite to the zenith.

—Hence, the place or time of greatest depression of anything: — opposed to *zenith*.

"The seventh century is the *nadir* of the human mind in Europe." *Hallam.*

Nadir Shah, (*na'dir-shă,*) a Persian prince, a celebrated Asiatic conqueror, and one of those human scourges who seem permitted at times to desolate the earth. This extraordinary man (see Fig. 336) was B. in the province of Khorassan, 1688, and at an early age obtained great notoriety as the chief of a baud of robbers, gradually rising to power and distinction hy his ambitious daring, and through the blind tools who flocked to his victorious banners. In 1720, assuming a nask of patriotism, he raised a body of 5,000 men, and, after several dashing achievements, succeeded in driving the Afghans from Persia, and ultimately in conquering the whole of their country, which he added to his own possessions; and having taken the capital city of Candahar, because the inhabitants fled to Delhi, and claimed, and ultimately obtained, protection from the sovereign, he waged war upon the Great Mogul; then, after besieging the imperial city, in 1738, entering Delhi, he put the inhabitants to the sword, aad carried off a vast accumulation of treasure, the collection of ages, and the most moderate description of which reads more like a fable than a reality. After slaughtering thousands of the people, destroying their city, and inflicting frightful suffering, he returned to Persia, where he consolidated his power, and established absolute sway over an empire reaching from the Oxus in the north to the ocean in the south, and from Bagdad in the west, to the Indus in the east. For the first years of his reign justice and moderation were the principles of his power; but as he advauced in years, and felt his power, he gradually threw off all consideration, and ruled by his selfish, arbitrary, and unbridled will; while in regard to his captives the most inhuman and barbarous coaduct marked his career. He put out the eyes of his own son, simply because he was beloved by the people; and exercised such malignant cruelty on all, that his officers, discovering he meant to destroy them all, formed a league to save their lives and rid the world of an intolerable monster, entered his tent by night, murdered him as he slept, and placed his nephew Ali on tbe musnud in June, 1747.

Na'del-stein, (*-stīn',*) *n.* [Ger. *nadel*, needle, and *stein*, stone.] (*Min.*) Tbe needle-stone.

Næ'vius, CNEIUS, a celebrated early Roman poet, B. probably in Campania, but resident at Rome for the greater part of his life. He wrote a poem on the first Punic War, in which he had personally served, and from this poem Virgil adopted some passages in the *Æneid*. Nævius wrots also several comedies, and by the freedom of his attacks on leading men subjected himself to imprisonment, and afterwards to exile. D. at Utica, abt. B. C. 202. Some fragments of his writings are extant.

Næ'vus, *n.*; *pl.* NÆVI. [Lat.] (*Med.*) A birth-mark found on children; a congenital spot or rash.

Nafe, Naff, *n.* A kind of tufted sea-bird.

Nag, *n.* [Scot. *naig*, from A. S. *hnægan*; Icel. *hneggia*; Swed., Goth. *gnäggia*, to neigh.] A small horse; a pony; hence, a horse iu general, or rather a sprightly horse.

—A paramour; — used in a contemptnous sense; as, "your ribald *nag* of Egypt."—*Shaks.*

Nag, *v. a.* To torment; to scold: to worry with petulant complaint or solicitation. (Used colloqnially.)

Nagasa'ki, a town of Japan. See NANGASAKI.

Nag'gy, *a.* Psevisb; irritnble; quick-tempered; petulant; touchy. (An English colloquialism.)

Nagore', a town of Hindostan, presidency of Bengal, dist. of Birbhoom, 117 m. N.W. of Calcutta; Lat. 23° 56′ N., Lon. 87° 20′ E.

Nagore, (*na-gor',*) a town of Hindostan, presidency of Madras, district of Tanjore, on the Velloor or Nagore River, at its mouth in the Indian Ocean, 48 m. E. of Tanjore; Lat. 10° 49′ N., Lon. 79° 55′ E. The principal public buildings are several fine mosques, and a square tower 150 feet hlgh. *Pop.* Uuknown.

Nagore', a town of Hindostan, in Rajpootana, 70 m. N.E. of Joodpoor. *Manuf.* Brass and iron wares. *Pop.* 40,000.

Nagowick'a, in *Wisconsin*, a lake of Wankesha co. It covers an area of abt. 2 sq. m.

Nagpoor', a dist. of Hindostan, in the Gnndwana region, bet. Lat. 17° 50′ and 23° 5′ N., Lon. 78° 3′ and 83° 10′ E.; *area*, 76,340 sq. m. *Prod.* Wheat, maize, cotton, sugar, rice, and tobacco. *Min.* Iron, marble, and limestone. *Manuf.* Brass and copper utensils, woollen and cotton stuffs, and turhane. The cap. is Nagpoor. *Pop.* 4,650,000.

Nagpoor', ("town of serpents,") a city of Hindostan, cap. of the above dist. and site of government of the Central Provinces; Lat. 21° 9′ N., Lon. 79° 11′ E. It is meanly huilt, though extensive. *Manuf.* Silk and cotton goods, arms, and cutlery. *Pop.* 115,000.

Nagy Bania, or **Nagy Banya,** (*noj'e ban'ya.*) a town of Austria, in E. Hungary, 32 m. E.S.E. of Szathenar. The inhabitants are principally engaged in the gold, silver, and copper mines in the vicinity. *Pop.* 5,500.

Nahant', in *Massachusetts*, a post-village and townsbip of Essex county, ahout 10 miles North-east of the city of Boston.

Na'hash. (*Script.*) The father of Zeruiah and Abigail, David's half-sister.

Na'hor. (*Script.*) Son of Serag, and father of Terah. — 2. Son of Terah, and brother of Abraham and Haran. He married Milcah, his niece, and had twelve sons, among them Bethuel, the father of Rebekah.

Nahr-el-Ke'beer, or **Nahr-el-Ke'bir,** a river of Asiatic Turkey, in Syria, which after a W. conrse of 40 m., falls into the Mediterranean, 20 m. N. of Tripoli.

Nah'shon, or **Naas'son,** one of Christ's ancestors, was chief of the tribe of Judah in the desert, and brother-in-law of Aaron.

Na'hum, (Book of.) (*Script.*) One of the minor prophetical books of the Old Testament, the author of which is believed to have flourished towards the close of Hezekiah's reign, about 705 B. C. The snbject of the book is "the burden of Nineveh," *i. e.*, the destruction of Niueveh and the Assyrian empire, as the punishment of its wickedness and oppression. It commences witb a sublime descrlption of the justice and power of God, showing how terrible he is to his enemies; then follows an account of the sufferings of Nineveh, nntil it is utterly destroyed. In freshness and graphic power this author is not hehind any of the other minor prophets. He gives evidence of a rich and lively imagination, and his figures are abundant and appropriate; the language is classical throughout. "Ilis prophecy," saye Bishop Lowth, "forms a regular and perfect poem; the exordium is not merely magnificent, it is truly majestic; the preparation for the destruction of Nineveh, aud the description of its downfall and desolation, are expressed in the most vivid colors, and are hold and luminous in the highest degree."

Nahun'ta, in *N. Carolina*, a post-village of Wayne co., abt. 61 m. S.E. of Raleigh.

Naiad, (*nā'yad,*) *n.* [Gr. *naias*, *naïādos*, from *naō*, to flow.] (*Myth.*) In the Greek and Roman mythology, the Naiads, or Naiades, were certain inferior deities, who presided over rivers, wells, springs and fonntains, and are represented as young, graceful, and extremely beautiful nymphs, to whom great veneration was paid and sacrifices offered. The oblations usually presented on the altars of the Naiads consisted of milk, fruits, and flowers, and libations of wine, honey, and oil. They are usually represented leaning on an urn, from which flows a stream of water, and when draped, which is seldom, their vesture is of a thin greenish hue, sufficiently light to show the contour of the limbs beneath. On gems they are sometimes represented with large flowing veils, tbeir only general vestment.

—*pl.* (*Zoöl.*) See UNIONIDÆ.

—*pl.* (*Bot.*) The order *Naiadaceæ*, q. v.

Naiada'ceæ, *n. pl.* (*Bot.*) The Fluviales or Naiad family, an order of plants, alliance *Hydrales*. DIAG

hypogynous stamens, a free ovary, a complete embryo, and globose pollen. They are aquatic plants, with cellular leaves and inconspicuous perfect or monœcious flowers; calyx 2- to 4-sepalled, or altogether wanting. Stamen definite; stigma simple, often sessile; fruit dry, indehiscent, 1-celled, 1-seeded; seed pendulous, without albumen. The plants of this order inhabit both the ocean and fresh water in nearly all countries. They have no known uses. The order includes 9 genera and 16 species.

Nail'ant, *a.* (*Her.*) Represented as swimming, as a fish in an escutcheon.

Naif, *a.* [Fr.] Presenting a natural appearance;—a term applied by lapidaries to a stone of true natural lustre.

Nail, (*nāl,*) *n.* [A. S. *nægel;* D. and Ger. *nagel;* akin to Lat. *unguis,* Gr. *onūchus,* a claw.] (*Physiol.*) The terminal horny appendage of the finger and toe when they are in the form of flattened or depressed plates, serving to support a broad tactile surface, as in the human fingers. When these appendages are compressed, curved, pointed, and extended beyond the digit, they are called *talons* or *claws,* and the animal bearing them is said to be *unguiculate;* when they encase the extremity of a digit like a box, they are called *hoofs,* and the animal is *ungulate.*—The nails are an altered form of the epidermis or outward layer of the skin. Under the microscope, a portion of newly-formed nail is found to consist almost entirely of nucleated cells, which are of exactly the same character as those found in the new layers of epidermal tissue. No distinct structure can be observed as the nail grows older, but when immersed in a weak solution of caustic potash or soda, the cells become visible. The nails of a human being are produced from a fold in the true skin, which has a highly vascular surface, furnished with longitudinal elevated ridges, to which blood-vessels are copiously distributed, and between which the soft inner layer of the nail drops down. The growth of the nail is caused by additions to its base; but as it moves, it also receives additional matter from the skin on which it rests. According to M. Beau, the condition of the nails may be made subservient to the diagnosis of disease. When a nail is injured, it is speedily reproduced, except when the skin beneath has been destroyed.

(*Manuf.*) A small pointed piece of metal, generally with a head, to be driven into a board or other piece of timber, and serving to fasten it to other timber. Until a comparatively recent date, nails were made only by hand, but now are largely manufactured by machinery. The making of hand-made, or *wrought nails,* usually retains the character of a domestic manufacture, and forms the employment of a class of blacksmiths, called nailers, who, in England, are frequently assisted by the female members of their families. The iron is received by the nailer in the shape of narrow square rods, varying in size according to the kind of nail to be forged from them. The ends of several of these rods are put into the fire at once. When properly heated, one is withdrawn and forged on a steel anvil to a fine tapering point. The pointed end is then cut off at the proper length. In making some kinds of nails, this operation completes the nail, as in horse-shoe nails; but in most cases, a subsequent process is necessary in order to form the head. In order to effect this, the red-hot nail is dropped, point downwards, into a hole, in an instrument called a *bore.* The hole fits the upper or thicker part of the nail, so that when dropped into it, a few well-directed blows of the hammer upon the thick projecting end of the spike or nail, converts it into a head of the required shape. Some nailers acquire great dexterity in their craft. One man has been known to make 34,000 flooring-nails in a fortnight, which would require on an average 1,030,656 strokes of the hammer. *Cast-nails* have long been used for the same purposes as wrought nails. Although they are much cheaper, they are so clumsy and brittle that they can only be used for a few coarse purposes, as in plasterer's work and the nailing up of fruit-trees. For certain kinds of woodwork, however, a very valuable kind of cast-nail, made from a pure material, called malleable cast-iron, is now employed. They are, however, as soft as copper, and therefore not suitable for use in hard wood. On account of the comparatively high price of wrought nails, and the insufficiency of cast-nails as a substitute for them, many ingenious machines have been invented for forming nails by cutting or stamping out of plates or rods of wrought iron. "About 1790 the first machine for dispensing with hand-labor in nail-making was invented in England. It was, however, only proposed to use water, or other mechanical power, to move hammers and other appliances for making nails similar to those made by hand. The next step in advance was the machine of Thomas Clifford, of the city of Bristol, patented in 1790. He used two iron rollers, faced with steel, in which were sunk impressions, or forms of the nails, half of the form being in each roller, and arranged circumferentially, so that a bar of iron, being passed between the rollers, came through a string of nails, the head of one nail being slightly joined to the point of the next; these were then separated by shears or nippers. Sometimes several rows of indentations were made in the surface of the rollers, and instead of bars, a slip of sheet-iron was passed through, and being forced into the dies was formed into nails. Still another method was to form nails by casting, but these were too brittle to be of much service.—Nails made by either of the processes already mentioned were very expensive; and in the U. States, where so many wooden structures had to be erected by the settlers, the obtaining of cheap nails was of the utmost importance. It was under the stimulus of this pressing necessity that about the year 1790 ingenious men set to work to invent nail-machines. It is difficult at the present day to ascertain who it was that first conceived the idea of cutting nails from slips or rolled plates of iron. At first the nails were cut from a slip or hoop, and headed by a few blows of a hammer while grasping them in a vise worked by the foot. But very soon the machines were made to cut and head the nail at one operation. Between 1794, the date of the first patent, and 1817, more than 100 patents had been issued for nail-machines and improvements. The first patent was for a machine for cutting nails, March 23, 1794, to Josiah G. Person, or Pearson, of New York. The first patent for a cutting and heading-machine (Nov. 11, 1796) was granted to Isaac Garretson of Pennsylvania; and on Dec. 12, 1796, a patent for a similar machine to George Chandler of Maryland. The manufacture of cut nails was soon established in Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, and Maryland. In 1810 Joseph C. Dyer of Boston, but then a merchant in London, took out patents in England for the nail-machinery invented in Massachusetts, and large manufacturing establishments were soon put in operation. Some in the neighborhood of Birmingham are able to make over 40,000,000 nails per week. Many of the first inventors spent large sums of money on their machines. It has been estimated that it cost more than $1,000,000 to bring them to the perfection arrived at in 1810, when a machine made about 100 nails per minute. It was at this time that the full value of this American invention was brought prominently before the world in the well-known report of Albert Gallatin, then secretary of the treasury. Large nail-factories were early established in different parts of Massachusetts, and at Ellicott's Mills, near Baltimore. At the present day, the business is carried on very extensively in the Schuylkill iron region of Pennsylvania. There the pigs from the furnace go immediately to the bloomery, thence to the rolling-mill, and so on through the slitting and nail-cutting machines, so that all the operations, from the crude ore to the finished nail, are carried on at the same place. Horseshoe nails, which are made of the best charcoal iron, long proved very difficult to make by machines, but the difficulty has been overcome and nails of this kind are now made abundantly by machinery. Cut nails and other kinds are produced largely from Bessemer and Siemens-Martin steel, their quality being superior to that of most of the old wrought-iron nails. The old-style nail has been largely superseded within the recent period by wire nails, an article of French origin, the wire being cut from a reel, headed, and pointed in one operation. Since 1889 tin-plate scrap has been successfully used in the U. S. for nail-making. This substance is sheet-iron of good quality, the abundant waste scrap of which is made into nails by flattening edgewise in the manner in which a fan is folded. The machine for this purpose, invented by G. H. Perkins, of Philadelphia, performs the operations of cutting, crushing or folding, gripping, and heading, doing the work perfectly.

—A stud; a boss; as, "the desk with silver *nails.*" *Swift.*

—A measure of length, being 2¼ inches, or 1-16th of a yard.

On the nail, in hand; forthwith; at the moment; immediately; without credit or delay.

"We want our money *on the nail.*"—*Swift.*

To hit the nail on the head, to hit the exact mark; to guess or conclude precisely to the point; as, he *hit the nail on the head* when he called you a fool.

—*v. a.* To fasten, unite, close, or make compact with nails; to spike; to stud with nails.

"*Nail* to the mast her holy flag."—*Holmes.*

—To secure, bind, or hold, as to a bargain or concurrence in an argument or agreement; to catch; to trap; as, I *nailed* him with his own words.

Nail'-ball, *n.* (*Mil.*) A circular ball with an iron bar protruding through its centre, to prevent its revolving in the bore of a cannon.

Nail'-brush, *n.* A brush for cleaning the nails.

Nail'er, *n.* A nail-maker.

Nail'eress, *n.* A female nail-maker. (R.)

Nail'ery, *n.* A forge or smithy where nails are made.

Nail'-headed, *a.* Having a head resembling that of a nail; constructed so as to appear like the head of a nail.

Nainsook', *n.* A kind of jaconet muslin, formerly made in India.

Nairn, a maritime co. of Scotland, E. of Moray Frith, having N. the Sea, E. the co. of Moray, S. and W. Inverness; *area,* 215 sq. m. *Desc.* Mountainous and barren, except along the coast and in the valleys. *Rivers.* Nairn and Findhorn. *Prod.* The usual cereals. *Manuf.* Unimportant. The cap. is Nairn. *Pop.* 10,000.

NAIRN, a seaport-town of Scotland, cap. of the above co., at the mouth of the River Nairn, 15 m. N.E. of Inverness, and 72 m. N.E. of Aberdeen. The harbor is accessible only for small vessels. *Exp.* Grain, cattle, timber, salmon, herring, and other fish. *Pop.* 4,000.

Nais'sant, *a.* [Fr., from Lat. *nasci,* natus.] (*Her.*) Said of an animal depicted as coming forth out of the middle (Fig. 1906)—not like *issuant,* out of the boundary line—of an ordinary.

Fig. 1906.
NAISSANT.

Naïve, (*nâ-ēv',*) *a.* [Fr., from Lat. *nativus,* natural, native.] Artless; ingenuous; having a native or unaffected simplicity; as, a *naïve* question, a *naïve* remark.

Naïve'ly, *adv.* [Fr. *naïvement.*] Ingenuously; with native or unaffected simplicity.

Naïvete, (*nâ-ēv'tā,*) *n.* [Fr., from Lat. *nativitas.*] Native simplicity; unaffected plainness or openness; undisguised artlessness or ingenuousness.

Naja Haje, *n.* (*Zoöl.*) See ASP.

Na'jas, *n.* [Gr. *nao,* to flow; hence, *Nais* or *Naides,* nymph of the waters; from the habitat.] (*Bot.*) A genus of plants, order *Naiadaceæ.* They are aquatic plants, with axillary flowers. *N. Canadensis,* the Water-nymph, is a slender, flexible, rather erect, submerged water-plant, found from Canada to New Jersey and the Western States.

Na'ked, *a.* [A.S. *nacod;* Ger. *nackt;* Icel. *nakt;* Ir. *nechd.*] Not covered; bare; nude; having no clothes on; as, a *naked* body.

—Unarmed; defenceless; open; exposed; having no means of protection.

"He would not . . . have left me *naked* to mine enemies."—*Shaks.*

—Open to view; not hidden or concealed; without disguise, ornament, or exaggeration; plain; evident; manifest.

"The truth appears so *naked* on my side,
That any purblind eye may find it out."—*Shaks.*

—Without adjunct, addition, or accessory; devoid of needful advantages or appendages; destitute; unaided: bare; as, his means are *naked.*—Mere; simple; abstract; as, a *naked* belief.

(*Bot.*) Destitute of the usual covering or appendages.

Naked flooring. (*Carp.*) The whole assemblage or contiguation of timber-work for supporting the boarding of a floor on which to walk. Naked flooring consists of a row of parallel joists, called *floor-joists.*

—*n.* (*Arch.*) The surface of the shaft of a column or pilastro, where the mouldings are supposed to project; also, the remote face of a wall whence the projectures take their rise. It is generally a plane surface; and when the plan is circular, the naked is the surface of a cylinder with its axis perpendicular to the horizon.

Na'kedly, *adv.* In a naked manner; without covering; barely; simply; merely; in the abstract; evidently; manifestly.

Na'kedness, *n.* State of being naked; want of covering or clothing; nudity; bareness; exposure; want of means of protection or defence; plainness; openness to view.

"Thy only armor is thy *nakedness.*"—*Prior*

(*Script.*) The genital organs.

"Ham . . . saw the *nakedness* of his father."—*Gen.* ix. 23.

Na'ker, *n.* Same as NACRE, *q. v.*

—A kind of kettle-drum.

Nakhichevan, (*nak-i-che'van,*) a town of Asiatic Russia, in Trans-Caucasia, on the Aras, 80 m. S.E. of Erivan. It claims to be the oldest city in the world, tradition implying that here Noah landed from the ark. It is now almost a ruin.

Nakhitchevan, (*nak-itch-e-van',*) a town of European Russia, govt. of Ekaterineslav, on the Don, 25 m. from its mouth in the Sea of Azov. *N.,* with the neighboring town of Rostov, are the entrepôts of the Don. *Manuf.* Woolen goods. *Pop.* 14,500.

Na'kir, *n.* [Ar. *nakara.*] A fugitive pain, shooting from one limb to another.

Nam'able, *a.* Susceptible of nomenclature.

Namaquas', a tribe of the HOTTENTOTS, *q. v.*

Nama'tion, *n.* (*Old Eng. Law.*) A levying distress on property.

Nam'by-pam'by, *n.* That which is mandlin, or weakly and sillily sentimental or gushing; that which is affectedly or finically pretty; far-fetched naïvete.

—*a.* Affectedly sentimental; wishy-watery; sicklily tumid; contemptible for diluted or put-on prettiness; finical; as, a *namby-pamby* manner of speaking.

Name, *n.* [A. S. *nama;* Ger. *name;* Goth. *namo;* Pers. *nâm;* Hind. *nom;* Lat. *nomen;* Gr. *onōma;* Sansk. *nâman.*] That by which a person or thing is spoken of and known; an appellation or title attached to a thing by customary use; epithet.—When names denote individual objects, such as countries, rivers, towns, men, &c., they are called *proper* or *appropriate* names. More usually, however, the term *proper name* is applied to those of men. Among the Greeks, with the exception of a few families at Athens and Sparta, there were no family names. Among the Romans, each person had three names: first, the *prænomen,* or distinction of the individual; second, the *nomen,* or name of the clan; and third, the *cognomen,* or family name. A surname was sometimes added, which was borrowed from some exploit or remarkable event; as in the case of Scipio Africanus. The *prænomen* was always placed first, and usually written with one or two letters; as M. Marcus, C. Caius, P. Publius, &c. The *nomen* was second; as Julius Fabius, for the Julian and Fabian clan. The *cognomen* came last; as Cæsar, Cicero. Thus in the name of M. Tullius Cicero, M. is the prænomen, distinguishing him from his brother Quintus; Tullius the nomen, distinguishing the clan; and the cognomen Cicero, which shows the family. Among the Celtic and German nations, each person was denoted by one word. This was also the case in the early and primitive states of society. Among the ancient Hebrews, the names of Abraham, Aaron, David, Solomon, were employed individually and singly. In the other nations which preceded European civilization, the same feature is to be observed. One word denoted one person in Egypt, Syria, and Persia. Among the Saxons this primitive system was prevalent not only when they were first established, but during the whole period when they held dominion in Britain. The names of Alfred, Harold, Edwin, &c., each signified a single individual. At the present day, the system of personal nomenclature is to have one name for the individual prefixed to another name which

distinguishes the family to which he belongs. Probably one of the oldest methods of distinguishing different individuals of the same name was by adding their father's name to their own. Hence originated many English, German, and Danish names which end in *son*, *sohn*, and *sen*; for example, Williamson, Andersohn, Thorwaldsen. With feudalism new names were introduced, derived from the districts conferred on the nobles, or from the feudal relations. Another class of names are those of locality, which are either derived from places of generic names, as Hill, Dale, Cliff, &c., or from some specific place. Everywhere the nobility had family names before the commoners. But among the latter is a class of names derived from their occupation and trades; such as Smith, Miller, Fisher, Barber, &c. The number of this class is very great, and includes the names of several lost trades, or trades which have changed their names: thus we have Furbisher, Foster, Fletcher, Pargetter, Taverner, Webster, Page, Reeve, &c. Sometimes striking external peculiarities or mental qualities have given origin to names, which have descended to the posterity of those on whom they were bestowed: such are Swift, Brown, Long, White, Black, Good, Wise, and others. There are only 53 names of men which can be used without some appearance of singularity. Of these there are 25 of Hebrew origin, 19 derived from the dialects of W. Europe, 5 from the Greek, and 4 from the Latin. Out of the whole there are 12 more in use than any others: these are Charles, Edward, Francis, George, Henry, James, John, Richard, Robert, Samuel, Thomas, and William.

—Reputation; character; credit; that which is said of a person; — used with an adjective, as *good* or *bad*.

"He that filches from me my *good name* . . . makes me poor indeed." — *Shaks.*

—Fame; honor; celebrity; eminence; praise; distinction.

"One of the few, the immortal *names*
That were not born to die." — *Halleck.*

—Remembrance; memory; extended reputation.

"My *name* and memory I leave to men's charitable speeches." *Lord Bacon.*

—Persons bearing a certain name: stock; race; family; lineage.

"A warrior of the Douglas' *name*." — *Scott.*

—An individual; a person.

"They list with women each degen'rate *name*." — *Dryden.*

Christian name, the appellation received by a person at baptism, as distinguished from *surname*. — *In name*, in profession or title only; apparently; assumedly; without reality or substance.

"There is a friend which is only a friend *in name*." — *Eccles.*

In the name of, in behalf of; by power or authority delegated; on the part of; in the assumed character of.

"Now, *in the name of* all the gods at once." — *Shaks.*

Proper name. See PROPER. — *To call names*, to apply opprobrious or invidious epithets to; to nickname.

"The husband *calls* her ten thousand *names*." — *Granville.*

To take a name in vain, to make idle or profane use of a name; to swear by an appellation.

—*v. a.* [A.S. *naman*.] To give a name or appellation to; to designate by name; to set or give a sound or combination of sounds to, by which a person or thing is known or distinguished; to call; to denominate; to style.

"She *named* the child Ichabod." — 1 *Sam.* iv. 21.

—To speak of by name; to mention by name; to refer to by distinctive appellation.

"None *named* him but to praise." — *Halleck.*

—To nominate; to point out for any purpose by name; to specify; as, he is *named* as prime minister.

To name the name of Christ, to make profession of Christian faith.

Name, *n.* (*O. Eng. Law.*) A distraint; an impounding; also, the thing of chattel distrained.

Nameka'gon, in *Wisconsin*, a river flowing into St. Croix River in Burnett co.

Name'less, *a.* Without a name; not distinguished by an appellation; noting a thing or person whose nomenclature is not known or mentioned.

"A headless carcass, and a *nameless* thing." — *Dryden.*

—Not noted or celebrated; undistinguished; without repute.

"*Nameless*, unremembered acts of kindness and of love." *Wordsworth.*

Name'lessly, *adv.* In a nameless manner.

Name'ly, *adv.* By name; particularly; that is to say; to wit; videlicet; as, there were three of them, *namely*, Tom, Dick, and Harry.

Name'-plate, *n.* A plate of metal, &c., inscribed with a person's name.

Nam'er, *n.* One who names or calls by name.

Name'sake, *n.* One whose name has been given to him for the sake of another; one who bears the same name as another.

Nam'ingly, *adv.* By name.

Namozine Creek, in *Virginia*, enters the Appomattox River between Amelia and Dinwiddie cos.

Na'mur, a prov. of Belgium, having N. Brabant, E. Luxembourg and Liege, S. the French dept. of Ardennes, W., Hainault; *area*, 1,400 sq. m. *Desc.* Diversified and very fertile. *Rivers.* Meuse, Sambre, and Lesse. *Prod.* Wheat, oats, hops, hemp, and flax. Cattle are also extensively reared. *Min.* Iron, copper, lead, coal, and marble. *Manuf.* Articles of iron, copper, and brass. The cap. is Namur.

NAMUR, a town of Belgium, cap. of the above prov., at the junction of the Meuse and Sambre, 33½ m. S.W. of Liege, and 33 m. S.E. of Brussels. It is beautifully situated in the midst of a level and fertile country, 67 m. S.E. of Brussels, is strongly fortified, entered by eleven gates, and further strengthened by a commanding citadel, built on a rock that gives it an imposing appearance, and renders it very formidable as a military post. The

Fig. 1907. — NAMUR.

streets are wide, the houses well built and generally of stone; and two bridges spanning each river, add greatly to the beauty and advantages of the city. It has six churches, all remarkably rich in architecture and internal fittings. *N.* is a place of considerable trade, especially in metallic work; its cutlery is in great demand in Belgium. Fire-arms, swords, tin and brass ware, copper vessels, tools of all kinds, agricultural implements, and iron-mongery goods of every description, with glass and leather, constitute its chief commercial items. *N.* has sustained numerous sieges, and in the 16th and 17th centuries suffered some of the worst horrors of war. The French took it, after a long investment, in 1692, and 3 years later the English and Dutch made themselves masters of it; but 6 years after, 1701, it again changed hands, the French carrying the place, and though expelled some time afterward, again stormed and carried it in 1746. After the French revolution, it was made the capital of the dept. of the Meuse and Sambre, and was only restored to its former independence by the peace of 1815.

Nan, *interj.* A localism used both in England and the U. States, and equivalent to what! how! hey!

Nanafa'lia, in *Alabama*, a village of Mareugo co., abt. 100 m. S. of Tuscaloosa.

Nan'cy, a town of France, cap. of the dept. of Meurthe, on the river Meurthe, 30 m. S. of Metz, and 175 m. S.E. of Paris. It is divided into the Old and New Town, and was formerly surrounded by walls. Several of the gates still remain, and are very fine, resembling triumphal arches. The principal public buildings are the cathedral of Corinthian architecture, the town-hall, the *Palais de Justice*, and the exchange. Prominent among its public squares is the *Place Stanislaus*, surrounded by fine edifices, and having in its centre a bronze statue of Stanislaus, King of Poland, and Duke of Lorraine. *Manuf.* Woollen cloth, hosiery, lace, muslins, cotton yarn, liqueurs, and chemical products.

Nan'du, *n.* [Braz. *yandu*.] (*Zoöl.*) The American ostrich. See OSTRICH.

Nangasa'ki, or NAGASAKI, a large seaport-town of Japan, S.W. of the island of Kiou-Shiu, 600 m. S.W. of Yeddo; Lat. 32° 43′ 4″ N., Lon. 130° 11′ 47″ E. It is situated on the slope of a hill, and, like every other Japanese town, is regularly built, with wide and clean streets. The houses, however, are low, none containing more than one good story, to which is added in some a sort of cock-loft; in others, a low cellar; — all are constructed of wood and a mixture of clay and chopped straw; but the walls are coated with a cement that gives them the appearance of stone. The height of the street front, and even the number of the windows, are determined by sumptuary laws. Oiled paper supplies the place of glass, and the windows are further protected from the weather by external wooden shutters and Venetian blinds. A veranda, into which the different rooms open, runs round the outside of the houses, to which are invariably attached curiously laid-out gardens. Large detached fire-proof store-rooms belong to each dwelling, and are so constructed as fully to answer their purpose of preserving the valuables of the inhabitants from the conflagrations so common here and elsewhere in Japan. The chief public buildings are the palaces of the governor and grandees of the empire, some of which cover a considerable extent of ground; there are also in the town and neighborhood 61 temples, or *yashiros*, usually on commanding eminences, and inclosed in large gardens, the habitual resort of pleasure parties. These buildings are as plain and little ornamented as the private dwellings, and comprise, also, apartments, which are let out to travellers, or used for banqueting rooms and other purposes. The tea-houses, or bagnios, are another favorite resort of the natives. The historic island of Deshima, ("Outside Island,") in which the Dutch traders formerly lived, is outside the town, but a few yards from the shore, connected by a stone bridge. Nagasaki was opened to foreign commerce in 1859, as one of the five open ports. The foreign settlement is on the flat land at the E. side of the harbor, and contains many neat and substantially built dwellings, hotels, club-houses, consulates, &c. The harbor is land-locked, extending about 7 m. N.E. and S.W., being in most places less than a mile in width. Ships of the largest tonnage can lie in five or six fathoms of water within gunshot of the hills on which the town is situated, and which shelter it and the shipping from the wind.

Nanjemoy', in *Maryland*, a post-village of Charles co., abt. 55 m. S.W. of Annapolis.

Nankeen', Nankin', *n.* A species of cotton cloth of a firm texture and yellowish color, originally manufactured in Nankin, China. — An imitation of this cloth by artificial dyeing.

Nankin', a city of China, prov. of Kiang-soo, dist. of Kiang-ning-foo, on the Yang-tse-kiang; Lat. 32° 4′ N., Lon. 118° 24′ E. The walls, which are of limestone, cemented with sun-baked clay, inclose a very irregular triangular area of about 30 sq. m., and this circuit, as measured by the Jesuits, amounts to 57 *lis*, or nearly 20 m., — a fact fully proving the absurdity of the Chinese statement that, "if two horsemen should go out in the morning at the same gate and ride round in opposite directions, they would not meet before night." This inclosure, moreover, comprises groves, fields, and even hills, of considerable extent; less than three-fourths of it being covered by the city, which is situated at the S. extremity, and about 6 m. from the river-bank. The city has declined much both in size and splendor since the end of the 13th century, when Kublai-Khan removed the imperial residence to Pekin. It now consists of 4 rather wide and parallel avenues, intersected by 6 or 8 others of less width. The streets are not so broad as those of Pekin, but are, on the whole, handsome, clean, well paved, and bordered with well-furnished shops. *N.* possesses no public edifices corresponding to its rank as the second city of the empire, except its famous porcelain tower, belonging to one of the pagodas, several temples, and its gates, some of which are of extreme beauty. The Porcelain tower (called *Pacu-gan-sze*), "pagoda of gratitude," which is unquestionably finer than any similar structure throughout China, is an octagonal building, each side 15 ft. wide. It consists of 9 equal stories, communicating by a spiral staircase running up the centre of the building, and each comprising one saloon finely painted, gilt, and adorned with idols. The outside wall is white, made of the white bricks commonly used in China; a kind of carved gallery or veranda, ornamented with lightly-tinkling bells, runs round each story, and the whole is surmounted by a gilt conical roof, the height of which from the base somewhat exceeds 200 ft. It was completed in 1431, at a cost of 400,000 taels. An observatory stands about a league northward of the pagoda, but though formerly well provided with instruments, it is now almost in ruins. *N.* has extensive manufactures of satin and crape, the quality of the former, both plain and figured, not being equalled by that of any other city in China. The cotton fabric called Nankeen receives its name from this city; but in fact it is made in every part of the prov., and scarcely a cottage can be found where the thrifty housewife has not a loom for weaving nankeen. The paper of *N.* is highly esteemed; and Indian-ink (as it is called in Europe) is manufactured in large quantities both in the town and neighborhood, forming an important article of commerce. *N.* is celebrated also for its manufacture of artificial flowers from the pith of a shrub, and so extensive is this branch of industry as to give rise to a large trade. The commerce of this city is very considerable, owing to its position in the centre of the empire, and on the Yang-tse-kiang, which is navigable for small boats to the ports of Soo-chee-foo and Shanghae, its great entrepôts for corn, manufactured goods, and other articles. Its communication with Pekin is effected by the imperial canal, which leaves the river about 40 miles below *N.*; the principal traffic with the capital is during April and May, when fast boats, which accomplish the distance in about 9 days, are constantly employed in exporting to the imperial court the produce of the *N.* fishery packed in ice. *N.* is not less celebrated for literature than commerce; the arts and sciences are studied there with great diligence, and it furnishes more doctors and mandarins than many towns together. Its libraries are also extensive and valuable. *Pop.* (1897) 160,000.

Nankin', in *Michigan*, a post-township of Wayne county.

Nankin', in *Ohio*, a post-village of Ashland co., abt. 88 m. N.N.E. of Columbus.

Nans'emond, in *Virginia*, a river flowing into Hampton Roads from Nansemond co.

—A S.E. co., adjoining N. Carolina; *area*, abt. 400 sq. m. *Rivers.* Nansemond River, and some smaller streams, while Hampton Roads wash its N. border, and Lake Drummond and the Dismal Swamp occupy its S.E. angle. *Surface*, generally level; *soil*, not very fertile. *Cap.* Suffolk.

Nantas'ket, in *Massachusetts*, a peninsula of Plymouth co., extending N.N.W. into Massachusetts Bay.

Nantas'ket Road, in *Massachusetts*, a name given to one of the principal entrances to Boston Harbor.

Nantes, (*nants*,) a large commercial city of France, cap. of the dept. of Loire-Inférieure, and formerly of the prov. of Brittany, on the Loire, at its junction with the Erdre and Sevre-Nantaise, 210 m. S.W. of Paris. *N.* is situated on the slopes and summit of a gentle hill on the right bank of the Loire, where the river is studded with numerous islands. It is a remarkably clean, well-built, and judiciously-arranged town; especially all the new parts of it, which are distinguished by extreme elegance and good taste. This is particularly evident in its squares and public buildings. The city, with its magnificent quays, its splendid river, dotted with islands, its handsome bridges spanning its surface and uniting its different parts, the harbor of Lafosse, its lofty edifices, its crowd of shipping of all rig and nations, and its miles of lawn-like meadows stretching far away on

either bank of the Loire and Erdre, produces a *coup d'œil* of beauty, magnificence, and prosperity, not to be surpassed by any other city in France. *N.* has 450 streets, 33 squares, and 16 bridges; one, the Pont de Pernil, 227 yards in length, and having 16 arches, is especially worthy of observation. The manufactures and trades of *N.* consist chiefly of ship-building, copper foundries, tanneries, dye and bleaching works, brandy distilleries, woollen goods — such as blankets, serges, flannels — printed cottons, and cotton twist, cordage, glue, refined sugar, and ship-bakeries; while salt, manufactured in the neighborhood, forms an important item among the general list. *N.* is a place of great antiquity, having been a station of consequence under the Romans, and resisted an attack made on it by Attila; but is most memorable as the place from whence Henry IV. issued the celebrated edict granting perfect toleration to his Protestant subjects, and equal rights and privileges with the Catholic party. This important document, the *Edict of Nantes*, was published in the year 1598, and was revoked by Louis XIV., Oct. 22, 1685. Nantes was also the scene of some of the most frightful murders and inhuman excesses that disgraced the first French Revolution, perpetrated by that execrable monster Carrier, *q. v. Pop.* (1897) 114,220.

Nantes, Nantz (*nänts*), *n.* The name given to a kind of French brandy, exported from the city of Nantes, France.

"They broached a hogshead of genuine *Nantz*."—*Sir W. Scott.*

Nan'ticoke, in *Delaware*, a hundred of Sussex co.

Nan'ticoke, in *New York*, a township of Broome co.

Nan'ticoke, in *Pennsylvania*, a post-borough of Luzerne co., 8 m. W.S.W. of Wilkesbarre. *Pop.* (1897) 12,100.

Nan'ticoke Mountain, in *Pennsylvania*, a ridge extending along the N.W. bank of the Susquehanna River in Luzerne co. It averages 800 ft. in height. The N.E. portion is called Shawnee Mountain. Total length, abt. 25 m.

Nan'ticoke River, rises in Sussex co., Delaware, and flowing S.S.W. into Maryland, enters Fishing Bay of Chesapeake Bay, between Dorchester and Somerset cos.

Nan'ticoke Springs, in *New York*, a village of Broome co., abt. 140 m. W.S.W. of Albany.

Nant'meal, in *Pennsylvania*, a former township of Chester co., now divided into EAST and WEST NANTMEAL.

Nan'tua, a town of France, dept. of Ain, 17 m. E. of Bourg. *Manuf.* Cotton and woollen fabrics, leather, and paper. *Pop.* 4,000.

Nantuck'et, in *Massachusetts*, an extreme S.E. co., consisting of Nantucket, Tucannuck, Muskejet, and the Gravel Islands, lying in the Atlantic Ocean, abt. 20 m. off the S. coast of Barnstable co.; *area*, abt. 60 sq. m., of which Nantucket Island has 50 sq. m. *Surface*, diversified, being hilly in the N., and sloping down more level to the S.; *soil*, not very fertile, the inhabitants subsisting by fishing and navigation. *Cap.* Nantucket. *Pop.* (1895) 3,017.

—A town, port of entry, and cap. of above co., at the entrance of a deep bay of the same name, abt. 105 m. S.E. by S. of Boston; Lat. 41° 16′ 56″ N., Lon. 70° 6′ 12″ W. The harbor is one of the best on the coast, and affords facilities for an extensive trade. Several large manufactories have been established, but the inhabitants are mostly engaged in fishing and commerce.

Nantux'et, in *New Jersey*. See NEWPORT.

Nantwich', a town of England, co. of Chester, on the Weaver, 17½ m. S.W. of Chester, and 146 m. W.N.W. of London. *Manuf.* Cottou goods, gloves, and shoes. *Pop.* 6,500.

Nao'mi. (*Script.*) The wife of Ebimelech, and mother-in-law of Ruth.

Nap, *n.* [A. S. *hnæppian*, to sleep, to rest; W. *hepian*, a nod, a slumber Ir. *cnap*, a nod.] A short sleep or slumber; a siesta; a doze; and, ludicrously, forty winks. (Colloq.)

"The sun had long since in the lap
Of Thetis taken out his *nap*."—*Hudibras.*

—In Scotland, strong ale. (Cant.)

—*v. n.* To have a short sleep; to be drowsy; to doze; to take forty winks.

"They took him *napping* in his bed."—*Hudibras.*

—To be in a supine or careless state.

Nap, *n.* [A. S. *hnoppa*, the nap of cloth; D. *nop*; Dan. *noppe*, frizzed nap of cloth; It. *noppa*, a puff, tassel; Gr. *knaptō*, to full cloth.] The woolly or villous substance on the surface of cloth; the downy or soft hairy substance on plants; the silky integument of hats, &c.

"His only coat! where dust confused with rain
Roughens the *nap*, and leaves a mingled stain."—*Swift.*

Nap, *n.* Same as KNOP. *q. v.*

Na'pa, in *California*, a river flowing into San Pablo Bay from Napa co.

—A N.W. co.; *area*, about 850 sq. m. *Rivers.* Napa and Las Putas rivers. *Surface*, much diversified; *soil*, in some parts very fertile. *Min.* Gold and quicksilver, with hot and cold mineral springs. *Cap.* Napa City.

—A city, cap. of above co., on the Napa river and the So. Pac. R.R., 39 m. N. by E. of San Francisco; has tanneries and various other industries, including wine-making. *Pop.* (1897) 5,100.

Nap'anee, a town of Lennox co., prov. of Ontario, cap. of Lennox co.

Nap'anock, or **Nap'onock,** in *New York*, a post-village of Ulster co., about 80 m. S.S.W. of Albany.

Nape, *n.* [A. S. *cnæp*; Dan. *knoop*, a button; W. *cnap*, a knob or boss. See KNOB.] The prominent joint of the neck behind.

—A neap. See NEAP.

Naper'ville, Napier'ville, in *Illinois*, a post-village and township, former cap. of Du Page co., about 30 m. W.S.W. of Chicago.

Na'pery, *n.* [L. Lat. *naparia*.] Table-linen in general.

"The gudewife's haill store o' *napery*."—*Grant.*

Naphew, *n.* (*Bot.*) See NAVEW.

Naphtha (*nāf'tha*), *n.* (*Min.*) See SECTION II.

Naph'thalate, *n.* (*Chem.*) A salt resulting from the combination of naphthalic acid and a base.

Naph'thali. (*Script.*) The sixth son of Jacob, by Bilhah, Rachel's handmaid. Little is known of him.

Naphthalic Acid, PHTHALIC ACID, *n.* (*Chem.*) A crystalline product obtained by the action of nitric acid on naphthalin. It has also been similarly obtained from alizurin.

Naphthal'in, *n.* (*Chem.*) One of the innumerable constituents of coal-tar, more especially if obtained from the London gas-works. It forms thin flaky crystals, consisting of rhombic plates, and has an unctuous feel and pearly lustre. It has a peculiar odor and a biting taste. It gradually sublimes at ordinary temperatures, fuses at 174° Fahr., and boils at 428° Fahr. It is insoluble in water, but readily so in alcohol, ether, turpentine, and the fixed oils. The study of its different compounds by Laurent and others has thrown very great light upon the substitution theory. Being in some measure related to aniline, or rather to benzole, great efforts have been made by various chemists to obtain colors from it, but hitherto with but little success. The researches of Rousin and others appear, however, to point out a singular relation between naphthalin and alizurin, the coloring-matter of madder. The new red coloring material, extracted from *N.*, which is more permanent than fuchsine, and exceeds it in freshness and purity of color, is obtained by changing *N.* to nitro-*N.* by nitric acid of 1·33 sp. gr., and this is reduced by iron and nitric acid, or by zinc and hydro-chloric acid.

Naph'thalize, *v. a.* To mix or impregnate with naphtha.

Napier', the name of a noble Scottish family, eminent in the historical annals of Great Britain, and of which the following were the more noteworthy members:

N., JOHN, B. at Merchistoun Castle near Edinburgh, in 1550, was a man of distinguished scientific acquirements, and famous as the inventor of logarithms. D. 1617. His eldest son, Archibald, was raised to the peerage as *Lord Napier*, in 1627.

N., SIR CHARLES JAMES, G.C.B., an English military commander, known in history as "The Conqueror of Scinde," was grandson of Francis, 5th Lord Napier, and B. in London, 1782. Sprung from a fighting stock, young *N.* received a commission in the British army when 12 years of age, and served with distinguished gallantry in the Peninsular War, in which he was wounded at Corunna, and, also, at Busaco. After taking part in the war with the U. States, in 1812, he was present at the storming of Cambray. In 1818 he was appointed governor of Cephalonia, and in 1841 was sent out to India as commander-in-chief. At Meanee, with a force of 1,600 English troops, he defeated nearly 30,000 Beloochees, strongly posted, with the loss of 6,000 men. At Hyderabad, in the same year, with 5,000 men, he encountered the Ameer of Scinde's army of 25,000 men, which he utterly routed. Sir Charles was then appointed governor of Scinde. D. 1853. — His three brothers, SIR GEORGE, SIR FRANCIS, and SIR WILLIAM, all attained the rank of general in the British service. The last-named, B. in 1785, was also the author of the *History of the Peninsular War*, one of the greatest military records ever penned.

N., SIR CHARLES, G.C.B., an English admiral, and cousin of the preceding, B. 1786, entered the naval service at 18, and in 1808 was present at the storming of Martinique, taking a fort with five men only. After attaining post-rank, and lacking active service for the time being, "Black Charley," as he was called, joined the army in Spain as a volunteer, and was wounded at Busaco. In 1811, he took command of the *Thames*, 32 guns, and inflicted an incredible amount of damage upon the enemy in the Mediterranean. In 1814, he served in the operations against Baltimore. After the peace of 1815, Sir Charles settled in Paris, where he established the first steamboats on the Seine. In 1820, he accepted the command of a Portuguese fleet, and destroyed the Miguelito squadron, thus ending the civil war, and placing Donna Maria on the throne. In 1840, he was sent out to the East, where he stormed St. Jean d'Acre, blockaded Alexandria, and finally concluded a treaty with Mehemet Ali. In 1847, he received command of the Channel fleet, and, in 1854, was appointed commander-in-chief of the English fleet sent to the Baltic. After bombarding Bomarsund, Sir Charles gave up the command in disgust at the restrictions placed upon him by the Admiralty at home. In 1855, he entered Parliament as member for Southwark, and did much in bringing about important naval reforms. Sir Charles, who had received the principal European orders of knighthood, D. in 1860.

Napier', ROBERT, LORD, (OF MAGDALA,) an English general, B. 1810, entered the Indian army in 1826, and served with distinction in the campaigns of the Sutlej and the Punjab. In 1854, he was appointed Chief Engineer of Bengal, and planned the operations at the siege of Lucknow in 1857. He also served with high credit as second in command in the war with China, receiving general rank, the Grand Cross of the Bath, and a military membership of the Indian Council therefor. In 1865, Sir Robert was made commander-in-chief of the British army sent out to Abyssinia for the rescue of the English captives, held there by its semi-barbarous ruler, King Theodore. After successfully accomplishing his mission, Sir Robert was raised to the peerage as LORD NAPIER, OF MAGDALA, and also made a Knight Grand Cross of the Star of India. In 1869, he was appointed commander-in-chief of the British Indian army; and governor of Gibraltar in 1876.

Napier', in *Pennsylvania*, a township of Bedford co.; *pop.* abt. 1,680.

Napier's'-bones, Napier's-rods, *n. pl.* (*Arith.*) A set of rods, contrived by John Napier, *q.v.*, the inventor of the logarithmic table, for the purpose of facilitating the operations of multiplication and division in arithmetic. They consist of pieces of bone or ivory, in the shape of a parallelopipedon, about 3 inches long and 3-10ths of an inch in width, the faces of each being divided into squares, which are again subdivided, on ten of the rods, into triangles, by means of diagonals, except the squares at the upper ends of the rods; and these spaces are marked like the top horizontal line and left-hand perpendicular line of a multiplication-table. When a number is wanted to be multiplied, the rods must be so disposed that the top line represents the multiplicand, and the left hand the rod of units. By selecting, then, the sum of numbers in the different parallelograms on a line with the figures of the multiplier, and setting them down as in ordinary multiplication, the product will be obtained with but little difficulty; only it must be remembered that we take the figures from the right-hand side, and not, as usually, from the left. For instance, if we wanted to multiply 5978 by 937, we would dispose the rods in such a manner that the top lines would consist of the figures 5978; while perpendicularly, on the left-hand side, would be the numbers 1, 2, 3, &c., up to 9. Then selecting first the sum of figures which do not exceed two in the different parallelograms formed by the rods for the figure 7 (the multiplier), taking them, as before stated, from right to left, we put them down in the top line; they amount to 41846. Next we take the parallelograms on the line of the figure 3, the middle figure of the multiplier; these, we find, amount to 17934. Lastly, we take the parallelograms on a line with the figure 9, the first in the multipliers, and these make the numbers 53803. Now, adding all these together, thus:

41846
17934
53802

we obtain the result 5601386 as the products of the two numbers 5978+937. Although curious, this contrivance is, however, tedious to work, and consequently the results can as easily be obtained by a ready reckoner from the simple rules of multiplication.

Napier'ville, a S.W. co., prov. of Quebec; *area*, about 180 sq. m.—A post-village of same co.

Na'piform, *a.* [Lat. *napus*, turnip, and *forma*, form.] Turnip-shaped.

Nap'kin, *n.* [Eng. dimin. of O. Fr. *nappe*, a cloth, from Lat. *mappa*, a table-napkin. See NAP.] A small cloth; a towel; a cloth used for wiping the mouth or hands; as, a dinner *napkin*.

Napkin-ring, a ring used to encircle a napkin.

Naples, [It. *Napoli*,] (*nā'plz.*) or KINGDOM OF THE TWO SICILIES,) a former kingdom of S. Italy, between Lat. 37° 56′ and 42° 55′ N., Lon. 12° 54′ and 18° 32′ E., having N.W. the States of the Church, N.E. the Adriatic, S. and W. the Mediterranean. It was divided into *Sicilia di qua del Faro*, or the Italian or Continental portion, and *Sicilia di la del Faro*, or the island of Sicily proper. It is now comprised in the Italian States of Abruzzo and Molise, Campagna, Apulia, Basilicata, Calabria, and Sicily.—*Hist.* On the breaking up of the Roman Empire, the country was overrun by hordes of barbarians, and possessed in turn by the Goths, Lombards, Arabs, and Normans, down to the 10th century; and for the next 500 years was the theme of contention between Germany, France, and Spain; and became the theatre of perpetual vicissitudes. About the beginning of the 16th century it fell into the hands of the Spanish monarchy, who, for nearly two centuries, governed it by means of viceroys. For the more accurate history of both Naples and Sicily during the Middle and Later Ages, the reader is referred to the special reigns, especially those of William, Robert, and Tancred, *q. v.* (See also SICILY.) In 1647, Philip IV. of Spain having imposed a most oppressive tax on all the provisions brought into the city of Naples, the populace, under Masaniello, rose in revolt, and peace was only at length restored by the death of the ringleader. (See MASANIELLO.) During the war of the Spanish succession, the Duke of Anjou, who had seized on Naples in the French interest, was expelled, and the Archduke Charles of Austria, one of the claimants of the Spanish crown, was for a time all-powerful; but, being eventually attacked and defeated, he was driven out of Naples by Don Carlos, afterwards proclaimed king; the Two Sicilies being erected, by a legal session from the Spanish monarchy, into an independent kingdom, 1706. On the death of the king of Spain, in 1755, Charles VII. of Naples ascended his brother's vacant throne, while Charles's son, Ferdinand VII., mounted that of Naples and Sicily in 1759. After the French revolution, and when the Italian peninsula was invaded by the armies of the republic, the Neapolitan monarch was compelled to seek safety on board the English fleet; while the French, entering Naples, established a republic in the states of Naples and Sicily. Napoleon subsequently restored the monarchical form of govt., and first placed his brother Joseph on the throne; and, in 1808, removing him to the vacant chair of Spain, placed the diadem on the brows of his stanch friend and dashing cavalry officer, Murat, who held the sceptre with justice and moderation till the fall of the French empire. On the restoration of the expelled monarch in 1815,

Ferdinand resumed his authority in Naples, and in due course was succeeded by another monarch of the same name, whose injustice and inhumanity won for him from Europe the unenviable nickname of *Bomba*. This prince was followed, on the death of Ferdinand in 1859, by his son Francis II., who, in the short period of his reign, earned from his subjects — groaning under his tyranny and despotism — the still more contemptuous epithet of *Little Bomba*. The revolution that, under the guidance of Garibaldi, broke out in 1860, and which, backed by the auspices of Franco and Sardinia, spread over the whole peninsula, instead of teaching Francis wisdom, only made him more blind to consequences; and not till Sicily was lost, and Garibaldi at the gates of his capital, could he believe that his authority was menaced, and his rule at an end. Collecting the remnant of his forces, he shut himself up in the fortress of Gaëta, whence, after suffering a siege of some weeks, he finally fled, retiring with his household to Rome, where they afterward resided as guests of the Pope. In the succeeding year (1861) *N.* was incorporated with the new kingdom of Italy.

Naples, a city of S. Italy, cap. of the former kingdom, and of the present prov. of Naples, in Campagna, on the N. side of the Bay of Naples, 118 m. S.E. of Rome, near the foot of Mount Vesuvius (see Fig. 152). The situation of Naples is one of the most delightful that can be imagined. In the form of an amphitheatre, it is built partly on the declivity of a hill, partly on the margin of a spacious bay, spreading its population along the shore, and covering the shelving coasts and adjacent eminences with its villas and gardens. The bay is extensive, and presents an almost unrivalled assemblage of picturesque and beautiful scenery. The streets, though in general narrow, are straight and tolerably regular, and are handsomely paved with large flags of lava. They are tolerably clean, the filth being carried off by large subterranean sewers; but many of them are dark and gloomy, from their narrowness, and the height of the buildings. The Strada di Roma extending half the length of the city, and having at the one end the Piazza di Mercato, on the other the royal palace, is the finest street in Naples, and equal to any in Italy. The number of squares is considerable; several are spacious, but few handsome. The principal are the Largo di Castello, Largo di Palazzo, and Piazza di Mercato; several of them are decorated with obelisks and fountains. The buildings of Naples are rather remarkable for their size than for their taste or elegance. The quays and buildings along the water-side extend in the form of a crescent, along the bay for the space of nearly five miles. The Royal Garden in this suburb is a favorite promenade. The harbor, properly so called, is small, and entirely artificial, being formed by a large mole projecting into the sea, and inclosing a basin nearly square, which is little more than a quarter of a mile across. The fortifications of Naples are not adapted to resist an army, though the city is surrounded by walls, and defended by a number of towers, as well as by several forts and castles. The arsenal adjoins the sea, and is defended by bastions. In the province of *N.* are some celebrated Roman temples. See PÆSTUM (Fig. 1908). Among the public edifices, the churches are

Fig. 1908. — TEMPLE OF NETTUNO PESTO.

the most conspicuous; but their splendor consists less in the elegance of architecture than in the richness of their paintings, marbles, and other decorations. The Cathedral, built on or near the substructure of a temple of Apollo, is a handsome Gothic edifice; it is supported by more than a hundred columns of granite. The Santi Apostoli, or church of the Holy Apostles, erected on the ruins of a temple of Mercury, is, perhaps, the most ancient in Naples. That of St. Paul is said to occupy the site of a temple of Castor and Pollux; its interior is spacious, well-proportioned, and finely incrusted with marble. The church of St. Filippo Neri is remarkable for the number of ancient pillars that support its triple row of aisles on both sides of the nave. The Spirito Santo is of a more pure and simple architecture than the other churches of Naples. The palaces and the mansions of the nobility have little pretensions to purity of architecture, and are, in general, too much loaded with ornaments. The Royal Palace, at the southern extremity of the Strada di Toledo, has an air of grandeur. The palace of Capo di Monte is situate outside of the town, and has its best apartments appropriated to a collection of paintings. The old palace of the sovereigns of Naples is now occupied by the courts of justice. There are ten theatres, great and small; the one called San Carlo, contiguous to the royal palace, is one of the largest in Italy. Of the literary institutions, the university was founded in 1224, and in 1841 had upwards of 1,500 students. Its interior contains a collection of statues belonging formerly to the Palazzo Farnese at Rome. It has a large library, besides ancient MSS., a museum of paintings, sculpture, bronzes, &c. The schools and academies are numerous; but there is much ignorance in the city. The charitable establishments are numerous and well endowed. *Manuf.* Silk fabrics, and, on a small scale, stockings, carpets, flannels, gloves, lawn, lace, cotton stuffs, and diaper. Those of fire-arms, china, and glass are of some importance; but those of soap, leather, and wax are of little account. A good deal of ingenuity is displayed in making violins and other musical instruments; also in mahogany furniture and carriages, and even in the petty manufacture of snuff-boxes from lava and tortoise-shell; macaroni is, also, extensively made. There are, besides, royal type-foundries and iron-works. *Inhab.* The higher ranks are frequently ignorant, frivolous, and dissipated; while, in the lower orders (see Fig. 1421), the most striking characteristics are indolence and superstition. The lazzaroni are a part of the populace having neither dwellings nor regular occupation. They pass their lives in the streets, lying in the shade, or saunteriug about during the day, and sleeping at night under a public portico, on the pavement, or on the steps of a church; their number is said to have been formerly between 30,000 and 40,000; but they are still considerable, and there is, perhaps, no city in Europe where so small a proportion of the inhabitants contribute to the wealth of the community by productive labor. The city literally swarms with nobility without fortunes, priests without benefices, and beggars of all descriptions. The environs of Naples are picturesque, and highly interesting to the antiquary and classical scholar. The origin of the city is lost in the fables of antiquity; it is said, however, to have been founded by the Greeks, and called by them *Parthenope*. It has suffered, at different periods, from war, earthquakes, and the eruptions of Vesuvius. In 1799 it was taken by the French, who, in June following, evacuated it; but again occupied it in 1806. Joseph Bonaparte was soon after proclaimed king; and in 1808, on his removal to Spain, the crown was conferred on Murat. In 1815, King Ferdinand, after an absence of nine years, made his entrance into his capital. In 1848 it was plundered by the lazzaroni, of whom 1,500 lost their lives. In August, 1860, Francis II. was forced to retire to Gaëta, on the approach of Garibaldi, the Italian liberator, from Salerno. In September, that chief entered the city without bloodshed, and was hailed as the deliverer of his country. Among the numerous objects of interest in the vicinity are the island of Capri, in the bay, Vesuvius, Herculaneum, and Pompeii. It is the centre of several railways. *Pop.* (1897) 462,200.

Na'ples, in *Illinois*, a post-town of Scott co., about 25 m. W. of Springfield.

Naples, in *Maine*, a post-town and township of Cumberland co.

Naples, in *Michigan*, a village of Allegan co., about 38 m. S. of Grand Rapids.

Naples, in *New York*, a post-village and township of Ontario co., about 40 miles South by East of the city of Rochester.

Naples, in *Wisconsin*, a township of Buffalo county.

Nap'less, *a.* Wanting nap; threadbare; seedy; as, a *napless* coat or hat.

"The *napless* vesture of humility." — *Shaks.*

Na'ples-yellow, *n.* (*Paint.*) A pigment compounded of the oxides of lead and antimony, anciently prepared at Naples, under the name of *grallolina*; it is supposed also to have been a native production of Vesuvius, and is a pigment of deservedly considerable reputation. It is not so vivid a color as patent yellow and turbith mineral, but is variously of a pleasing, light, warm, golden-yellow tint. Like most other yellows, it is opaque, and in this sense is of good body. It is not changed by the light of the sun, and may be used safely in oil or varnish, under the same management as the white of lead; but like these latter pigments also, it is likely to change, even to blackness, by damp and impure air, when used as a water-color, or unprotected by oil or varnish.

Na'po, a river of Ecuador, S. America, rises on the E. slope of the Andes, and flowing a general E.S.E. course of abt. 500 m., enters the Amazon abt. Lat. 3° 40′ S., Lon. 73° 20′ W.

NAPO, or NAPOTOU, a town of Ecuador, on the above river, abt. 140 m. S.E. of Quito.

Napo'léon I., (NAPOLÉON BONAPARTE,) called *The Great*, Emperor of the French, b. at Ajaccio, Aug., 1769, was the son of Charles Bonaparte, a noble Corsican of little fortune, and his wife, Letizia Ramolino, a woman of great beauty, courage, and ability. Having early evinced a decided taste for military life, he was, at the age of 11, sent to the military school of Brienne, in Champagne, and in 1784, to the military school of Paris. In 1785 he was nominated sub-lieutenant of artillery, and sent on duty in his native country. In 1792 he was driven out of the Island by Paoli, the ally of the English, and retired to Marseilles, where he lived in poverty with his mother and sisters. He was made a captain in 1793, and soon after he was employed to subdue Marseilles, a mission in which he was successful. The same year he was sent to join the besieging army before Toulon, with the rank of lieutenant-colonel. It was here that *N.* first exhibited proofs of the great genius that was within him. He found the army in a state of wretched disorder, and the artillery department in a condition of absolute inefficiency. After much argument and considerable trouble, his views were at length listened to, and his proposition of first attacking the outer works ultimately adopted, upon the carrying of which, the allies, as he had foreseen they would be, were compelled to surrender the town and harbor. For his services at Toulon, *N.* was appointed brigadier-general of artillery, with the chief artillery command in the S. of France; but having been suspected on account of a mission to Genoa, his name was erased from the active-service list. In consequence, he remained about five months at Paris without any occupation, and in a state of extreme poverty. So low indeed were the fortunes of the future emperor fallen at this period, that, as he himself said, he never got his boots blackened, and never wore gloves, for they were a useless expense. His imagination, however, abated nothing of its vigor by the decline of his fortunes, and despairing of effecting anything in Europe, he dreamed of the East, and entertained serious thoughts of offering his services to the Grand Seignior, with a view to pushing his fortunes in Asia. "Asia," said he, "contains 600,000,000 of men; it is there alone that anything is to be done! Europe is worn out; there is nothing practicable here." He was ere long, however, called to active and important duties in his own country. Though suspected and therefore unemployed by the government of the Directory, his abilities were well known; and when the directors were reduced to extremities by the insurrection of the sections, in October, 1795, they gave him the command of their forces, which were only 5,000, shut up in the quarters of the Carrousel and Louvre. *N.* immediately adopted his plan of action, and planted cannon in all the streets round the assembly; and when the National Guard, to the number of 30,000, approached to drive out and arrest the Convention, he played upon their dense ranks with grape-shot, and with such effect, that, after a vain struggle of many hours, the National Guards broke and fled, and were ultimately during the night surrounded in their different retreats, attacked, disarmed, and sent to their homes. For this important service, the Convention appointed him second in command of the army of the interior, and subsequently, by the retirement of Barras, to the post of General of the Interior. It was soon after this

Fig. 1909. — NAPOLÉON I.

event that *N.* was united to a lady with whom he had for some time been acquainted, Madame Josephine Beauharnais, a West Indian, and the widow of the Viscount Alexandre de Beauharnais, a lady of elegant manners, amiable, virtuous, and accomplished. Through the influence he acquired by this marriage, *N.* was, in Feb., 1796, given the command of the army of Italy, which for the last four years had lain inoperative at the base of the Alps between Savoy and the sea. A few days after his marriage he set out for his command. He found the troops in a most miserable condition, perched on the shining summits of the maritime Alps, whither they had been driven by the united arms of the Austrians and the Piedmontese, in the preceding campaign, and in want of everything. From their long sufferings he predicted a speedy change of their fortunes. "Famine, cold, and misery," said he, in his first proclamation, "are the school of good soldiers. Here on the plains of Italy you will conquer them, and then you will find comfort, and riches, and glory." He was as good as his word. Descending like a torrent from the summit of the Alps, he soon carried everything before him. In a year and a half, the "Little Corporal," as he came to be called by his admiring soldiery, had either routed or destroyed five armies, each stronger than his own, — that of the Piedmontese, at Mondovi; that of Beaulieu, at Cairo, Montenotte, Millesimo, Dego, and the bridge of Lodi; that of Würmser, at Castiglione, Roveredo, and Bassano; that of Alvinzi, at Arcola, Rivoli, and Mantua; and that of Prince Charles, whom he pursued into Germany as far as Leoben, upon the road to Vienna. The result of this unexampled career of victory was the treaty of Campo-Formio, which secured to France a vast accession of territory. The young general was now the most popular man in France, and the Directory, eager to get rid of their dangerous rival, accepted a proposal made by him for the invasion of Egypt, and appointed him commander-in-chief of a finely equipped expedition which sailed for the East in 1798. He took Alexandria, gained over Mourad Bey the battle of the Pyramids, and, although the fleet had been destroyed by Nelson at Aboukir, the French were soon masters of Egypt. Wishing then to join Syria to his conquests, *N.* crossed the desert which separates Asia and Africa, stormed Jaffa, and laid siege to Acre; but after a siege

of 57 days, the murmurings of his army, decimated with hunger and pestilence, compelled him to raise the siege. He retreated to Egypt after having, with 2,000 men, defeated 20,000 Ottomans with great slaughter, at Mount Thebor. *N.* next engaged 20,000 Janissaries, whom the English landed in the bay of Aboukir, and nearly annihilated them. The state of parties in France, and the increasing unpopularity of the Directory, induced *N.* to resolve upon at once throwing up the command in Egypt, and return to Paris to take advantage of the crisis his penetration told him was approaching. To carry out this purpose, he secretly, and by night, went on board a ship hurriedly prepared for him, with a few of his most devoted followers; and delivering a letter for his second in command, Kleber, intrusting the army to his discretion and generalship, set sail for France, and, after narrowly missing capture by the English cruisers, appeared unexpectedly at Paris, at the end of the year 1799, at a time when the administration of the Directory had grown irksome to the nation. Bonaparte at once became the head of a very powerful party, and, aided by Sieyès, his brother Lucien, and General Leclerc, he overthrew the Directory on the famous 18th Brumaire, year 8 of the Republic (9th Nov., 1799), caused himself to be named First Consul, having for his colleagues Cambacérès, and Lebrun, each also dignified by the title of consul, but mere tools to his ambition. In 1800 he placed himself at the head of the army of Italy, crossed the Alps, and gained the battle of Marengo. General Moreau having about the same time beaten the Austrians at Hohenlinden, the peace of Lunéville was signed with Austria in 1801, and in the following year the treaty of Amiens with England concluded the second war of the French Revolution. In the same year he was proclaimed consul for life. The peace, however, proved only an armed truce. Both parties were only gaining breath for a renewal of the fight. *N.* did great things during its continuance. He reformed the whole civil administration of the country, pacified Vendée, recalled the *émigrés*, reopened the churches, concluded a new Concordat with the Pope, created the order of the *Légion d'Honneur*, instituted the Bank of France, and urged the Code Napoleon to an end. In 1804 he became Emperor of the French. Pope Pius VII. went to Paris to assist at the ceremony, but *N.* placed the crown upon his own head, and also crowned his consort Josephine. Six months later he erected the Cis-Alpine Republic into a kingdom, and crowned himself king of Italy at Milan. In the meantime, England, after having refused to execute the treaty of Amiens, had again commenced hostilities in 1803, as also, did Austria, Russia, and the 2 Sicilies in 1807. *N.*, who was meditating an invasion of England, had the mortification of seeing the combined fleets of France and Spain destroyed by Nelson at Trafalgar; but on the continent of Europe he compensated this loss by a succession of triumphs. Russia had joined Austria, and the army of the latter, 80,000 strong, had advanced to Ulm, in Würtemberg. Crossing France and the S. of Germany with incredible rapidity, *N.* defeated the Austrians in several actions, and at length shut up 30,000 in Ulm, where they were forced to capitulate the very day before the battle of Trafalgar. Advancing then at the head of 180,000 men down the valley of the Danube, he captured Vienna, and totally defeated the combined Austrian and Russian armies, under the Emperor Alexander in person, on Dec. 2. This catastrophe drove Austria to a separate peace, which she only purchased by great cessions of territory; and the Russians, weakened by the loss of 30,000 men, wended their way back in mourning to their own dominions. Next year the Prussians with infatuated hardihood rushed into the field. *N.* encountered them at Jena and Auerstadt, and defeated them with such loss that in a few weeks 100,000 men had disappeared out of 120,000, with which they had commenced the conflict. Prussia was speedily overrun, Berlin taken, and the remnant of their armies driven back to the Vistula, where they were supported by the Russians, who now came up in great strength. The victories of Eylau (Feb. 9, 1807), and Friedland (July 14), led to the treaty of Tilsit, which, virtually destroying all lesser powers, in effect divided the whole continent of Europe between *N.* and Alexander. Insatiable in ambition, *N.* turned his eyes to the Spanish Peninsula, seized on Portugal without a good pretext, and decoyed the king, queen, and heir-apparent of Spain to Bayonne, where he succeeded in extracting from them all a renunciation to the throne of Spain, upon which he immediately placed his brother Joseph, and at the same time gave the throne of Naples to his brother-in-law, Murat. But Spain resisted the French invaders, and the defeat and capitulation of Dupont at Baylen, and Junot at Cintra, were the commencement of the declining fortunes of the emperor. Notwithstanding the greatest efforts of Soult, Massena, and Suchet, Spain, sustained by the English, repulsed the French. This struggle cost France, in five years (1808–1813), more than 400,000 men. Meanwhile, Josephine, having given no heir to the empire, was divorced by *N.*, in 1809, and Maria Louisa, daughter of his old enemy the Emperor of Austria, became Empress of the French. The fruit of this union was a son, who, at his birth, was styled King of Rome. About this time, Fouché, Bernadotte, and several others, began to withdraw from him; Pope Pius VII., who had been stripped of his temporal dominions, excommunicated him; finally, the prohibitive system of continental commerce, which he had organized with the view of ruining England, begat, instead, universal poverty and misery throughout France. Having drained France of her treasure, he next conceived a formidable invasion of Russia, which was to rob France of the flower of her youth and manhood. In 1812 he assembled the largest army that was ever led by a European general, and, at the head of 500,000 men passed into Russia, whose army he defeated in several engagements. In September he entered Moscow, which had been previously evacuated, and almost totally consumed. After spending a month there, in expectation of overtures of peace from St. Petersburg, the frost and snow of a Russian winter compelled him to commence a precipitate retreat. Harassed by innumerable foes, the French army, deprived of everything, perished in the snow, or found a grave in the icy waters of the Beresina. Hastily returning to France, the Emperor succeeded in creating another army, and opened the campaign in Germany with the victories of Lützen, Bautzen, and Dresden; but Russia, Prussia, Austria, and Sweden were now in arms against him; and at Leipsic, where, in three days, the French lost upwards of 50,000 men, his power received a death-stroke. The allies entered France, and *N.*, finding his army disorganized, and most of his ministers and generals disaffected towards him, abdicated the throne of France, at Fontainebleau, on the 4th of April, 1814. The Bourbons were re-established in France, *N.* accepting the island of Elba for his retreat. In less than a year he again appeared in France, and, by the time he had reached the capital, the whole army had declared for him. Immediately the coalition that had dethroned him was renewed; but *N.*, at the head of his brave and enthusiastic troops, took the initiative, and defeated the Prussians at Ligny, on the 16th of June; but, betrayed by Bourmont, and deprived, by a fatal misunderstanding, of the division and artillery under Grouchy, he was beaten by Wellington and Blücher at Waterloo, on the 18th. This defeat was decisive. *N.* returned to Paris, and abdicated in favor of his son, June 22, 1815, *one hundred days* after his landing from Elba. *N.* went then to Rochefort, and embarked voluntarily on the English vessel the *Bellerophon*, believing that England would grant him a generous hospitality. But the English ministers, abusing his confidence, declared him a prisoner, and obtained from the Allies the authority to transport him to St. Helena. For nearly six years did this extraordinary man pine in bondage, the bitterness of which was augmented by the petty tyranny of Sir Hudson Lowe, *q. v.* In his modest retreat of Longwood he tried to alleviate his sufferings by writing his *Mémoires* and his *Campaignes*, but at last he sunk under the weight of misfortune, and D. on 5th May, 1821, during a terrible storm of wind and rain, which recalled to his mind the roar of battle. He was interred in Hain's Valley, in the island of St. Helena (Fig. 1910), from whence his remains were, in Dec., 1841, translated to Paris, and now repose under the Dome of the Invalides (Figs. 1911, 1394), beside the bones of his comrades. *N.* ranks, with Alexander, Cæsar, and Charlemagne, among the greatest men the world has ever seen. He possessed in the highest degree the genius of the warrior and of the administrator; he put an end to anarchy, reconstituted society, re-established the Church, promulgated the Code, placed France at the head of the nations, and founded an empire at least equal to that of Charlemagne. Nevertheless, he must be reproached with overwhelming ambition, and too great a love for war, which plunged his country into the deepest misfortunes. Moreover, he stifled public liberty, governed despotically, and did not scruple, in more than one circumstance, to recur to arbitrary and even violent measures for the promotion of his schemes. The seizing and the execution of the Duc d'Enghien; the detention and the spoliation of the princes of the royal house of Spain; his foul dealing with the Pope Pius VII., — are so many stains on his memory. His *Proclamations* and *Bulletins*, generally written or dictated by himself, are, for their style as well as for their object, among the most remarkable documents in French history. His *Correspondance inédite, officielle et confidentielle*, was published 1818–20 in 7 vols. This publication, which was very incomplete, has been republished, with considerable augmentation, by order of Napoléon III., under the title of *Correspondance de Napoléon I.* (1858–60). The *Mémorial de St. Hélène*, written by Las Cases, was partly dictated by *N.*, but it has been often interpolated. The *Mémoires* published by Montholon, Gourgaud, Bertrand, and by his faithful servant Marchand, were really dictated by the Emperor and may be relied upon. Many histories of *N.* have been published; but the most complete, authentic, and important, though written by a French author, is the "History of the Consulate and of the Empire," by M. Thiers, which was issued in 20 vols., 1845–62.

Fig. 1910.
TOMB OF NAPOLÉON AT ST. HELENA.

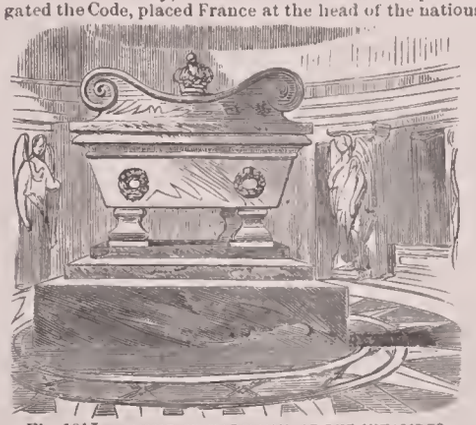

Fig. 1911. — TOMB OF NAPOLEON AT THE INVALIDES.

NAPOLÉON II. (NAPOLÉON FRANÇOIS BONAPARTE), son of the Emperor Napoléon I. and of Maria Louisa of Austria, was B. at Paris, March 20, 1811. From his birth he was atyled "King of Rome." After his father's first abdication in 1814 he went with his mother to Vienna, where he was brought up at the court of his grandfather, the Emperor Francis, who created him Duke of Reichstadt. His education was carefully attended to, and he was early trained up to the military profession. After passing through the various subordinate grades he was made a lieutenant-colonel in June, 1831, and he took the command of a battalion of Hungarian infantry, then in garrison at Vienna. He was extremely assiduous to his military duties, but his constitution was weak; he had grown very tall and slender, and symptoms of a consumptive habit had early shown themselves. His physician advised a removal to Schönbrunn, which had at first a beneficial effect, but a relapse soon followed, and after lingering for several months, young *N.* died, 1832, in the palace of Schönbrunn, attended by his mother, who had come from Parma to visit him. He seems to have been generally regretted at the Austrian court, especially by his grandfather, the Emperor, who had always behaved to him with paternal kindness. There is an interesting account of this young man's short career by M. de Montbel, *Le Duc de Reichstadt*, Paris, 1832. — Although Napoléon I. abdicated in favor of his son, the title of *N.* II. was not admitted by the allies or by the French nation. Nor was it put forward by any party in France during the life of *N. François*, nor did he himself ever assume the title. But when the question of conferring the title of emperor upon the Prince-President, Louis Napoléon, was put to the popular vote, in 1852, it was as *Napoléon III.*; the right of *N.* François to the title of *N.* II. being thus assumed. No objection was raised in France, and the governments of Europe, by recognizing Napoléon III. without protest, of course acknowledged Napoléon II. also.

NAPOLÉON III., (CHARLES LOUIS NAPOLÉON BONAPARTE.) the third son of Louis Bonaparte, ex-king of Holland, his mother being Hortense, the daughter of the Empress Joséphine by her first marriage. His birth, which took place at the Tuileries, April 20, 1808, was announced through the empire, and in Holland, by the roar of artillery, and he was baptized by Cardinal Fesch, Nov. 4, 1810, the Emperor and the Empress Marie-Louise being his sponsors. After Napoléon's return from Elba, his young nephew accompanied him to the Champ de Mai, and was there presented to the deputies of the people and the army. The splendor of this scene left a deep impression on the mind of the boy, then only seven years old. When Napoleon embraced him for the last time, at Malmaison, he was much agitated; the child wished to follow his uncle, and was with difficulty pacified by his mother. Then commenced the banishment of the family. *L. N.* and his mother lived first at Augsburg, and afterwards in Switzerland. The latter state admitted the young exile to the rights of citizenship,

Fig. 1912. — NAPOLÉON III.

and permitted his service in its small army. For a time he studied gunnery at the military academy on the shores of Lake Thun; and during his stay among the Alps made frequent pedestrian excursions over the passes. While engaged on a trip of this kind, the news of the revolution in Paris of July, 1830, reached him; and when it was known that Louis-Philippe had become king, he and his family applied for permission to return to France, but were refused. He then wrote to the new King of the French, and begged to be allowed to serve as a private soldier in the French army. The French

government answered his petition by a renewal of the decree of his banishment. Thwarted in his expectations, Louis-Napoléon entertained hopes of another revolution in France, though at that time he had formed no definite plan of preferring his own claims in opposition to those of the Bourbon dynasty. In the beginning of 1831 he and his brother left Switzerland, and settled in Tuscany, and they took part in the insurrection at Rome. His elder brother D. at Forli, March 17, 1831, and L. escaped through Italy and France to England, where he remained a short time, and then retired to the castle of Arenenberg, in Thurgau, devoting a part of his leisure in 1832–35 to the preparation of several books. The first of these appeared under the title of *Rêveries Politiques*, in which he declared his belief that France could only be regenerated by one of Napoléon's descendants, as they alone could reconcile republican principles with the military aspirations of the nation. A year or two afterwards he issued two others, *Considérations Politiques et Militaires sur la Suisse*, and *Manuel sur l'Artillerie*. The latter, a work of considerable size, was favorably reviewed in the military journals of the day. In 1831–2, when the throne of Louis Philippe was not firmly established, a party in France had fixed their eyes on the Duc de Reichstadt. According to French statements, a whole *corps d'armée*, generals and staff included, had in 1832 declared the intention of acknowledging Napoléon II. so soon as he should reach the frontier; and had even determined, if the Duc de Reichstadt did not appear, to receive his cousin. After the death of the Duc de Reichstadt, and of his own brother, *L. N.* became the legal heir of the imperial family; and thus succeeding to his cousin's claims, he is said to have been buoyed up with the hope of obtaining power in France by the conversion of Chateaubriand and other notables of the time. His designs upon the throne of France became evident in the early part of 1835; and in 1836 his plans were so far matured as to induce him to make an attempt to seize the fortress of Strasburg. This town, with its strong garrison, its associations with the great Napoléon, and population not very well affected to the actual government, seemed a favorable point for a demonstration. In the event of success, *L. N.* intended to march the next day towards Paris, to rouse and arm the intermediate provinces, to take with him the principal garrisons on his route, hoping to reach the metropolis before the government could take any active measures against him. In June, 1836, he left Arenenberg for Baden-Baden, where he gained a success over Col. Vaudrey, commander of artillery in the garrison of Strasburg. In Aug. he went secretly to that city, and had an interview with fifteen officers, who promised him their assistance and co-operation. He then returned to Switzerland, leaving the arrangements for the insurrection to some of his adherents. The affair, however, failed miserably; the Prince himself was captured, and was detained prisoner in Strasburg from Oct. 30 till Nov. 9, when he was conducted to Paris, and learnt that on the first intelligence of his capture his mother had repaired to the neighborhood of the French capital to try to obtain his pardon and save his life, or to excite sympathy for him. His life was spared on the condition that he should be sent to the United States. He protested against this, but in vain, and he was accordingly conveyed to this country. Here, however, he did not long remain, but returned to Switzerland, where he found his mother on her deathbed. In 1838, Lieut. Laity published, with the sanction of Louis Napoléon, a favorable account of the affair at Strasburg, and was, in consequence, sentenced to five years' imprisonment, and to pay a fine of 10,000 francs. These circumstances, which were regarded by the French government as the commencement of a new conspiracy at Arenenberg, induced them to demand that Louis should be banished from Switzerland. Some of the cantons seemed inclined to maintain their independence, and Louis Napoléon's rights as a citizen of Thurgau; whereupon the French government sent an army to the frontier, and threatened to support its demands, if necessary, by force. The ambassadors of the principal European powers signified their concurrence in the proceedings of the French government, and under these circumstances the Prince thought it advisable to leave Switzerland, and again sought refuge in England. At the end of 1838 he took up his residence in London, and in 1839 published his celebrated work entitled *Des Idées Napoléoniennes*. In 1840 he determined to make another attempt to secure the French crown. He hired in London a steamer, called the *City of Edinburgh*, and embarking with Count Montholon, Gen. Voisin, and 53 associates, landed with this party near Boulogne, Aug. 6, and summoned the troops to surrender or join them. The only man who did so was a young lieutenant of the 42d regt., and he tried to induce the soldiers to follow his example. He, however, failed in the attempt; and as the National Guard beat to arms, and began to muster in force, *L. N.* retreated with his followers out of the town, and was captured in attempting to escape to the steamer. The Prince, Count Montholon, Gen. Voisin, and others, were conveyed prisoners to Paris, where they were tried before the Chamber of Peers, on the charge of high treason. M. Berryer appeared as counsel for the Prince, and made a skilful defence, but in vain. The Prince was sentenced to perpetual imprisonment in a fortress in France, and was conveyed as a prisoner to the citadel of Ham. After having been confined here six years, he made his escape, May 25, 1846; having effected his exit from the castle by assuming as a disguise the dress of a workman, thereby deceiving the vigilance of the guards. He crossed the frontier into Belgium, and for the third time took refuge in England, where he resided until the revolution of 1848, an event which speedily led to his being elected a representative in the National Assembly, and afterwards President of the French Republic. Having reached this hazardous position, he sought to strengthen his hold on the French nation, and more especially among the soldiery, by reviving, whenever opportunity offered, the most agreeable *souvenirs* of his uncle's rule; at the same time he persisted in disavowing all ambitious views, and protested constantly against the injustice of such suspicions. On Dec. 2, 1851, *L. N.*, who had received advice that measures were to be taken in the National Assembly against his rising power, ordered the arrest of all the leaders of the Republican party, dissolved the assembly, and proclaimed himself dictator, — an act which, though illegal, was ratified by the great majority of the French people, disgusted with the inoperative turbulence of the National Assembly. This state of things lasted but a year. In the autumn of 1852 he made tours through several of the departments of France, and on his return, his adherents in the Senate represented that the cries of "Vive l'Empereur!" with which the President had been greeted during his progress, unmistakably indicated the will of France, and proposed that the question of restoring the empire should be formally submitted to the nation. The proposal was accepted. The French nation, by a majority of about six millions, voted the restoration of the empire, which was accordingly proclaimed Dec. 2, 1852. The Prince assumed the style and title of "Napoléon III., Emperor of the French, by the grace of God and the will of the People." He was recognized by the English Government, afterwards by other powers, and eventually by the Emperor of Russia and the German sovereigns. The new emperor showed a disposition to make light of the recognition which he desired so ardently; but he was, at the same time, preparing to compel the acknowledgment of his power in a more effectual and less formal manner. Already, his ambassador was asserting at Constantinople those claims which brought him into direct collision with the Czar, then the virtual ruler of Eastern and Central Europe. In 1853, when the quarrel seemed imminent, Napoléon III. abandoned so much of his claims as might fairly give cause of complaint to Nicholas I., as protector of the Greek Church, and thus prepare the way for an alliance of the two Western powers, which the Czar could never believe possible. In 1854, war broke out between Russia and France and England, and was brought to a close in 1856, shortly after the capture of Sebastopol, — the Emperor of the French inducing the English Government to listen to his view of a pacific solution of the dispute. He married Eugénie-Marie de Guzman, Countess de Téba, Jan. 29, 1853, and their only issue, the Prince Imperial, Napoleon Eugène Louis Jean Joseph, b. Mar. 16, 1856, was killed in So. Africa, June 1, 1879. Early in 1858, an unsuccessful attempt was made on the emperor's life by Orsini, who had concocted his plans in England. In 1859–60 the Emperor proceeded to Italy, at the head of his army, for the purpose of aiding Victor Emmanuel against the Austrians, whom he defeated at Magenta and Solferino, and to whom he dictated the Peace of Villafranca, by which Lombardy and the Duchies were ceded to Sardinia, and Venetia was left under Austrian sway. In return for this service, Savoy and some neutral Swiss territory were ceded to France, much against the views of the English and other European cabinets. In 1861 the Emperor recognized the claim of Victor Emmanuel to the title of "King of Italy." In 1860, a joint expedition, fitted out by France and England, sailed to China to punish the government for acts of treachery to the European powers with whom it had entered into treaties of commerce. The operations of the allies were ultimately attended with complete success; and after the capture of Pekin, and the destruction of the emperor's summer palace, Oct. 6th, the Chinese Government made reparation. About the same period Napoléon III. dispatched an expedition to Cochin-China on a similar errand, which was successful in accomplishing its objects. In 1861 he organized, in conjunction with Great Britain and Spain, an expedition against Mexico, with the avowed intention of demanding redress for injuries inflicted on subjects of the respective countries, and for the payment of a debt obstinately resisted by Mexico. As it appeared that he had other objects in view, Great Britain and Spain, initiators of the scheme, seceded from joint action with the French in April, 1862. The Emperor prosecuted the war alone, and after some sanguinary battles, succeeded in establishing an imperial form of government in that country, the crown of which the Archduke Maximilian of Austria was induced to accept, Oct. 3d, 1863, and accompanied by the Empress, he entered the Mexican capital, June 12th, 1864. The Emperor Napoléon entered into an agreement with the government of the United States to withdraw the French troops, and the last detachment of the army quitted the country early in 1867. At the close of 1863, in consequence of the threatening aspect of affairs on the continent consequent on the insurrection in Poland, the Emperor invited all the powers to adopt his proposition of meeting, in Congress, to discuss and agree upon a solution of the more serious questions that threatened to disturb the peace of Europe. This favorite scheme of his proved abortive. In 1870, the emperor, whose prestige had been greatly diminished by the unpopular war against Mexico, and perhaps still more so by his inaction in the war of Prussia against Austria, gave his partial submission to public opinion by a more or less effective abandonment of personal govt. Subsequently, Napoléon submitted his policy to the approval or disapproval of the French people, who indorsed it by an immense majority of votes. In July, 1870, the emperor declared war against Prussia. The causes which led two powerful States to open hostilities, and the events of the Franco-German war are elsewhere noted. In 1871, the ex-emperor retired to England, and there died at Chiselhurst, Jan. 9, 1873. See FRANCE.

Napo'léon, PRINCE, (NAPOLÉON JOSEPH-CHARLES PAUL BONAPARTE,) cousin to the Emperor Napoléon III., the second son of Jerome Bonaparte, by his second marriage with the Princess Frederica of Würtemberg, was B. at Trieste, 1822. His youth was passed at Vienna and Trieste, Florence and Rome, and occasionally in Switzerland, England, Spain; in 1845 he obtained permission to visit Paris under the name of the *Comte de Montfort*, but was soon after compelled to leave on account of his intrigues with the extreme democrats. After the revolution of Feb., 1848, Prince Napoléon returned, and the Corsicans elected him a member of the Constituent Assembly, in which he became leader of the extreme republican party known as the "Mountain." His views, however, underwent a change, and in 1849 he was appointed minister plenipotentiary at Madrid, but was shortly recalled, for having quitted his post without authority. He was made a French prince, with a seat in the Senate and Council of State, Dec. 23, 1853, and at the same time received the Grand Cross of the Legion of Honor, with the rank of general of division. In 1854 he was appointed to a command in the expedition to the Crimea, and commanded an infantry division of reserve at the battles of Alma and Inkermann. On account of his sudden retirement from this post, ill-health being the excuse, the sobriquet of *Plon-plon* was given him by his countrymen. Prince Napoléon is said to have furnished information for a pamphlet reflecting on the conduct of the war, and commenting somewhat too freely on the deliberations of the council of war which decided upon the Crimean expedition. Though it was immediately suppressed by order of the French govt., it was published at Brussels, and was forthwith translated into English. In 1855 he was named president of the Imperial Commission of the Universal Exhibition, and proved himself a zealous and efficient member. In June, 1858, he was placed at the head of the new ministry for Algiers and the colonies, but speedily resigned his appointment. He married the Princess Clotilde, daughter of Victor Emmanuel, late king of Italy, Jan. 30, 1859, by whom he has two sons, Napoleon Victor Jerome Frederic, born July 18, 1862, and Napoléon Louis Joseph Jerome, born July 16, 1864. In the Italian campaign of 1859 he commanded the French army of reserve in the south of Italy, but was not engaged in any of the great battles. In the Senate, in 1861, he made an attack upon the Orleans family, which was answered with spirit by the Duke d'Aumale. Prince Napoléon, to the disgust of a great portion of the French army, declined to accept the challenge sent him by the duke on that occasion. He was president of the French Commission to represent France in the Great Exhibition at London, in 1862. In 1865, Prince Napoléon was appointed president of the commissioners for the Universal Exhibition at Paris of 1867, but resigned the post in consequence of a reprimand which he received from the Emperor for a speech delivered in Corsica at the inauguration of a statue to the emperor Napoléon I., May 27, 1865, at ill retaining, however, his position as a member of the imperial family. In Oct., 1872, he was ordered to leave Paris, and on his resisting was forcibly expelled. He retired to his villa near Geneva. Returning, he was exiled in 1886, along with other French princes.

Napo'leon, *n.* The name commonly given to the effigy of Napoleon I., or Napoleon III. — A French gold coin of 20 francs, equal to $3.87.

Napo'leon, in *Arkansas*, a village, former cap. of Desha co., about 125 m. S.E. of Little Rock.

Napoleon, in *Indiana*, a post-village of Ripley co., about 60 m. S.E. of Indianapolis.

Napoleon, in *Kentucky*, a post-village of Gallatin co., about 56 m. N. of Frankfort.

Napoleon, in *Michigan*, a post-village and township of Jackson co., about 50 m. S.S.E. of Lansing.

Napoleon, in *Ohio*, a post-village and township, cap. of Henry co., 15 m. N.E. of Defiance. *Pop.* (1897) 2,950. —A village of Holmes co., about 30 m. S.E. of Mansfield.

Napo'leon, Code. See CODE.

Napo'leonite, *n.* (*Min.*) A variety of feldspar.

Napo'leon-Vendée, a city of France. See BOURBON-VENDÉE.

Napo'leonville, in *Louisiana*, a post-town, cap. of Assumption parish, about 72 m. S. of Baton Rouge. *Pop.* (1897) 864.

Napo'li, in *New York*, a post-township of Cattaraugus co.

Napo'li di Roma'nia. See NAUPLIA.

Nap'onock, in *New York*. See NAPANOCK.

Napoto'a, a town of Ecuador. See NAPO.

Nap'pe, *n.* [Fr., sheet.] (*Math.*) One of the two parts of a conic surface which meet at the vertex.

Nap'piness, *n.* Quality of being somnolent or sleepy, or disposed to indulge in naps or dozes.—State or quality of having a nappy surface; abundance of nap, as on cloth.

Nap'py, *a.* Disposed to sleep; drowsy; as, to feel *nappy*. — Promoting or causative of sleep; serving to induce drowsiness or lethargy; heady.

'With *nappy* beer I to the barn repair'd."—*Gay.*

—Having abundance of nap or down on the surface; shaggy; as, *nappy* cloth.

Nap'py, *n.*; *pl.* NAPPIES. [A. S. *kaäp*, cup, bowl.] A round earthen dish.

Nap'-taking, *n.* A taking by surprise, when one is unprepared; a sudden, unlooked-for onset.

Na pus, *n.* (*Bot.*) Same as Navew.

Naranjos (*na-rang'hoce*), a group of islands in the Bay of Panama, belonging to the Republic of Colombia.

Naran'jos, a river of Ecuador, flowing into the Gulf of Guayaquil, abt. Lat. 2° 28′ S., Lon. 79° 45′ W.

Narbonne, (*nar-bun',*) a town of France, dept. of Aude, 55 m. S.W. of Montpellier, and 34 m. N.E. of Perpignan. It was formerly a flourishing manufacturing city, but is very much decayed. Its cathedral is considered one of the finest Gothic edifices in Europe. *Manuf.* Silk and linen goods, worsted caps, and paper. *Pop.* 17,600.

Nar'borough's Islands, a group in the S. Pacific, at the W. entrance of the Straits of Magellan; Lat. 52° S., Lon. 75° E

Narce'ia, *n.* [Gr. *narke*, numbness.] (*Chem.*) One of the vegeto-alkaline bases contained in opium, and discovered by Pelletier in 1832. Its medical virtues have not been ascertained.

Narcis'sales, *n. pl.* (*Bot.*) An alliance of plants, class *Endogens*.—Diag. Epigynous petaloid, with symmetrical flowers, 3 or 6 stamens, and albuminous seeds. The alliance is divided into 6 orders, viz., Bromeliaceæ, Taccaceæ, Hemodoraceæ, Hypoxidaceæ, Amaryllidaceæ, and Iridaceæ, *q. v.*

Narcis'sus. (*Myth.*) The beautiful son of Cephisus and the nymph Liriope. The legends connected with his name are by no means consistent. According to one version, he was insensible to the feeling of love, and Echo, failing to win his affection, died of grief. As a punishment, Nemesis made him fall in love with his own image, reflected in water; and Narcissus in his turn pined away from unsatisfied longing. The story of his metamorphosis into the flower so called is given only in the version adopted by Ovid; and this version says that he killed himself, and that the flower sprang from his blood; while Pausanias, earnestly combating the proposition that Narcissus was so stupid as to be unable to distinguish a man from a man's shadow or image, maintains that he looked at his image in a well to remind himself of a sister whom he had loved, and who had died. He is sure, however, that the flower existed before Narcissus, because Persephonê was gathering narcissi in the fields of Enna when she was stolen away by Hades. To so devout a believer in the supernatural, the proof was conclusive. But these inconsistent versions show at the least that the idea of an actual metamorphosis was of comparatively late growth.

Fig. 1913.—NARCISSUS POETICUS.

(*Bot.*) A genus of European plants, order *Amaryllidaceæ*, known by its flowers growing upon a scarp, and having a cup at their mouths; the stamens opposite the sepals being longer than the others. The species are very numerous; and from their delicate shape, soft and various color, and sweet scent, have long been favorite objects of cultivation—especially the Daffodils, Jonquils, and Tazettas. Some of the more hardy species grow wild in our woods and under our hedges; but the finer sorts are natives of more southern latitudes. They are divided into several groups or sub-genera, of which the principal are, *Ajax* (the Daffodils), *Ganymedes* (the Rush Daffodils), *Hermione* (the Polyanthus Narcissi), and *Queltia* (the Mock Narcissi).

Narcog'enine, *n.* (*Chem.*) A basic substance resulting from the oxidation of narcotine.

Narco'sis, *n.* The aggregate effects produced by narcotic substances.

Narcot'ic, Narcot'ical, *a.* [Gr. *narkōtikos*, making stiff or numb, from *narkē*, numbness.] (*Med.*) Acting as an anodyne or soporific; allaying pain or morbid sensibility; sleep-producing;—said of medicinal doses.—Inducing or causing stupor, syncope, and convulsions, and sometimes death;—said of poisonous doses.

Narcot'ic, *n.* (*Med.*) A medicine which in medicinal doses acts as an opiate or anodyne, producing sleep, and allaying pain and morbid sensibility; but which in poisonous doses causes stupor, coma, convulsions, and when administered to excess, death. Most *N.* have an effect of temporary stimulating power; and this is manifested principally when they are given in small doses, while a full dose generally produces the narcotic effect at once, without any apparent stimulation preceding it. Considerable skill and experience are required in the administration of *N.*, both as regards the cases in which they are to be prescribed, and the persons to whom they are to be given. Billing, in his *First Principles of Medicine*, says:—"*N.* must be distinguished from stimulants on the one hand, and from sedatives on the other; and the distinction is the more necessary, because in nature the narcotic principle is generally combined with one or the other of these; hence the contradictory and unsatisfactory reports of the value of different narcotic remedies, and the difficulty experienced in their application by those who do not know the reason why opium suits one case, hyoscyamus another." A full dose of a narcotic introduced into the stomach will, if the stomach be empty, destroy the desire for food, while, if it contain food, the digestive process is suspended or rendered slower. Their continued or frequent use is therefore injurious to the nutrition of the body, as instanced in the persons of the Oriental opium-eaters. The general action of narcotics is modified by a great variety of circumstances, such as the quantity prescribed, the frequency of repetition, also the force of habit, climate, or season, and above all, by idiosyncrasy. The amount of action is also largely determined by the age of the person taking the narcotic. To this class of medicines belong opium, hemlock, henbane, belladonna, aconite, stramonium, camphor, digitalis, tobacco, alcohol, ether, nux vomica, leopard's-bane, hop, stroug-scented lettuce, and a variety of other substances. Prussic acid has been by some considered as a narcotic; but it does not seem properly referable to this class. It appears, rather, to be a direct sedative, and never to exert any stimulating power.

Narcot'ically, *a.* Operating after the manner of a narcotic; soporiferously.

Narcot'iceness, *n.* State or quality of operating as a narcotic.

Nar'cotine, *n.* (*Chem.*) A crystallized substance, obtained by digesting opium in ether. It was discovered in 1803 by Derosne, and supposed to be the narcotic principle of opium; but this has since been shown to reside more exclusively in *morphia*, and narcotine is possessed rather of stimulant qualities, and is the cause, perhaps, of the excitement which opium occasions; the statements, however, as to its medicinal action are much at variance. Narcotine is almost insoluble in water and in weak solutions of ammonia and potash. Alcohol and ether dissolve it, but not very freely. It fuses at 268°, and concretes into a crystalline mass on cooling.

Nar'cotism, *n.* [Fr. *narcotisme.*] Narcosis. (R.)

Nar'cotize, *v. a.* To subject to the influence of a narcotic.

Nard, *n.* [Fr.; Lat. *nardus*, and *nardum*; Gr. *nardos*; Ir. *nardin*; Sansk. *narda.*] See Nardostachys.

Nar'do, a town of S. Italy, prov. of Terra di Otranto, 16 m. S.S.W. of Lecce, and 10 m. N.N.E. of Gallipoli. *Manuf.* Cotton goods. *Pop.* 10,971.

Nar'doo, *n.* [A native name.] (*Bot.*) The *Marsiale quadrifida*, a plant of the order *Marsileaceæ*, the spores and spore-cases of which are pounded by the native Australians and made into bread or porridge.

Nardos'tachys, *n.* [Gr.] (*Bot.*) A genus of plants, order *Valerianaceæ*. The species *N. jatamansi* is the true *spikenard* of the ancients, called *nard* by the Hebrews, and *nardos* by the Greeks. It is much esteemed by the Hindoos as a perfume, and also as a remedial agent in epilepsy and hysteria. Its root is supposed to constitute the *sumbul*, or *musk-root*, which is imported from Bombay and Russia. This root has powerful stimulant and antispasmodic properties, and is employed medicinally.

Nare (*nā'ra*), a river of the Republic of Colombia, flowing into the Magdalena.

Nare, a town of the Republic of Colombia, at the confluence of the above river with the Magdalena, about 65 m. N.N.E. of Honda.

Naren'ta, a river of European Turkey, rising in the Dinaric Alps, and after a course of 140 m. falling into the Adriatic.

Nar'gil, *n.* The cocoa-nut tree;—so called in the Carnatic.

Nar'gile, Nar'gileh, Nhar'gile, *n.* [Pers.] A pipe by which tobacco is smoked through water; a hubble-bubble; a hookah.

Nar'iform, *a.* [Lat. *naris*, nostril, and *forma*, shape.] Resembling the nose in form.

Na'ro, a town of S. Italy, in Sicily, prov. of Girgenti, on the Naro, 13 m. S.E. of Girgenti, and 21 S.W. of Caltanisetta. It has a large trade in wine, oil, and sulphur. *Pop.* 10,620.

Narragan'sett Bay, in *Rhode Island*, an inlet of the Atlantic Ocean, between Newport, Washington, and Kent cos. It is abt. 25 m. in length, and varies from 3 m. to 12 m. in breadth. It receives the Blackstone, Taunton, and several smaller rivers, and contains several large islands, of which Rhode Island (16 m. in length), Canonicut, and Prudence are the most important.

Narragua'gus, in *Maine*, a small river or creek flowing into Narraguagus Bay in Washington co.

Narrate', *v. a.* [Lat. *narro, narratus*, allied to Lat. *gnaruris, gnarus*, skilful, learned, knowing in anything. See Ignoarant.] To tell, rehearse, or recite, as a story; to relate, as the particulars of any event or transaction; to write, as the incidents of a tale or history.

Narra'tion, *n.* [Lat. *narratio.*] Act of narrating, or of telling or relating the particulars of an event or incident; recital; rehearsal; relation.—Story; history; a statement in words or writing of the particulars of any transaction or event, or of any series of transactions or events.

(*Rhet.*) That part of a discourse which states the facts connected with the subject.

Nar'rative, *a.* [Fr. *narratif.*] Narrating; relating the particulars of an event or transaction; giving a particular or detailed account of any occurrence.—Apt or disposed to relate stories, or to recite particulars of events or incidents; story-telling.

—*n.* That which is narrated; the recital of a story, or a continued and detailed account of the particulars of an event, transaction, or occurrence; story; relation.

Nar'ratively, *adv.* By way of recital narration, or story.

Nar'rator, *n.* [Lat.] One who narrates or recites; one who tells the particulars of a series of events or transactions.

Nar'ratory, *a.* Detailing the particulars of events.

Nar'row, *a.* [A.S. *nearow*, from *near, neara*, nearer, the comp. of *near, neh*, near, nigh. See Near.] Of little breadth or width; having little distance from side to side; as, a *narrow* street, a *narrow* border.—Of limited extent; contracted, compressed, or confined; limited as to means; straitened; circumscribed.

"So vast is art, so *narrow* human wit."—*Pope.*

—Of circumscribed views or sentiments; contracted in mind, feelings, disposition, and the like; warped; not liberal or benutiful; very limited, as in intellect; covetous; parsimonious; ungenerous.

"The greatest understanding is *narrow*."—*Grew.*

—Near; close; within a small distance;—hence, by implication, barely sufficient to avoid evil; as, a *narrow* escape.—Close; vigilant; accurate; exact; noting with attentive scrutiny.

"The orb he roam'd with *narrow* search."—*Milton.*

(Note. *Narrow* is frequently employed as a prefix in compound words which are sufficiently self-explaining; as, *narrow*-chested, *narrow*-minded, *narrow*-edged, *narrow*-faced.)

Nar'row, *n.*; *pl.* Narrows. A strait; a narrow passage through a mountain, or a narrow channel of water between one sea or lake and another; a sound; as, the *Narrows*, separating Long Island from Staten Island.

Nar'row, *v. a.* [A.S. *nearwian.*] To bring or draw near together; to compress; to lessen the breadth of; to contract; to draw into a smaller compass.

"In the wall he made *narrowed* rests."—1 *Kings* vi. 6.

—To contract in mental scope and capacity; to lessen the sphere or reach of; to impair or reduce in extent or influence; to warp; to limit; to confine.

"The mind *narrowed* by a scanty collection of common ideas." *Locke.*

—To curtail or diminish the size of, by taking two stitches into one; as, to *narrow* a stocking.

—*v. n.* To come nearer; to contract in breadth; to become less wide; as, the land *narrows* into an isthmus.—To reduce the size of a stocking by taking two stitches into one.

(*Man.*) Not to step out far enough to the one hand or the other;—said of a horse.

Nar'rower, *n.* The person who, or thing which narrows.

Nar'rowing, *n.* Act of narrowing or contracting, or becoming less in width.—The part of a stocking which is narrowed.

Nar'rowly, *adv.* With little breadth or width.—Contracted; without much extent; closely; exactly; accurately carefully; with vigilant scrutiny; as, to search *narrowly*, to consider *narrowly*, &c.—Nearly; within a little; barely; merely; as, he *narrowly* escaped with his life.—Sparingly; sordidly.

Nar'row-minded, *a.* Of confined views or sentiments; illiberal; bigoted; mean-spirited.

Nar'row-mindedness, *n.* Illiberality; contracted or warped views or sentiments.

Nar'rowness, *n.* State or quality of being narrow; smallness of breadth or distance from side to side; smallness of space or extent; contractedness; smallness of estate or means of living; poverty; pennriousness; covetousness; illiberality; want of generous, enlarged, or charitable views or sentiments.

Nar'rows, (The,) in *New York*, a strait connecting New York Bay with New York Harbor, and separating Long Island from Staten Island. Its narrowest part is 1¼ m. wide, and is strongly defended by forts.

Nar'rowsburg, formerly Big Eddy, in *New York*, a post-village of Sullivan county, abt. 123 m. N.W. of New York city.

Nar'ses, a celebrated eunuch, who entered into the service of the emperor Justinian at the court of Constantinople, rose by his merit to the highest dignities of the state, and distinguished himself by military exploits. After vanquishing Totila the Goth, he captured Rome; rescued Italy from the Ostrogoths and other barbarians; was appointed governor of the country, and ruled it 15 years; but was at length deposed, and d. in 567.

Nar'thex, *n.* [Lat.] (*Bot.*) Same as Ferula, *q. v.*

(*Arch.*) A division in the early Christian churches in which the catechisms were recited, and penitents admitted; it was near the entrance, and separated from the rest of the church by a railing or screen.

Nar'va, a town of European Russia, govt. of Petersburg, on the Narova, 81 m. W.S.W. of St. Petersburg. Charles XII. of Sweden, with 8,000 men, attacked the intrenched camp of the Russian army (which had been besieging Narva), and gained a complete victory, Nov. 30, 1700. No less than 18,000 Russians fell in the battle, and 30,000 surrendered themselves prisoners on the following day. The Swedes lost only 600 men. Peter I. (the Great) fled in consternation, leaving to his generals the command of the army. The town was taken by storm by Peter I., Aug. 20, 1704, and it has since remained in the hands of the Russians. *Pop.* 8,000.

Narvaez, Don Ramon Marie, (Duke of Valencia) (*nar-va-aith',*) a Spanish general and statesman, b. at Loja, in Andalusia, 1800, took part, at a very early age, in the war of liberation against Napoleon I., and rose rapidly in the army. At the breaking out of the insurrection in the Basque provinces, in 1835, he had attained the rank of colonel, and fought so zealously against the Carlists, that he was appointed brigadier; while his

pursuit of Gomez, the Carlist general, in his romantic march through Spain, in 1836, gained him a great reputation. At the close of the war in 1840, he quarrelled with Espartero, who was then opposed by the party of the Queen Mother, Christina; joined those who, in 1841, attempted to overthrow that minister by raising an insurrection, which attempt miscarried, and he was obliged to take refuge in Paris. The success of the movement against Espartero, in 1843, which led to his expulsion, was owing in a great measure to Narvaez, who was rewarded for his services with the title of *Duke of Valencia*, in May, 1844. After the return of the Queen-mother, Christina, he became her prime adviser, and kept down the Liberals until his ministry was overthrown in Feb., 1846. In May, 1847, he was sent as ambassador to Paris, where he became a leader in the plots formed against Queen Isabella by her mother. In Oct., 1847, he was chosen President of the Council, and head of the ministry; which post, with the exception of a short interval, he retained till Jan., 1851, when his ministry broke up on account of financial embarrassments. He resigned a seat which he had accepted in the cabinet of Armero-Mon, in Nov., 1857; succeeded the Marquis of Miraflores as President of the Council, and the head of a new ministry, in Sept., 1864, and signalized his return to power by putting a stop to the invasion of St. Domingo, in Jan., 1865. The Duke of Valencia, who made way for Marshal O'Donnell in June, 1865, returned to power in 1866. Despite of O'Donnell and Prim, he retained his place, and in the rising at Madrid, 1868, shortly before his death, he headed the royal troops and was severely wounded. D. April 23, 1868.

Nar'whal, *n.* (*Zoöl.*) The *Monodon monoceros*, an extraordinary marine animal of the family *Delphinidæ*, also known as the Sea Unicorn, much resembling the Beluga, but differing from him as from any other kind of *Cetacea* by having no teeth, *properly so called*, and being armed with a formidable horn, projecting directly forward from the upper jaw, in a straight line with the body. This horn is from six to ten feet long, spirally striated throughout its whole length, and tapering to a point; it is harder and whiter than ivory, for which article it was at one time not only substituted, but was also in high repute for its *supposed* medicinal powers. The Narwhal is generally from twenty to thirty feet in length from the mouth to the tail,—sometimes much more,—and it is occasionally, though not very often, found with two of these horns, or tusks, sometimes of equal length, and sometimes very unequal. The head of this animal is short, and convex above; the mouth small; the spiracle or breathing-hole duplicated within; the tongue long; the pectoral fins small; the back finless, convex, and rather wide; becoming gradually acuminated towards the tail, which, as in other whales, is horizontal. The skin is darkly marbled on the back, lighter on the sides, and nearly white on the belly: it is quite smooth, and there is a considerable depth of oil or blubber beneath. The Narwhal chiefly inhabits the arctic seas; and its food is said to consist of the smaller kinds of flat-fish, medusæ, and other marine animals. It is taken by means of the harpoon; and its flesh is eaten by the Greenlanders. Although both swift and strong, as well as being armed with such a prodigious weapon, the Narwhal is one of the most peaceable inhabitants of the ocean.

Na'sal, *a.* [Fr., from Lat. *nasus*, nose. See NOSE.] Pertaining or relating to the nose; as, the *nasal* duct. —Formed or affected by the nose; as, a *nasal* sound.

Nasal vowel. (*Gram.*) A vowel uttered through the nose in conjunction with the mouth. The only sound approaching to nasal in English is that of the double consonant *ng*; as in *thing*, *ring*, &c.

—*n.* A letter whose sound is affected by the nose.—In ancient armor, a covering for the nose.

(*Med.*) An errhine. See ERRHINE.

Nasal'ity, *n.* State or quality, or condition of being nasal.

Nasaliza'tion, *n.* Act of uttering with a nasal sound.

Na'salize, *v. a.* To make nasal, as sound.

—*v. n.* To speak through the nose.

Na'sally, *adv.* By the nose; in a nasal manner.

Na'satis. See PROBOSCIS MONKEY.

Nascency, (*nās'sens-se,*) *n.* The commencement of production.

Nas'cent, *a.* [Lat. *nascens*, from *nascor*, to be born. See NATURE.] Beginning to exist or to grow; as, *nascent* affection.

Nascent State. (*Chem.*) Chemists generally apply this term to gaseous bodies at the moment of their evolution, as it were, from liquids or solids, and before they have assumed the aëriform state. There are numerous cases in which bodies, having no tendency to combine under ordinary circumstances, readily unite when presented to each other in their nascent states. Hydrogen and nitrogen gases, for instance, when mixed together, show no disposition to combine; but when certain organic bodies containing those elements are heated, they are evolved in their nascent states, and combine so as to form ammonia; it is in this way that ammonia is abundantly produced during the destructive distillation of many kinds of animal matter, and of pit-coal. Hydrogen gas has no action, under ordinary circumstances, on sulphur or on arsenic; but when sulphide of iron or arsenide of zinc are acted on by dilute sulphuric acid, the hydrogen, at the moment of its evolution, combines with the sulphur and arsenic to form sulphuretted and arsenuretted hydrogen. The destructive distillation of organic substances in general furnishes abundant and important instances of these nascent combinations.

Nase'by, a village of England, in Northumberland, celebrated as the locality where, in June, 1645, was fought the battle between the King and Parliament, so fatal to the Royal cause, and in which both king and kingdom were lost, according to Lord Clarendon's history of those times. In this battle, above 5,000 of the Royalists were either killed or made prisoners.

Nash, *a.* Stiff; hard; firm; also, chilly; — used as provincial English.

Nash, in *Maine*, an island and light-house in Pleasant River Bay. It exhibits a fixed light 47 ft. above the sea; Lat. 44° 25′ N., Lon. 67° 37′ W.

Nash, in *Massachusetts*, an island and light-house in Pleasant River Bay.

Nash, in *N. Carolina*, a N.E. central co.; *area*, abt. 600 sq. m. *Rivers.* Tar and Fishing rivers, and Contentnea and Sandy creeks. *Surface*, uneven; *soil*, not very fertile. *Cap.* Nashville.

Nasho'ba, in *Mississippi.* See NESHOBA.

Nash'port, in *Ohio*, a post-village of Muskingum co., abt. 54 m. E. of Columbus.

Nash's Stream, in *New Hampshire*, enters the Upper Ammonoosuck river in Coos co.

Nash'ua, in *Illinois*, a township of Ogle co.

Nashua, in *Indiana*, a village of Vanderburg co., abt. 16 m. N. of Evansville.

Nashua, in *Iowa*, a post-town of Chickasaw co., about 30 m. N. of Cedar Falls.

Nashua, formerly DUNSTABLE, in *New Hampshire*, a city of Hillsborough co., about 40 m. N.N.E. of Boston. It is conveniently located at the confluence of the Nasbua and Merrimac rivers (the former of which has here a fall of 65 feet in 2 m.), and contains some very fine edifices. *Manuf.* Cotton and woollen cloth, steam-engines and other machinery, edged tools, locks, farming implements, &c. *Pop.* (1897) 21,250.

Nashua River rises in Worcester co., Massachusetts, and flowing N.E. into New Hampshire, enters the Merrimac at Nashua.

Nash'ville, in *Georgia*, a post-village, cap. of Berrien co., about 155 m. W.S.W. of Savannah.

Nash'ville, in *Illinois*, a city, cap. of Washington co., 18 m. S.W. of Centralia. *Pop.* (1897) 2,340.

Nash'ville, in *Indiana*, a post-town, cap. of Brown co., abt. 40 m. S. of Indianapolis.—A village of Hancock co., abt. 33 m. N.E. of Indianapolis.

Nash'ville, in *Iowa*, a village of Lee co., abt. 10 m. N. of Keokuk.

Nash'ville, in *Kansas*, a village of Coffee co., abt. 6 m. E. of Hampden.

Nash'ville, in *Mississippi*, a village of Lowndes co., abt. 140 m. N.E. of Jackson.

Nash'ville, in *Missouri*, a post-village of Barton co., abt. 20 m. N.W. of Carthage.—A village of Boone co., abt. 26 m. N.W. of Jefferson City.

Nash'ville, in *N. Carolina*, a post-village, cap. of Nash co., abt. 15 m. E.N.E. of Raleigh.

Nash'ville, in *New Hampshire*, a village and township of Hillsborough co., on the Nashua River, opposite Nashua.

Nash'ville, in *Ohio*, a post-village of Holmes co., abt. 82 m. N.E. of Columbus.

Nash'ville, in *Tennessee*, an important city, cap. of the State and seat of justice of Davidson co., on the Cumberland River, abt. 230 m. E.N.E. of Memphis, and 684 m. S.W. of Washington; Lat. 36° 9′ N., Lon. 86° 49′ W. The city is beautifully located on an eminence overlooking the river and the surrounding country, a conspicuous feature being the massive dome of the State capitol, a splendid edifice erected at a cost of about $1,000,000. There are two principal railroads, the Louisville & Nashville and the Nashville, Chattanooga & St. Louis. *N.* is an important manufacturing city, embracing almost every department of industry. There are several prosperous cotton and woollen mills, boot and shoe factories, flour and lumber mills, &c. *N.* is also noted for the high character and intelligence of its population, and is the seat of Vanderbilt University, Fisk University (for colored teachers), a State Normal School, and various other excellent educational institutions; an Insane Hospital, a School for the Blind, the State Penitentiary (which is largely an industrial establishment), &c. A grand exposition was held in *N.* in 1897 to celebrate the hundredth anniversary of the admission of State of Tennessee into the Union. The inaugural ceremonies were held on June 1, 1896, and the exposition was formally opened on May 1, 1897, continuing throughout the summer. It was largely attended, and was entirely successful throughout. Among the buildings constructed were a reproduction of the Partbenon for the fine arts, the Commerce building (560x315 ft.), the Transportation building (400x120 ft.), the Agricultural building (525x175 ft.), the Minerals and Forestry building (400x125 ft.), the Woman's building (160x85 ft.), and an Auditorium seating 6,000. All the buildings were white, and the effect was beautiful in the extreme. *N.* is the largest hardwood market in the U. S., and among the first in importance in the general lumber business. *Pop.* (1897) about 100,000. —During the Civil War a great battle was fought here (Dec. 15–16, 1864), between Gen. Thomas' army and the Confederates under Gen. Hood, resulting, on the second day's fight, in a victory for the Federal arms. The loss on both sides was heavy—between 3,000 and 4,000 each.

Nash'ville, in *Texas*, a post-village of Milam co., abt. 75 m. N.E. of Austin.

Nas'iform, *a.* [Lat. *nasus*, nose, and *forma*, form.] Nose-shaped.

Nas'ka, or CABLLAOS, a seaport-town of Peru, on the Pacific Ocean, abt. 30 m. S.E. of Palpa.

Na'sonville, in *Rhode Island*, a village of Providence co., abt. 25 m. N.W. of Providence.

Na'so-pal'atal, Naso-pal'atine, *a* [Lat. *nasus*, nose, and Eng. *palatal, palatine.*] Having connection with both the nose and the palate; as, the *naso-palatine* nerve.

Nas'sa, *n.* (*Zoöl.*) A genus of Mollusca, of which the species *N. reticulata*, the Dog Whelk, is the best known. They inhabit a small, globular, or oval shell, according to the spire, which in some is short, and in others long; mouth oblong, notched; inner lip thickened, and spread out. By some authors this genus is united to *Buccinum*, on account of the little tooth-like projections terminating the columella.

Nas'sau, (Duchy of,) a former state of W. Germany, between Lat. 50° and 51° N., Lon. 7° 32′ and 8° 45′ E., having N. and W. Rhenish Prussia, S. Hesse-Darmstadt, and E. Hesse-Darmstadt and Hesse-Cassel; *area*, 1,802 sq. m. The surface is hilly; the soil is poor except along the banks of the rivers, but affords excellent pasturage. *Rivers.* The Rhine, Maine, Lahn, Ems, and Aar. The climate is cold, but healthy. *N.* contains numerous spas, the most important of which are Ems, Wiesbaden, and Schlangenbad; its wines, however, are its chief source of wealth, of which the Hocks produced from Hochheim and Johannisberg are the most celebrated. Linens, woollens, paper, leather, tobacco, and potash, are among its chief manufactures. *N.* derives its name from the Castle of Nassau, built in the 12th century. In 1255, Walram I. and Otto, the sons of Henry the Rich, shared the territory between them, the former becoming the founder of the present family of *N.*, and the latter the founder of the house of Orange-Nassau, of which William III. of England was a member. In 1605, Louis II. became possessed of all the lands belonging to the elder branch of the family. At his death, in 1626, the family was divided into three branches, which, however, were reunited into one when Napoleon I. founded the Confederation of the Rhine in 1806, and bestowed the title of Duke upon Frederick William. It was annexed to Prussia in 1866, and in 1868 joined to part of Hesse-Darmstadt, to form the prov. of *Hesse-Nassau*, q. v.

Nas'sau, a town, cap. of the British island of New Providence, Bahama group, W. Indies. It is situated on the N. coast, is regularly and strongly built, and defended by two forts. Lat. 25° 5′ 6″ N., Lon. 77° 21′ 2″ W. *Pop.* 7,500.

Nassau, (*nas'saw,*) in *Florida*, an extreme N.E. co., adjoining Georgia on the N., and washed by the Atlantic Ocean on the E.; *area*, about 640 sq. m. *Rivers.* St. Mary's and Nassau rivers, and some smaller streams. *Surface*, level; *soil*, sandy, and not very fertile. *Cap.* Feruandina. *Pop.* (1890) 8,843.

Nassau, in *Iowa*, a village of Lee co., abt. 100 m. S. by E. of Iowa City.

Nassau, in *New York*, a post-village and township of Rensselaer county, about 14 miles south-east of Albany.

Nassau, (Fort,) a town of British Guiana, former cap. of the colony under the Dutch, on the Berbice River, abt. 45 m. above the sea.

Nassau River, in *Florida*, enters the Atlantic Ocean between Duval and Nassau cos.

Nassau, or **Poggy Islands,** two contiguous Islands of the Eastern Archipelago, 60 m. S.W. of Sumatra; Lat. 2° 32′ S., Lon. 99° 37′ E.

Nassawa'pit, or **Nasewapee,** in *Wisconsin*, a township of Door co.

Nassuck', a town and place of pilgrimage of Hindostan, presidency of Bombay, 95 m. N.E. of Bombay; Lat. 19° 56′ N., Lon. 73° 56′ E.; *pop.* 30,000.

Nas'tily, *adv.* In a nasty manner; filthily; dirtily; obscenely.

Nas'tiness, *n.* State or quality of being nasty; extreme dirtiness; filthiness; obscenity.

Nasturtium, Nasturtion, (*-tŭr'shĭ-um — tŭr-shon,*) *n.* [From Lat. *nasus*, and *torquere*, *tortum*, to torture.] (*Bot.*) A genus of plants, order *Brassicaceæ*. *N. officinale* is the common Water-cress, one of the most wholesome of the salad vegetables. It has remarkable antiscorbutic properties, and is interesting, in a chemical point of view, from containing iodine. The name *Nasturtium* is commonly given to *Tropæolum majus*, the Indian cress, a showy and useful garden-plant. See TROPŒOLUM.

Nas'ty, *a.* [Sp. *njasti*, dirt, filth; N. Fris. *nät*, urine, Ger. *netzen*, to wet.] Disgustingly filthy or unclean; very foul; exceedingly dirty or defiled; offensive; nauseous; as, a *nasty* smell.

—Indecent; indelicate; coarse; gross; filthy; partaking of the character of obscenity.

"A nice man is a man of *nasty* ideas."—*Swift.*

Na'sua, *n.* (*Zoöl.*) See COATI.

Na'sute, *a.* [Lat. *nasutus*, from *nasus*, nose.] Having a fine sense of smell; quick to take perception of odors; hence, finically nice; precise; hypercritical.

Na'ta, a town of the Republic of Colombia, on the Isthmus of Panama, about 64 m. S.W. of Panama.

Na'tal, *a.* [Fr.; Lat. *natalis*, from *natus*, a birth, from *nascor*, to be born. See NATURE.] Pertaining or having reference to one's birth; dating from, or concurrent with, one's birth; relating to nativity; as, a *natal* place, a *natal* hour.

—*n. pl.* Circumstances attaching to one's birth, as time or place. (R.)

Natal', an English possession on the S.E. of Africa, bordering on the Indian Ocean, between Lat. 27° 40′ and 30° 40′ S., Lon. 29° and 31° 10′ E., having N. Zululand, S. Caffraria, and W. the Free State, from which it is separated by the Drachenberg Mountains; *area*, 18,000 sq. m. The surface is mountainous, some of the peaks attaining an elevation of 10,000 ft. The soil is very

fertile, and the climate, though almost tropical, is healthy. *Rivers.* Tugela, or Buffalo, the Umcomanzi, Umgani, and Umzimculu. *Products.* Sugar, coffee, indigo, arrow-root, ginger, tobacco, tea, and cotton. *Min.* Coal, copper, iron, and granite. *Exp.* Chiefly wool, sugar, ivory, and hides. *Cap.* Pietermaritzburg; *pop.* (1897) 16,200.—The Portuguese discovered this country in 1498, and gave it the name of Natal, because they landed on Christmas-Day. The native races were swept away by the Zooloo Caffres in 1810, and the English formed a settlement in 1824. It was annexed to Cape Colony in 1844, made a separate government in 1845, and erected into a separate colony in 1856. There were wars with the Zulus in 1873 and at later periods, and with the Boers of the Transvaal in 1881. (See TRANSVAAL and ZULUS.) *Pop.* (1897) 562,500.

Na'tant, *a.* [Lat. *natans*, from *natare*, to swim.] (*Bot.*) Floating on water; swimming.

Na'tantly, *adv.* In the manner of flotation; swimmingly.

Nata'tion, *v. n.* [Fr., from Lat. *natatio* — *natare*, to swim.] Swimming; act of floating on the water; flotation.

Natato'rial, *a.* Disposed to swim; adapted to swim; as, *natatorial* birds.

Nata'tores, *n. pl.* (*Zoöl.*) An order of birds, corresponding to the *Palmipedes* of Cuvier, embracing such birds as are web-footed, and otherwise adapted to lead an aquatic life. Birds of this class vary greatly both in the size of their wings and powers of flight, and they are easily distinguishable from the rest of the feathered tribes on account of the peculiar structure of their feet, which are invariably webbed. A thick coat of down also covers the bodies of *natatores* beneath their plumage, and an oily secretion covers the feathers, and saves them from getting wet. The order is divided into the families *Anatidæ*, or Ducks; *Sulidæ*, or Gannets; *Tachypedidæ*, or Man-of-war birds; *Phalacrocoracidæ*, or Cormorants; *Plotidæ*, or Darters; *Procellaridæ*, or Petrels; *Laridæ*, or Gulls; *Colymbidæ*, or Divers; *Alcidæ*, or Auks.

Na'tatory, *a.* [Fr. *natatoire*; Lat. *natatorius.*] Natatorial; swimming.

(*Zoöl.*) A term used to denote that a locomotive extremity, or other part, is provided with a membrane, or with close-set hairs, by which it is adapted for displacing water.

Natch, *n.* [From Lat. *natis*, the buttocks.] That part of an ox lying between the loins, near the rump.—A feat; an exploit. (Prov. Eng.)—(*pl.*) The embrasures of a battlement. (Prov. Eng.)—*Natch-bone*, the aitch-bone in beef.

Natchaug' River, in *Connecticut*, joins the Fenton River in Windham co., to form the Shetucket River.

Nat'chez, a tribe of Indians, which owed its celebrity chiefly to Chateaubriand's *Les Natchez.* They resided in the W. part of Mississippi, near the banks of the Mississippi River. Irritated against the French, who in that region were incessantly encroaching upon them, they rose, on Nov. 28, 1729, and murdered every Frenchman in the colony. On Jan. 28, 1730, they were attacked by the Choctaws under Le Sueur, and a few days after, Soubois, at the head of the French troops, completed the work of destruction. Part of the tribe escaped across the Missiasippi River to the vicinity of Natchitoches, but their fortress could not long withstand the force sent against it. The chief and over 400 of the tribe were taken prisoners, and sold as slaves, while some were incorporated with the Chickasaws and Muskogees, and others fled further west, of whom nothing has since been heard.

Nat'chez, in *Indiana*, a post-village of Martin co., abt. 56 m. W.N.W. of New Albany.

Nat'chez, in *Mississippi*, a city, cap. of Adams co., on the Mississippi River, about 100 miles S.W. of Jackson; Lat. 31° 34′ N., Lon. 91° 25′ W. The city proper occupies a commanding bluff; the streets are regularly laid out, and the houses are generally well built. It contains a fine court-house, numerous churches, an orphan asylum, and several eminent educational institutions. The lower part of the city, or Natchez-under-the-Hill, consists principally of warehouses and stores. It has an active trade, largely in cotton. *Pop.* (1897) 11,250.

Nat'chez, in *Ohio*, a village of Monroe co., about 23 m. S. of Wheeling, West Virginia.

Natchitoches (*natch-i-toteh'iz*), in *Louisiana*, a N.W. parish; *area*, about 1,285 sq. m. *Rivers.* Red river, and some less important streams, with numerous small lakes. *Surface*, diversified; *soil*, near the rivers and lakes, very fertile. *Cap.* Natchitoches. *Pop.* (1890) 25,836.—A post-town, cap. of the above co., about 500 m. W.N.W. of New Orleans. *Pop.* (1897) 2,050.

Na'tes, *n. pl.* [Lat.] (*Anat.*) The name used for the gluteal regions, or buttocks;—also, for two small eminences near the optic nerve in the brain.

Nathan, (*nai'than.*) (*Script.*) A prophet who lived in the reign of David. At the Divine command, he reproached that monarch for his guilt in the murder of Uriah and adultery with Bathsheba, and predicted that the glory of erecting the temple would be reserved for Solomon. On that occasion he brought the monarch to repentance, by relating the beautiful parable of the poor man's lamb.

Nathan'ael. (*Script.*) A disciple of Christ, probably the same as BARTHOLOMEW, (*q. v.*) He was a native of Cana in Galilee (*John* xxi. 2), and was one of the first to recognize the Messiah, who, at their first interview, manifested his perfect acquaintance with *N.*'s secret heart and life, (*John* i. 45–51.) He was introduced by Philip to Jesus, who, on seeing him, pronounced that remarkable eulogy which has rendered his name almost another word for sincerity: "Behold an Israelite indeed, in whom is no guile." He was one of the disciples to whom Christ appeared at the sea of Tiberias, after his resurrection (*John* xxi. 2); and after witnessing the Ascension, returned with the other apostles to Jerusalem, (*Acts* i. 4, 12, 13.)

Nath'less, *adv.* [A. S. *natheles.*] Nevertheless; notwithstanding. (R.)

Nathpore', a town of Hindostan, pres. of Bengal, on the Kosee; Lat. 26° 18′ N., Lon. 87° 10′ E. *Pop.* 8,000.

Nat'ica, *n.* (*Zoöl.*) A genus of mollusca, the shell of which is globose, thick, and generally smooth; spire short, pointed, and with few volutures. The head of the animal is very large, having two tentacula with eyes at the base; foot large and thin. The straight, callous, smooth edge of the columella serves to distinguish this gen. from Nerita, Helix, &c. There are very many recent marine species, and not a few fossil.

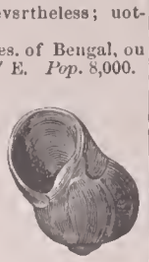

Fig. 1915. NATICA PLUMBEAR.

Nat'ick, in *Massachusetts*, a post-town and township of Middlesex co., about 17 m. W.S.W. of Boston. *Pop.* (1895) 8,814.

Nat'ick, in *Rhode Island*, a post-village of Kent co., about 10 m. S.W. of Providence.

Nation, (*nā'shun,*) *n.* [Lat. *natio*, from *nascor*, to be born.] A body of people inhabiting the same country, or united under the same sovereign or government. Race; breed; stock; kind; species.

"A *nation* is the unity of a people."—*Coleridge.*

—Emphatically, a great number.

"A *nation* crush'd! a *nation* of the brave!"—*Young.*

National, (*năsh'un-al,*) *a.* [Fr.] Pertaining or having reference to a nation; public; general; common to an entire race or people; as, *national* glory, a *national* debt, a *national* language.—Strongly imbued with patriotic spirit; firmly attached to one's own country; bigoted; as, he is *national*, not cosmopolite, in his sentiments.

Na'tional, in *Michigan*, a village of Outonagon co., about 14 m. S. by E. of Ontonagon.

Na'tional Assem'bly, *n.* (*French Hist.*) This title was assumed June 17, 1789, by the States-general of France, which had assembled at Versailles, May 5. The hall of the Assembly was closed by order of Louis XVI., June 20, upon which the members adjourned to the Tennis-court hall, and took an oath not to dissolve until they had prepared and voted a constitution. Admission to the Tennis-court having been afterwards refused to them, the members met at the church of St. Louis, June 22. Louis XVI. reopened the Assembly, June 23. The mob broke in, Oct. 5, and compelled the king to remove to Paris, Oct. 6. The Assembly held its first meeting after the removal to Paris in the hall of the archbishop's palace, Oct. 9, 1789, from which place it was transferred to the Riding-school hall, October 19, 1790. Mirabeau, one of the most celebrated leaders of the Assembly, was made president, Feb. 1, 1791. It declared its sittings permanent, July 17, 1791; but having entered into an agreement with Louis XVI., was dissolved, Sept. 29, 1791. As it had framed the constitution, it is sometimes called the Constituent Assembly. A new chamber, under the name of the National Legislative Assembly, met Oct. 1, 1791, and was dissolved in Aug., 1792. After the expulsion of Louis Philippe, the provisional government issued a decree, summoning a *N. A.* for April 20, 1848. By a subsequent decree, the elections were fixed for April 23, and the meeting was postponed till May 4. The government decided in favor of a presidency, and a single chamber consisting of 750 members, both to be elected by universal suffrage. A motion for its dissolution, May 19, 1849, was carried Feb. 14, 1850, and the new elections were fixed for May 4. The new Assembly met May 28, and was dissolved Dec. 2, 1851, by Louis Napoleon, who introduced a new constitution. In 1870, the *N. A.* was again restored.

Na'tional Cem'eteries, *n. pl.* (*Amer. Hist.*) The name given to establishments, instituted by Act of Congress, for the interment of U. S. soldiers who have fallen in battle, and whose graves become, accordingly, a sacred national charge. These graves, 316,236 in number, are distributed in 72 special, or "National," cemeteries, and in 320 of the local cemeteries of the country. The names of 175,764 (more than one-half) of the dead have been preserved and attached to the graves. Of the rest it is only known that they died fighting in the Union armies; their graves marked with the sad inscription—"Unknown United States Soldier." Of the whole number, less than one-fifth now repose in their original graves. 257,520, or more than four-fifths, have been removed from the rude trenches of the battle-fields, or from their roadside graves, to the orderly enclosures where the national flag floats over their long rows.

Na'tional Debt, *n.* See UNITED STATES, § *Finances.*

Na'tional Guard, *n.* (*French Hist.*) A kind of citizen militia, which was first formed in Paris by the Committee of Public Safety, in July, 1789. This force became so popular that, in 1790, it was established throughout the kingdom, and was reorganized in 1795. The command was offered, in 1796, to Napoleon Bonaparte, and refused by him. It was reorganized in 1805, 1813, and 1814; was disbanded by Charles X., April 13, 1827, and was re-established by the constitution of 1830. The defection of the *N. G.* from Louis Philippe, in 1848, was one of the principal causes of his overthrow. The *N. G.* throughout France was reconstructed by a decree dated Jan. 11, 1851, but subsequently abolished in 1871.

Na'tionalism, *n.* The state of being national; nationality.—National trait or characteristic

Nationality, (*năsh-un-ăl'i-ty,*) *n.* [Fr. *nationalité.*] Quality of being national, or strongly attached to one's own nation.—National character; aggregate of the distinguishing qualities of a nation.—A nation; a race or people, as exemplified by identicalness of language and character; as, the *nationalities* of Europe.—Individual existence as a nation; unification as a people.

Nationaliza'tion, *n.* Act of nationalizing; state or condition of being nationalized.

Nationalize, (*năsh'un-,*) *v. a.* To make national; to give to one the character and habits of a nation; to endow with the peculiar attachments which pertain to citizens of the same nation.

Nationally, (*năsh'un-,*) *adv.* In a national manner; with regard to the nation; unitedly, as a nation.

Nationalness, (*năsh'un-,*) *n.* Nationality; state of being national.

Na'tive, *a.* [Fr. *natif*; Lat. *nativus*, from *natus*, a birth, from *nascor*, to be born.] Pertaining to one's birth, or place of birth; natal.

"My *native* land—good night."—*Byron.*

—Inborn; produced by nature; natural; not factitious or artificial.—Born with the being; not acquired; conferred by birth; indigenous; as, *native* simplicity.

—*n.* One born in any place; an original inhabitant; a denizen by birth; that which grows or is produced in the country; that which is domestic;—opposed to *exotic.*

"The lowly *native* of a country-town."—*Dryden.*

Na'tively, *adv.* By birth; naturally; originally.

Na'tiveness, *n.* State or condition of being native, or of being produced by nature.

Natividad', an island of Mexico, in the Pacific Ocean, off the promontory of Morro Hermoso.

Natividad, a village of Mexico, near Tezcuco.

Natividad, in *California*, a post-village of Monterey co., abt. 25 m. E.N.E. of Monterey.

Nativ'idade, a town of Brazil, abt. 75 m. N.N.W. of Arravas; *pop.* 2,500.

Na'tivism, *n.* The disposition to favor men and measures that make for the native or home-born residents of the country, in distinction from immigrants from foreign countries.

Nativ'ity, *n.* [Lat. *nativitas*, from *nativus.*] Birth; the coming into life or the world.

"They say there is divinity in odd numbers, either in *nativity*, chance, or death."—*Shaks.*

—Specifically, the birthplace of our Saviour.—Time, place, or manner of birth.

"These, in their dark *nativity*, the deep shall yield us." *Milton.*

(*Astrol.*) A horoscope; as, to cast one's *nativity.*

(*Eccl.*) There are three ecclesiastical festivals so called. The first is to commemorate the birth of the Saviour (see CHRISTMAS); the second is the nativity of St. John the Baptist, which is celebrated June 24; and the third is the nativity of the Virgin Mary, which is observed by the Roman Catholic Church Sept. 8.

To calculate, or *cast*, one's nativity. (*Astrol.*) To discover and represent the position of the heavens at the period of one's birth.

Natolia, Anatolia, [a corruption of Gr. *Anatole*, the East, or Levant,] a peninsula of Western Asia, anciently called *Asia Minor*, and now constituting a pashalic of Asiatic Turkey; it extends between Lat. 36° and 42° N., and between Lon. 26° and 42° E; being bounded N. by the Black Sea, E. by Armenia and the Euphrates, S. by Syria and the Mediterranean, and W. by the Archipelago. Length, from C. Kara-burun to the Euphrates, 670 m.; breadth, from 300 to 400 m.; estimated area, 250,000 sq. m. The coast-line is irregular, especially on its W. and S. sides, where it is deeply indented by the Gulfs of Adramyti, Smyrna, Cos, Makri, Adalia, and Scanderoon. The surface may be generally described as a high table-land, dotted with salt lakes, and enclosed by two ranges, detached from the plateau of Armenia, and running nearly parallel to the N. and S. coasts. The latter of these chains, the *Mons Taurus* of the ancients, and Sultan-dagh of the Turks, runs close to the shore in some parts of Caramania, forming a bluff precipitous coast, intersected here and there by narrow gorges, through which numerous torrents run into the sea. One of the heights, close to the Gulf of Adalia, was ascertained by Beaufort to be 7,800 feet high; but there are several summits in the interior, the snow on which descending one-fourth the way down their sides, indicates a height of 10,000 feet, or nearly equal to that of Mount Ætna. The N. range is much less clearly defined, the only snow-covered peak being *Mount Olympus*, about 25 m. S. of the Sea of Marmora. Connected with Olympus westward is the celebrated *Mount Ida*, overlooking the plain of Troy; and the highest summit of which, called *Gargarus* by Homer, and Kaz-dagh by the Turks, rises about 5,000 feet above the sea. About 100 m. S. of Ida runs another range, the *Tmolus* of antiquity, mentioned by Ovid, Virgil, and Seneca as being celebrated for its excellent wines and rich metallic veins. The central table-land is partly drained by the rivers flowing into the Black Sea; but a large portion, lying N. and N.W. of the range of Taurus, about 240 m. in length by 150 m. in breadth, is covered with numerous salt lakes, marshes, and rivers, having no visible outlet. In rainy seasons these lakes overflow, and, but for the ridges that cross the plain and separate it into basins, would submerge nearly 200 sq. m. of the surface. The largest of these is the lake Beishehr, 43 m. W.S.W. of Konieh; but by far the most curious in the peninsula is the *Tatta palus* of antiquity (about 50 m. N. of Konieh, and 2,500 feet above the sea), the waters of which, acc. to Strabo, were so impregnated with brine, that anything immersed in it was soon covered with a saline incrustation. The Turks

call it Tuzla, and it still furnishes in abundance the article for which it was anciently famous; but it contains neither fish nor conchiferous animals. (*Geog. Journ.* x. 299.) The largest rivers of Natolia flow into the Black Sea. The *Halys*, or Kizil-Ermak ("Red River"), rises by 2 branches on the S. side of Mount Erdjik (anc. *Argæus*), and flows by a tortuous course of about 500 m., first N.W., and subsequently N.E., into the Black Sea, where it is about as wide as the Seine at Paris. It is the largest river of Asia Minor; and, in ancient times, was considered the boundary between the Lydian and Median kingdoms, as well as a natural dividing line of the peninsula. (See *Herod.* i. 72.) E. of the Halys is the *Iris* (now the Jekil Ermak), a much smaller river, rising in the N. range of the table-land, and flowing W. by N. past Tokat into the Black Sea, about 20 m. E. of Samsoun (anc. *Amisus*). In the N.W. part of Natolia is the large and celebrated river *Sangarius* (now Sakaria), the most distant source of which is in the central plateau, about 60 m. S.S.W. of Angora; Lat. 38° 5′ N., Lon. 32° 3′ E. After receiving numerous tributaries, it turns northward, near the modern town of Eski-sher (anc. *Dorylæum*), and flows into the Black Sea, about 50 m. W. by S. of Erekli. The three principal rivers flowing into the Archipelago are the *Caicus*, the *auro turbidus Hermus* of Virgil (*Georg.* ii. 137), now the Sarabat, the marshy *Caystrus*, at the mouth of which was the Ἀσιὸς λειμὼν of Homer (*Il.* ii. 461), and the *Meander* (now Mendere), by far the largest of the three, and celebrated in antiquity, not only for the sinuosities of its course, but for the fertility of its valleys, and the number of flourishing cities on its banks. It rises by numerous sources in Lon. 30° 8′ E., and takes a general course, W. by S., about 220 m. to its mouth, near the ruins of *Miletus*. The rivers on the S. side of the peninsula are, with one or two exceptions, little more than brooks or mountain-torrents; and the *Cydnus*, the scene of the splendid pageant of Cleopatra, is at present only 160 feet wide, and inaccessible to any but the smallest boats. The geological formation of Natolia partakes in many parts of a volcanic character. The high region of Phrygia abounds with lava and other substances, indicating the existence of igneous action at some previous period. Earthquakes have frequently visited the W. part of the peninsula, and all but demolished Laodicea, Apamea, Cibotus, Sardis, and other cities of antiquity; and it has still numerous thermal and sulphureous springs. The most general formation, however, is of white limestone, bold cliffs of which rise in Karamania, from 600 to 700 feet perpendicularly from the sea, exhibiting the most curious contortions of strata. On the N. side of the peninsula the same description of strata prevails, covered with gypsum, and in the highest mountains serpentine is found alternating with the blue mountain-limestone. The marble of Asia Minor was extensively used by the wealthy Romans in building their houses and villas. These mountains abound in mineral riches; copper is wrought to a considerable extent near Trebizond, Samsoun, and Siwas; and the region of the *Chalybes* is still an important mining district of the peninsula. Lead has been found in several places, though not wrought; but rock-alum is procured near Unieh (anc. *Œnæ*), and exported in considerable quantities. The climate of *N.*, owing to the varying elevation and different aspects of its surface, will admit of no general description. On the central plateau, the height of which, exclusive of mountains, varies from 2,800 to 3,900 feet above the sea, it is cold, though salubrious, and snow lies, in many parts, for 2 or 3 months of winter: but, in July and August, the heat is often intense, and rendered more oppressive by the tendency of the sandy surface to absorb heat. On the W. shores the climate is genial, and the soil very productive; but in some parts, as at Smyrna and elsewhere, epidemics are prevalent, and the plague often makes great ravages among the pop. The heat in July ranges from 84° to 91° Fah. in the shade; rain seldom falls, though the want of it is, in some degree, compensated by heavy dews. The climate on the N. side is far more temperate, and rain is frequent. The soil on the coast is tolerably fertile, producing wines, olives, rice, millet, and other grains; but tillage is much neglected, irrigation and the manuring of land being little practised. The N. shores are covered with forests of oak, ash, larch, beech-trees, &c., furnishing abundant supplies of timber for the Turkish navy. The mountains of Caramania are covered principally with pines. Large flocks of sheep and goats graze on the lofty plains of the interior; their wool and hair forming an important article of commerce between Angora and Smyrna. *N.* is under a pasha or military governor, to whom are subject the respective beglerbegs of Anadoli, Caramania, Marash, Sivas, and Trebizond, the country being further subdivided into 17 sandjaks. The fixed pop. consists principally of Turks and Greeks, with smaller numbers of Armenians and Jews; besides whom there are nomadic tribes, both Kurds and Turcomans, employed partly in pastoral, but partly also in marauding occupations. *N.*, which was first called simply Asia, afterwards ἡ κατὼ Ἀσία, to distinguish it from that more to the E., ἡ ἀνὼ, was called *Asia propria*, or *pro-consularis*, by the Romans, and did not receive its appellation of *Asia Minor* earlier than the time of Orosius, in the beginning of the fifth century. The Lydians dispute with the Phrygians the honor of being the first settlers of *N.* It was the seat of empire of the wealthy Crœsus, who was defeated and his capital taken by Cyrus, B. C. 546. — See LYDIA.

Na'trolite, *n.* (*Min.*) Prismatic Zeolite, a hydrated silicate of alumina and soda, which occurs in slender or acicular crystals, and in small mammillary fibrous masses of a white, yellowish, or grayish color.

Na'tron, *n.* [L. Lat.; Gr. *nitron.*] (*Min.*) The native carbonate of soda has long been known under this name, and hence the term *natrium*, applied to sodium by the German chemists, which has led to the adoption of the symbol Na for that metal. It is found in sandy soils of various countries, but more especially in Egypt, where it was anciently employed in the art of embalming.

Na'tron Lakes, in Egypt, in Natron Valley, 60 m. W.N.W. of Cairo. They consist of 8 pools, from which large supplies of natron are collected.

Nat'tily, *adv.* In a natty or daudified manner.

Nat'ty, *a.* Smart; neat; spruce; genteel; daudyish; as, a *natty* fellow.

Natural, (*năt'yu-ral,*) *a.* [Fr. *naturel*; Lat. *naturalis*, from *natura*, nature. See NATURE.] Pertaining to, or implanted by nature; produced or effected by nature; consistent with nature: according to the stated course of things; such as is dictated by nature; according to life; derived from nature as opposed to habitual, as inclination; not foreign, forced, or far-fetched; as, *natural* manner or disposition, *natural* appearance. — Consonant to the laws, method, or order of nature; produced or coming in the ordinary course of things or the progress of animal and vegetable creation; conformed to the laws which direct and govern things circumstantial, sensational, and emotional; legitimate; normal; not violent, exceptional, or irregular; as, a *natural* death, *natural* consequences, &c. — Belonging to nature; pertaining to the existing system of things, as derived from the creation, or as known by the world of matter and mind, discoverable by reason; as, *natural* history, *natural* theology, a *natural* law. — According to truth and reality; true to nature; unassumed; unaffected; life-like; not artificial or exaggerated; as, a *natural* tone of voice, a *natural* posture. — Illegitimate; bastard; born out of wedlock; as, a *natural* child. — Derived from the study of the works of nature; formed by the lower or animal nature, in distinction from the spiritual substance of the higher or moral powers.

(*Mus.*) Applied to an air or modulation of harmony which moves by smooth and easy transitions, deviating little or gradually from the original key; — noting a key (C major) which requires neither sharp nor flat to form the intervals. — Applied to music, or musical sounds, produced by the voice, as distinguished from instrumental music or musical sound.

—*n.* One who exhibits, when grown up, the simplicity and want of understanding natural to an infant; a simpleton; an idiot.

—*pl.* Natural circumstances or characteristics.

"Such as presuming on their own *naturals* deride diligence." *Ben Jonson.*

(*Mus.*) A character marked thus ♮. Its office is to contradict the flats or sharps placed at the beginning of a stave or elsewhere, and by its use the note to which it is prefixed returns to the natural scale of the white keys.

Nat'ural Bridge, in *New York*, a post-village of Jefferson co., abt. 25 m. E. by N. of Waterton.

Natural Bridge, in *Virginia*, a village of Rockbridge co., so named from one of the most stupendous and extraordinary natural curiosities in the whole of the American continent. It is a natural arch of limestone rock, spanning an immense ravine. This bridge is 200 feet under arch above the stream of Cedar Creek, and in one solid arch of 90 feet span unites the rocks across this sheer abyss. The arch itself, or roadway, is eighty feet wide, and has a depth of 53 feet, being naturally parapeted on either side by blocks of rock bound together by plants and shrubs; and, viewed either from above or below the bridge, is both grand and magnificent. It forms the only means of communication between the two sides of a chasm that seems to admit of no other means of connection.

Fig. 1916. — NATURAL BRIDGE. (Virginia.)

Nat'ural His'tory, *n.* The science which in its most extended signification treats of the structure of bodies spread over the surface of the globe, or forming its mass, — the phenomena exhibited by these bodies, the characters by which they may be distinguished from each other, and the part they play in the entire creation. Its range is immense, and its importance is not inferior to its extent. Some, but little acquainted with science, see in natural history merely a collection of anecdotic facts, more calculated to excite the curiosity than to exercise the understanding, or a dry study of technical terms and arbitrary classifications. Such an opinion is based on ignorance; and the utility of the study of natural history cannot fail to be recognized by all who possess even the preliminary ideas of the science. The grand and harmonious view it presents of nature, whose *beau ideal* is so much superior to that of human invention, tends to elevate the mind to lofty and sound thoughts. The knowledge of ourselves and of surrounding objects is not given merely to satisfy the desire for learning which develops itself always according as the intelligence enlarges; it forms a necessary basis to many other studies, and is eminently calculated to give to the judgment that rectitude in the absence of which the most brilliant qualities lose their value, and in the course of life lead the mind astray. On the other hand, to be convinced of the practical importance of the natural sciences, we have only to look to geology and mineralogy, and the services they have rendered to industry; to botany, and to the myriads of beauteous and useful plants it describes, and to horticulture, of which it is the guide; to recollect the animals to which we owe wool, silk, honey — which lend us that power which man so often requires, or which, far from being useful to us, threaten our harvests with destruction; lastly, to consider the long catalogue of human infirmities, and to reflect on the dangerous character of that medicine which is not based on a scientific knowledge of the human structure. But the utility of these sciences does not stop here; in an educational point of view, their study accustoms the mind to proceed from effect to cause, testing each hypothesis by an appeal to facts. Finally, before all other studies, that of natural history trains the mind to *method*, that part of logic without which all investigation is laborious, every exposition obscure. The term *N. H.*, however, is generally restricted to the external description of objects of nature, whether vegetable, animal, or mineral. It is consequently divided into three separate headings: — 1. *Geology* and *Mineralogy*; 2. *Botany*; 3. *Zoölogy*; (which see.)

Nat'ural Or'ders, *n. pl.* (*Bot.*) See BOTANY.

Nat'ural Philos'ophy, *n.* See PHYSICS.

Nat'ural Theol'ogy, *n.* That science which treats of the being, attributes, and will of God as deducible from the various phenomena of created objects.

Nat'uralism, *n.* Mere, simple state of nature.

(*Theol.*) The doctrine which ascribes the phenomena of nature to a blind force acting necessarily.

Nat'uralist, *n.* [Fr. *naturaliste.*] One who investigates nature and nature's laws as manifested in created things; one who is versed in the knowledge or science of nature, such as the various productions of the earth — animal, vegetable, and mineral. — A supporter of the theological doctrines of naturalism.

Naturalis'tic, *a.* Pertaining, or having reference to the doctrines of naturalism.

Naturaliza'tion, *n.* The act of naturalizing or of being naturalized. — The act of investing an alien with the rights and privileges of a native citizen. See SUPPLEMENT.

Nat'uralize, *v. a.* [Fr. *naturaliser.*] To invest with natural or native qualities; to make easy and familiar by association, custom, or habit.

"Custom has *naturalized* his labor to him." — *South.*

—To confer on an alien the rights and privileges of a native or citizen. — To accustom or habituate to a climate; to adapt to a different temperature; to acclimatize; as, to *naturalize* a tropical fruit to a high latitude. — To receive or adopt as natural, native, or vernacular; to make one's own; as, to *naturalize* a foreign phrase.

—*v. n.* To investigate and expound phenomena by natural agency.

Nat'urally, *adv.* According to, or after the manner of, nature; by the impulse, agency, or force of nature; not by art, custom, or habit.

"There can be *naturally* no such thing as certainty of knowledge." *South.*

—According to life; in consonance with the usual or ordinary course of things; with just representation; without artificialness or affectation.

"That part was aptly fitted, and *naturally* performed." — *Shaks.*

—Impulsively; spontaneously; generically; without art or cultivation.

Nat'uralness, *n.* State or quality of being natural, or of being given or produced by nature. — Conformity to nature, or to truth and reality; without affectation or artificialness.

Nature, (*nāt'yur,*) *n.* [Fr.; Lat. *natura*, from *nascor*, *natus*, to be born, to arise, to spring forth.] The system of created things; the universe; the creation; by a metonymy of the effect for the cause, the agent, creator, author, producer of things, or the powers that produce them; the world of mind and matter.

"And muse on *Nature* with a poet's eye." — *Campbell.*

—The essence, created qualities, or attributes of a thing, which constitute it what it is, as distinct from others; characteristic constitution; peculiar embodiment.

"What alled them their fixed *natures* to forsake?" — *Cowley.*

—Sort; species; kind; particular character; as, what is the *nature* of the business? — Established or regular course or order of things; normal association; common law of circumstances, or sequence of events; combination or juxtaposition of cause and effect.

"The course of *nature* is the art of God." — *Young.*

—Law or principle of action or motion in a natural body; aggregate powers of a body, especially a living one; constitution and appearance of things; creative agency; personified substance and order of causes and effects. — Natural affection or reverence.

"One touch of *nature* makes the whole world kin." — *Shaks.*

—Sentiments or images conformed to nature, or to truth and reality; normal or usual representations.

"*Nature* and Homer were, he found, the same." — *Pope.*

—A mind, intellect, or character; a person of moral or mental eminence.

"His *nature* is too noble for the world."—*Shaks.*

—Nudity; nakedness; destitution of artificial covering; natural condition with respect to clothing; also, infrequently, the genital organs.

Good nature, generosity or amiability of disposition; natural excellence of temper.—*In a state of nature*, naked; nude; without covering or clothing.

Nature-printing. (*Fine Arts.*) A technical process by which printed copies of plants and other objects are produced upon paper in a manner so truthful that their size, fabric, and color are represented even to the most minute detail. Although it is only in this century that this art has been so far developed as to become practically useful, it is by no means new in idea; a certain Professor Kniphof, of Erfurt, having been in the habit of taking impressions from leaves, &c., which had been colored with lamp-black or printers' ink, as long back as 1728; and twenty years later, an engraver at Nuremberg published in folio-plates figures of several leaves he had reduced to skeletons, and from which he took impressions in red ink. But although this process was made use of at intervals by several ingenious persons, it was not until 1833 that it was recognized as a regular branch of trade. In that year a Danish goldsmith and engraver, who had applied himself for some time to the ornamentation of articles in silver ware, published a description of the method he pursued of taking copies of flat objects of nature and art on plates of metal by means of two steel rollers, and it was at once perceived, by scientific men, that his invention might be applied to the advancement of the arts and science in general. A great difficulty still, however, prevented any extensive application of his invention, consisting in the fact, that, while the extreme hardness of plates of zinc, tin, and copper crushed and distorted the plant subjected to their pressure, the surface of a leaden plate, after the application of printers' ink, could not be cleansed so thoroughly as to allow the printer to take impressions free from dirty stains. To obviate this difficulty, Dr. Branson, of Sheffield, in 1847, commenced a series of experiments, and in 1851 suggested the application of that most important element in nature-printing, which is now its essential feature — the electrotype. About the same time Professor Leyholt, of Vienna, carried out experiments in the representation of flat objects of mineralogy, such as agates, fossils, and petrifactions. Treating their surfaces with fluoric acid, he then washed them with dilute hydrochloric acid, and when they were dried, carefully blackened them with printers' ink. By placing a leaf of paper upon them, and pressing it down upon every portion of the etched or corroded surfaces with a burnisher, he obtained impressions which represented, in the case of agates for instance, the crystallized rhomboidal quartz *black*, and the weaker parts, which had been decomposed by the action of the acid, *white*. As the stone, however, is in most cases too brittle to bear subjection to the printing-press, this process would have been, as in the case of plants, practically useless, had it not been for the aid afforded by the art of electrotyping. Nature-printing, as now practised, and as brought to perfection at the Imperial printing-office of Vienna in 1853, may be described as follows:—The subject, which, if a plant, must be perfectly dry, is placed on a plate of fine rolled lead, the surface of which has been polished by planing. The plate and subject are then passed between others, the pressure of which forces the latter into the surface of the former. The leaden plate is then subjected to a moderate heat, which has the effect of loosening the subject from its bed, and enabling it to be easily removed. The mould, which has been formed in the plate, is then subjected to the galvano-plastic process, and a second cast obtained, which is its perfect fac-simile. When the subject to be printed is of one color only, that pigment is rubbed in, and any superfluity removed; but when it is of two or more colors, the plan adopted in the inking of the plate is to apply the darkest color, which, in the case of plants, generally happens to be that of the roots, first, the superfluous color is cleaned of; the next darkest color — such, perhaps, as that of the stem — is then applied, the superfluous color of which is also cleaned off; and this mode is continued until every part of the plant in the copper-plate has received its proper tint. The plate thus changed, with the paper laid over it, is placed upon a copper-plate press, the upper roller of which is covered with five or six blankets of compact, fine texture. The effect of the pressure is, that all the colors are printed by one impression, and when the paper is removed, the plant is seen quite perfect, highly embossed, with the roots, stems, and other parts, each of its proper tint.

Na'tured, *a.* Endowed with a nature, disposition, or temper; inclined;—principally employed in composition; as, ill-*natured*, good-*natured*, &c.

Na'turism, *n.* Another orthography of NATURALISM, *q.v.*

Na'turize, *v. a.* To endow with a nature or character. (R.)

Nau'gatuck, in *Connecticut*, a small stream flowing into the Housatonic River in New Haven co.

—A post-town of New London co., about 27 m. N.N.E. of Bridgeport. *Pop.* (1897) 6,450.

Naught, (*nawt,*) *n.* [A. S. *naht, nauht*—*ne*, not, and *aht, auht*, aught; D. *niets;* Ger. *nichts.* See AUGHT.] Nought; nothing.

"A woman's nay doth stand for *naught*!"—*Shaks.*

To set at naught, to slight; to despise; to act in defiance of; to treat as of no account.

"Be you contented
To have a son *set* your decrees *at naught*!"—*Shaks.*

—*adv.* In no degree.

"To sovereign power he *naught* applies."—*Fairfax.*

—*a.* Bad; corrupt; worthless; of no value or account.

"Things *naught* and things indifferent."—*Hooker.*

—Naughty; vile; depraved. "Thy sister's *naught*." *Shaks.*

Naught'ily, *adv.* In a naughty manner; wickedly; depravedly; corruptly.

Naught'iness, *n.* Quality of being naughty; worthlessness; badness; wickedness; evil principle or purpose.—Slight wickedness; perverseness; frowardness; mischievousness, as of children.

Naughty, (*nawt'y,*) *a.* Wicked; corrupt; depraved.—Mischievous; perverse; froward;—used in application to children, or in ludicrous censure.

Naul'age, *n.* [Fr., from Lat. *naulum.*] The freight of passengers in a ship.—*Johnson.* (R.)

Nau'machy, *n.* [Fr., *naumachie;* Lat. *naumachia*, from Gr. *naus*, ship, and *machē*, combat.] (*Roman Antiq.*) A representation of a naval engagement, which took place most usually in theatres (called also *naumachiæ*) made for the purpose (Fig. 608). These exhibitions were originally instituted for the purposes of naval discipline; but, in process of time, only malefactors or captives whose lives had been forfeited acted in them. They appear to have been conducted on a scale of such magnificence as almost to exceed belief. Within the places set apart for them whole fleets went through their evolutions. In the sea-fight on the lake Fucinus, given by Claudius, there are said to have been no fewer than 19,000 combatants. Julius Cæsar appears to have first given a naumachia on an extensive scale; his example was followed by many of his successors on the imperial throne; and at last they were frequently exhibited at the expense of private individuals, as a means of increasing their popularity.

Naum'burg, a fortified town of Prussian Saxony, on the Saale, 25 m. S. of Halle and 28 S.W. of Leipsic. The principal public buildings are the citadel, town-hall, and the cathedral, a fine Gothic structure. *Manuf.* Woollen cloth, hosiery, shoes, and chemicals.—The Hussites besieged *N.* unsuccessfully in 1432. It played an important part during the Thirty Years' War, and was taken by the French in 1806. *Pop.* 14,352.

Nau'plia, or **Na'poli-di-Roma'nia,** a seaport-town of Greece, on the E. of the Morea, on the Gulf of Nauplia, 5 m. S.E. of Argos, and 58 m. W.S.W. of Athens; *pop.* 12,500.

Nau'plia, (Gulf of,) an inlet of the Ægean Sea, Greece, between the two E. arms of the Morea. It contains several small islands, and receives the river Ileria, on which Argos is situated. *Ext.* Thirty m. long, and twenty broad.

Nau'plius. (*Myth.*) A son of Neptune and Amymone, king of Eubœa. He was father to Palamedes, who was sacrificed to the resentment of Ulysses by the Greeks, during the Trojan war. The death of Palamedes irritated Nauplius. When the Greeks returned from the Trojan war, Nauplius saw them distressed in a storm on the coasts of Eubœa, and to make their disaster still more complete, he lighted fires on such places as were surrounded with the most dangerous rocks, that the fleet might be shipwrecked on the coast. This succeeded; but when he saw Ulysses and Diomedes escape, he threw himself into the sea.

Naus'copy, *n.* [From Gr. *naus*, ship, and *skopein*, to view.] The art or practice of sighting ships, or the distant approach to land.—This definition, stereotyped in all English dictionaries, seems to assert the existence of a positive art, though it existed but in the imagination of a Frenchman called Boltinenu, who, in 1785, appeared in Paris, and announced that he had found out means of perceiving the approach, or the passage, of ships at distances extending as far as even 250 leagues. According to his own account, he had accidentally perceived, some twenty years before, being then employed in some civil capacity at the Isle of France, that certain phenomena in the heavens indicated the approach of ships; after an immense number of observations, failures, and uncertainties, he had arrived at a method of reading these indications, (of what kind, he declined to state,) which, though from the nature of the case it was not quite certain, was yet so nearly correct as that, out of one hundred and fifty-five predictions of the arrival of ships, more than half, as he asserted, were absolutely correct, while a large part of the remainder were subsequently proved to be correct, so far as the passage of the ships, on the days, and at the distances stated, was concerned.—Boltineau died, leaving only one disciple, M. Feillaffé, who made, it is said, some predictions which proved to be right, and with whom the marvellous art of beholding ships far below the horizon was hopelessly lost.

Nausea, (*naw'she-a,*) *n.* [Lat.; Gr. *nausia*, sea-sickness, from *naus*, a ship. See NAUTICAL.] Sea-sickness; hence, any corresponding sickness of the stomach, accompanied with a tendency to vomit; squeamishness of the palate; qualm; loathing; disgust.

Nau'seant, *n.* [From Lat. *nauseare.*] (*Med.*) A substance which excites or promotes nausea.

Nau'seate, *v. n.* [Lat. *nauseo; nauseātum.*] To become squeamish; to feel disgust; to be inclined to reject from the stomach.—To loathe; to shrink from with disgust.

—*v. a.* To affect with disgust or nausea; to sicken.—To loathe; to reject or shrink from with disgust.

"He turned from her as if he were *nauseated*."—*Swift.*

Nau'seative, *a.* Nauseous; exciting nausea.

Nausea'tion, *n.* Act of nauseating; state of being nauseated.

Nauseous, (*naw'shus,*) *a.* Exciting nausea; loathsome; disgusting; regarded with abhorrence; as, a *nauseous* medicine.

Nau'seously, *adv.* In a nauseous manner; loathsomely; disgustfully.

Nau'seousness, *n.* Quality of exciting or producing nausea; loathsomeness; quality of causing disgust.

Nausett' Beach, in *Massachusetts*, on the E. side of Cape Cod. It has 3 light-houses 150 feet apart; Lat. 41° 51′ 35″ N., Lon. 69° 57′ 18″ W.

Nau'ta, a town of Ecuador, on the Amazons; Lat. 4° 30′ S., Lon. 72° 40′ W.

Nautch, *n.* In the E. Indies, a dance-entertainment performed by women.

Nautch'-girl, or **Naut'chee,** *n.* The name applied in India to a professional dancing and singing-girl, or hayadere. The Nautchees are recruited from almost every condition in life, but the better sorts are generally derived from good families of the Vaishya and Soodra castes—that is, the merchants and laborers. Girls of tender age, for their beauty, are apprenticed to *dhyas*, a sort of duennas, who are superannuated nautchees, and are introduced to a severe physical training, and at the same time initiated into all the nautchee's arts of adornment and meretricious attraction. See BAYADERE, and ALMA.

Nau'tic, Nau'tical, *a.* [Fr. *nautique;* Lat. *nauticus* = Gr. *nautikos*, belonging to a ship, from *naus* = Lat. *navis*, Sansk. *nau*, a ship.] Pertaining, or having reference to ships or seamen, or to the art of navigation; as, the *nautical* profession, a *nautical* work, *nautical* experience, &c.

Nau'tiform, *a.* [Gr. *naus*, a ship, and Lat *forma*, shape.] Formed like the hull of a ship.

Nau'tilite, *n.* (*Pal.*) A nautilus in a fossil state.

Nau'tiloid, *a.* [Lat. *nautilus*, and Gr. *eidos*, form.] Resembling the nautilus in shape.

Nau'tilus, *n.* [Lat.; Gr. *nautilos.*] (*Zoöl.*) A genus of Molluscs, order *Tetrabranchiata*, of which abt. 150 species of fossil shells have been found in all strata, from the Upper Silurian to the most recent deposits. Only three living species are known, the best-known of which is the Pearly *N.* (*N. pompilius*). Its shell is spiral, the spire not at all elevated; and thus, in external form, resembles the shells of many species of snail; but internally, it is *camerated*, or divided into chambers by transverse curved partitions of shelly matter. In a very young state, this structure does not exist; but as the animal increases in size, it deserts its first habitation, which then becomes an empty chamber, and so proceeds from one to another still larger, occupying the outermost only, but retaining a connection with all by means of a membranous tube (*siphuncle*) which passes through the centre of each partition. The use of this connection is not known; but the most probable supposition is, that the animal is enabled, by throwing air or some kind of gas into the empty chambers of the shell, or by exhausting them of air, to change the total weight, so that it may rise or sink in the water at pleasure. It commonly inhabits the bottom of the sea, where it creeps about, probably like the gasteropods, by means of a large muscular disc, with which the head is furnished; but it sometimes rises to the surface, and is to be seen floating there. There are numerous arms attached to the head,—19 in the best-known species; there are also numerous other tentacles; but none of these organs are furnished with suckers, and they are feeble in comparison with the corresponding organs of many of the higher or dibranchiate cephalopods. The mouth is of the parrot's bill form, as in the other cephalopods; but the mandibles are not entirely composed of horny matter, their extremities being calcareous and of a hardness apparently adapted for breaking shells. Their edges are also notched, and show an adaptation for crushing, rather than for cutting. The tongue is large. The gizzard is muscular. The ARGONAUT (*q.v.*), sometimes called *Paper N.*, is a very different animal, resembling the cuttle fish, its shell being only a case for containing its eggs.

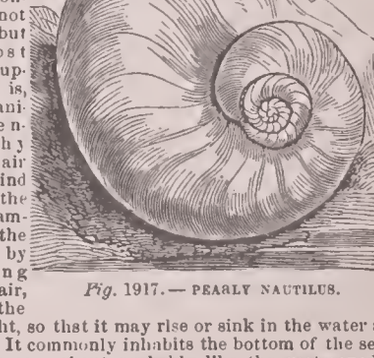

Fig. 1917.—PEARLY NAUTILUS.

Nau'voo, in *Illinois*, a city and township of Hancock co., on the Mississippi River, about 52 m. above Quincy. *Pop.* (1897) 1,250. See MORMONS.

Nauvoo, in *Pennsylvania*, a post-village of Tioga co., abt. 30 m. N. by W. of Williamsport.

Na'val, *a.* [Fr., from Lat. *navalis*—*navis*, Gr. *naus*, a ship.] Pertaining to ships; belonging or having reference to a navy; consisting of ships; as, a *naval* expedition, a *naval* power, the *naval* service, *naval* stores, &c.

Naval officer, in the U. States Custom-house, an officer appointed to assist the collector in receiving the customs on imported goods.

Naval Architecture, (*nai'val,*) *n.* [Lat. *navalis.*] Ship-building may be regarded in two points of view—in the first as a science, and in the second as an art. It is a science, from the fact that it depends upon some fixed laws of nature for its integrity; whereas, it is an art, inasmuch as it depends on the application of rules which are liable to constant fluctuation. By the aid of

various scientific principles, a certain degree of excellence may be obtained in a ship, so as to cause some particular quality to preponderate in it, such as stability, speed, and similar points; but, on the other hand, rules are applied which relate to the nature, such as, for instance, of elastic and non-elastic fluids, where, in fact, the very natural laws themselves have been but imperfectly developed. The form of a ship's body need not necessarily remain imperfect because the curve of the solid of least resistance remains unknown, since enough has resulted from the consideration of the nature of that solid to prove, that, however applicable it might probably be to the navigation of smooth waters, the perfect solution of the problem of its form would only be desirable to the naval architect as contributing to the general theoretical excellence of the science; as it would be but of little practical utility in its application to vessels intended to brave the powers of the elements in the open seas. There are also other considerations to be borne in mind, which regard the resistance of fluids, the fore and aft form of the body of the ship, the size and rake of the masts and other spars, &c., which can only be decided by comparison, experiment, and induction, assisted by the knowledge of the natural laws. The great considerations to be regarded in the form of a ship are, that it shall conveniently carry its stores and lading, besides its artillery, if a ship-of-war; that it shall be moved by wind or steam at a certain estimated velocity; that it shall readily obey the rudder; and, finally, that it have the proper stability, so as to have a firm grasp of the water, which prevents its being overturned by the wind, or heaving and pitching much from the action of the sea, which generally tends to strain the timbers. One or two of these qualities, however, virtually oppose the rest; and, consequently, the architect has to assimilate them into one whole, that the quality most desirable shall be obtained without erroneously sacrificing too much of the rest. The body of a ship, in the form which unites the several qualities just mentioned in the greatest perfection: has, in its middle, nearly the form of a portion of a hollow cylinder, with its axis horizontal, and its convex surface downwards. Above the surface of the water the sides are curved, so as to cause the head of the ship to have the form of a Gothic arch, more or less acute, in an horizontal direction. Towards the stern, the breadth diminishes gradually, and this part of the ship is either a plane surface, nearly perpendicular to the ship's length, or else so curved as to have nearly the form of a semi-ellipse in an horizontal section. Below the surface of the water, the body of the ship is curved in a similar direction towards the head and stern, so as to terminate at those points in angles, which diminish from the surface downwards; and thus a vertical section, taken perpendicularly to the length of the ship towards either extremity, diverging from the middle, presents on each side the form of a curve of contrary flexure. In merchant-ships, as great capacity is more considered than velocity of sailing, the relations between length, breadth, and depth depend less on hydrodynamical principles than in ships of war. The construction of vessels is calculated from three plans, named respectively the *sheer plan*, the *half-breadth plan*, and the *body plan*. The first of these is a projection on a *vertical longitudinal* plane, dividing the ship into two equal parts, the plane passing through the middle line of the vessel from the middle line of the stem, or fore-boundary, to the middle line of the sternpost, or after-boundary. The half-breadth plan describes half the widest and longest level section in the ship, or, in other words, that of an horizontal plane, passing through the length of the ship at the *height of the greatest breadth*. The body plan describes the largest vertical and athwartship section of the ship, and it forms the boundary of all the other sections delineated within it. These drawings are usually constructed on a scale of ¼ inch to a foot, and when they have been fully settled, enlarged copies of them, to the full size of the ship, are traced with chalk on the floor of the *mould-loft*. This operation is technically called *laying off*, and it gives the workmen an exact idea of the position, size, and shape of the principal timbers of the ship. The place where the ship is raised is termed the *building-slip*, situated by the side of a river or other water sufficiently deep to float her when ready to be launched. On the floor of this slip are arranged blocks of oak, three feet high and four feet apart, in a row, along the direction of the length of the intended ship. On these blocks is laid the *keel*, which is the lowest timber in the ship, as upon it the whole fabric is raised. It is generally of elm, as that timber possesses strong, tough fibres, and is also not injured by the action of water when immersed. The size of the keel in a first-rate man-of-war is about twenty inches square, and of length proportionate to the size of the vessel. Below the main keel, pieces of elm, some five to six inches thick, are worked in, and the structure they form is termed the *false keel*, whose use is to give the ship greater immersion in the water, and thus prevent lee-way. At each extremity of the keel, extending to the middle, pieces of wood, termed the *dead-wood*, are placed, the upper surface of which is cut in a curvilinear form to adapt itself to the shape of the bottom of the ship. Beyond these, at each extremity of the keel likewise, a post is set up, called respectively the *stern-* and *stem-post*. The stern-post is usually of oak, in order to enable it to bear the great strain on it caused by the rudder, and its lower end is inserted in the keel by means of projections or teeth. The frame, or *ribs*, of a ship is composed of a great amount of timber, technically catalogued as *floors, cross-lines, half-floors, floors short and long-armed, first futtocks, second futtocks, third, fourth, and fifth futtocks*, and *top timbers*. Figs. 1918 and 1919 are intended to show in an elementary manner the combination by which strength is secured.

Fig. 1918.

The *keel*, *a*, is a massive beam, forming as it were the back-bone of the ship. Across it are laid the flat and lower ends of the ribs or timbers, *b*, which support the sides. On the floor formed by these cross-pieces is laid the *keelson*, *c*, an inner beam similar to the keel. The keelson is firmly bolted through the cross-pieces to the keel, thus holding the ribs at their bases the relative distances apart. Within the ship, on the inside of the ribs, a strong timber (*d*) called the *shelf* is bolted from stem to stern. This retains the ribs in a parallel position, and at the same time supports the *deck*, *e*. The deck, being slightly arched to prevent it from sinking in the middle under heavy burdens, has a tendency to force the vessel's sides outwards. This is prevented by the employment of knees, *f*, which holds the ribs to the cross-beam on which the deck rests. From the respective ends of the keel rise the *stem*, *g*, and *stern-post*, *h*. At these points the ship's *beam*, or width, is the thickness of the post only. The ribs or timbers near the stem and stern are set at angles less than right angles to the keel, as shown in Fig. 1920, in which the spectator is supposed to look down from above. The planking is attached to the ribs by means of bolts and treenails; but before the planks are attached, the intervals between the ribs are filled up with pieces of wood three inches deep, and also with cement, so as to give a certain solidity below the surface of the sea. The *wales* of a ship are those strong timber planks which rise above the surface of the water, and they are firmly affixed to the ribs, even before the planking is laid on. The deck beams being adjusted, the framing of the deck is the next consideration; for many things have to be provided for, as hatchways, mast-holes, &c. The *breast-hooks* are the strong curved pieces of timber which cross the stem and form the bows. The joints and seams of the external planking are made water-tight by forcing spun yarn and oakum into them. The seams are then closed with melted pitch applied, and lastly, as high up the side of the ship as the copper sheathing will come, a thread of spun yarn is laid on, and that again covered with a mixture of pitch and tar. The ship is then ready to be launched.

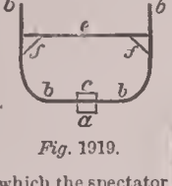

Fig. 1919.

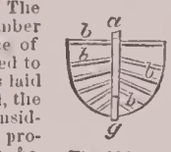

Fig. 1920.

—The introduction of iron and steel into ship-building has, of late, wrought many changes, and the words of a prominent ship-builder, "cold iron alone was likely to do all the work," have about come true; so that, with the introduction of the screw-propeller, sailing-vessels are now almost entirely lost sight of. Speed is now reckoned on the steam power alone, and high-power engines, working with three cylinders, have more to do with the quickness of a passage than beautiful lines and a big spread of canvas. Of recent years a new style of engine, the steam turbine (see STEAM ENGINE), has been introduced in some ocean steamships with very satisfactory results. This type of engine is now in use in two great ships of the Cunard line. For years ship-builders could not rely upon steam alone and all ocean-going ships were heavily rigged, so that, in case of accident to the machinery, they could be carried forward under canvas. At present little sail power is retained. With the introduction of the screw propellor, there has been considerable alteration in the structural arrangements of ocean-going steamships. The longitudinal section has been necessarily increased, and we now have ships over 700 feet long. The pioneer great turbine steamer (*Carmania*) is 678 feet long, and the *Baltic*, of the White Star line, is 725 feet long, 75 wide, and 49 deep. The introduction of what is known as the continuous cellular system has also led to considerable reforma in the construction. Many merchant vessels are now being built with double bottoms, so that water ballast can be carried when found necessary. The substitution of steel for iron has caused another great reform, and its success having been so eminently proved it is certain to be the material used in the construction of all large ocean-going steamers, when lightness of hull as conducive to great speed was to be considered. The Clyde in Scotland, and the Delaware river in the United States, are now the principal centers of iron ship-building. See BATTLESHIP; CRUISER; MONITOR; CELLULOSE; GUNBOAT; STEAMSHIP; NAVIGATION; MARINE ENGINE, &c.

Naval Crown, *n.* (*Antiq.* and *Her.*) Among the Romans, a crown, of gold or silver, resembling the prow of a ship, awarded to the man who first boarded a hostile vessel. In modern times, a naval crown, composed of a rim of gold round which are placed alternately prows of galleys and square sails, and supporting the crest in place of a wreath, occurs in various grants of arms to English naval commanders.

Fig. 1921.
NAVAL CROWN.

Na'van, a town of Ireland, county Meath, abt. 26 m. N.W. of Dublin; *pop.* 3,500.

Navarch, (*-värk,*) *n.* [Lat. *navarchus*, from Gr. *naus*, ship, and *archos*, leader.] Among the ancients, the admiral or commander of a fleet.

Nav'archy, *n.* Nautical skill, experience, or management.

Navar'ino, or **Navarin',** a seaport-town of Greece, in the Morea, on a bay of the Mediterranean, 6 m. N. of Modon. It stands near the site of Old Navarin, the Pylos of antiquity, and has a large harbor, sheltered by the island of Sphagia, famous in antiquity for the defeat of the Spartans by the Athenian navy. On Oct. 20, 1827, the combined fleets of France, England, and Russia defeated the Turkish and Egyptian squadrons under Ibrahim Pacha, in the Bay of Navarino. Of the Turkish fleet, consisting of 70 sail, no less than 62 were burned, sunk, or driven on shore complete wrecks.

Navarre, (*na-var'.*) [Sp. *Navarra.*] A prov. and anc. kingdom of Spain, bounded N. by France, E. by Aragon, S. by Old Castile, and W. by the Basque provinces. *Area*, 2,440 sq. m. The surface is generally mountainous and bleak, but in the valleys and along the river-banks the soil is very fertile. The principal rivers are, the Aragon, Zidacos, Arga, Ebro, and Bidassoa. *Prod.* Wheat, maize, barley, and oats. *Min.* Iron copper, and rock-salt. *Prin. towns.* Pampeluna (the cap.), Tudela, Olite, and Estella. — *N.* was inhabited at an early period by the Vascones, who were expelled by the Romans. It was seized by the Visigoths in 470, invaded by the Saracens early in the 8th cent., and fell under the sway of Charlemagne in 778. It became an independent state in 855. In 1035 *N.* was divided into three kingdoms,—Navarre, Aragon, and Castile. The first two became united in 1076, and again separated in 1134. In 1285, it became an apanage of France, but recovered its independence in 1328. Ferdinand conquered it in 1512. The estates of *N.* took the oath of allegiance to him in 1513, and it was incorporated with Castile in 1515. After this act of spoliation, there remained nothing of the ancient kingdom of *N.* beyond a small territory on the N. side of the Pyrenees, which was subsequently united to the crown of France by Henri IV. of Bourbon, king of *N.*, whose mother, Jeanne d'Albret, was grand-daughter of Queen Catharine; and hence the history of *N.* ends with his accession to the French throne, in 1589. *Pop.* 310,944.

Navarre', in *Iowa*, a village of Des Moines co., about 55 m. S.E. by S. of Iowa City.

Navarrese', *n. sing.* and *pl.* (*Geog.*) A native or inhabitant of Navarre; plurally, the people of Navarre. —*a.* (*Geog.*) Pertaining or having reference to Navarre, or its inhabitants.

Navar'ro, or NOVARRO, in *California*, a small river flowing into the Atlantic Ocean from Mendocino co.

Navar'ro, in *Texas*, a N.E. central co.; *area*, about 1,020 sq. m. *Rivers.* Trinity river, Pecan creek, and several less important streams. *Surface*, mostly level; *soil*, fertile. *Cap.* Corsicana. *Pop.* (1897) 28,000.

Navar'ro, in *California*, a post-town of Mendocino co.

Navaso'to, in *Texas*, a small river flowing into the Brazos, between Robertson and Brazos cos.

Nava'za, an island of the W. Indies, off the W. coast of Hayti, at the S.W. entrance of the Windward Passage; Lat. 18° 25′ N., Lon. 75° 2′ W.

Nave, *n.* [A. S. *nafu*, *nafa*; D. *naaf*; Dan. *nav*; Ger. *nabe*, the middle of a wheel. See NAVAL.] (*Mach.*) The hollow of the central block or hub of a wheel, into which the ends of the axle are inserted;—also, the hub itself.

Nave, *n.* [Fr. *nef*; Lat. *navis*, a ship.] (*Arch.*) The body of a church west of the choir, in which the general congregation assemble. In large edifices, it consists of a central division, with two or more aisles; and there are, in some structures, several small chapels on the sides beyond the aisles.

Navel, (*na'vl,*) *n.* [A. S. *nafel*, *nafol*; Du. *navel.*] (*Anat.*) The centre of the body in a full-grown 9-months' child, and, in the fœtus, the opening through which the navel-string passes from the liver of the child to the placenta or after-birth of the mother. The navel-string, umbilical cord, or *funis*, as this important part is differently called, is composed of a series of vessels—an artery, vein, nerve, and lymphatic tube—all loosely twined, like the strands of a rope, round each other, and varying in length from 1 to 2 feet. It is through the medium of the navel-cord that arterial blood and nervous power from the mother are carried to nourish the fœtus, and the venous blood and impurities brought from it. The cord is sometimes every inch or so doubled upon itself in the form of a series of knots: this is a provision to allow of greater extension, without incurring the risk of making the cord tense. With some children the navel-cord is remarkably short, and neither knotted nor twisted; when such is the case, it is certain to delay the labor very materially, and add considerably to the maternal pains, the shortness of the string preventing the head from descending freely, though the contractions of the uterus are strong, and no other impediment exists. After the birth of the child, and the new circulation has been established in the infant, the navel-cord is tied about 2 inches from the body, and then divided; in the course of a week or fortnight the fragment left sloughs or drops off, leaving, when it has been properly attended to, that closed but indented cavity known as the navel.

Na'vel-gall, *n.* A bruise on the top of the chine of the back of a horse behind the saddle, right against the navel.

Na'vel-string, *n.* (*Anat.*) The umbilical cord.

Na'vew, *n.* (*Bot.*) The French turnip, *Brassica napus*.

Navic'ular, *a.* Having reference to small ships or boats.

(*Bot.*) Boat-shaped; cymbiform.

Navigabil'ity, *n.* [Fr. *navigabilité.*] Navigableness; condition or capacity of being navigable.

Nav'igable, *a.* That may be navigated, or passed in ships or vessels, as a river.

Nav'igableness, *n.* The state or quality of being navigable; capacity to be passed in vessels.

Nav'igably, *adv.* In a navigable manner.

Nav'igate, *v.n.* [Lat. *navigo, navigatus,* from *navis,* a ship, and *ago,* to conduct.] To conduct or guide a ship on the sea.—To pass over water in ships; to sail.

—*v. a.* To steer, direct, or manage in sailing, as a vessel. —To pass over in ships; to sail on, as a sea or ocean.

Naviga'tion, *n.* [Fr., from Lat. *navigatio.*] The art of conducting a ship from one port to another on the sea; or, in other words, *N.* is the application of plane trigonometry to the solution of the various problems in *plane* and *globular sailing;* of which the object is to find the position of a ship at sea, and the direction and distance it ought to sail in order to reach its intended port. The earliest known records of the practice of navigation are those of the Egyptians, who are said to have established commercial relations with India. The Phœnicians, however, were the most distinguished of early navigators, as they traded with nearly every nation known to them. Tyre was their central port, and, in fact, the port of the world during that æra, it being the centre of commerce, and well designated as the "mart of nations." They procured wood from Lebanon for the purposes of ship-building, and were masters of a considerable fleet shortly after their first attempts. By the aid of their marine establishment they were able to send out colonies, which soon even rivalled the parent country. Of these Carthage was the chief, and she possessed fleets which sailed along the western coasts both of Europe and Africa, after passing through the Straits of Gibraltar. The Greeks were the next to prosecute navigation; the voyage of the celebrated Argonauts is too well known to be here recapitulated. Next, the Romans pursued the art, and by its means were enabled to reduce Egypt, and to raise the port of Alexandria to a position of wealth and commercial activity only second to Rome. After the fall of the Roman empire, navigation received but little impetus for some time, and its resuscitation is doubtless due to the Genoese, although it is sometimes claimed by the French. Venice next devoted herself to careering over the seas. Contemporaneous with the revival of navigation in the south of Europe, a society of merchants was amalgamated for the further prosecution of commerce, termed the Hanseatic League, which not only extended trade to the Eastern and Western Indies, but also drew up rules for the guidance of mariners, still known under the title of Usages and Customs of the Sea. (See Hanseatic League.) The progress of navigation from this period down to the present time may easily be traced, and many and great are the improvements which have taken place both in the form of the vessels used for the purpose, as well as in the methods employed in working them. In former days, merely galleys were used with rowers; but in the present day, rowers have been superseded by the improvements which have been made in the formation of the sails and rigging of ships, which enable them to sail in any direction by means of tacking, even against a contrary wind. Of late years, the use of steam as a propelling power has completely remodelled navigation, and a new æra has opened, which constantly brings forth some new improvement or fresh discovery. The ancients were certainly not so skilled in finding their latitudes, nor in steering their vessels as the moderns, who possess an inestimable advantage over the former in the discovery of the mariner's compass. (See Compass.) They used generally to steer by the sun in the daytime, and by the north-star at night; consequently, when the heavens were overcast, they were deprived of their means of progression, and had, therefore, to leave off prosecuting their voyages until the sky became clear again. For some time after the invention of the mariner's compass, navigation was still very imperfect, in consequence of the inaccuracies of the plane chart, which was the only one then known; and not much was done until the publication of Mercator's chart, which greatly altered former theories on the subject of navigating the ocean. Mercator is not, however, believed to have been the real inventor of this valuable map,—that honor being ascribed to Edward Wright, an Englishman. At the first appearance of this chart (see Map), it was not rightly understood; but in the year 1592 its merit was fully allowed, and was further established, some seven years later, by the publication of Wright's treatise on "The Correction of Certain Errors in Navigation," in which he gives various tables of latitude for dividing the meridian, and other suggestions. (See Latitude and Longitude.) The next great step in the history of navigation was the invention of logarithmic tables, by John Napier (*q. v.*), and the increased facilities which they gave in making long calculations, thereby insuring greater accuracy. (See Logarithms.) Having thus given a brief sketch of the rise and improvement in navigation, it will be now necessary to show how and by what means it is carried on. The instruments needed, besides the compass, are a *quadrant* to measure the altitudes of the heavenly bodies, and a *sextant* to measure the distance between the moon and the stars. (See Quadrant and Sextant.) The navigator should also be provided with logarithmic tables, in order to allow him to develop his observations; a copy of the "Nautical Almanac," to give him useful information with regard to the places and declination of the planets and stars; and, finally, he should be provided with the general and local charts applicable to his contemplated voyage. Having left port, the mariner, just when the last land is about to disappear, selects some conspicuous point, of which the latitude and longitude are known in his tables, and, placing a compass in some elevated position, remote from any iron object which might disturb its polarity, proceeds to determine the bearing of the headland, and so estimate his distance from it, either by the progress made from it, or by the ready calculation of a practised eye. This is called, in nautical parlance, *taking the departure,* and it is, along with the time of making the observation, carefully noted in the log-book, (a journal carefully kept on board, in which entries are made each day, of every circumstance connected with the ship, from the date of her leaving harbor until her return.) The first thing which the mariner does after making that offing, which prudence dictates, in order to avoid the dangers of the land, is to shape a correct course to the port for which he is bound. To commence, he searches in his chart to see if any rocks, shoals, or other obstacles are in the way of a direct route, and if so, he directs his course primarily, so as to avoid them; if not, the difference in latitude and longitude between the two ports being taken, the distance and course can be obtained by the aid of trigonometry. The shortest way to any two places on the face of the globe, is the arc of the great circle passing through those two places. (See Meridian.) At the first noon succeeding his departure, the mariner takes his reckoning; and this period being determined by the passage of the sun over the meridian, is, therefore, well chosen as the beginning of the day. The log-slate (a double slate, on which events are marked down before being copied, at the close of the day, into the log-book) being marked, he copies the courses and distances run, if from head-winds, or other causes, they have been various. The departure from land is also esteemed a course, as is also the current, if there be any known one. He next proceeds to find the difference in latitude and departure from the meridian corresponding to each course, either by geometrical calculation, or, more expeditiously, by the tables; then he adds the several differences of latitude and departure, and if they be of different names,—for instance, some north, some south, some east, or west, he deducts the less from the greater. With the remaining difference of latitude and departure, he not only finds the course and distances made good, but also the latitude and longitude; the difference of latitude being applied to the latitude left, either by adding or subtracting in sailing from or towards the equator, gives at once the latitude of the ship. The most general method of navigating is termed *dead reckoning;* but it is far from being as correct as might be desired. It does very well, however, for short voyages, made not far from land; but in long voyages remote errors accumulate so quickly, that the mariner would find himself far from having kept his right course, and, indeed, might be hundreds of miles away from it. The errors which attend navigation by dead reckoning often escape calculation, as they result from the bad steerage, lee-way, heave of the sea, unknown currents, and many other circumstances which imperceptibly cause the vessel to deviate greatly from her course. It becomes necessary, therefore, for the mariner, in long voyages, to resort to those immovable guides in the heavens that the Deity has placed. All the heavenly bodies are brought by the revolution of the earth daily to the meridian, at which time, if their latitude be measured, their declination, or distance from the equinox being known, the latitude of the ship may be readily deduced; it may also be obtained from single or double altitudes of bodies not in the meridian, if the times be accurately known. But the meridian altitude of the sun is the one which furnishes the readiest and easiest method for obtaining the latitude. The method of obtaining the sun's meridian altitude may be described as follows: Furnished with a sextant, circle, or octant of reflection, the observer goes on deck, and having examined the adjustment of his instrument, proceeds to bring down the image of the sun, reflected by its mirror, until the lower limb just sweeps the horizon. He continues to follow and measure its ascent until it ceases to rise; the moment that it commences to fall, and the lower limb dips in the horizon, the sun has passed the meridian. The altitude marked by the index on the limb of the instrument is then read off, and is next corrected. First, the observer adds the semi-diameter, in order to make the altitude apply to the centre of the object; he next subtracts the dip, to meet the errors caused by the extension of the horizon, owing to the rotundity of the earth and the elevation of his eye; also the refraction of the atmosphere, by which the object, when not vertical, is made to appear higher than its true place; lastly, he adds the parallax, (a small correction, inconsiderable from the sun's distance,) in order to reduce the calculation from the centre of the earth, from which point all calculations are made, and which is ever supposed to be the station of an observer. Having made all these corrections, which most mariners can easily do in a short time, by adding twelve minutes, the true meridian altitude of the sun will be gained. Taking this from 90°, gives its zenith distance, or distance from that point in the heavens which is immediately over the observer. If the sun were forever on the equinoctial, the zenith distance would always be the latitude; but as it is only twice a year on it, and as his distance from it increases at times to 20°, it becomes necessary to take this distance (called his *declination*) into the calculation. The sun's declination is given in the almanac for the noon of each day; by correcting it for the time anticipated or elapsed, according as the sun comes first to him or to the *first meridian,* by his position E. or W. of it, the observer obtains the declination for noon at his own position. This declination applied to the zenith distance, by adding when the sun is on the same side, gives the true latitude. The knowledge of latitude is obviously more important to a thorough seaman, and it is desirable to know at once, and to be able to tell at any hour of the day, the position of a ship on the ocean. There are various methods for finding the longitude; but in all of them the great element is time. For, as the earth performs her diurnal revolution in 24 hours, from the time any given meridian is brought under the sun until it reaches it again, it follows that 24 hours and 360 degrees are both equal to a circle, and that the equator and other circles of longitude may be indifferently estimated by either of these divisions. Consequently, the difference in time between any two places is no other than the difference between the sun's coming to the respective meridians, or, in other words, their difference of longitude; and hence it follows that if we, by any means, simultaneously ascertain the time of the observation at the first meridian and the time on board ship, we shall have obtained the longitude. The easiest way of doing this is by means of a chronometer. (See article on the subject.) To find the longitude by means of it, the mariner has only to take any observation of the sun, or star, when rising or falling, rapidly, and deduce the time of the ship; this, compared with the time at the first meridian, simultaneously given by the chronometer, at once determines the longitude. Ships generally carry three or four chronometers, in order to insure greater accuracy by means of comparing them with one another. The most expeditious plan for obtaining the longitude is undoubtedly by observing the eclipses of Jupiter's satellites. The theory with regard to the times of immersion and mersion at the first meridian is noted in the almanac, and these, compared with the times at which the observer notices the same by means of a good telescope, determine the longitude. The *lunar theory* is another method, and it consists in observing the distance of the moon from the sun and fixed stars, and by comparing the time of observation with that time at which the almanac shows a similar distance at the first meridian. In conclusion, it may be mentioned that there are other things to be borne in mind by the mariner, as every circumstance occurring in nature should be the means of insuring him guidance and information,—the drift of currents, the color of the sea (an admirable guide near coasts), the flight of birds, and many other simple circumstances. He should carefully observe the barometer. By these means the trackless ocean has its well-known highways.

Nav'igator, *n.* [Lat.; Fr. *navigateur.*] One who navigates or sails; chiefly, one who directs the course of a ship, or who is skilful in the art of navigation.

Nav'igators' (or Samo'an) Islands, a group of 13 i. in the S. Pacific O., bet. Lat. 13° 30′ and 14° 30′ S. Lon. 168° and 173° W.; *area,* 2,650 sq. m. The principal are Tutuila, Upolu, and Sawaii. Generally mountainous and fertile. *Prod.* coffee, cottou, sugar, cocoa-nuts, &c. *Cap.* Apia. The U. S. have a coaling station at Pappogo on Tutuila I. Since 1879, these islands came under the joint protection of U. States, Germany, and Eng., who have agreed that neither may acquire any paramount interest. Confirmed by treaty in 1889.

Navig'erous, *a.* [Lat. *navis,* ship, and *gerire,* to carry.] Capable of floating vessels.

Nav'vy, *n.* [A contraction of *navigator.*] In England, a laborer on railroads, and other public works. (Cant.)

Na'vy, *n.* [Norm. *navie,* a navy, ships, from Lat. *navis,* Gr. *naus,* a ship.] A fleet of ships; an assemblage of merchantmen, or so many as sail in company.—The whole of the ships of war belonging to a nation or king. —The officers and men belonging to a navy.—For the navy of the U. States, see United States, § *Navy;* and Navy, section II; and for the navies of foreign nations, see their respective names.

Na'vy Bread, or **Bis'cuit,** *n.* A small, flat bread, rendered dry and hard by baking, in order to its long preservation. The *unfermented* or *unleavened B.,* generally known as *common sea-biscuits* or *ship-bread,* are made of wheaten flour (retaining some of the bran), water, and common salt. The materials are kneaded together, either by manual labor—that is, by the hands and feet of the workmen—or by introducing the materials into a long trough or box, with a central shaft, to which a series of knives is attached, and which is made to revolve rapidly by machinery. The mass of dough so obtained is then kneaded and thinned out into a sheet the proper thickness of the *B.,* by being passed and repassed between heavy rollers. This sheet being placed below a roller with knife-edge shapes, is readily cut into hexagonal (six-sided) or round pieces of dough, of the required size of the biscuits. These slabs of *B.* are then introduced into an oven for about 12 minutes, and are placed in a warm room for 2 or 3 days, to become thoroughly dry. The more modern oven is open at both ends, and the *B.* being placed in a frame-work, are drawn by chains through the oven. So rapidly is this operation conducted, that about 2,000 lbs. weight of *B.* are passed through one of these ovens every day of ten hours.

Nax'ia, (anc. *Naxos,*) an island of the Grecian archipelago, the largest of the Cyclades group, 5 m. E. of Paros: Lat. of Naxia (the cap.) 37° N., Lon. 35° 26′ E.; *area,* 106 sq. m. The surface is mountainous, Zia, its highest peak, attaining an elevation of 3,310 ft. The soil is fertile, but agriculture is very backward. *Pop.* 14,500.

Nay, *adv.* [A.S. *ne,* not, by no means.] Not; no; a word that expresses negation, dissent, or refusal.—**Not**

only so; not this alone; intimating that something is to be added by way of amplification.

Nay, *n.* Denial; refusal.

Nay'lor's Store, in *Missouri*, a post-village of St. Charles co., abt. 38 m. W.N.W. of St. Louis.

Nazaire', (**St.,**) a town of France, dep. Loire Inférieure 30 m. W. of Nantes, on the Loire, and near its mouth; *pop.* 4,000.

Nazare'an, Nazarene', *n.* (*Eccl. Hist.*) A name originally given to all Christians, from the fact of the Redeemer having been identified with Nazareth; but later, the term was applied to a sect who blended the Mosaic law with the Gospel. The term was also one of contempt, given by the Gentiles to the followers of Christ.

Naz'areth, (now *Nasirah,*) a town of Asiatic Turkey, in that part of Palestine anciently called Galilee, 6 m. W.N.W. of Mount Tabor. This small town derives all its historical importance from having been the residence of the parents of Jesus, who consequently lived there till the beginning of his mission. *N.* is situated on the W side of a narrow oblong bastion (see Fig. 214), or depressed valley, about a mile long, by a quarter of a mile broad. The buildings stand on the lower part of the slope of the western hill, which rises steep and high above them. It is now a small, but more than usually

Fig. 1922. — ENTRANCE OF MODERN NAZARETH.

well-built place, containing about 3,000 inhabitants, of whom two-thirds are Christians. The flat-roofed houses are built of stone, and are mostly two stories high. The environs are planted with luxuriantly growing fig-trees, olive-trees, and vines, and the crops of corn are scarcely equalled throughout the length and breadth of Canaan. All the spots which could be supposed to be in any way connected with the history of Christ are, of course, pointed out by the monks and local guides, but on authority too precarious to deserve any credit, and with circumstances too puerile for reverence.

Naz'areth, a town of Brazil, on the river Jaquaripe, abt. 40 m. above the Atlantic Ocean; *pop.* 2,500.

Naz'areth, in *Pennsylvania*, a post-borough of Northampton co., about 59 m. N. of Philadelphia.

Naz'arite, *n.* [Heb. *nazar*, to separate.] Among the ancient Jews, one who, for a certain period, or for life, devoted himself to the service of Jehovah, by observing a more than ordinary degree of purity. Samson and John the Baptist were Nazarites. During their vow they did not cut their hair, abstained from wine and all manner of strong drinks, and from contact with the dead.

Naz'aritism, *n.* The vow and practice of a Nazarite.

Naze, *n.* [A. S. *nase.*] A headland; a promontory; a ness.

Naze. (THE,) (*naiz,*) a cape forming the S. extremity of Norway, in the North Sea; Lat. 57° 57′ N., Lon. 7° 2′ E.

N.B., an abbreviation for Lat. *nota bene*, mark well.

Neagh, (Lough,) a lake of Ireland, in Ulster, on the S.W. border of co. Antrim. It covers an area of abt. 150 sq. m., and has a mean depth of 40 ft. It receives the Upper Bann, Blackwater, and several smaller streams, and discharges its surplus waters by the Lower Bann, which empties into the Atlantic.

Neal, (*neel,*) *v. a.* To temper by a gradual and regulated heat; to anneal. (R.)

—*v. n.* To be tempered in fire. (R.)

Neal, JOHN, an American author and poet, B. at Falmouth, New Portland, Maine, 1793. Beginning life as a shop-boy at the age of twelve, he learned and then taught penmanship and drawing. At the age of 21, he was a dry-goods retailer, first in Boston, and then in New York; and a year after, became a wholesale jobber in this business in Baltimore, in partnership with another American literary and pulpit celebrity, John Pierpont. They failed in 1816, and *N.* turned his attention to the study of law. With the energy which acquired for him the *sobriquet* of "Jehu O'Cataract," affixed to his poem, *The Battle of Niagara*, he went through the usual seven years' law-course in one, besides studying several languages, and writing for a subsistence. In 1817, he published *Keep Cool*, a novel; the next year, a volume of poems; in 1819, *Otho*, a five-act tragedy; and in 1822, four novels — *Seventy-Six*, *Logan*, *Randolph*, and *Errata*. These impetuous works were each written in from twenty-seven to thirty-nine days. In 1824, he went to England, where he wrote extensively for magazines, and enjoyed the friendship and hospitality of Jeremy Bentham. On his return to America, he settled in his native town, practised law, wrote, edited newspapers, gave lectures, and occupied his leisure hours in teaching boxing, fencing, and gymnastics. Among his numerous works are *Brother Jonathan*, *Rachel Dyer*, *Bentham's Morals and Legislation*, *Authorship*, *Down-Easters*, *One Word More*, *True Womanhood*, *Reminiscences*, &c. D. 1876.

Nean'der, JOHANN AUGUST WILHELM, a German historian, who was born of Jewish parents, but while pursuing his studies at the Johanneum College at Hamburg, became a convert to the Christian faith, and assumed the name of Neander, signifying, in Greek, "a new man." He subsequently studied at the universities of Halle, Göttingen, and Heidelberg. His great attainments led to his being appointed professor of theology at the last-named establishment, and in 1812 he was chosen to fill the chair of theology at the university of Berlin, where he remained until his death. In the same year he published *The Emperor Julian and his Times*, which established his reputation as a theological historian. His greatest work, entitled *Universal History of the Christian Religion and Church*, was given to the world between the years 1825–1845, and was comprised in five volumes. In 1835 he produced a refutation of Strauss' "Life of Jesus," in a work entitled *The Life of Jesus in its Historical Relations*. Both the works above mentioned, as well as some smaller ones, were translated into English, and published in Bohn's Ecclesiastical Library. B. at Göttingen, 1789; D. 1850.

Neap, (*neep,*) *a.* (*Naut.*) Noting the lowest tides, which are produced when the attractions of the sun and moon on the waters of the ocean are exerted in directions perpendicular to each other. When the two forces act in the same or in exactly opposite directions, the *spring* or highest tides are produced. The neap tides take place about four or five days before the new and full moons.

—*n.* A neap-tide.

—The draught pole of a cart or wagon; a neep. (Local Eng. and Am.)

Neaped, (*neept,*) *a.* (*Naut.*) Left aground by the tide, as a ship; left aground at the height of the spring-tides.

Neap'olis, the ancient name of NAPOLI, *q. v.*

Neapol'itan, *a.* (*Geog.*) Of, or belonging, or having reference to the city of Naples, or its inhabitants.

—*n.* A native or inhabitant of the city of Naples.

Near, (*neer,*) *a.* [A. S. *neah*, *nealig*, near; Dan. *noei*; Icel. *nâ*, to reach to. See NIGH.] Nigh; not far distant in place, time, or degree; adjacent; close by one; vicinal; neighboring; not remote. — Imminent; immediate; not distant in time; as, *near* death's door. — Closely related by blood or natural ties; not removed in kindred or degree.

"She's thy father's *near* kinswoman." — *Lev.* xviii. 12.

—United in close bonds of affection or confidence; dear; affecting one's interests or feelings; intimate; familiar; as, a *near* friend. — Literal; not loose, free, or discursive; in close imitation of a model or example; as, "taught to live the *nearest* way."—*Milton.*

—Inclined to covetousness, parsimonious; illiberal; closefisted; — opposed to *free;* as, a *near* man.

—*adv.* At a little distance only in time, place, or degree; not remote; as, to come *near* one. — Almost; within a little; well-nigh; nearly.

"Such a sum as he found would go *near* to ruin him."—*Addison.*

—*v. a.* To draw or come close to; to approach; to come nearer.

—*v. n.* To draw near; to come close to.

—*prep.* Not far from; in the vicinity; adjacent; close by; as, we are *near* our journey's end. — At: as, the Austrian ambassador *near* the Court of the Tuileries. (A Gallicism.) (R.)

Near'chus, one of the generals of Alexander the Great, who was employed in conducting his fleet from India by the Ocean to the Persian Gulf. Fragments of a narrative by this early voyager are still extant, and form a curious and valuable record.

Near'-legged, (*-legd,*) *a.* Walking with the legs touching one another, so as to impede progress.

Near'ly, *adv.* Closely; as, they are *nearly* allied.—At no great distance; not remotely. — Intimately; pressingly; with a close relation to one's interest or happiness.

"It concerneth them *nearly* to preserve that government." *Swift.*

—Almost; within a little; as, our suspense is *nearly* ended. — In a niggardly manner; stingily; parsimoniously.

Near'ness, *n.* Closeness; small distance. — Close alliance by blood; propinquity. — Close union by affection; intimacy of friendship. — Parsimony; closeness in expenses.

Near-sighted, (*neer'sīt-ed,*) *a.* Seeing at a small distance only; unable to see at a distance.

Near'-sightedness, *n.* The state of being short-sighted.

Neat, *n.* [A. S. *neat*, cattle.] Cattle of the bovine genus, as bulls, oxen, and cows.

Neat's-foot oil, is the fat obtained by boiling calves' feet.

—*a.* Belonging, or having reference to the bovine genus; as, *neat* cattle.

Neat, *a.* [Fr. *net*, *nette*; It. *netto*; Sp. *neto*; Lat. *nitidus*, shining, from *niteo*, to shine.] Free from foul or extraneous matter; clean; cleanly; tidy. — Free from impurities of style or expression; elegant, but without dignity; as, a *neat* translation.

"Pure as the language will afford; *neat*, but not florid."—*Pope.*

—Free from admixture of spurious ingredients; good in its kind; genuine; excellent; nice; as, *neat* wines or liquors. — Free from tawdry appendages, and well adjusted, as attire; trim; spruce; smart; dapper; of agreeable simplicity; free from the imputation of bad taste; as, a *neat* style of dress, a *neat* compliment. — Dexterous; adroit; perfect in skill or adaptability; as, a *neat* pickpocket. — Net; clear of all deductions; intrinsic; as, a *neat* profit.

Neath, a town of South Wales, co. of Glamorgan, on the Neath, 7 m. E.N.E. of Swansea, and 159 m. N.W. of London. In the vicinity are extensive copper, iron, and coal mines. *Pop.* 6,810.

Neat'-herd, *n.* A cow-keeper; one who has the care of cattle.

Neat'ly, *adv.* With neatness; in a neat manner; in a cleanly manner. — With good taste; without tawdry ornaments. — Nicely; handsomely.

Neat'ness, *n.* Quality of being neat; exact cleanliness; entire freedom from foul matter. — Freedom from ill-chosen words. — Freedom from useless or tawdry ornaments; with good adjustment of the several parts.

Neat'ress, *n.* A female who takes care of cattle. (R.)

Neaves, in *Ohio*, a twp. of Darke co.

Neb, *n.* [A. S. and Du. *neb.*] The nose; the beak of a bird; the bill; the mouth; the nib.

Ne'bel, *n.* (*Mus.*) A Hebrew instrument of the harp kind.

Ne'bo. (*Script.*) A mountain of Moab, whence Moses had a view of the Promised Land, and where he died. It is a summit of the range Abarim, "over against Jericho." Seetzen, Burckhardt, &c., identify it with Mount Attarus, about ten miles north of the Arnon. Travellers do not observe any very prominent summit in the range immediately opposite Jericho; but it has not yet been fully explored.

(*Babylonian Myth.*) An idol which probably represented the planet Mercury. It was also worshipped by the ancient Arabians. The extensive prevalence of this worship among the Chaldeans and Assyrians is evident from the many compound proper names occurring in the Scriptures of which this word forms a part; as, Nebuchadnezzar, Nebuzaradan, Nebushasban; and also in the classics; as, Nahoned, Nabonassar, Nabopolassar, &c.

Ne'bo, in *Illinois*, a village of Pike co., about 13 m. S.E. of Pittsfield.

Nebras'ka, a N. central State of the American Union, extends W. from the Missouri River to the 25th and 27th meridian of Lon., W. from Washington, and S. from the 43d to the 40th degree of Lat. It is bounded N. by South Dakota, E. by Iowa and Missouri, S. by Kansas, and W. by Colorado and Wyoming; has an extreme length of 412 miles, decreasing to 310 miles on the S. border, its extreme width being 208 miles, diminishing to 138 m. on the W.

Area, 75,995 sq. m., or 48,636,800 acres.—*Gen. Desc.* This region of country, once referred to on one maps as a part of the "Great American Desert," is almost entirely prairie, with an undulating surface. Near the base of the Rocky Mountains is found a sandy belt of irregular contour, partially defining the outline of its supposed former water-surface. The State throughout its entire length dips toward the Missouri River, being upon the W. slope of the great central basin of the N. American continent. The larger portion, as before stated, is elevated and undulating prairie; there are no mountains or high hills; and the bottom-lands of the river valleys are generally flat. Above these, from 40 to 100 ft. are second bottoms or table-lands, sloping backward to the bluffs, which range with the general level of the country. These bluffs sometimes rise hundreds of feet above the riparian level; back of these, again, is the rolling prairie, well watered with springs and running streams, and covered with nutritious grasses. In the W. part of the State are "dunes," or sand-hills, which have been raised by the prevailing winds, piling up the dry and loose materials of which they are shaped into their present picturesque forms. These hills have their elongated slopes to the winds, the opposite sides being quite steep, presenting the appearance of high billows all apparently drifting in the same direction. In remarkable contrast with the general appearance of *N.* is the tract known as the "Mauvaises Terres," in its W. part, 90 m. long and 30 wide, produced by some powerful agencies of denudation and degradation of the land. Viewed from a distance, it seems like some deserted abode of civilization; the prismatic and columnar masses appear as modern architectural examples, with towers, columns, and walls. A near approach, however, dispels the illusion, the imposing forms of architectural beauty resolving themselves into masses of rocks with labyrinthine defiles. The Missouri, which forms the E. limit of the State, flows through a vast bottom bounded by high bluffs of trap-clay; and its channel, inclining to the W. shore, leaves the great bulk of the bottoms on the E. or Iowa side. The river seems to follow along the line of the State through a rupture in the underlying rocks; the width of this fissure is yet unascertained. The best portion of *N.* is the valley

Fig. 1923. — SEAL OF THE STATE.

NEBRASKA

SCALE OF MILES

10 5 0 10 20 30 40 50

Indian Reservation Boundaries

Military Reservation Boundaries

Forest Reserve Boundaries

State Capital ☆ County Seats ⊙

Places of 20,000 and over ____ OMAHA

" " 5,000 to 20,000 ____ Fremont

" " 2,000 to 5,000 ____ Blair

" " 1,000 to 2,000 ____ Weeping Water

Hammond's 8 x 11 Map of Nebraska

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Longitude 100° West from 99° Greenwich

NEBRASKA.

Land surface, Sq. m. 76,840
Water surface, Sq. m. 670
Pop. 1900..1,066,300
White ..1,056,526
African. 6,269
Indian.....3,322
Chinese 180
Japanese... .. 3
Native-born, 888,953
Foreign-born, 177,347
Males 564,592
Females..501,708

COUNTIES.

Adams.....F 4
Antelope .....F 2
Banner.....A 3
Blaine . .....E 3
Boone . .....F 3
Boxbutte.....A 2
Boyd .....F 2
Brown.....E 2
Buffalo.... .. E 4
Burt.....H 3
Butler.....G 3
Cass .....H 4
Cedar. .....G 2
Chase.....C 4
Cherry .....C 2
Cheyenne.....A 3
Clay.....F 4
Colfax.....G 3
Cuming. .....H 3
Custer. .....E 3
Dakota .....H 2
Dawes..... A 2
Dawson.....E 4
Deuel.....B 3
Dixon. ... ...H 2
Dodge.....H 3
Douglas.....H 3
Dundy. .....C 4
Fillmore .....G 4
Franklin .....F 4
Frontier.....D 4
Furnas.....E 4
Gage . .....H 4
Garfield.....F 3
Gosper .....E 4
Grant.....C 3
Greeley .....F 3
Hall. .....F 4
Hamilton .....F 4
Harlan..... E 4
Hayes .....C 4
Hitchcock.....C 4
Holt .....F 2
Hooker.....C 3
Howard .....F 3
Jefferson.....G 4
Johnson .....H 4
Kearney.....F 4
Keith.....C 3
Keyapaha.....E 2
Kimball. .....A 3
Knox ... .G 2
Lancaster.....H 4
Lincoln.....D 4
Logan.....D 3
Loup ....E 3
McPherson....C 3
Madison. .....G 3
Merrick.....F 3
Nance .....F 3
Nemaha.....H 4
Nuckolls .....F 4
Otoe. .....H 4
Pawnee.....H 4
Perkins .....C 4
Phelps.....E 4
Pierce.....G 2
Platte.....G 3
Polk .....G 3
Red Willow ..D 4
Richardson...H 4
Rock .....E 2
Saline..... ..G 4
Sarpy.....H 3
Saunders .....H 3
Scottsbluff.....A 3
Seward.....G 4
Sheridan.....B 2
Sherman.....F 3
Sioux .....A 2
Stanton.....G 3
Thayer .....G 4
Thomas .....D 3
Thurston.....H 2
Valley. .....E 3
Washington..H 3
Wayne .....G 2
Webster.....F 4
Wheeler ..... F 3
York .....G 4

CITIES-TOWNS

Pop. Thousands.

102 Omaha.....J 3
40 Lincoln ....H 4
26 So. Omaha..J 3
7 Beatrice ....H 4
7 Grand Island F4
7 Nebraska CityJ4
7 Fremont....H 3
7 Hastings ...F 4
5 Kearney.....E 4
5 York.....G 4
4 Plattsmouth J 4
3 Norfolk .....G 2
3 North Platte D 3
3 Columbus...G 3
3 Fairbury....G 4
3 Falls City....J 4
3 Holdrege. ..E 4
2 Blair.....H 3
2 Auburn ..... J 4
2 Wymore....H 4
2 Alliance. ...B 2
2 McCook.....D 4
2 Crete.....G 4
2 Schuyler....G 3
2 Wayne.....H 2
2 Wahoo.....H 3
2 Tecumseh...H 4
1 Seward.....G 4
1 Pawnee.....H 4
1 Aurora.....F 4
1 Westpoint ..H 3
1 David City..G 3
1 Chadron.....B 2
1 Tekamah... H 3
1 Superior ....G 4
1 Central..... F 3
1 Red Cloud...F 4
1 Geneva.....G 4
1 Hebron.....G 4
1 Havelock...H 4
1 Madison.....G 3
1 Ashland.....H 3
1 St. Paul .....F 3
1 Fullerton ...F 3
1 Brokenbow..E 3
1 Ord .....E 3
1 Sutton.....G 4
1 Lexington ..E 4
1 Albion.....F 3
1 Minden.....E 4
1 Humboldt...J 4
1 Fairfield.....F 4
1 Friend ..... G 4
1 Weeping Water H 4
1 Stromsburg G 3
1 University Place..H 4
1 O'Neill..... F 2
1 Wilber .....G 4
1 Stanton.....G 3
1 Ponca.....H 2
1 Edgar .....F 4
1 Northbend..H 3
1 Oakland ...H 3
1 Sidney .....B 3

Pop. Hundreds.

9 Nelson.....F 4
9 Hartington .G 2
9 Wisner.....H 3
9 Pender..... H 2
9 Alma .....E 4
9 Genoa.....G 3
9 Beaver City. E 4
9 Creighton .. G 2
8 S. Sioux City H 2
8 Osceola.....G 3
8 Rulo.. .....J 4
8 Humphrey..G 3
8 College ViewH 4
8 Shelton..... F 4
8 Syracuse....H 4
8 Tablerock...H 4
8 Randolph ...G 2
8 Harvard ... F 4
8 Peru.....J 4
8 Lyons.....H 3
8 Hooper .....H 3
8 Cambridge .D 4
8 Scribner ....H 3
8 Loup .....F 3
8 Bluehill .... F 4
8 Gothenburg.D 4
8 Valentine ...D 2
8 Ravenna....F 3
8 Decatur.....H 2
7 Oxford.. ....E 4
7 Bluesprings.H 4
7 Fairmont... G 4
7 Sterling.....H 4
7 Pierce.....G 2
7 Franklin.... F 4
7 Wakefield...H 2
7 Cozad.....E 4
7 Louisville...H 3
7 Baneroft....H 3
7 Crawford ...A 2
7 Brownville..J 4
7 Arapahoe....E 4
6 Newman Grove G 3
6 Florence....H 3
6 Bloomfield..G 2
6 Exeter.....G 4
6 Tobias.....G 4
6 Dewitt .....G 4
6 Gibbon .....F 4
6 Orleans. ....E 4
6 Indianola...D 4
6 St. Edwards G 3
6 Emerson .. H 2
6 Valparaiso..H 3
6 Ainsworth...E 2
6 Plainview ..G 2
5 Papillion... H 4
5 Clay Center.F 4
5 Wood Riv...F 4
5 Oakdale.... G 2
5 Arlington...H 3
5 Ulysses.....G 3
5 Cedar RapidsF3
5 Dodge..... H 3
5 Clarks. .....G 3
5 Greeley.....F 3
5 Elmwood...H 4
5 Juniata. ....F 4
5 Brock .....H 4
5 Gordon.....B 2
5 Milford.....G 4
5 Valley.....H 3
5 Tilden.....G 2
5 Salem .....J 4
5 Bellevue. ...J 3
5 Dorchester. G 4
5 Dakota. ....H 2
5 Greenwood.H 4
5 Howell.....G 3
5 Laurel.....G 2
5 Benson..... H 3
5 Battlecreek G 2
5 Kenesaw ... F 4
5 Osmond ....G 2
4 Rising Cy...G 3
4 Stella .....J 4
4 Bennett.....H 4
4 Talmage ....H 4
4 BloomingtonF 4
4 Utica ....G 4
4 Longpine .. E 2
4 Rushville....B 2
4 Petersburg..F 3
4 Donlphan ...F 4
4 Coleridge....G 3
4 Ansley.....E 3
4 Gretna.....H 3
4 Craig.....H 3
4 Burwell..... F 3
4 Niobrara.....F 2
4 Belvidere....G 4
4 Elgin... ....F 3
4 Liberty.....H 4
4 Davenport...G 4
4 Hyannis.....C 3
4 Wausa .....G 2
4 Chester.....G 4
4 Leigh.....G 3
4 Curtis .....D 4
4 Gering .....A 3
4 Weston .... H 3
4 Shelby .....G 3
4 Culbertson..D 4
4 N. Loup .... F 3
4 Adams .....H 4
4 Guideroek ..F 4
4 Western.... G 4
4 Bellwood....G 3
4 Lawrenee....F 4
4 Callaway....E 3
4 Springfield .H 3
4 Nemaha .....J 4
4 Winside.... G 2
3 Diller .... ..H 4
3 Platte CenterG 3
3 Cortland....H 4
3 Gandy.....D 3
3 Bralnard....H 3
3 Stuart.....E 2
3 Hickman....H 4
3 Republican City E 4
3 Elwood..... E 4
3 Huhbell.... G 4
3 Arcadia ....E 3
3 Shickley ....G 4
3 Cedarbluffs.H 3
3 Campbell....F 4
3 Hampton....G 4
3 Bradshaw...G 4
3 Odell.....H 4
3 Beaver Crossing G 4
3 Ogalalla.....C 3
3 Johnson.. ....J 4
3 Butte . .....F 2
3 Elkcreek....H 4
3 Ft. Calhoun J 3
3 Waterloo....H 3
3 Hardyn.. .. G 4
3 Hay Springs.B 2
3 Clarkson.....G 3
3 Bertrand....E 4
3 Homer.....H 2
3 Jackson.....H 2
3 Creston ... G 3
3 Alexandria. G 4
3 Newcastle...H 2
3 Mead..... H 3
3 Bethany ....H 4
3 Axtell.....E 4
3 Trenton.....C 4
3 Elverton ....F 4
3 Taylor ..... E 3
3 Gross.....F 2
3 Prague.....H 3
3 Millard.....H 3
3 Dawson.....J 4
3 Herman ....H 3

of the Platte, which extends from 100 to 200 m. on each side of that broad and swift but shallow river. Passing E., the first stream tributary to this beautiful valley is the Wood River, flowing in from the N. opposite Grand Island. The next is the Loup Fork, with its many

Fig. 1924. — THE MAUVAISES TERRES.

branches, extending far into the W. region, and which empties its waters at Columbus. Lastly, the Elkhorn, rising in the N. part of the State, commiugles with the Platte, at least 250 m. N.E. of its source, and within 25 m. of the point where the Platte itself, after coursing its way from the mountains of Colorado — the back-bone of the continent, is absorbed into the Missouri. With the exception of Salt Creek and its affluents, no stream falls into the Platte ou the S., the waters on that side running S., even though in some places rising within 10 to 15 m. of its banks; thus indicating considerable elevation in the ground immediately back from the river, and from thence a gradual declination to and beyond the Kansas. The S. portion is watered by the Great and Little Nemaha, the Big and Little Blue, and the Republican, with their many tributaries; all these rivers are deep and narrow when compared with the Platte.—*Soil and Veg.* The country is marked by three classes of land: bottom-land, table, and inarable. The first, haviug a width of from 1 to 12 m., presents on its surface occasional heavy growths of timber, sometimes extending over the bluffs to the table-lands. Wood in *N.* is not abundant, consisting of fir varieties only; the cottonwood is the most considerable. Oak, elm, hickory, and huckberry are also found. The soil of the arable portion of the State is a rich loam with an impregnation of lime, and varying from 2 to 10 ft. in depth, the deepest being of course on the bottom-lands, which receive the debris from the bluffs. This loam is free from gravel, easily ploughed, very friable, resisting unusual wet or drought, and peculiarly adapted to the growth of corn and wheat. The common garden vegetables are in abundance, attaining an unusual size. Wild plums, grapes, cherries, and hops, grow in profusion, and in the S.E. part of the State, apples, peaches, and pears are successfully cultivated. The destiny of *N.* is that of an agricultural and grazing country, millions of acres being available for tillage, and millions more for grazing-cattle. Herds are driven from Kansas to fatten on the succulent grasses. Beyond the 22d deg. of Lon. the lands are not available for farming purposes except in the bottoms. E. of this line, not less than 25,000,000 acres are available for stock, grain, or general crops; 13,700,000 being first class, 3,000,000 second class, and 8,300,000 third-class land. The first embraces the bottoms and the equally productive prairies; the second comprises prairies which, although quite productive, are broken by water-worn drains; while the third-class land is subject to drought, and of a sandy character. The grazing region of the State comprises 23,000,000 acres, 12,500,000 of which are well watered, as are also 10,500,000 in the spring, but dry in summer. The State includes 61,000 acres of swamp, of which some 49,000 are reclaimable. The sterile soil of the State may be made productive with irrigation by artesian wells. — *Clim.* The climate of the State is dry and exhilarating. The spring and fall are the rainy seasons, affording sufficient moisture for the growths of the soil, but in the summer and winter the weather is dry. The heat of the summer, however, is tempered by the prairie winds, and the nights are quite cool. The fall months of the year are extremely pleasant, and cold weather seldom commences before the latter part of Dec. — *Min.* Minerals have not yet been found to any extent. Coal has been discovered in some parts of the State,—several companies being engaged in mining,—but it has not so far yielded sufficient quantities for the home demand. Building-limestone has also been discovered, and is in daily use for the erection of dwellings; as, also, is a dark-yellowish gray sandstone, and a dark-red freestone. Clay, for the manufacture of brick, is easily obtained, and this branch of business is being successfully followed. *N.* has extensive saline deposits in the S.E., at the head of Salt Creek, the main basin embracing 300 acres, and yielding 16⅔ per cent. of salt.—*Animals.* *N.*, once the grazing ground of vast herds of buffalo, is now destitute of these animals; and antelope, once very abundant, are now seldom seen; but the coyote, the large timber wolf, the fox, skunk, rabbit, and various smaller animals, are still plentiful.—*Agric.* The staple crop of *N.* is Indian corn, which is raised in great quantities, *N.* being one of the range of prairie States largely devoted to this staple. The sugar-beet has become of much importance, the first large crop of this being grown in 1890, while a number of factories have been established for the extraction of sugar, one on Grand Island turning out several hundred barrels a day. The uutilled lands yield great quantities of hay, and *N.* ranks well among the stock-raising States. At the date of the last census it had 2,420,733 cattle and 4,128,000 hogs, in addition to large numbers of sheep, horses and mules. In 1900 it produced 210,974,740 bushels of corn, 1,899,683 of wheat, and 58,007,140 of oats. The yield of beet-root sugar is rapidly increasing, it being 2,734,500 lbs. in 1892, 3,808,500 in 1893, 5,943,200 in 1894, and has since then advanced in like proportion.—*Manuf.* The manufacturing industry is subordinate to that of agriculture, the factories of the State being mainly at Omaha and Lincoln. The products embrace agricultural implements, vitrified paving-bricks, woollen clothing, soap, beet-sugar, and canned goods, for which there are factories in various towns. Omaha, the chief city, possesses the largest silver-smelting works in the world, and the third largest pork-packing business in the U. S., with a large business in other meat products. It has also linseed oil, boiler, safe, and other works.—*Polit. Div.* *N.* is divided into 90 counties, as follows:

Adams,	Dawson,	Jefferson,	Polk,
Antelope,	Devel,	Johnson,	Red Willow,
Banner,	Dixon,	Kaya Paha,	Richardson,
Blaine,	Dodge,	Kearney,	Rock,
Boone,	Douglas,	Keith,	Saline,
Box Butte,	Dundy,	Kimball,	Sarpy,
Boyd,	Fillmore,	Knox,	Saunders,
Brown,	Franklin,	Lancaster,	Scott's Bluff,
Buffalo,	Frontier,	Lincoln,	Seward,
Burt,	Furnas,	Logan,	Sheridan,
Butler,	Gage,	Loup,	Sherman,
Cass,	Garfield,	M'Pherson,	Sioux,
Cedar,	Gosper,	Madison,	Stanton,
Chase,	Grant,	Merrick,	Thayer,
Cherry,	Greeley,	Nance,	Thomas,
Cheyenne,	Hall,	Nemaha,	Thurston,
Clay,	Hamilton,	Nuckolls,	Valley,
Colfax,	Harlan,	Otoe,	Washington,
Cuming,	Hayes,	Pawnee,	Wayne,
Custer,	Hitchcock,	Perkins,	Webster,
Dakota,	Holt,	Phelps,	Wheeler,
Dawes,	Hooker,	Pierce,	York.
	Howard,	Platte,	

Principal Cities, &c. Omaha, Lincoln (State cap.), Beatrice, Hastings, Nebraska City, Plattsmouth, Kearney, South Omaha, Grand Island, Fremont, York, &c.—*Railroads.* The principal railroads are the Union Pacific and Burlington & Missouri River, which connect Omaha with Denver and the Pacific coast; both have numerous branches ramifying the State. The Fremont, Elkhorn & Missouri Valley R. R. traverses almost the entire N. section of the State, running up to the Black Hills of North Dakota. Chicago and the East are reached by several trunk lines centering in Omaha and crossing the Missouri from Council Bluffs, Iowa, on the great bridge of the Union Pac. R. R. The total mileage in 1902 was 5,742, whose value, as determined for the year named by the State Board of Equalization, was $25,425,308. — *Govt. and Finances.* According to the State Constitution adopted November, 1875, provision is made for the election of a governor, lieutenant-governor, secretary of State, auditor, treasurer, superintendent of public instruction, attorney-general, and commissioner of public lands. The legislature meets biennally, in odd years. The judiciary consists of a supreme court, district and county courts, the judges being elected by the people. The value of taxable property in 1902 was $174,439,095, and the tax rate 7.22 per $100. In 1890 the net state debt was $253,379, and that of counties and cities $12,634,681. The latter figures have since been considerably increased, but the State was in 1900 free from debt.—*Education.* The State of *N.* had at the census of 1900 an enrollment of children of school age of 285,415, with an average daily attendance of 182,589. There were in all 9,485 teachers. The total of the permanent school fund invested was about $48,000,000, with about $5,000,000 of interest bearing notes from the sale of school lands, making a total of about $9,000,000. Normal schools of excellent character exist. The University of *N.*, situated at Lincoln, is a flourishing and well-patronized institution. In addition there are about 50 colleges and academies of the better class.—*Hist.* *N.* formed part of the Louisiana purchase, and was long part of the Northwest Territory. The overland emigration to California in 1849 brought it settlers, and it was organized as a Territory in 1854, then extending to British America and the Rocky Mountains. From this area (351,558 sq. m.) Colorado, Dakota, and Idaho were afterward taken, reducing *N.* to its present proportions. It became a state in 1867. *Pop.* (1890) 1,058,910; (1900) 1,066,300.

Nebras'ka, in *California*, a village of Sierra co., about 16 m. E. of Downieville.—In *Illinois*, a township of Livingston co.

Nebras'ka, in *Indiana*, a post-village of Jennings co., about 62 m. W. of Cincinnati, Ohio.

Nebras'ka, in *Iowa*, a township of Page co.

—A village of Pottawattomie co.

Nebras'ka City, in *Nebraska*, a city, cap. of Otoe co., about 46 m. S. of Omaha. It is a place of much business activity, and is increasing rapidly in population and importance. *Pop.* (1897) 14,500.

Nebuchadnez'zar, NEBUCHADREZZAR, NABUCHODONOSOR, or NEBUCONONOSOA, a king of Assyria, who lived in the 7th century B. C. The chief events of his reign were his defeat of the Medes under their king Arphaxad, and his sending a force of 120,000 foot and 12,000 horse, under Holofernes, against Israel.—See JUDITH.

Nebuchadnez'zar, or **Nabopolas'sar,** a king of Babylon, who reigned from 626 to 605 B. C. He united with Astyages in the conquest of Syria, and founded the second Syrio-Babylonian empire.

Nebuchadnez'zar, or NEBUCHADREZZAR, surnamed *The Great*, was the son and successor of the preceding. He immediately entered upon a war, by which he extended his empire over the greater part of Asia, and from the Caucasian Mountains in the north to the Great Desert of Africa in the south. He defeated the Edomites and Ammonites, took Jerusalem, and led the inhabitants captive to Babylon. His vassal king of Judah, Jechonias, having revolted, he thirteen years later deposed him, and put an end to the kingdom of Judah. He next turned his arms against Tyre, which, after an obstinate resistance of more than twelve years, he finally took, and which, with Egypt and Persia, made his empire and power enormous. *N.* died 562 B. C., after which the overgrown empire rapidly declined. It was to this king that the Jewish captive Daniel interpreted the dream that so truly foreshadowed the fall and ruin of his empire. The celebrated hanging-gardens of Babylon, one of the seven wonders of the world, were executed by this monarch, to please his beautiful wife, a Median princess.

Fig. 1925.—GREAT NEBULA IN ORION.

R. A. 5h. 31m.; Dec. S. 5° 27′. Exposure, 9h. From photograph taken at Goodsell Observatory, Northfield, Minn., on Feb. 5 and 6, 1894.

Neb'ula, *n.; pl.*, NEBULÆ. [Lat. *nephos*, *nephele*, a cloud.] (*Astron.*) The Latin word from which this term is derived accurately describes the appearance of nebulæ when viewed through a telescope. In Halley's time only six of these gaseous-like patches were known, and these comprise nearly all that are visible to the naked eye to-day. Since then, mostly through the labors of the two Herschels, Dunlop, Marth, Rosse, Javelle, Swift, and others, the number now known amounts to nearly 10,000. Dreyer's *New General Catalogue* (1860) contains the places of 7,840; his *Index Catalogue*, since issued, has additions of 1,529, to which must be added a list of 50 lately discovered by Swift and published in Gould's *Astronomical Journal*. These and others discovered since by various comet-seekers, will make the number at least 9,500.

Nebulæ are divided into four classes: *annular*, *planetary*, *stellar*, and *nebulous stars*, which are again subdivided into *large*, *round*, *elliptical*, *irregular*, *resolvable*, *spiral*, *double*, *bright*, *faint*, and *photographic*. Many that were formerly considered as irresolvable have by the

mammoth telescopes of the present day been resolved into suns; but far the larger number resist all attempts at resolving, thus disproving the once popular theory that all nebulæ are clusters of stars, and could be resolved if sufficient optical power were at our disposal. The spectroscope decides in a moment which are clusters, and which are gaseous. If the lines in their spectra are dark, they are clusters, whether the telescope can resolve them or not; but if the lines are bright, they are immense bodies of luminous gas. The cause of their luminosity is unknown. The brightest and largest of the unresolved sort is the great nebula in Andromeda. Although some 1,500 stars are scattered over its surface, they are probably a long distance this side of it. This is one of six naked-eye clusters. In 1885, a 6th magnitude star suddenly blazed forth from its center, which soon disappeared, even beyond the reach of any telescope, without having moved a measurable distance. Such stars are called *temporary stars*. (See STARS.) Whether it had any connection with the nebula itself is not known. It certainly was an extraordinary phenomenon. The place for this nebula for the year 1900 is right ascension 0h. 37m. 27s.; declination north 40° 43′ 24″. It was discovered in 1612 by Simon Marius, and is the first mentioned in history. In 1618 the great nebula in Orion was discovered by Cysatus. It is the most irregular and the most remarkable nebula in the heavens. Its extent, photographically, is nearly equal to the entire constellation. It shows no indication of partial resolvability, as has been stated. The spectroscope pronounces it a mass of gas of inconceivable magnitude.

Nebulæ, as to shape, observe no rule. While some are perfectly round, like the one between Beta and Gamma Ursa Majoris, others are sharply elliptical, of all eccentricities from almost a line to nearly a circle. The distance of not a single nebula or cluster is known. Whether they be nearer or more distant than the 6th magnitude stars will probably never be known. A supposed motion of translation has been detected in a few, also toward and from us in the line of sight, by the spectroscope. If as distant as the nearest star (Alpha Centauri) one of the smaller nebulæ would fill the orbit of Neptune—5,600,000,000 miles in diameter. Midway between Beta and Gamma Lyra is the celebrated "ring nebula," the largest and brightest of all the seven that are known belonging to this class. The ring is sharply defined and bears magnifying well. The center is faintly illumined by nebulous light; it is gaseous. Two or three stars are seen within the ring with the Lick telescope.

Of the naked-eye clusters, the Pleiades—or "Seven Stars," as they are usually called—is the best example. The naked eye sees only six stars, but the telescope reveals the existence of over 2,700, and the camera, given an exposure of 8 or 10 hours, depicts on the sensitive plate almost 4,000—a universe of itself. Præsepe, or "the Bee Hive," in Cancer, another of the six nebulæ known to the ancients, can be resolved into stars with an opera glass. Its place for the year 1900 is in right ascension 8h. 33m.; declination north, 20° 21′.

The gaseous nebulæ are doubtless undergoing condensation, preparing for the formation of suns and

[EAST.]

[WEST.]

Fig. 3001.—PHOTOGRAPH OF THE NEBULA NEAR XI PERSEI, N. G. C. 1499.
R. A. 3h. 56m. 55s. + 36° 8′ 25″. By E. E. Barnard, at Lick Observatory, Sept. 21, 1895. Exposure, 6h.

Fig. 3002.—NEBULA IN ORION.
Exposure, 2h. on Jan. 25, 1892.

planets. The process is going on right before our eyes, but it is a very slow one. If we suppose that 5,000 of the 9,500 visible nebulæ are in their primitive gaseous condition, then within the reach of our feeble vision there would be 5,000 universes in every stage of advancement from gaseity to suns and planets. The discovery of spiral nebulæ is due to Lord Rosse with his six-foot reflecting telescope. Several show the spiral form. The most remarkable one is the doublet in the Hunting Dogs, right ascension 13h. 25m. 42s.; declination + 47° 42′ 38″. The shape of the so-called "dumb-bell" nebula is unique, there being not another one at all resembling it. It is in Vulpecula, right ascension 19h. 55m. 17s.; declination + 22° 36′ 48″. In 1714 Halley discovered a nebulous object on a line joining the stars Eta and Zeta, of the constellation Hercules, being another of the six visible to the unassisted eye. It is by far the most gorgeous cluster north of the equator. Sir William Herschel announced that it contained 14,000 stars in a space ⅔ the size of the moon. The number appears to be overstated, and is probably a misprint for 4,000. By far the most magnificent cluster in the whole heavens is the Omega Centauri cluster, in the southern sky. It is another of the six naked-eye nebulæ. It is in right ascension 13h. 20m. 46s.; declination south 46° 47′ 18″. On a space one-half the size of the moon there must be at least 20,000 stars packed so closely together as to require a large telescope, armed with a high power, to separate them. They range from the 12th to the 15th magnitudes. Planetary nebulæ are extraordinary objects; several have been discovered. They present a round, evenly illuminated disk, as sharply defined as the planet Jupiter. Several have a minute star exactly in the center. One of the most interesting is in Cygnus, right ascension 19h. 42m. 50s.; declination + 50° 16′ 46″. It has an 11th magnitude star in its center. For nebulous stars see STARS.

Neb'ular. *a.* Pertaining to nebulæ.

Nebular Hypoth'esis. (*Astron.*) The comparatively recent theory as to the formation of the planets and stars. It contemplates the idea that these bodies were formed by the condensation of matter in its original elements through the influence of gravitation. By many the great German philosopher, Kant, is believed to be the founder of this theory; he reached this conclusion inductively, by studying the structure of the solar system, and then deductively, by proving that such results would accrue from the force of gravitation. He pointed out the fact that the orbits of all the planets and satellites known in his time were in practically the same plane, and that their revolutions, both on their axes and around the sun, were all in the same direction; and upon these facts his hypothesis was largely based. Scientists of to-day, however, know that this is not true of the satellites of Uranus and Neptune, since discovered. Kant explained the common direction of motion by assuming that all the material out of which the solar system was formed, originally existed in its prime elements and filled that space in the universe in which these bodies now move; but his knowledge of mechanical forces was insufficient to enable him to show clearly just how the condensation of matter was effected. Herschel reached practically the same conclusions through telescopic examinations of the nebulæ. He found that the glowing, cloud-like masses, or nebulæ proper, and the other form known as star clusters, seemed to shade into each other with no definite line of demarcation; from which he argued

that the stars were formed by the gradual condensation of the vaporous masses. The name of La Place is also frequently mentioned as the originator of the *N. H.* He, like Kant, believed that the wonderful uniformity in the direction of rotation, noted above, could not have been a mere coincidence, and his wide knowledge of mathematics enabled him to demonstrate, with much force, the theory that the sun was originally surrounded by a mass of fiery vapor extending far beyond the present limits of the solar system; that this mass consisted of the elements which now compose the planets and satellites; that by gradual cooling and condensation, with a moderate axial rotation, rings would be successively formed which in turn would be gradually condensed into planets, these throwing off similar rings which in time were condensed into satellites. La Place accounted for the zone of asteroids between Mars and Jupiter by assuming that the more general uniformity of this particular ring caused its formation into many small bodies instead of one large planet. The *N. H.* is one of the important links in the general theory of evolution, and as such has been accepted by Mr. Herbert Spencer and other evolutionists. Although not yet definitely proved to be true, there are many known facts that seem explainable on no other hypothesis.

Nebulos'ity, *n.* The state of being nebulous; haziness; cloudiness.

Neb'ulous, *a.* Cloudy; hazy; misty; as, *nebulous* weather.

(*Astron.*) Pertaining to, or having the appearance of a nebula.

Neb'uly, *a.* Decorated with wavy lines.

(*Her.*) See LINE.

Necessa'rian, *n.* One who maintains the doctrine of philosophical necessity; a necessitarian.

—*a.* Relating to necessarianism.

Necessa'rianism, *n.* The doctrine of philosophical necessity.

Nec'essarily, *adv.* By necessity; in such a manner that it cannot be otherwise; indispensably; by unavoidable consequence.

Nec'essariness, *n.* The state or quality of being necessary.

Nec'essary, *a.* [Fr. *necessaire;* Lat. *necessarius*, from *necesse* — *ne*, not, and *cedo, cessum*, to yield. See CEDE.] That cannot be put off, or which is unavoidable; inevitable or indispensable; that must be, and cannot be otherwise. — Indispensably requisite; needful; essential; that which cannot be otherwise without preventing the purpose intended; inevitable, as a conclusion or a result. — Acting from necessity or compulsion; involuntary; — opposed to *free*; as, is man a *necessary* or a *free* agent?

—*n.* Something necessary or indispensable to some purpose; an essential; a requisite; a requirement; — used generally in the plural.

"We are to ask of God such *necessaries* of life as are needful to us." — *Duty of Man.*

—A water-closet; a privy; a house of convenience.

Necessita'rian, *n.* A necessarian; one who maintains the doctrine of philosophical necessity.

Neces'sitate, *v. a.* To make necessary or indispensable; to render unavoidable.

—To compel; to force; to oblige; not to leave free.

Necessita'tion, *n.* The act of making necessary; compulsion. (R.)

Neces'sitous, *a.* Very needy or indigent; poverty-stricken. — Narrow; destitute; pinching; as, *necessitous* poverty.

Neces'sitously, *adv.* In a necessitous manner.

Neces'sitousness, *n.* Poverty; want; need; penury.

Neces'situde, *n.* [Lat. *necessitudo.*] Friendship; necessary connection or relation.

Neces'sity, *n.* [Fr. *nécessité;* Lat. *necessitas*, from *necesse*, unavoidable. See NECESSARY.] That which cannot be put off, or which is unavoidable, inevitable, or indispensable; that which must be, and cannot be otherwise; or the cause of that which cannot be otherwise; indispensableness; inevitableness; state or condition of being absolutely requisite.

"*Necessity* is the argument of tyrants."—*Earl of Chatham.*

—Irresistible power; compulsive force, physical or moral; fatality.

—Extreme indigence; pinching poverty or penury; pressing need; exigency; emergency.

"The cause of all . . proceeded from the extreme poverty and *necessity* his majesty was in."—*Clarendon.*

—That which is necessary; something absolutely requisite; — chiefly in the plural; "as, the *necessities* of labor and employment."—*Law.*

(*Metaph.*) Negation of the forces of voluntary action; subjection of material or spiritual phenomena to indispensable causation.

Of necessity, by compulsion or imperative force of circumstances; by necessary consequence.

Neck, (*nek,*) *n.* [A. S. *hnecca;* D. *nek;* Dan. *nakke;* Fr. *nuque*, the nape of the neck; Pers. *anik.*] That flexible part of an animal's body which is between the head and the shoulders.

(*Anat.*) That part of the body which connects the head with the trunk. It is principally made up of the cervical vertebræ, and the numerous muscles which cover them, and are concerned in their different movements and in those of the head and shoulders. The pharynx and œsophagus lie in contact with the front of the vertebral column, and the larynx and trachea in front of these. The large blood-vessels of the head pass through the neck on the front of the spine, and some important nerves take nearly the same course. These several organs, connected together rather loosely by cellular substance and surrounded by integuments, compose the neck.

—The long, slender part of a vessel, as a retort; or of a plant, as a gourd.

(*Bot.*) The point of junction between the root and the stem.

Neck and crop, completely; utterly; thoroughly; as, he is ruined *neck and crop*. — *Neck-break*, utter ruin.

Neck of a capital. (*Arch.*) The space between the astragal on the shaft and the annulet of the capital in the Grecian-Doric order. — *Neck of a cascabel.* (*Ordnance.*) The part connecting the knob to the base of the breech of a gun. — *Neck of a gun*, the minor part of a gun in front of the chase. — *On the neck of*, immediately following; closely after.

Stiff neck, contumacy; obstinacy; perverseness. — *To break the neck of*, to reduce to more than half; to take away the prime difficulty of a thing.

To harden the neck, to grow stiff-necked, contumacious, or obstinate.

Necho, (*ne'ko,*) a king of Egypt, called in Scripture Pharaoh-Necho, succeeded his father Psammetichus, 617 B. C. He planned a canal from the Nile to the Arabian Gulf, which undertaking he was forced to abandon, after losing a great number of men. The ships of Necho sailed from the Red Sea round the coast of Africa into

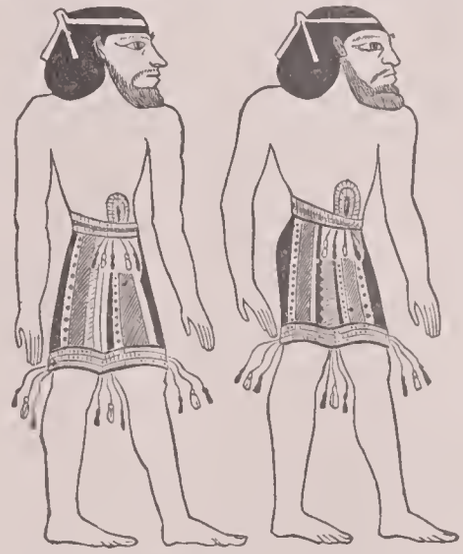

Fig. 1926.

JEWISH CAPTIVES PRESENTED BEFORE PHARAOH-NECHO.

(Copied from the great *Tomb of the Kings* explored by Belzoni.)

the Mediterranean, and returned to Egypt, after a voyage of three years. This monarch invaded Assyria, and, on his march, was attacked by Josiah, king of Judah, who was slain in the battle. Necho was in turn defeated by Nebuchadnezzar, and obliged to return to his own country, where he died 601 B. C.

Neck'ar, a river of S.W. Germany, rising in the mountains of the Schwarzwald, and after a N.W. course of 240 m., joins the Rhine at Mannheim. It is navigable 120 m.

Neck'-beef, *n.* The coarse flesh of the neck of cattle, sold to the poor at a cheap rate.

Neck'-cloth, *n.* A piece of cloth worn on the neck; a cravat; a neck-tie.

Necked, (*neck'd,*) *a.* Having a neck; as, stiff-*necked*, long-*necked*.

Neck'er, JACQUES, a French statesman, minister of finance to Louis XVI., B. at Geneva, 1732. He went to Paris at an early age, obtained employment in a banking-house, in which he rose to a partnership, and in 13 years, having made a number of successful speculations, retired from business with a large fortune. He commenced his political career by becoming a member of the council of Two Hundred at Geneva. He was afterwards appointed minister of the republic of Geneva at Paris, where, by degrees, he rose to the highest employments. In 1765 he was appointed syndic of the French East-India Company; in 1775, director of the royal treasury; and was twice director-general of the finances of France. But the Revolution, which all his efforts were unable to check, obliged him to retire to Switzerland. Necker wrote three volumes on the finances of France, a book on the influence of religious opinions, and other works. He married the daughter of a Protestant clergyman, by whom he had a daughter, Madame de Staël-Holstein, the wife of the Swedish ambassador. She afterwards became celebrated by the name of *Madame de Staël.* D. in Switzerland, 1804.

Neck'erchief, *n.* A handkerchief for the neck; — called also *neck-handkerchief*.

Neck'lace, *n.* A string of beads or precious stones, worn by women on the neck.

Necklaced, (*nek'lāst,*) *a.* Wearing a necklace.

Neck'-land, *n.* A long, narrow part of land.

Neck'-mould, *n.* (*Arch.*) A small convex moulding surrounding a column at the junction of the shaft and capital.

Neck'-tie, *n.* A neckerchief; a strip of silken or cotton stuff worn round the throat; as, a fancy *neck-tie*.

Neck'-weed, *n.* Hemp; — used in ridicule, because used for hanging criminals.

Necrolog'ic, Necrolog'ical, *a.* Pertaining to necrology.

Necrol'ogist, *n.* One who gives an account of, or registers deaths.

Necrol'ogy, *n.* [Gr. *nekros*, a dead body, and *logos*, discourse.] An account of the dead or of deaths; a collection of short biographical notices of deceased persons, published shortly after their death; a register of deaths.

Nec'romancer, *n.* One who practises necromancy; a conjurer; an enchanter; a sorcerer.

Nec'romancy, *n.* [Gr. *nekromanteia*, from *nekros*, a dead body, and *manteia*, a prophesying, divination.] The art of revealing future events is the divination of the future by consulting the spirits of the dead. The origin of the pretended art extends far beyond the limits of history. It is generally believed to have arisen in Egypt at a very early period, and to have been from hence carried into most of the other countries of antiquity. The Jews, doubtless, became acquainted with it here, and we find it repeatedly, and in very severe terms, condemned in the Old Testament by Moses and others (*Deut.* xviii. 11, 12). In 1 *Sam.* xxviii. 3–8, we have an account of the witch of Endor's pretended raising up of the spirit of Samuel before Saul. In the eleventh book of the "Odyssey," Homer makes Ulysses raise the shade of Tiresias from the infernal regions. In the sixth book of the "Æneid" of Virgil we have an account of the descent of Æneas into Hades, another form which necromancy sometimes took among the ancients. The Greek satirists did not neglect to aim their shafts at this art, and in the "Frogs," of Aristophanes, and particularly in Lucian's "Mnippus," we have elaborate and amusing descriptions of the ceremonies attending the invocation of the dead and the entrance of the living into Hades. The priesthood usually claimed to be the medium of communication between the living and the dead, and the art was practised with peculiar and imposing ceremonies, which could not fail to greatly impress the beholder. The necromancer surrounded himself with mysterious emblems; a multiplicity of rites preceded the evocation of the spirit; and, above all, solitude and darkness, so potent in their influence over the imagination, were regarded as essential to success. The Thessalian workers of spirits performed their rites with many revolting atrocities, and not unfrequently butchered men in order to consult their spirits before they had time to hasten down to the regions of the dead. The establishment of the Christian religion brought necromancy under the ban of the Church; and the Emperor Constantine prohibited, under severe penalties, the evocation of the dead. The necromancer of the Middle Ages seems to have merged into the sorcerer, who, by means of potent spells, summoned demons and infernal spirits to his aid.

Necroman'tic, Necroman'tical, *a.* Pertaining to necromancy; performed by necromancy.

Necroman'tically, *adv.* By necromancy; by conjuration.

Nec'ronite, *n.* [Fr. *nécronite.*] (*Min.*) A variety of Orthoclase. It is found in small nodules in the limestone of Baltimore, and when struck it exhales a fetid odor resembling that of putrid flesh.

Necroph'agans, *n.* [Gr. *nekros*, a corpse, and *phago*, I eat.] Same as SILPHIDÆ, *q. v.*

Necroph'agous, *a.* Feeding on dead animals, as carrier-beetles or *Silphidæ*.

Necroph'orus, *n.* (*Zoöl.*) The Sexton-beetle, a genus of the SILPHIDÆ, *q. v.*

Necrop'olis, *n.* [Gr. *nekros*, and *polis*, a city.] This word literally signifies the city of the dead, and was the name given to a suburb of Alexandria in Egypt, containing temples, gardens, and superb mausoleums. Hence it has come to be applied to some of the magnificent cemeteries in the vicinity of some of our large cities.

Necroscop'ic, Necroscop'ical, *a.* That relates to post-mortem examinations.

Necrosed, (*ne-krost',*) *a.* (*Med.*) Affected by necrosis; as, a *necrosed* bone.

Necro'sis, *n.* [Fr. *nécrose*; Gr. *nekrosis*, from *nekroa*, I kill.] (*Med.*) A word used as synonymous with mortification or gangrene; but it is more commonly used in surgery to denote the death or mortification of a part or the whole of a bone. Necrosis differs from caries of a bone, inasmuch as in the latter case the vitality of the bone is only impaired, not destroyed, as in the former; in the same way as ulceration of the soft parts differs from gangrene. Necrosis is found in either sex, and at all periods of life, and may be occasioned either by external causes, as fractures, contusions, &c., or by internal or constitutional causes, as a debilitated or deranged habit of body. When a portion of a bone becomes dead, it is regarded as an extraneous substance.

Nectan'dra, *n.* (*Bot.*) A genus of plants, order *Lauraceæ*. The species *N. rodiei* is the *Bibiru* or *Beberra* tree, a plant of considerable importance. It yields the wood called *greenheart*, which is largely imported into this country from Guiana and the West-Indian islands, for ship-building and other purposes. This timber is heavy, hard, and durable, but rather apt to split; it takes a good polish, and is remarkable for its olive-green color. The bark of this tree has been used of late years as a substitute for the cinchona barks in medicine. Its tonic, anti-periodic, and febrifuge properties are due to the presence of a peculiar alkaloid, called *bibiru, bibirine*, or *bebeerine*, which may be employed by itself, or in the form of a sulphate, as a substitute for quinine. The seeds of the bihiru contain starch, which is mixed with a species of decayed astringent wood and a certain quantity of cassava starch, and made into a kind of bread by the South-American Indians. *N. cymbarum* yields the substance called

Brazilian sassafras. The cotyledons of *N. puchury, major* and *minor*, are imported from Brazil, under the names of *sassafras-nuts* and *pichurim beans*. They are used for flavoring chocolate.

Nec'tar, *n.* [Gr. *nektar.*] (*Myth.*) The supposed drink of the gods; and it was believed that this nectar, which they never gave to mortals, contributed much towards their eternal existence. According to the fables of the classic poets, it was a most delicious liquor, with properties far exceeding anything that mortals could imagine, as if gave a beauty, bloom, and vigor to all who imbibed it. Combined with ambrosia (which formed the solid food of the gods), it repaired all accidental injuries or decays which might assail them.

Necta'real, Necta'reau, Necta'rcous, *a.* Resembling nectar; very sweet and pleasant.

Nec'tared, *a.* Imbued with nectar; mingled with nectar; abounding with nectar.

Necta'reously, *adv.* In a nectareous manner.

Necta'reousness, *n.* The quality of being nectareous.

Necta'rial, *a.* (*Bot.*) Pertaining to a nectary.

Nectariferous, *a.* (*Bot.*) That yields nectar or honey.

Nec'tarine, *a.* Sweet as nectar; nectareous.

—*n.* (*Bot.*) The Brunion, a variety of the peach, in which the velvety covering of the skin is obliterated, and the surface is smooth and shining. Nectarines are generally more highly flavored than peaches.

Nec'tarous, *a.* Nectareous; sweet as nectar.

Nec'tary, *n.* (*Bot.*) The melliferous part of a flower; sometimes it is in the form of a horn or spur; sometimes in that of a cup, whence it is called the *honey-cup*.

Ned'enaes, a dist. of the S.E. of Norway, bordering on the Skager-rack; *area*, 4,266 sq. m. The surface is mountainous. *Chief towns.* Arendel, Grimstad, and Millesand. *Pop.* 53,000.

Ned's Point, in *Massachusetts*, a small peninsula and light-house, on the E. side of Mattapoise Harbor, Buzzard's Bay. It exhibits a fixed light 40 ft. above the sea.

Need, *n.* [A.S. *neod, nead*; Du. *nood;* Ger. *noth.*] Destitution; indigence; penury; a state that requires supply or relief.—Difficulty; exigency; strait; necessity; want; occasion for something.

—*v. a.* To want; to lack; to require, as supply or relief.

—*v. n.* To be wanted; to be necessary.

Need'er, *n.* One that wants anything.

Need'ful, *a.* Necessary as supply or relief; requisite.

Need'fully, *adv.* Necessarily.

Need'fulness, *n.* Quality or state of being needful; necessity.

Need'ham, in *Massachusetts*, a post-township of Norfolk co.; *pop.* abt. 3,400.

Need'ily, *adv.* In a needy manner; necessarily.

Need'iness, *n.* State of being needy; want; poverty; indigence.

Nee'dle, *n.* [A.S. *nædl, nedl;* Ger. *nadel.*] A small instrument of steel, pointed at one end, with an eye at the other to receive a thread, used in sewing. (See below, 2 *Manuf.*)—A small pointed piece of steel, used in the mariner's compass, which, by its magnetic quality, is attracted and directed to the pole—called a *magnetic needle*. (See COMPASS.)—Any thing having the form of a needle.

(*Manuf.*) The needle seems to have been one of the earliest implements used by man, examples of it being found among the most ancient relics of human handiwork. In the reindeer caves of France have been found needles of bone pierced with eyes, and "eyed" needles of bone and bronze are among the prehistoric relics dredged up on the site of the ancient lake-dwellings of Switzerland. Egypt also furnishes examples of bronze needles, about 3½ inches long; and the Pompeiian relics in the Naples museum embrace surgeon's needles, and also thimbles—which indicate the use of ordinary sewing needles. Needles made of various materials, such as bone, ivory, wood, and metal, are in use among savage tribes, while some of these employ thorns or bone awls to pierce holes, through which they push and pull the thread or string in the method pursued by a shoemaker. The Fuegians sew skins in this manner, tying the string or fiber at every hole. The needles of the Kaffirs have a constriction at the head around which they tie the end of the thread. Midiæval artisans made needles of steel at Nuremberg as early as 1370, metal-working and wire-drawing being common arts in this locality at that period. The art spread over the continent, and was practiced in England in the 16th century, the wire used being imported from Spain and Germany. It did not become important in that country, however, until about 1650. These early needles were all made with square eyes. The art of needle-making developed, and in the 19th century became so intricate a process that each needle had to go through the hands of no fewer than 120 workmen before it became ready for the housewife. This intricacy has been much reduced by later improvements, machines which operate with what seems human intelligence doing much of the work formerly performed by hand. The methods employed in former years are of great interest, and may be here described, as there has been little change in process, the principal improvement being in the substitution of machine for hand labor in many parts of the work. The first operation gone through was to reduce the best steel, by means of a wire-drawing machine, to the suitable diameter of the needle. The steel wire was brought in bundles to the manufactory, where it was tested by being re-heated and plunged into cold water, after which it was snapped between the fingers in order to ascertain its quality. The wire was then calibered, in order to see whether it was equally thick all through and of the required gange. The coils of wire were next cut by a pair of mechanical shears into pieces of about 8 feet long, and again into the requisite needle-length. In order to cut 120 wires, only 2 successive incisions were requisite, and, consequently, the shears, by striking 21 blows in a minute, cut in 10 hours fully 400,000 ends of steel wire, which produced more than 800,000 needles. After the wires were cut, being more or less bent, they required to be straightened; and the operation was thus performed:—They were enclosed, from 5,000 to 6,000 at a time, in 2 strong iron rings, and the bundle placed upon a flat smooth bench covered with a cast-iron plate, which had two grooves in it to receive the projecting circumference of the rings. Above the bundle was placed another plate or rule, which had likewise two grooves to receive the rings, and by pressing this down 2 or 3 times, the wires were immediately straightened. The needles, now in their embryo state, were then taken to the pointing-house, where, by means of some 30 grindstones driven by a water-wheel, they were to be sharpened. The workman seated himself in front of the grindstone (which, on account of the rapidity of its revolutions, was inclosed with iron plates or bands, having slits between for the wire to be applied to the stone), and seizing 50 or 60 wires between the thumb and forefinger of his right hand, presented one end of the bundle to the grindstone, by which means the ends were made conical. This operation was termed *roughing down*, and was performed without the aid of water; by which means the steel-dust seriously damaged the eyes and lungs of the workmen. There were many inventions for preventing this cause of bad health to the needle-workers; but they seldom adopted any precautions, preferring to go along on the old plan, and to do as their fathers did before them. The wires, being thus pointed, were then transferred to the first workshop, and were cut in two, so as to form 2 separate needles of equal length and quality. For each different size a small copper plate was employed. It was nearly square, and had a turned-up edge on 2 of its sides; the one being intended to receive all the points, while the other resisted the pressure of the shears. On this plate a certain number of wires were put with their points in contact with the border, and cut together flush with the plate, by means of a small pair of shears, moved by the knee of the workman. These even wires were next taken to the *head-flattener*. This workman, seated at a table with a block of steel before him about 3 inches cube, took up from 20 to 25 needles between his finger and thumb, spreading them out like a fan, with the points under the thumb; he laid the heads on the steel block, and with a small flat-faced hammer struck a few successive blows upon them so as to flatten them in an instant. The heads having become hardened by hammering, were now annealed by heating and slow cooling, and then handed to the *piercer*, generally a child, who formed the eye in a second by laying one side of the head upon a block of steel, and by driving a small punch through the other side with a smart tap of his hammer. The eyes were then trimmed by driving the punch through them again, and, after laying the needle with the punch sticking through it upon the block of steel, hammering the head on the sides, which caused it to take the form of the punch. The next operator made the groove at the eye, and rounded the head, which he did with a small file. The needles being thus prepared, were thrown, by the workman, pell-mell, into a sort of drum or box, in which they were made to arrange themselves in parallel lines by means of a few dexterous shakes of the workman's arm. They were now ready to be tempered, for which purpose they were ranged on sheet-iron plates, generally about 30 pounds weight at a time, containing about 250,000 to 500,000 needles, and were placed in a furnace, whence, after being heated to redness, they were removed, and immersed suddenly in a bath of cold water. Some manufacturers heated the needles by means of immersion in melted lead. *Polishing* was the next operation, and was the longest and most expensive process. This was effected upon bundles containing 500,000 needles, by a machine, under the guidance of one man, who could polish about 30 bundles at once. The needles were rolled up in the bundles, covered with canvas in layers, with quartzose sand interspersed between the layers, which were smeared with rape-seed oil. These packets were then exposed to the to-and-fro pressure of wooden tables, by which the needles were rubbed constantly together on every side, and were finely polished. They were then *scoured by the cask;* that is to say, after being worked during 18 or 20 hours under the tables, the needles were taken out of the packets, and were placed in wooden bowls, where they were mixed with sawdust to absorb the black grease. They were then put in a cask, which revolved by means of a handle and axis, on which it was supported in its frame, and some more sawdust was added, and the cask revolved rapidly until they were quite clean, and the eyes were clear. *Winnowing*, the next process, was achieved by means of a mechanical ventilator, the same as is used for winnowing corn, and the operation left the needles bright and clear from all impurity. For the best descriptions of needles, the three operations of polishing, scouring, and winnowing were generally performed at least 10 times. They were then sorted in the order of their polish, and the sorter separated all that had broken points, heads, or other defects. This description is given in the past tense, though many of the operations described are still in use. At present the making of a needle requires about 22 processes, of which we may confine ourselves to those which differ from those above described. The first is that of pointing, which was formerly done entirely by hand on a grindstone with a concave surface. In the present method the wires are withdrawn (one following another in quick succession) from a hopper by a pulley which revolves at right angles to the grindstone. An india-rubber band holds the wires to the face of the pulley, and as they pass between it and the grindstone they revolve on their axes. One end of the double-needle blank is thus ground and pointed, and the process is then repeated for the other end. The steel and stone dust, formerly so hurtful to the workmen, is now drawn away by the suction of a strong current of air. The old method of stamping these blanks in the middle, to produce the flat for the eyes and the mark for the holes, formerly done by a hand-worked implement, is now performed by automatic machines. Into these the wire blanks are fed, and the work done by an automatically-moving punch and die. The next operation is to punch two oval holes through the flattened center of each blank by a punching machine. The double-blanks—now double needles joined by thin films of metal—are next spitted through their eyes on two wires. The heads are then filed to remove the burr made by the punch, the connecting films broken, and the heads again filed, a single row of needles now being left on each wire. After tempering, much as above described, the needles are rolled one by one on a smooth stone, and those that are bent are thus detected and removed. They are next washed and scoured to remove any remnant of the tempering oil, the eyes "blued" to soften them, and the needles threaded on wire and swung—a little fine emery and oil being used—to smooth the eyes so that they will not cut the thread. The best needles are hand-polished with fine emery. The heads are now ground and the points set by hand on a rapidly-revolving stone. Polishing is at present effected in an ingenious machine, differing from the older method, as above described. The needles are fed, in rows one deep, between transverse leather-covered rollers, with holding rollers above them. They turn as they move, while the rollers are made to move laterally as well as backward and forward, thus giving a high polish to the needles. After being polished they are not touched again by hand in the factory, for fear of causing rust. The next process is to bring all the needles with their heads in one direction. This is done by a machine which lets them fall one by one on an inclined glass plate, down which they roll, their taper form causing them to describe an arc in rolling, those with the heads in one direction rolling to the right, the others to the left. The final process is to spit the needles on paper, or to gather them into small packets. In addition to hand-sewing needles, various forms of machine needles are now produced, all of them having a hook, barb, or eye at the pointed end. The best known form is that with an eye, there being a long groove on one side and a short one on the other, the purpose being to keep the thread from wear or cutting. The needles used in knitting machines are bent at the end to form an open loop. These are made by machines differing from those above named, in conformity to their variation in character. Mention may also be made of the common knitting and crochet needles, made of steel, ivory, bone or wood, with a cut or hook at the end to catch the thread. There are in the U. S. about 45 factories for the making of needles, with an annual product valued at over $1,500,000.

Nee'dle, *v. a.* To form, as crystals, in the shape of a needle.

—*v. n.* To shoot into crystals in the form of a needle.

Nee'dle-book, *n.* Something in which to keep needles, usually made in the form of a book, with cloth leaves; a housewife.

Nee'dleful, *n.; pl.* NEEDLEFULS. As much thread as is generally put at one time in the needle.

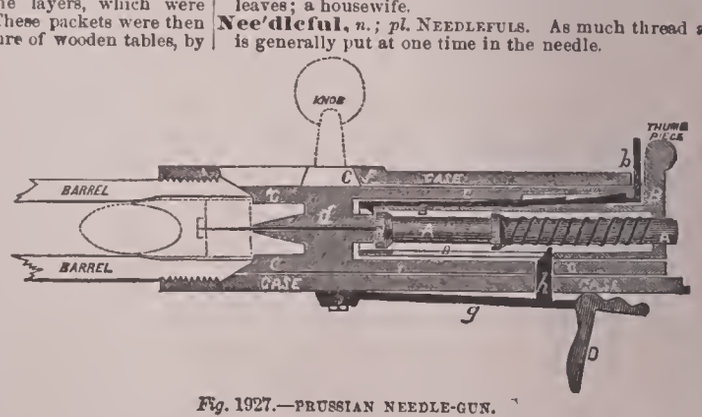

Fig. 1927.—PRUSSIAN NEEDLE-GUN.

Nee'dle-gun, *n.* [Ger. *zündnadel-gewehr.*] (*Gun.*) A Prussian breech-loading rifle, invented by Nicolas Dreyse, a locksmith, and for a long time the regulation weapon of the German infantry. It was extensively manufactured at Sömmerda, the native place of the inventor, and was effectively used in the war between

Prussia and Austria in 1866. The principle of this weapon is that the fulmination compound, which is to ignite the powder, lies within the cartridge itself, and can only be reached and caused to detonate by a needle which penetrates the cartridge. The needle is fixed in a holder encircled with a spiral spring, whose recoil, when the pulling of the trigger releases the needle from its detaining catch, darts it forward through a little tube or guide into the breech chamber. The mechanism is carried in a cylindrical case, which is fixed to the stock by bands, and into which the barrel is screwed, so that it forms, as it were, a prolongation of the barrel. In the illustration A is the needle-bolt or holder, B B the lock for drawing it back. It has a little tooth for catching the projection A of the needle-bolt. C C is the chamber in which is fixed the needle-guide *d*. D is the trigger acting on the spring *g* and through it on the catch *h*. When the trigger is pulled, the catch *h* is drawn down from the shoulder *a*, and the released spring causes the needle to dart through its guide into the cartridge, its blunt end sharply striking the fulminate and igniting the charge. The needle-gun was a great advance on any weapon known at the time, but its use has long since been superseded in Germany by other and better weapons, the various nations now using some form of the many highly-developed magazine guns now in use.

Need'le-bar, *n.* In a stocking-frame, a bar in which the needles are fitted with thin leads. In a sewing-machine, the reciprocating bar to the end of which the needle is attached.

Need'le-bath', *n.* A shower-bath in which the water is supplied in fine jets like needles.

Need'le-car'rier, or bear'er, *n.* A porte-alguille, forming a handle for a needle.

Nee'dle-ore, *n.* [From the acicular form of its crystals.] (*Min.*) A native sulphide of bismuth, copper, and lead, found at Beresowsk in Siberia, imbedded in white quartz. It occurs in acicular four- or six-sided prisms.

Nee'dle-pointed, *a.* Pointed as a needle.

Nee'dler, *n.* One who makes needles.

Nee'dle-spar, *n.* (*Min.*) Aragonite, *q. v.*

Needles, (The,) a cluster of pointed rocks on the coast

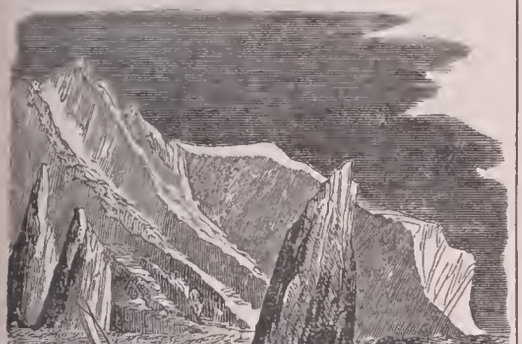

Fig. 1928. — THE NEEDLES.

of the English Channel, off the Isle of Wight; Lat. 50° 39′ 9″ N., Lon. 1° 34′ W.

Need'less, *a.* In want of nothing; having no need. — Not needed or wanted; unnecessary; not requisite; useless.

Need'lessly, *adv.* Without necessity; unnecessarily; without need.

Need'lessness, *n.* Unnecessariness.

Nee'dle-stone, *n.* (*Min.*) Scolecite, *q. v.*

Nee'dle-woman, *n.; pl.* NEEDLE-WOMEN. A seamstress; a woman who works with a needle.

Nee'dle-work, *n.* Work executed with a needle; or, the business of a seamstress.

Needle-worked, (*nee'dl-wurkt,*) *a.* Worked with needles.

Nee'dly, *a.* Relating to, or resembling a needle.

Needs, *adv.* Necessarily; indispensably; — generally used with *must*.

"*Needs must* when the Devil drives." — *Proverb.*

Needs'by, *adv.* Without need; needlessly.

Need'y, *a.* Necessitous; indigent; very poor; distressed through want of the means of living.

Needy, in *Oregon*, a post-village of Clackamas co., abt. 15 m. S.E. of Oregon City.

Neel'ghau, *n.* (*Zoöl.*) See NYLGHAU.

Neem'-tree, *n.* (*Bot.*) See MELIACEÆ.

Nee'nah, in *Minnesota*, a village of Stearns co., abt. 7 m. S. of St. Cloud.

Neenah, in *Wisconsin*, a city and township of Winnebago co., on Fox river and 3 R. Rs., 35 m. N. of Fond du Lac. *Pop.* (1895) 5,781.

Neenah River, in *Wisconsin*. See FOX RIVER.

Ne'er, (*nâr,*) *adv.* A contraction of NEVER, *q. v.*

Neerwinden, (*nair-vin'den,*) a village of Belgium, 2 m. from Landen. Here William III. of England was defeated by the duke of Luxembourg, in 1693; and here, in 1793, the French were defeated by the Austrians.

Ne ex'eat Repub'lica. [Lat., that he may not leave the country.] (*Law.*) A writ issued against a person who owes an actually due equitable debt and is meditating a departure from the realm, to prevent his flight without the leave of the court. The motion for the writ, except in some special cases, requires to be supported by an affidavit as to the debt, and the defendant's intention to go into parts without the State; and the person when arrested may obtain his liberty by either depositing the amount indorsed upon the writ, or by executing a bond, with two sufficient sureties in double that sum, not to leave the country.

Nefa'rious, *a.* [Lat. *nefarius*, from *ne*, not, and *fari*, to speak.] Impious: wicked in the extreme; sinful, villanous or vile in the highest degree; abominable; detestable; infamous; execrable; atrocious.

Nefa'riously, *adv.* With extreme wickedness; abominably.

Nefa'riousness, *n.* The quality of being nefarious.

Neff's'ville, in *Pennsylvania*, a post-village of Lancaster co., abt. 5 m. N. of Lancaster.

Negafratam', a decayed seaport-town of Hindostan, presidency of Madras, dist. of Tanjore, on the Bay of Bengal, 162 m. S.E. of Madras; *pop.* 10,000.

Nega'tion, *n.* [Lat. *negatio*, from *nego*, *negatus*.] Denial; refusal; a declaration that something is not, or has not been, or shall not be.

(*Logic.*) The absence of a quality in a thing which, by nature, cannot have it; or the description of a thing by denying its possession of some quality which, by nature, it has not.

Neg'ative, *a.* Implying denial or negation; — opposed to *affirmative*.—Implying absence;—opposed to *positive*. —Having the power of stopping, withholding, or restraining; as, a *negative* vote.

—*n.* A proposition by which something is denied. — A word which denies, as *no*, or *not*. — The right or power of preventing the enaction of a law or decree.—A decision or answer expressive of negation.

(*Photog.*) A photographic picture in which the lights and shadows of the natural object are transposed; the high lights being black, and the deep shadows transparent, or nearly so. Negatives are taken on glass and paper by various processes, and should indicate with extreme delicacy, and in reverse order, the various gradations of light and shade which occur in a landscape or portrait. A negative differs from a positive inasmuch as in the latter case it is required to produce a deposit of pure metallic silver to be viewed by *reflected* light; while in the latter, density to *transmitted* light is the chief desideratum; accordingly, inorganic reducing and retarding agents are employed in the development of a positive, while those of organic origin are used in the production of a negative. The value of a negative consists in the power it gives of multiplying positive proof. See POSITIVE.

Negative Quantity. (*Algebra.*) A quantity which is opposite to *positive quantity*, and which is characterized by having the symbol — prefixed to it. The theory of negative quantities is attended with great difficulty and many obstructions when it ascends to the higher branches of mathematics. In the expression $a - b$, where a is greater than b, the quantity can readily be solved; but when we have $a - b$, where b is greater than a, the expression is attended with much difficulty, as is also $-a$ by itself. The best definition, and what is most natural, is that given by Newton, and followed by Euler, that negative quantities are less than nothing; the second definition is usually adopted with regard to mechanics, that negative quantities are similar to positive quantities, only that they are taken in a contrary sense, or opposite direction. D'Alembert, however, has shown that both these definitions lead to inaccurate notions. He observes: Let there be the proportion $1 : -1 :: -1 : 1$, which is true in its results, because the product of the means must equal the product of the extremes, or *vice versâ*. Now it must be considered that if -1 be less than nothing, it will be consequently much more less than the positive number 1. Therefore it can be deduced that the second term is less than the first, and consequently the fourth be less than the third. That is to say, 1 will be less than -1; but it has been proved to be greater than -1; consequently, it will be both less and greater, which is absurd. The only true interpretation which we can attach to a *negative quantity*, is, that it is an absolute quantity which does not conform to the system of reasoning by which positive quantities are governed, but that it relates to another system in such a manner, that, in order to render the formulæ for the first system applicable to it, the sign which precedes it must be changed from + to —, or from — to +. For instance, if y represents the difference between a and z, it does not follow that by substituting $-y$ for $+y$, the quantity represented by y becomes negative; but merely that of the two quantities a and z, the one which was the greater in the case in which y has the sign +, becomes the smaller when the symbol of y is changed into —. See IMAGINARY QUANTITY.

Neg'ative, *v. a.* To dismiss by negation; to disprove; to prove the contrary of. — To reject by vote; to refuse to enact or sanction; to resist a choice or what is proposed.

Neg'atively, *adv.* With or by denial; not affirmatively. — In the form of speech implying the absence of something.

Negaunee', in *Michigan*, a city and township of Marquette co., on 2 R. Rs., 12 m. W. of Marquette; has iron mines and manufacturing. *Pop.* (1894) 5,940.

Neglect', *v. a.* [Lat. *neglectus*, from *negligo*.] To omit by carelessness; not to heed, care for, or attend to; to disregard; to overlook; to omit by carelessness or design; to forbear to do, use, imply, promote, or attend to. — To slight; to take no notice of; to treat with scornful heedlessness. — To omit to accept or embrace, as an offer.

—*n.* Omission; forbearance to do anything that can be done, or that requires to be done. — Slight; omission of attention or civilities. — State of being disregarded.

Neglect'edness, *n.* State of being neglected.

Neglect'er, *n.* One who neglects.

Neglect'ful, *a.* Heedless; careless; inattentive. — Accustomed or apt to omit what may or ought to be done. — Treating with neglect or slight. — Indicating neglect, slight, or indifference.

Neglect'fully, *adv.* With neglect; with heedless inattention; with careless indifference.

Neglect'ingly, *adv.* Heedlessly; carelessly.

Negligee, (*neg-li-zhā',*) *n.* [Fr. *négligé*.] A plain gown, fitting easily to the shape, formerly worn by ladies.

Neg'ligence, *n.* [Fr. *négligence;* Lat. *negligentia*.] Omission to do; habitual omission of that which ought to be done, or a habit of omitting to do things; carelessness. — Instance of neglect; a negligent act.

Neg'ligent, *a.* [Fr. *négligent*; Lat. *negligent*, from *negligo*.] Careless; heedless; apt or accustomed to omit what ought to be done; regardless; indifferent; inattentive.

Neg'ligently, *adv.* Carelessly; heedlessly; without exactness. — With slight, disregard, or inattention.

Negotiabil'ity, *n.* Quality of being negotiable or transferable by indorsement.

Negotiable, (*-gō'shi-,*) *a.* That may be negotiated.

N. paper; N. instrument. (*Law.*) Such documents as are freely assignable from one to another, as bills of exchange and promissory notes. It is essential to the negotiability of a bill between all persons, except the government, that the words "payable to order," or "to bearer," or other equivalent words, be used, authorizing the payee to assign or convey the same to third parties. This mode of transfer depends upon the form in which it is made negotiable. If payable to the bearer, then it may be transferred by mere delivery; but if originally payable to a person or his order, then it is properly transferable by indorsement, because in no other way will the transfer convey a legal title.

Nego'tiate, *v. n.* To treat with another respecting purchase and sale; to hold intercourse in bargaining or trade. — To hold intercourse with another in respect to a treaty, league, or convention; to treat with, respecting peace or commerce.

—*v. a.* To procure by mutual intercourse and agreement with another; to procure, make, or establish by mutual intercourse and agreement with others. — To sell; to pass; to transfer for a valuable consideration.

Negotiation, (*-shi-ā'shun,*) *n.* [Fr. *négociation;* Lat. *negotiatio*.] The transacting of business in traffic; the treating with another respecting sale or purchase. — The transaction of business between nations.

Nego'tiator, (*-shi-ā-tor,*) *n.* [Lat.] One who negotiates; one who treats with others.

Nego'tiatory, *a.* Relating to negotiation.

Nego'tiatrix, *n.* A female who negotiates.

Negrais, (*neg'rise,*) a small island at the mouth of the Irawaddy River, in Burmah. Lat. of Cape Negrais, 16° 1′ N., Lon. 94° 14′ E. — Cape Negrais forms the S.W. extremity of the prov. of Pegu, a part of the region in Further India which is known as British Burmah.

Ne'gress, *n.* A female negro.

Ne'grill, (NORTH and SOUTH,) two promontories of Jamaica, W. Indies. The latter forms the W. extremity of the island; Lat. 18° 16′ N., Lon. 78° 22′ W. The other is 8 m. further N.

Negri'tos, or NEGRILLOS, *n.* [Sp., dim. of Negroes.] (*Ethnology.*) The name given by the Spaniards to certain Negro-like tribes inhabiting the interior of some of the Philippine Islands, and differing essentially, both in features and manners, from the Malay inhabitants of the Eastern Archipelago. They bear a very strong resemblance to the Negroes of Guinea, but are much smaller in size, averaging in height not more than four feet eight inches, whence their appellation of *N.*, or little Negroes. They are also called by the Spaniards *Negritos del Monte*, from their inhabiting the mountainous districts for the most part; and one of the islands where they are most numerous bears the name of *Isla de los Negros*. These *N.* are also known by the names *Aeta*, *Aigta*, *Ite*, *Inapta*, and *Igolote* or *Igorote*. They are described as a short, small, but well-made and active people, the lower part of the face projecting like that of the African Negroes, the hair either woolly or frizzled, and the complexion exceedingly dark, if not quite so black as that of the Negroes. All writers concur in speaking of them as sunk in the lowest depths of savagedom, wandering in the woods and mountains, without any fixed dwellings, and with only a strip of bark to cover their nakedness. The *N.* are found only in five of the Philippine Islands, namely, Luzon, Mindoro, Panay, Negros, and Mindanão, and are estimated at about 25,000 souls. A dwarfish people resembling the *N.* in many particulars have been found to exist widely in Africa.

Ne'gro, *n.* [Lat. *niger*, black.] (*Ethnology.*) A name properly applied to a race or variety of the human species, inhabiting the central portion of Africa, principally between Lat. 10° N. and 20° S., on account of one of their most striking characteristics — their black color. They do not include the Egyptians, Nubians, Abyssinians, &c., of Northern, nor the Hottentots of Southern Africa. Their characteristics are: skin black, hair woolly, lips thick, nose depressed, jaw protruded, forehead retiring, proportions of the extremities abnormal. They occupy about one-half of Africa. The Egyptians became acquainted with Negroes through the conquests of their rulers about 2300 B. C., and represented them on their monuments as early as 1600 B. C.; whence we know that for nearly thirty-five centuries the type has remained unchanged. They were known to the Greeks

till the 7th century B. C. In Africa, the Negro tribes have in general elevated themselves considerably above the simple state of nature, living in settled habitations, practising a rude agriculture, and carrying on certain manufactures. They display considerable ingenuity in the manufacture of weapons, the working of iron, weaving of mats, cloth, and baskets from dried grasses, in the

Fig. 1929.—UNMARRIED ANGOLESE GIRLS.

dressing of skins of animals, structure of their huts and household utensils, and the making of various implements. Their religion is a species of Fetichism, and they believe in good and evil spirits, witchcraft, charms and spells, omens, lucky and unlucky days, &c. Though cruel to their enemies and prisoners, and setting little value on human life, they are naturally kind-hearted, affectionate, hospitable to strangers, unsuspecting, and communicative of their joys and sorrows. They are of a cheerful disposition, and passionately fond of music. Their languages are described as extremely rude and imperfect, almost destitute of construction, and incapable of expressing abstractions.

Neg'roloid, *a.* [*Negro*, and Gr. *eidos*, form.] That resembles the Negroes.

Neg'ropont, or CHALCIS, the cap. town of the island and govt. of Eubœa, Greece, situated on the Euripus, a strait separating the island from Bœotia, and which at this point is only 120 feet wide. *Pop.* 5,000. See EUBŒA.

Neg'ropont, (Channel of,) an arm of the Ægean Sea, Greece, lying between Eubœa and Hellas, and consisting of the S.E. portion of the anc. Euripus. *Ext.* 40 miles long.

Ne'gros, one of the Philippine Islands in the Eastern Archipelago, S. of Luzon; *area*, 3,780 sq. m. *Pop.* 40,000.

Negun'do, *n.* (*Bot.*) The Ash-leaved Maple, or Box Elder, a genus of plants, order *Aceraceæ*. The N. American species, *N. aceroides*, is a handsome tree, 20–30 feet high, with irregular, spreading branches, growing in woods. The trunk is about one foot in diameter, and, when young, covered with a smooth, yellowish-green bark.

Ne'gus, *n.* A liquor made of wine, hot-water, sugar, nutmeg, and lemon-juice;—so called from the English Col. Negus, the first maker.

Nehemi'ah, (Book of.) (*Script.*) The title of one of the books of the Old Testament, whose author, Nehemiah, flourished about 444–405 B. C. He was sent by the Persian monarch, to whom he was cup-bearer, to rebuild the wall of Jerusalem, after the return from the captivity, and "to seek the welfare of the children of Israel." The Book, therefore, contains a narrative of the transactions in which he bore a principal part, and the reforms effected by him. It may be divided into 8 parts: 1. The departure of Nehemiah from Shushan, furnished with a royal commission to rebuild the walls of Jerusalem, and his arrival there (i., ii. 1–11); 2, an account of the building of the walls and gates of the city, notwithstanding the obstacles interposed by the Samaritans (ii. 12–20, iii.–vii. 4); 3, a register of the exiles who first returned from Babylon, and an account of oblations at the Temple (vii. 5–73); 4, a solemn reading of the law by Ezra, at the feast of Tabernacles (viii.); 5, a solemn fast and repentance of the people, and renewal of the covenant with Jehovah (ix., x.); 6, a list of those who dwelt at Jerusalem and in other cities, register and succession of the high-priests, chief Levites, and principal singers (xi., xii. 1–26); 7, the dedication of the city walls (xii. 27–47); 8, the correction by Nehemiah of abuses which had crept in during his absence (xiii.) This book was once connected with, and formed part of, the book of Ezra; and hence some ancient writers called it the Second Book of Ezra, or Esdras, and even regarded that learned scribe as the author of it. There can be no reasonable doubt, however, that it proceeded from Nehemiah, for its style and spirit, except in one portion, are wholly unlike Ezra's. Nehemiah was unquestionably, and in the strictest sense, the author of the earlier portion down to chapter vii. 4, the greater part of what follows being evidently compiled from records. The canonical character of the work is established by very ancient testimony.

Neigh, (*nā,*) *v. n.* To utter a sound, like a horse, expressive of want or desire; to whinny.
—*n.* The voice of a horse; a whinnying.

Neighbor, (*na'bur,*) *n.* [A.S. *neh-gebur*; Ger. *nachbar.*] One who lives or dwells near to another.—One who lives in familiarity with another.—A fellow-being; one of the human race; any one who needs our help.
—*a.* Near to another; adjoining; as, a *neighbor* house.
—*v. a.* To be near to; to adjoin.
—*v. n.* To inhabit the vicinity; as, he *neighbors* near. (R.)

Neigh'borhood, *n.* A place near; the vicinity; vicinage; the adjoining district, or any place not distant.—State of being near each other.—The inhabitants who live in the vicinity of each other.

Neighboring, (*na'bur-ing,*) *a.* Living or being near.

Neigh'borliness, *n.* State or quality of being neighborly.

Neigh'borly, *a.* Like or becoming a neighbor; kind; friendly; civil; obliging.—Cultivating familiar intercourse; interchanging frequent visits.
—*adv.* With social civility.

Neil'gherry Hills, or **Neil'gherries,** a range of mountains in S. Hindostan, presidency of Madras, at the junction of the S. and W. Ghauts; Lat. between 11° 10′ and 11° 38′ N., Lon. 76° 30′ and 79° 10′ E. *Area*, 700 sq. m. Several of their summits attain an elevation ranging from 6,000 to 8,760 feet.

Neills'burg, in *California*, a former post-village of Placer co., about 6 m. N.E. of Auburn.

Neills'ville, in *Wisconsin*, a city, cap. of Clark co., about 60 m. N.N.E. of La Crosse. *Pop.* (1895) 2,206.

Neisse, (*nī'sa,*) a river of Prussian Silesia, which, after a N.E. course of 98 m., joins the Oder 15 m. N.W. of Oppeln.

Neis'se, a fortified town of Prussian Silesia, on the Neisse, 48 m. S.S.E. of Breslau. The principal public buildings are the castle, the palace, and the commandant's residence. *Manuf.* Woollens, linens, ribbons, and bosiery. *Pop.* 18,747.

Neith. (*Egyptian Myth.*) A deity who was regarded as an incarnation of nature, and as the patroness of all the arts. Her most celebrated temple was at Sais, where stood the famous Veiled Image.

Neither, (*nē'ther,*) *pron.* [A.S. *nathor, nauther.*] Not either; not the one or the other.
—*conj.* Not either; nor.

Neiva, Neva, Nitsa, or **Nitza,** (*na'va,*) a river of Asiatic Russia, govts. of Perm and Tobolsk, rising in the E. of the Ural Mountains, 35 m. N.W. of Yekaterinburg, and after an E.S.E. course of 300 m., joins the Tohol, 50 m. from Tumen.

Nejin, or **Nezheen,** (*nej-in',*) a town of Russia, govt. of Tchernigov, on the Oster, 36 m. S.S.E. of Tchernigov. *Manuf.* Leather, soap, preserves, and liquors. *Pop.* 17,000.

Nek'imi, in *Wisconsin*, a post-village and township of Winnebago county, about 15 m. south south-west of Oshkosh.

Nekroso'ziac, *n.* (*Med.*) A new mode of embalming, introduced into this country in 1869, and consisting in a wash of the deceased body without wound or incision.

Nel'aton, AUGUSTE, a French physician, B. 1807, was professor of clinical surgery at the University of Paris, member of the Academy of Medicine, member of the Academy of Sciences, and commander of the Legion of Honor. He has introduced a new operation for the stone. He has written *Recherches sur l'Affection Tuberculeuse des Os* (1837); *Traité des Tumeurs de la Mamelle* (1839); *Eléments de Pathologie Chirurgicales* (1844–59); *Parallèle des divers Modes Opératoires dans le Traitement de la Cataracte* (1850); *De l'Influence de la Position dans les Maladies Chirurgicales* (1851). D. 1874.

Nellore', a district of Hindostan, presidency of Madras, on the Bay of Bengal, between Lat. 13° 55′ and 16° N., Lon. 79° 8′ and 80° 21′ E. *Area*, 8,000 sq. m. *Cap.* Nellore. *Pop.* 936,000.

NELLORE, cap. of the above dist., on the Pennar, 13½ m. from the Bay of Bengal, and 100 m. N.W. of Madras; *pop.* 20,000.

Nel'son, HORATIO, VISCOUNT, the greatest of England's naval commanders, and son of a country clergyman, was B. in Norfolk, 1758. He entered the English navy in 1770 as a midshipman, on board the *Raisonnable*, commanded by his uncle, Capt. Suckling, and on that ship being paid off, he served on a merchantman trading to the W. Indies. This voyage over, he re-entered the navy, sailed in an expedition to discover the N.W. Passage, and eventually receiving his commission as lieutenant, he took part in the war waging with the American colonies. He earned and obtained his promotion as post-captain before he was 21 years of age, and, in 1779, contributed largely to the capture of San Juan. Always of a sickly constitution, he was obliged to return home in consequence of ill-health. Afterwards, being appointed to the command of the *Albemarle*, he served under Lord Hood in his long cruise off Cape Français, and next acted as second in command in the W. Indies, where he married the widow of Dr. Nisbet, a physician. Upon war with France breaking out, *N.* took command of the *Agamemnon* (64 guns), and joined Lord Hood in the Mediterranean, doing good service in that sea, by his co-operation with Paoli and the patriot Corsicans against the French. When on this station, he participated in the siege and storming of Bastia, and in the attack on Calvi lost his right eye. After this he attacked the French fleet, and captured two of its vessels after a gallant fight. In 1797, *N.* commanding the *Captain* (74 guns), took a memorable part in the battle off Cape St. Vincent, when the Spanish fleet was almost annihilated by Admiral Jervis (afterwards Lord St. Vincent). In this action *N.* ran his ship between two of the enemy's largest vessels (one of which carried 112 guns), and after raking them right and left with broadsides from the "Captain's" battery, took them by boarding. For his gallantry in this sea-fight he was made rear-admiral, and decorated with the Order of the Bath. After this he blockaded Cadiz, and in an unsuccessful attack on Teneriffe lost his right arm. He thereupon returned home to recruit, and then received a govt.

Fig. 1930.—LORD NELSON.

pension of $5,000 per annum, and the freedom of the cities of London, Bristol, and Liverpool. Though at this time only 40 years of age, he had been in action 120 times, had taken 50 French and Spanish merchantmen, and had assisted in the capture of several men-of-war, frigates, and privateers. On the restoration of his health, he returned to the Mediterranean in command of the *St. Vincent*, and was ordered, with a portion of the fleet, to go in pursuit of Napoleon, who had sailed from Toulon. Baffled by contrary winds and weather, it was some time before he came up with the French fleet. However, on the morning of Aug. 1, 1798, he stood in for Alexandria, and there, true to his calculations, he found the enemy moored in the Bay of Aboukir, strengthened by formidable shore-batteries. To see them was to attack them. That night he opened fire, and before the morrow's sunrise every French ship, excepting two which managed to escape, had either surrendered or been destroyed. This great victory, the "Battle of the Nile," paralyzed Napoleon's views on Egypt, and *N.* was rewarded with the title of *Lord Nelson of the Nile*, with a pension of $15,000 per annum; while, by the King of Naples, he was created *Duke of Bronté*, in Sicily. In 1801, Lord *N* was present as second in command (having Sir Hyde Parker, an old routinist, as his chief) at the bombardment of Copenhagen, or, as it is sometimes called, the *Battle of the Baltic*. This victory, resulting in the annihilation of the Danish fleet and batteries, was entirely due to *N.* Leading the attack, he refused to cease firing when signalled by his commander-in-chief, continued the action, and only stayed the fight when the ships and batteries opposed to him surrendered. For this achievement, *N.* received the thanks of Parliament, and the dignity of viscount in the English peerage. In 1804, Lord *N.* pursued the Spanish fleet to the W. Indies, but they escaped him, and returned to Cadiz. Following up the game, *N.* returned to Europe, and learning that the combined French and Spanish fleets were cruising off Cadiz, offered his services to the govt. to command a fleet to go out and attack them. His offer being accepted, the gallant old admiral left England for the last time in command of a force of 27 ships of the line, and 5 frigates, and on Oct. 21, 1805, encountered the united enemy's fleet—33 sail of the line, and 7 frigates—off Cape Trafalgar. Forming line of battle in two columns, he himself led one in the *Victory*, while Lord Collingwood headed the other van in the *Royal Sovereign*. *N.*, sailing right through the centre of the enemy, brought on a general action at once. In four hours, the battle was over, 20 of the enemy's ships

had surrendered, and the marine on which Napoleon had relied for the invasion of England was annihilated, but this with the loss of the victor's life. In the height of the battle, a sharpshooter in the mizzen top of the French ship, the *Redoutable*, singled out the English admiral, and shot him through the left shoulder. He had, contrary to the entreaty of his officers, gone into action, not only in full uniform, but also decorated with all his orders, and so was a conspicuous mark for the enemy's riflemen. After the fatal shot, Lord *N.* lingered in great pain for upwards of 3 hours, and then died, learning a few minutes previously that the battle was won. His dying words were, "Thank God, I've done my duty." *N.*, the idol of the English nation, was buried with every mark of national sorrow, love, and honor, in St. Paul's Cathedral, London. His ship, the "Victory," may still be seen at Greenwich, and a brass tablet on her deck records, "HERE NELSON FELL."

Nel'son, THOMAS, an American statesman and general, b. in York co., Va., 1738, was son of William *N.*, president of the colonial council. Elected a member of the House of Burgesses when scarcely 21 years old, *N.* was a member of the first convention which met in Williamsburg in Aug., 1774. He was a conspicuous member of the convention which met in Williamsburg, 1776, to frame a constitution for Virginia, was elected a delegate to the Continental Congress, and signed the Declaration of July 4, 1776. In 1777 he was appointed commander-in-chief of the forces of Virginia; and, in addition to his military duties, he was called, June, 1781, to assume the functions of governor of the commonwealth. Being thus armed with executive and military power, he hastened with all the militia he could muster to oppose the enemy, who were ravaging the country, and did not hesitate to co-operate, as second in command, with the Continental troops under Lafayette. In Nov., 1781, the success of the American cause being then no more the object of a doubt, *N.* resigned his office, and passed the rest of his life in retirement. After having spent a princely fortune in the cause of his country, he died, 1789, so poor that his remaining possessions were sold at auction to pay his debts.

Nel'son, a river-port of Northumberland co., New Brunswick, on the Miramichi River and Bay, about 130 m. N.N.E. of St. John's.

Nelson, in *Illinois*, a post-village of Lee co., abt. 6 m. S.W. of Dixon;

Nelson, in *Kentucky*, a central co.; *area*, about 380 sq. m. *Rivers.* Beach Fork and Rolling Fork of Salt river, and Pottinger's creek. *Surface*, undulating or level; *soil*, very fertile. *Cap.* Bardstown. *Pop.* (1890) 16,417.

Nelson, in *Michigan*, a village and township of Kent co.—In *Minnesota*, a township of Watonwan co.—In *Missouri*, a post-village of Saline co.—In *Nebraska*, a city and cap. of Nuckolls co.

Nelson, in *New Hampshire*, a post-town of Cheshire co.

Nelson, in *New York*, a post-village and township of Madison co., about 25 m. S. E. of Syracuse.

Nelson, in *Ohio*, a post-village and township of Portage co., about 16 m. N. E. of Ravenna.

Nelson, in *Oregon*, a village of Marion co., about 17 m. N. E. of Salem.

Nelson, in *Pennsylvania*, a post-borough and township of Tioga co., 19 m. S.W. of Corning, N. Y.

Nelson, in *Virginia*, a central co.; *area*, about 375 sq. m. *Rivers.* James and Rockfish rivers. *Surface*, hilly; *soil*, fertile. This county is intersected by the Southern R. R. and the James river canal. *Cap.* Liviugston. *Pop.* (1890) 15,336.

Nelson, in *Wisconsin*, a post-township of Buffalo co.

Nelson Lake, an expansion of Churchill River, abt. 200 m. above Hudson's Bay, British N. America.

Nelson's Point, in *California*, a village of Plumas co., abt. 75 m. N.E. of Marysville.

Nelson's River, flows N.E. into Hudson Bay, near Fort York, in British N. America.

Nel'sonville, in *Missouri*, a post-village of Marion co., abt. 31 m. N.W. of Hannibal.

Nelsonville, in *Ohio*, a post-village of Athens co., abt. 60 m. S.E. of Columbus.

Nelumbia'ceæ, *n. pl.* (*Bot.*) The Water Beans family, an order of plants, alliance *Nymphales.*—DIAG. Distinct carpels immersed in a large honeycombed torus, and without albumen. They are aquatic herbs, with peltate leaves rising above the water, and large showy flowers. The thalamus is very large, flattened at top, and excavated so as to present a number of hollows. The carpels are distinct, and partially imbedded in the large honeycombed thalamus. Fruit formed of numerous 1- or 2-seeded, nut-like bodies. The beautiful plants of this order are natives of stagnant or quiet waters of temperate and tropical regions in the northern hemisphere, being most abundant in India. There is but one genus, namely, *Nelumbium*, which includes three species. The most interesting plant is *N. speciosum*, the fruit of which is commonly considered to have been the Egyptian bean of Pythagoras, and the flower the lotus so often represented on the monuments of Egypt and India (Fig. 1628). The plant, however, is no longer found in Egypt, though common in India. The leaf and flower-stalks contain a large number of spiral vessels. These are extracted and burnt as wicks in the sacred lamps of the Hindoos on great and solemn occasions.

Nelum'bium, *n.* (*Bot.*) See NELUMBIACEÆ.

Ne'madji, in *Wisconsin*, a former township of Douglas county.

Nemaha (*nem'-a-haw*), in *Kansas*, a N. E. co., adjoining Nebraska; *area*, about 720 sq. m. *Rivers.* Nemaha and Grasshopper creeks. *Surface*, undulating; *soil*, very fertile. *Cap.* Seneca. *Pop.* (1895) 19,900.

—A township of the above co.

Nem'aha, in *Nebraska*, a S. E. co., adjoining Iowa; *area*, about 391 sq. m. *Rivers.* Missouri and Little Nemaha rivers, and Muddy and Honey creeks. *Surface*, diversified; *soil*, very fertile. Coal is found in this county. *Cap.* Auburn. *Pop.* (1897) 15,450.

—A post-village of Nemaha co., about 6 m. S. of Brownville.

Nem'aha (or BIG NEMAHA) **River,** in *Nebraska*, rises in Lancaster co., and flowing S. E. enters the Missouri river from Richardson co. *Length*, about 150 m.

Nem'aline, *a.* [Gr. *nema*, a thread.] (*Min.*) Having the form of threads; fibrous.

Nem'alite, *n.* (*Min.*) A fibrous variety of brucite.

Neman'sa, *n.* (*Astron.*) An asteroid discovered in 1858 by Laurent.

Nem'atoids, *n. pl.* [Gr. *nema*, thread, and *eidos*, form.] (*Zoöl.*) An order of insects, comprising worms known as Helminthes, Entozoa, or Intestinal worms. They live and multiply in the interior of other animals. There is scarcely an animal that is not inhabited by one or more species belonging to this order or to the TREMALOIDS, *q. v.*

Nemaur, or NIMAR, a dist. of Western India, comprising a large portion of the valley of Nerbudda and of the Vindhya Mountains; Lat. between 21° 28′ and 22° 2′ N., Lon. 74° 48′ and 76° 45′ E.; *area*, 2,225 sq. m. The surface is mountainous, with numerous fertile valleys. *Prod.* Wheat, rice, cotton, tobacco, &c. *Pop.* 250,000.

Nem. Con. A contraction for (Lat.) *nemine contradicente*, signifying "no one contradicting."—*Nem. diss.*, contracted for (Lat.) *nemine dissentiente*, signifies "no one dissenting."

Neme'a. (*Anc. Geog.*) A city of Argolis, to the N.W. of Mycenæ, celebrated as the haunt of the lion slain by Hercules, and the spot where triennial games were held

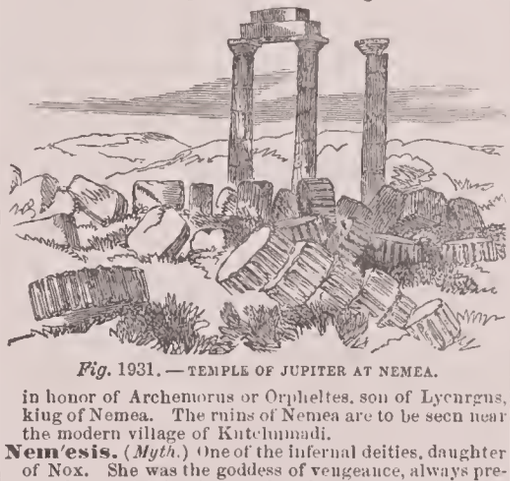

Fig. 1931.—TEMPLE OF JUPITER AT NEMEA.

in honor of Archemorus or Opheltes, son of Lycurgus, king of Nemea. The ruins of Nemea are to be seen near the modern village of Kutchumadi.

Nem'esis. (*Myth.*) One of the infernal deities, daughter of Nox. She was the goddess of vengeance, always prepared to punish impiety, and at the same time, liberally to reward the good and virtuous. Her power not only existed in this life, but she was also employed after death to find out the most effectual and rigorous means of correction. Nemesis was particularly worshipped at Rhamnus, in Attica, where she had a celebrated statue, ten cubits long, carved in Parian marble by Phidias. The Romans were also particularly attentive to her adoration. Her statue at Rome was in the Capitol. The Greeks celebrated a festival called Nemesia in memory of deceased persons, as the goddess Nemesis was supposed to defend the relics and the memory of the dead from all insult.

Nemopan'thus, *n.* (*Bot.*) A genus of plants, order *Aquifoliaceæ*, including the Canadian Holly, *N. Canadensis*, a shrub 4–6 feet high, with smooth branches, growing in damp or rocky woods.

Nemophil'a, *n.* [From Gr. *nemos*, a grove, and *phileo*, I love.] (*Bot.*) A genus of beautiful annual flowers, order *Hydrophyllaceæ*, very popular among amateur gardeners, from their free-flowering habit and brilliant colors. *N. insignis*, which has blue flowers with a white centre, yields perhaps one of the gayest of flower-garden ornaments.

Nemours, (*na-moor'*,) a title borne by several persons distinguished in French history, among whom are:—JEAN D'ARMAGNAC, Duc de Nemours, cousin by marriage to Louis XI., who caused him to be beheaded, 1477.—LOUIS, his son and successor in the duchy, viceroy of Naples for Charles VIII., killed at the battle of Cerignola, 1503.—GASTON DE FOIX, son of Mary, sister of Louis XII., killed at the battle of Ravenna, 1512.—PHILIPPE DE SAVOY, uncle to Francis I., who invested him with the duchy, 1528.—JEAN DE SAVOY, a distinguished commander, 1531–1585.—HENRI, second son and successor of JEAN, connected with the League, and afterwards with Henry IV., 1571–1632.—HENRI II., second son and successor of Henry I., born 1625, appointed archbishop of Rheims 1651, abandoned the church on the death of his elder brother, and married Marie D'Orleans, daughter of the Duc de Longueville, 1657, died 1659. The lady survived her husband many years, and, in 1694, was recognized sovereign of Neufchatel. She died in 1707, leaving valuable "Memoirs" of the minority of Louis XIV., and the wars of the Fronde. The title was next borne by the second son of Louis Philippe, late King of the French.

Nemours, (*ne-moor'*,) a town of France, dep. of Seine-et-Marne, on the Loing, 18 m. S.E. of Melun. *Manuf.* Leather. *Pop.* 4,000.

Nemuch', a town of Hindostan, Gwalior Territory; Lat. 24° 27′ N., Lon. 74° 54′ E.; *pop.* 4,000.

Nems, *n.* (*Zoöl.*) The ICHNEUMON, *q. v.*

Nen, or **Nene,** a river of England, rising in the W. of the co. of Northampton, and after a N.E. course of 90 m. falling into the North Sea at the Wash.

Nenagh, (*nai-na'*,) a town of Ireland, prov. of Munster, co. Tipperary, on the Nenagh River, a tributary of the Shannon, 82 m. W.S.W. of Dublin; *pop.* 6,000.

Nenagh, or NEENAGH, in *Nebraska*, a village of Platte co., abt. 70 m. N.W. of Omaha City.

Nen'uphar, *n.* [Fr., It., and Sp. *nenufar.*] (*Bot.*) The Water-lily.

Neo'ea, in *Minnesota*, a village of Winona co., about 18 m. S.W. of Winona.

Neolo'gianism, *n.* The same as neologism.

Neolog'ic, Neolog'ical, *a.* Pertaining to neology; employing new words.

Neolog'ically, *adv.* In a neological manner.

Neol'ogism, *n.* [Fr. *neologisme.*] The introduction of a new word, expression, or doctrine. See NEOLOGY.

Neol'ogist, *n.* An innovator in theology; one who introduces rationalistic views subversive of revealed truth.

Neologis'tic, Neologis'tical, *a.* Neological; pertaining to neology.

Neologiza'tion, *n.* The act of introducing new terms.

Neol'ogize, *v. n.* To introduce or make use of new terms.

Neol'ogy, *n.* [Gr. *neos*, new, *logos*, word.] The invention of new words or phrases, for the purpose of expressing ideas which are either new or have hitherto been badly expressed. As progress is made in the sciences, the arts, and the various branches of industry, in any particular country, the extension of its language is a matter of course, and is in itself a complete record of the national advance. There are certain generally recognized etymological rules according to which alone new words may be properly introduced into a language; and when these are observed, the adoption of new words may be regarded as a social benefit.

Neome'nia, *n.* [Gr., from *neos*, new, and *mene*, moon.] The time of new moon; the beginning of the month.

Ne'on, *n.* A new atmospheric element, discovered in 1898 by Professors Ramsay and Travis in liquid argon. It is deposited as a white solid by the argon, and yields a spectrum of bright red lines, one very brilliant, also a brilliant yellow line. Its name signifies "new." It has a density of 9.6 and atomic weight of 19.2, and is monatomic.

Ne'onism, *n.* The same as neologism. (R.)

Neono'mian, *n.* [Gr. *neos*, new, and *nomos*, law.] (*Theol.*) One who believes the Gospel to be a new law.

Neono'mianism, *n.* The doctrine of the Neonomians.

Ne'ophyte, *n.* [Fr. *neophyte*, from Gr. *neos*, new, and *phyton*, a plant.] (*Eccl.*) In the primitive Church, newly converted Christians were so termed; and the same appellation is still given in the Roman Church, to converts made by missionaries among the heathen, to any person entering on the priestly office, and to these persons newly received into the communion of the Church.

—A beginner; a tyro; a debutant.

Neoplat'onism, *n.* The doctrine of the Neoplatonists.

Neoplat'onists, *n. pl.* (*Phil.*) The mystical philosophers of the school of Ammonius Saccas and Plotinus are commonly so called, who mixed some tenets of ancient Platonism with others derived from a variety of sources, and particularly from the demonology of the East. They flourished in the fourth and fifth centuries of the Christian æra. Some, however, have contended that this title is more properly applicable to the eclectic Platonists, or school of Antiochus and Philo.

Neora'ma, *n.* [Gr. *neos*, a temple, and *orama*, a view.] A panorama representing the interior of a large building in which the spectator appears to be placed.

Neo'sho, in *Kansas*, a S. E. co.; *area*, 576 sq. m. *Surface*, undulating; *soil*, fertile. *Cap.* Erie. *Pop.* (1895) 18,578.—A village and township of Cherokee co.—A township of Coffey co., about 7 m. S. of Hampden.—A township of Labette co.—A township of Morris co.

Neosho, in *Missouri*, a city and township, cap. of Newton co., on the St. Louis & San Fran. and Kans. C., Pitts. & Gulf R.Rs., 22 m. S. of Carthage. Lead mines exist here. *Pop.* (1897) 2,340.

Neosho, in *Wisconsin*, a post-village of Dodge co., about 14 m. N. E. of Watertown.

Neosho Falls, in *Kansas*, a post-village and township, former cap. of Woodson co.

Neosho Rapids, in *Kansas*, a post-village of Lyon co., about 12 m. S. E. of Emporia.

Neosho River is formed by the union of two branches in Lyon co., Kansas, and flowing S.S.E. through Coffey, Woodson, Allen, and Neosho cos., into Indian Territory, joins the Arkansas river about 10 m. below Fort Gibson.

Neoter'ic, Neoter'ical, *a.* [Gr. *neōterikos.*] New; novel; recent in origin; modern.

Nepaul', a kingdom of N. Hindostan, comprising a great portion of the S. declivity of the Himalaya Mountains; between Lat. 26° 30′ and 30° 50′ N., Lon. 80° and 88° E.; having N. and N.E. Thibet, E. the territory of Sikkim, S. and W. Hindostan. *Area*, 53,000 sq. m. *Desc.* The surface is level in the S., and gradually ascends until terminating N. in lofty mountains, interspersed with valleys ranging from 3,000 to 6,000 ft. above the great plain of Hindostan. The climate is diversified but healthy, except in the S. The soil is generally fertile. The principal rivers are the Kurnalli, Rapti, Gunduk, and Sun Kosi. *Prod.* Wheat, rice, maize, barley, cotton, tobacco, and sugar-cane. *Min.* Copper, iron, lead, and zinc. *Manuf.* Cotton cloth, bells, and brass and copper utensils. It has a considerable trade with China, Thibet, Bhootan, and Cashmere. *Exp.* Ivory, wax, honey, hides,

timber, &c. *Imp.* Carpets, muslins and silks, tobacco, and European goods. The cap. is Khatmandoo. The inhabitants consist mainly of two tribes, the Ghoorkas, who predominate and rule, and the Newars, who are principally artisans. The govt. is despotic, though somewhat modified by customs. It is divided into the provs. of Khatmandoo, Lalita Patan, Bhatgoug, and Kirthipoor. These are governed by Subahs, who are the supreme officers of revenue, justice, and police. The religion is Buddhism. *N.* was formerly divided between numerous independent chiefs, until conquered by the Ghoorkas in 1768. The aggressions of the latter into the Chinese territory was put a stop to in 1792, and the rajah obliged to make an ignominious peace. They next turned their arms against the British, who, after a two years' war, obliged them, in 1816, to cede all the country between the Sutley and the Kali rivers, and to evacuate the territory of Sikkim. They rendered material assistance to the British in the Indian mutiny of 1857. *Pop.* 2,000,000.

Nepaulese', *n. sing.* and *pl.* (*Geog.*) A native, or the natives of Nepaul.

Nepe, *n.* A square blanket used by the Indians to wrap the foot and ankle in.

Nepean, (*ne-peen',*) a river of E. Australia, New South Wales, joining the Narragamba to form the Hawkesbury.

Nepentha'ceæ, *n. pl.* [From Gr. *ne,* not, and *penthos,* grief.] (*Bot.*) The Pitcher-plant family, an order of plants, alliance *Euphorbiales.* DIAG. An infinite multitude of scobiform seeds, having an inferior radicle. —

Fig. 1932. — PITCHER-PLANT, (*Nepenthes distillatoria.*)

They are herbaceous or somewhat shrubby plants. Leaves alternate, and terminated by a pitcher-shaped structure, provided with an articulated lid. Flowers terminal, racemose, dicœcious; calyx inferior, with 4 divisions; stamens collected into a column; anthers 2-celled, extrorse, usually 16; ovary superior, 4-angled, 4-celled. Fruit capsular, 4-celled, with loculicidal dehiscence. Seed albuminous; embryo with an inferior radicle. There is but one genus, *Nepenthes,* which includes about 14 species, natives of swampy ground in China and India.

Nepen'the, *n.* [Fr., from Gr. *nepenthes,* removing sorrow.] A magic potion, calculated to banish the remembrance of grief and enliven the spirits, and supposed to be opium. The first mention of it is in the Odyssey of Homer, who describes Helen as administering it to Telemachus, and states that she had learned the art of making it from Polydamna, wife of Thonis, king of Egypt. Of modern poets, Milton and Pope are the principal who have alluded to it. The word is now used figuratively to express any remedy which gives rest and consolation to an afflicted mind.

Nepen'thes, *n.* (*Bot.*) See NEPENTHACEÆ.

Nepe'ta, *n.* [It. *nepatella,* cat-mint.] (*Bot.*) A genus of plants, order *Lamiaceæ.* The Cat-nip, Cat-mint, Cat's-ear, Cat's-foot, or Nep, *N. cataria,* is a common wayside weed, naturalized everywhere, and particularly attractive to cats. The Gill-over-the-Ground, or Ground-Ivy, *N. glechoma,* is a creeping plant, leaves petiolate, opposite, roundish, hairy, and glaucous; flowers axillary; coralla bluish-purple, with a variegated throat. This plant is naturalized about hedges, walls, &c.; it is aromatic, and was formerly used in ale, and also in medicine.

Nepeu'skin, or NEPEUSKUN, in *Wisconsin,* a post-village and township of Winnebago co., abt. 90 m. N. by E. of Madison; *pop.* of township abt. 1,800.

Neph'eline, *n.* (*Min.*) A double silicate of alumina and soda found on Monte Somma, near Vesuvius, in pure white crystals lining cavities in the older lavas.

Nephe'lium, *n.* (*Bot.*) A genus of plants, order *Sapindaceæ.* It contains three celebrated exotic fruits, the Litchi or Leechee of China, the Longan of China, and the Rambutan of Malacca. The Litchi produces nearly round fruit an inch and a half in diameter, containing a sweet jelly-like pulp; the Longan is smaller, and possesses an agreeable sub-acid flavor; and the Rambutan, which is of an oblong form and about two inches long, is esteemed for its pleasant acidulous pulp. All are small trees with pinnated leaves.

Nephew, (*nef'yu,*) *n.* [A. S. *nefa;* Ger. *neffe.*] The son of a brother or sister.

Neph'i, in *Utah,* a city, cap. of Juab co., about 92 m. S. of Salt Lake city. *Pop.* (1895) 2,515.

Neph'in, and NEPHIN-BEG'. Two mountains of Ireland, in Connaught, co. Mayo. The first is abt. 6 m. S.S.W. of Crossmalina. *Height* 2,646 ft. The other is abt. 9 m. N.W. of Newport. *Height,* 2,065 ft.

Nephral'gia, Nephral'gy, *n.* [Fr. *nephralgie,* from Gr. *nephros,* kidney, and *algos,* pain.] (*Med.*) Pain and neuralgia in the kidneys.

Neph'rite, *n.* (*Min.*) A hard, tough mineral occurring in compact masses of a leek-green color, passing into gray and greenish white on the western coast of New Zealand. Its common name is JADE, *q. v.*

Nephrit'ic, Nephrit'ical, *a.* [Gr. *nephritikos,* from *nephros,* the kidney.] (*Med.*) Pertaining to the kidneys or organs of urine; affected with a disease of the kidneys; relieving disorders of the kidneys in general. —*n.* (*Med.*) A medicine employed for the cure of diseases of the kidneys.

Nephri'tis, *n.* [Gr.] An inflammation of the kidneys. See KIDNEY.

Nephro'dium, *n.* [Gr. *nephros,* and *eidos,* likeness.] (*Bot.*) A genus of ferns, order *Polypodiaceæ.* In the species of this genus the veins of the pinnule-like segments anastomose in a convenient manner with those of adjoining segments for a greater or less distance from the rachis of the pinna, as the segments are more or less united. They are for the most part tropical plants.

Nephrog'raphy, *n.* [Gr. *nephros,* and *graphē,* a description.] (*Anat.*) A description of the kidneys.

Nephrolith'ic, *a.* (*Med.*) Belonging to gravel, or calculi in the kidneys.

Nephrol'ogy, *n.* [Gr. *nephros,* and *logos,* a discourse.] (*Med.*) A dissertation on the kidneys and their functions.

Nephrot'omy, *n.* [Fr. *nephrotomie,* from Gr. *nephros,* and *temnein,* to cut.] Dissection of the kidney. — Operation of extracting calculi or stone from the kidney by cutting.

Nepis'sing, or **Nipissing,** a lake of pr. of Ontario, lying between Lake Huron and the Ottawa River. It covers an area of 750 sq. m., and contains many islands. It is connected with Georgian Bay of Lake Huron by French River.—A dist. of Ontario.

Nepon'set, in *Illinois,* a post-village of Bureau co., abt. 40 m. W.S.W. of Mendota.

Nepon'set River, in *Massachusetts,* enters Boston Harbor from Norfolk co.

Nepon'set Village, in *Massachusetts,* a post-village of Norfolk co., abt. 5 m. S.E. of Boston.

Ne'pos, CORNELIUS, a Roman historian of the time of Julius Cæsar and the first six years of Augustus. The only remains of his works are some short biographies of twenty Greek generals, and of Hamilcar and Hannibal.

Ne'pos, FLAVIUS JULIUS, a Roman emperor, was a native of Dalmatia, and having married a niece of Leo I., that monarch gave him the Western empire. Nepos marched to Rome to secure his throne, after which he fixed the seat of government at Ravenna, but was obliged to quit that city by his general Orestes. He then retired to Dalmatia, where he was assassinated by two officers of his court, in 480.

Nep'otal, *a.* Of or relating to nephews.

Nepot'ic, *a.* Pertaining to nepotism.

Nep'otism, *n.* [Fr. *nepotisme,* from Lat. *nepos,* nepotis, a nephew.] A word first used in Italy in reference to the anxiety displayed by some popes to enrich and aggraudize their nephews. Its meaning has gradually become extended, and it is now generally applied to all persons holding public offices, who endeavor to advance the interests of their relations, whether nephews or not, at the public expense.

Nep'otist, *n.* One who practises nepotism.

Nep'tune, *n.* [Lat. *Neptunus.*] (*Myth.*) The god of the sea in Grecian mythology, son of Saturn and Ops, and brother to Jupiter, Pluto, and Juno. He was devoured by his father upon the day of birth, and again restored to life by means of Metis, who gave Saturn a certain potion. Neptune shared with his brothers the empire of Saturn, and received as his portion the kingdom of the sea. This did not seem equivalent to the empire of heaven and earth, which Jupiter had claimed; therefore he conspired to dethrone him. The conspiracy was discovered, and Jupiter condemned Neptune to build the walls of Troy. Neptune, as god of the sea, was entitled to more power than any of the other gods, except Jupiter. Not only were the ocean, rivers, and fountains subjected to him, but he could also cause earthquakes at his pleasure, and raise islands with a blow of his trident. The worship of Neptune was established in almost every part of the earth. He was generally represented sitting in a chariot made of a shell, and drawn by sea-horses or dolphins. Sometimes he is drawn by winged horses, and holds a trident in his hand, and stands up as his chariot flies over the surface of the sea. Homer represents him as issuing from the sea, and in three steps crossing the whole horizon. The ancients generally sacrificed a bull and a horse on his altars.

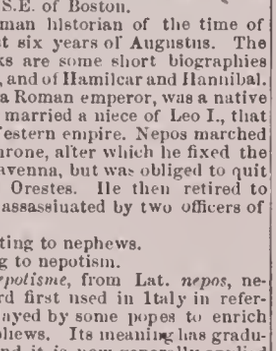

Fig. 1933. — NEPTUNE.

Nep'tune, *n.* [God of the sea. Sign, ♆, his trident.] (*Astron.*) Knowing the distances of the planets from the sun and from each other, and their perturbing effects on each other by attraction, the mathematical astronomer can locate the place of any one at any epoch, past, present, or future; and the exactness with which he can do it is one of the marvellous powers the Creator has bestowed on man. The five old planets—Mercury, Venus, Mars, Jupiter, and Saturn—were never in advance or behind their computed places. The discovery of Uranus, in 1781, proved the existence in the solar family of a wayward son. He was erratic in his movements, being sometimes in advance of, and afterward behind, his computed place; an effect which no known member of the solar system could possibly cause. One of two things was assumed as the reason of his anomalous behavior, viz.: (1) a wrong value of the mass of Jupiter or Saturn (or both) had been acquired, or (2) there was an undiscovered planet beyond Uranus. The weight of evidence was in favor of latter hypothesis. An inspection of Fig. 3003 will show the position of the two planets in 1781, and how Uranus was accelerated from that time until near 1822, and then retarded until 1840 and later. The inner circle represents the orbit of Uranus, the outer that of Neptune. The discovery place of Uranus was at 1781 on the inner circle, and that of Neptune at the same date on the outer. It will be seen that all the time from 1781 until 1822 the attraction of Neptune had accelerated the motion of Uranus, but retarded it in the several positions of 1830–1840, and until Neptune's discovery in 1846. The only effect Neptune could exert in 1822 on Uranus, was simply to draw him away from the sun. In 1830 it was noticed that Uranus began to lag behind his computed place, and in 1844 the retardation had amounted to two minutes of arc, equal to $\frac{1}{18}$ of the sun's diameter. Several astronomers took up the theory of the hypothetical planet which had been seen only by the eye of faith. Among these was the illustrious Bessel, who, just as he was about to begin the work, was seized with an illness which resulted in death. Among others who essayed the task of locating the place of the disturber were Adams, of England, and Leverrier, of France. The former located it in Lon. 329° 19′, the latter in Lon. 326° 0′. Leverrier requested Encke to search for it, and on the same evening Galle, his assistant, found the planet in Lon. 326° 52′, or less than $1\frac{3}{4}$ sun-breadths from his assigned place. The distance of the planet from the sun is much less than was assumed by the two mathematicians, being 2,746,271,000 miles, a distance so vast that an express train running 40 miles an hour would require over 8,500 years to reach it. The length of Neptune's year is 164·6 of our years; consequently his poles must be alternately exposed to light and darkness for 82 years. The length of his day is unknown, as is also the direction of his rotation. As his satellite, however, revolves around him in a retrograde direction, it is reasonable to suppose that the planet rotates in the same direction. His distance from the sun being 30 times our own, his temperature must be $30^2 = 900$ times colder. The sun subtends an angle of only 2·8″, shining like a very bright star. The only planet visible from him is Uranus, and occasionally, perhaps, Saturn could be seen, but always close to the sun. A denizen of this frontier world would have no suspicion that a planet inside of Saturn's orbit had an existence. Considering all the circumstances, it seems that a world so unfavorably situated, as regards heat and light, cannot be an inhabited one. As he shines as as a star of the 8th magnitude, he can never be seen without a telescope. Both theoretical discoveries, in consonance with Bode's law, assumed that the planet was twice the distance of Uranus from the sun, or about 3,600,000,000 miles, which was too great by nearly 854,000,000 miles, but the assumed mass being too great also, the two discrepancies in a measure balanced each other. The discovery of Neptune will ever be a shining light in the history of astronomical research.

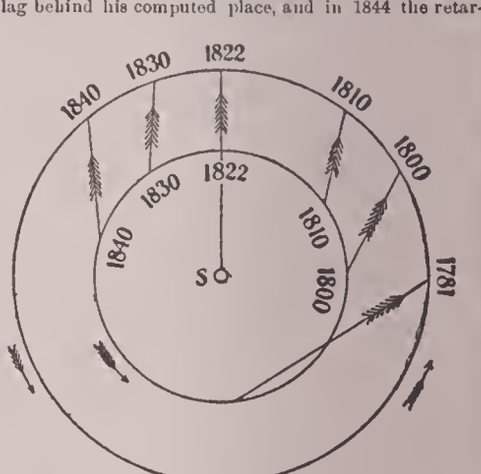

Fig. 3003.—ORBITS OF NEPTUNE AND URANUS.

Neptune', in *Ohio,* a post-village of Mercer co., about 115 m. W. N. W. of Columbus.

Ne'rium, *n.* [Gr. *neros*, humid.] (*Bot.*) A genus of plants, order *Apocynaceæ*. To this genus belongs the well-known Oleander, or Rose-bag tree, a shrubby plant, with long, willow-like, leathery leaves, and terminal clusters of large rose-colored flowers. It is very ornamental, but like many others of its order is furnished with a poisonous juice.

Ne'ro, Lucius Domitius, called after his adoption Claudius Drusus, Roman emperor, was the son of Cnelus Domitius Ahenobarbus, and of Agrippina, daughter of Germanicus. He was B. A.D. 39; had the philosopher Seneca for his teacher; was adopted by Claudius, A. D. 50, and four years after succeeded him on the throne. At the commencement of his reign his conduct excited great hopes in the Romans; he appeared just, liberal, affable, and polished; but this was a mask which soon fell off. He caused his mother to be assassinated, and vindicated the unnatural act to the Senate on the ground that Agrippina had plotted against him. He divorced his wife, and led a most shameless and abandoned life. In 64, Rome was burnt, and popular suspicion pointed to *N.* as the author of the conflagration. He charged the Christians with it, and commenced a dreadful persecution of them. His cruelties, extravagance, and debauchery at length roused the public resentment. Piso formed a conspiracy against the tyrant, but it was discovered and defeated. That of Galba, however, proved more successful, and *N.*, being abandoned by his flatterers, put an end to his existence, A. D. 68.

Ner'oli, *n.* An elegant perfume, extracted from the flowers of a peculiar orange, small in size, but very aromatic, a native of Italy. Neroli is an essential oil, obtained by distillation from the orange-blossoms, and far superior to the pungent article known as the oil of orange-peel (*oleum aurantii*), and too frequently substituted for this delicate perfume.

Ner'va, Marcus Cocceius, Roman emperor, who succeeded Domitian, A. D. 96, at the age of 64; and D. after a reign of two years, during which his virtues did honor to the throne.

Nerva'tion, *n.* (*Bot.*) The manner in which the veins of the leaves, &c. are arranged.

Nerve, *n.* [Fr. *nerf*; Ger. *nerv*; Lat. *nervus*; Gr. *neuron*.] A sinew; a tendon; a ligament.

—Strength or firmness of body; fortitude; firmness of mind; courage; strength; force; authority; manliness.

(*Anat.*) See Nervous System.

(*Bot.*) One of the ribs or principal veins of a leaf.

—*v. a.* To give strength or vigor to; to arm with force.

Nerved, *a.* (*Bot.*) Applied to a leaf, of which the veins run parallel from the base to the apex.

Nerve'less, *a.* Destitute of nerve or strength; weak.

Nervii, (*ner'vi-ī.*) (*Anc. Hist.*) The most warlike of the tribes of Belgica, are first mentioned by Cæsar, B. C. 57, when he defeated them in a severely contested battle on the banks of the river Sambre. They rose again in arms, B. C. 54, when they joined the Eburones in an unsuccessful attack upon the camp of Quintus Cicero, and were subdued by the Romans, B. C. 53. At a meeting of the Gallic states, B. C. 52, the Nervii sent 5,000 men as their contingent to the relief of Alesia. Their country forms the modern province of Hainault.

Ner'vine, *a.* (*Med.*) Having the quality of quieting the nerves.

—*n.* (*Med.*) A medicine which acts on the nervous system.

Nervose', *a.* (*Bot.*) The same as Nerved, *q. v.*

Nervos'ity, *n.* Nervousness; the quality of being nervous.

—State or quality of being nerved or nervose.

Ner'vous, *a.* Full of nerve; well strung; strong; vigorous. — Pertaining to the nerves; seated in or affecting the nerves, as weakness or disease; having the nerves affected; diseased in the nerves; weakly; debilitated; easily agitated. — Possessing or manifesting vigor of mind; characterized by strength in sentiment or style; as, a *nervous* writer.

(*Bot.*) The same as nerved.

Nervous Diseases. (*Med.*) Of the numerous disorders to which the human frame is liable, there are, perhaps, none which exert so extensive an influence, and are at the same time so little understood, as the whole class of *N. D.* The nervous system is the presiding and governing power of the whole animal machine. Whether the patient sleeps or wakes, acts or suffers, all that he does or feels is through its agency. It not only governs individual parts, but harmonizes the action of all, binding together the various portions by the strongest ties of sympathy, so that the well-being of one promotes the general good, and one cannot suffer without affecting all. The suffering and disorders to which it is liable are so varied in their sources, so uncertain in their nature, degree, and combination, — are attended for the most part with such different lesions, if attended with any, that they are not only difficult to describe when first observed, but even more so to recognize when they recur. Connecting, as does this system, the mental with the physical, the diseases affecting it are not confined to the body, but invade the province of the mind itself. *N. D.* are properly divided into structural and functional diseases of the nervous system; the former arising from some morbid change or lesion in the nerve structures, the latter including those in which there is no morbid change or lesion to account for the symptoms. Structural diseases may be divided into — 1. Those of the brain and spinal cord, and their covering or membranes; and, 2. diseases of the nerves. The brain and spinal cord are subject to diseases affecting their membranes, their substance, and their blood-vessels. (See Brain, Diseases of the.) Diseases of the nerves themselves are not numerous. They may arise from inflammation of the delicate fibrous sheath which envelops the nerves, from the development of tumors near the origin or along the course, or amid the ramifications of the nerves, or from the bulbous expansion of the extremities of divided nerves, occurring after amputation, and causing painful stumps. The functional diseases of the nervous system manifest themselves by irregular, depressed, or exalted conditions of the processes and peculiar functions of the system; viz., sense, sensation, and motion. They may be enumerated as follows: — 1. The numerous varieties of neuralgia, which are independent of disease of the nerves or their centres. (See Neuraloia.) 2. The various forms of insanity and general paralysis, where no morbid change occurs in the brain to account for the symptoms. 3. The various exhibitions of mental and moral perversity, constituting the diseases known as hysteria, convulsions, paralysis of sensation and motion, &c. 4. Delirium tremens, that derangement of the nervous functions manifested by optical illusions, hallucinations, mania, and muscular trembling, which arises from exhaustion of the nervous power produced by prolonged stimulation by alcohol. 5. Chorea, or St. Vitus's dance, an affection occurring generally in young girls, and consisting in irregular contractions of the voluntary muscles, and which has been graphically described as "insanity of the muscles." 6. The convulsions and paralysis that occur in infancy and childhood, from the irritation of teething, or from gastric and intestinal derangements. 7. Tetanus, or locked-jaw, a rigid spasm of the voluntary muscles, arising from an exalted state of the reflex function of the spinal cord, sometimes spontaneous, but more frequently the result of lacerated wounds. Hydrophobia may be included under this head. 8. The rare and curious derangement known as catalepsy and ecstasy. Epilepsy is sometimes a purely functional, sometimes an organic disease. These several diseases will be found described under their special heads in other parts of this work. It is one of the remarkable features of mental disorders, that they are frequently entailed by mimicry or imitation. The treatment of *N. D.* often embarrasses the scientific practitioner, and resists the most skilful applications. The particular nervine medicines which were formerly considered as specific remedies in such complaints have been given up, and the mode of treatment is now more general and rational, being directed to the restoring and strengthening the general system by means of nourishing food, gentle exercise, bathing, tonics, &c. It has been held that the advance of civilization and intelligence has rendered the nerves more irritable, and therefore more liable to be diseased; but a more frequent cause of nervous maladies is to be found in the excessive use of fermented liquors, wine, tea, coffee, &c, which impair the tone of the stomach, and thus give rise to various forms of *N. D.* Besides attention to the state of the body, it is of the utmost importance to strive to maintain a calm and uniform state of mind, one not easily disturbed by the crosses and accidents of life. The mind and the body reciprocally act upon each other and promote each other's health. The elements of mental discipline which, if steadily pursued, fail not to conduce not only to health of mind and body, but also to enduring comfort and happiness, are "the subjugation of gross appetites, the subordination of all turbulent or violent moral and mental emotions; the cultivation of the gentle and contemplative feelings, best cultivated in domestic life and in refined social intercourse; and the regular but moderate application of the intellectual powers to some definite object or set of objects worthy of pursuit."

Nervous System. (*Anat.* and *Physiol.*) The nervous system embraces that portion of the organism of man by which the mind is brought into connection with the physical world. The nervous system consists of two portions or constituent systems, — the cerebro-spinal, and the sympathetic or ganglionic. The cerebro-spinal system includes the brain and spinal cord, with the nerves proceeding from them, and is denominated by Bichat the nervous system of animal life. It includes those nervous organs in and through which are performed the several functions with which the mind is more immediately connected, as those relating to sensation and volition. The sympathetic or ganglionic system, named by Bichat the nervous system of organic life, consists of a chain of ganglia extending from the cranium to the pelvis along each side of the vertebral column, and from which nerves with ganglia proceed to the viscera in the thoracic, abdominal, and pelvic cavities. (See Ganglion.) The several organs of the nervous system are composed of two different substances, which differ from each other in density, color, minute structure, and chemical composition. They are the vesicular-nervous and the fibrous-nervous matter, the former being also called the gray or cineritious substance, the latter the white or medullary. The former is distinguished by its dark reddish-gray color and soft consistence, and is found usually collected in masses and mingled with fibrous structure, as in the brain, spinal cord, and the several ganglia, but never in the nerves. The masses constitute what are termed nervous centres, being the organs in which it is supposed that nervous force may be generated, and in which are accomplished all the various reflections and other modes of disposing of impressions when they are not simply conducted along nerve-fibres. The fibrous nerve-substance, besides entering into the composition of the nervous centres, forms along the nerves or cords of communication which connect the various nervous centres with the different tissues and organs. The vesicular nervous substance is composed, as its name implies, of vesicles or corpuscles, commonly called nerve or ganglion corpuscles, containing nuclei and nucleoli; the vesicles being imbedded either in a finely granular substance, as in the brain, or in a capsule of nucleated cells, as in the ganglia. Each vesicle consists of an excessingly delicate membranous wall inclosing a finely granular material, part of which is occasionally of a coarser kind and of a reddish or yellowish-brown color. The nucleus is vesicular, much smaller than the vesicle, and adherent to some part of its interior. The nucleolus, which is inclosed within the nucleus, is vesicular in form, of minute size, and peculiarly clear and brilliant. The nerve-corpuscles vary in shape and size; some are small, spherical, or ovoidal, with an uninterrupted outline. The fibrous-nervous matter consists of two different kinds of nerve-fibres, which are distinguished as the tubular fibre and the gelatinous fibre. In most nerves these two kinds are intermingled, the tubular fibres being more numerous in the nerves of the cerebro-spinal system, the gelatinous predominating in the nerves of the sympathetic system. The nerve-fibres vary in size, being largest within the trunk and branches of the nerves, where they measure from 1-2000ths to 1-3000ths of an inch, and becoming gradually smaller as they approach the brain and spinal cord, and usually, also, in the tissues in which they are distributed. In the gray matter of the brain and spinal cord they seldom measure more than 1-10,000ths to 1-14,000ths of an inch. The tubular fibres, in a perfectly fresh state, present the appearance of simple membranous tubes,

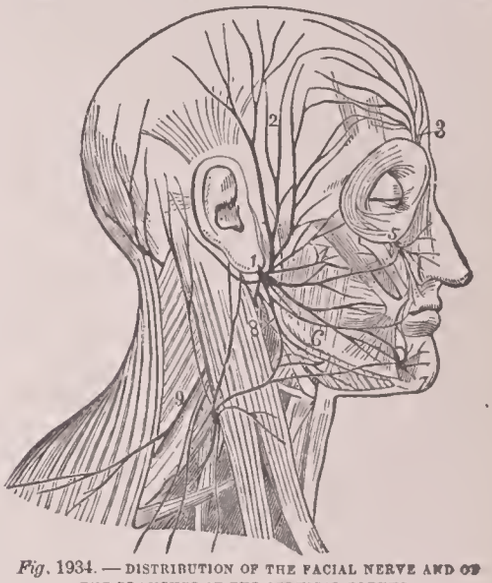

Fig. 1934. — DISTRIBUTION OF THE FACIAL NERVE AND OF THE BRANCHES OF THE CERVICAL PLEXUS.

1, The facial nerve at its emergence from the stylo-mastoid foramen; 2, temporal branches communicating with (3) the frontal branches of the fifth or trifacial nerve; 4, infra-orbital branches, communicating with (5) the infra-orbital branches of the fifth nerve; 6, maxillary branches communicating with (7) the mental branch of the fifth nerve; 8, cervico-facial branches; 9, the spinal accessory nerve giving off a branch to the trapezius muscles.

perfectly cylindrical, and containing the proper nerve-substance, a transparent oil-like and apparently homogeneous material, but which, shortly after death, undergoes a change, and has the appearance of being composed of two different materials: the internal or central part, occupying the axis of the tube, becomes grayish, while the outer or cortical portion becomes opaque, and dimly granular or grumous, as if from a kind of coagulation. The gelatinous fibres constitute the main part of the trunk and branches of the sympathetic nerve, and are intermingled in various proportions in the cerebro-spinal nerves. They are flattened, soft, and homogeneous in appearance, and when collected together in great numbers, they present a yellowish-gray color. They differ from the tubular fibres in being only one-half or one-third of their size, in the absence of the double contour, their apparently uniform structure, and their yellowish-gray color. The nerves are divided into two great classes, — the cerebro-spinal, which proceed from the cerebro-spinal axis, and are the nerves of animal life, being distributed to the organs of the senses, the skin, and the muscles; and the sympathetic or ganglionic nerves, which proceed from the ganglia of the sympathetic, and are distributed chiefly to the viscera and blood-vessels, and are termed the nerves of organic life. The cerebro-spinal nerves consist almost exclusively of the tubular nerve-fibres, the gelatinous fibres existing only in very small proportion. Each cerebro-spinal nerve consists of numerous nerve-fibres collected together and inclosed in a membranous sheath. A small bundle of primitive fibres so inclosed is called a *funculus*; and if the nerve is of small size, it may consist only of a single funculus; but if large, the funculi are collected together into larger bundles or fasciculi, and are bound together in a common membranous investment termed the sheath. Nerves, in their course, subdivide into branches, and these frequently communicate with the branches of a neighboring nerve; but in these communications the nerve-fibres never coalesce, but merely pass into the sheath of the adjacent nerve, become intermixed with the nerve-fibres, and again pass on to become blended with the nerve-fibres in some adjoining fasciculus. Every nerve-fibre in its course proceeds uninterruptedly from its origin at a nervous centre to its

destination; and however long its course, there is no branching or anastomosis, or union with the substance of any other fibres. The communications which take place between two or more nerves from what is called a *plexus*, in which the component nerves divide, then join, and again subdivide in such a complex manner that the individual fasciculi become most intricately interlaced. As the small bundles of nerve-fibres approach their final and minutest distribution in the several tissues, they commonly form delicate "terminal plexuses." The primitive fibres appear to terminate in various ways, as in loops, in plexuses, by branching, by free ends. The central termination of a nerve-fibre is that in connection with a nerve-centre; the peripheral termination, that in connection with the different organs and tissues. The sympathetic nerve consists of tubular and gelatinous fibres intermixed with a varying proportion of filamentous areolar tissue, and inclosed in a sheath of fibro-areolar tissue. The tubular fibres are for the most part smaller than those composing the cerebro-spinal nerves, and their double contour is less distinct. The nerve-fibres both of the cerebro-spinal and sympathetic system convey impressions of a twofold kind — the one the impressions made upon their peripheral extremities or parts of their course conveyed to the nervous centres, the other the impressions from the brain and other nervous centres to the parts to which the nerves are distributed. For this twofold office two distinct sets of nerve-fibres are provided,—the sensitive, called also the centripetal or afferent nerves, which convey impressions from the periphery to the centre; and the motor, centrifugal, or efferent nerves, which transmit central impulses to the muscles, &c. But with this difference in the function of the nerves, there is no apparent difference in the structure of the nerve-fibres by which it might be explained. Nerve-fibres appear to possess no power of generating force in themselves, or of originating impulses to action; but they possess a certain property of conducting impressions, but which is never manifested till some stimulus is applied. This property of nerves is called excitability, irritability, or nervous force, and one of its peculiarities is the rapidity with which it travels along the nerve-fibres. In many respects it resembles electricity, but the analogy between the two does not amount to identity. Almost all things that can disturb the nerves from their passive state, act as stimuli, and produce the same kind of effect, though not the same in degree, because that on which they act possesses but one kind of excitable force. All stimuli, internal or external, chemical, mechanical, or electrical, when applied to sensitive nerves, produce sensations, and when applied to motor nerves, excite contractions. There are certain kinds of nerves, however, the irritation of which produces effects that are entirely peculiar to themselves; thus, irritation of the optic nerves causes the sensation of light of the auditory nerve, of sound; and of the olfactory or gustatory nerves, of smell and taste. It is a remarkable fact, that, whatever part of a sensitive nerve be irritated, whether it be the centre, middle, or extremity, the same sensation will be produced.

Ner'vously, *adv.* With strength or vigor.
—With weakness or agitation of the nerves.

Ner'vousness, *n.* State or quality of being nervous; strength; force; vigor; state of being composed of nerves.
—Weakness or agitation of the nerves.

Ner'vure, *n.* [Fr. *nervure.*] (*Bot.*) A nerve.
(*Zoöl.*) One of the corneous tubes serving to expand the wing and keep it tense, as well as to afford protection to the air-vessels; they are termed costal, postcostal, mediastinal, externo-median, interno-median, anal, axillary, &c., according to their relative positions.

Ner'vy, *a.* Strong: vigorous.

Nes'bit Moor. (*Eng. Hist.*) The name of a battle fought May 7, 1402, between the Scots, under Sir P. Hepburn, of Hailes, and the English, under the earls of Percy and March. The Scots were defeated, their leader and most of his knights slain, and the rest taken prisoners.

Nescience, (*nesh'ens,*) *n.* [Lat. *nescientia.*] Ignorance; the state of not knowing.

Nescopeck', in *Pennsylvania*, a post-village of Luzerne co., abt. 90 m. N.E. of Harrisburg.

Nescopeek (or Buck) **Mountain,** in *Pennsylvania*, a ridge of Luzerne co., abt. 20 m. in length, running parallel to the Wyoming Mountain. *Height*, abt. 1,000 ft.

Nescopeek Creek, in *Pennsylvania*, enters the N. branch of the Susquehanna River in Luzerne co.

Nesee'ma, in *Nebraska*, a village of Otoe co., abt. 18 m. W. of Nebraska City.

Nesham'iny Creek, in *Pennsylvania*, enters the Delaware River from Bucks co. — Another, enters the Shenango river in Lawrence co.
—A post-village of Bucks co.

Neshan'ic, in *New Jersey*, a post-village of Somerset co., about 10 m. S.W. of Somerville.

Neshko'ro, in *Wisconsin*, a post-village and township of Marquette co., about 70 m. N. of Madison.

Nesh'oba, or Nashoba, in *Mississippi*, an E. central co.; *area*, about 560 sq. m. *Rivers.* Pearl river, and some less important streams. *Surface*, diversified; *soil*, mostly fertile. *Cap.* Philadelphia. *Pop.* (1890) 11,146.

Nesh'onoc, in *Wisconsin*, an unimportant village of La Crosse co.

Nesho'to, in *Wisconsin*, a village of Manitowoc co., about 100 m. N. of Milwaukee.

Nesocha'que River, in *New Jersey*, rises in Camden co., and flowing E.S.E. forms a branch of the Little Egg Harbor river.

Nesqual'ly, in *Washington*, a river flowing northwest into Puget Sound, between Pierce and Thurston counties. On the N. shore of the mouth of this river stands Fort Nesqually, the nucleus of a thriving village or settlement of the same name.

Ness. [A. S. *nes, nys.*] A termination added to an adjective to change it into a substantive, denoting state or quality; as, poisonous-*ness*; loveli-*ness*.
—[Probably akin to Fr. *nez*; Ger. *nase*; Lat. *nasus*, nose.] The termination of several names of places in Great Britain, where there is a headland or promontory, as Inver*ness*, Sheer*ness*.

Ness, (Loch.) a lake of Scotland, co. of Inverness, extending 23 m. from N.E. to S.W., with an average breadth of 1½ m. It receives the rivers Morriston, Oich, and Foyers, and discharges its surplus waters into the Moray Frith by the river Ness.

Nes'selrode, Carl Robert, Count von, a celebrated Russian statesman and diplomatist, b. at Lisbon in 1770 or 1780. He early entered the diplomatic service, in which his father was also engaged, and after various subordinate employments, was made councillor of the Russian embassy at Paris in 1807. He became a great favorite with Napoleon, succeeded in detaching Russia from the Austrian alliance, and was present at the important conferences between the emperors Napoleon and Alexander at Erfurt in 1808. He gained immense influence over Alexander's mind, was made chancellor of the empire, and dictated his foreign policy; followed him to France in 1814, and signed the Quadruple Alliance; took part in the Congress of Vienna, and in the dismemberment of Poland. At that Congress, *N.* shared with Metternich and Talleyrand the chief direction of affairs; and while his master sat at the feet of the mystic Madame Krudener, he managed to make her his instrument. He was the chief contriver of the *Holy Alliance*, which made Russia virtually supreme in Europe, and *N.* supreme in Russia. The Count took a leading part at the congresses of Aix-la-Chapelle in 1818, and of Verona in 1822. *N.*'s influence was considerably lessened under the Emperor Nicholas, and he long strove to avert the threatened war with the Western Powers, which broke out in 1853. After the accession of Alexander II., Count *N.* retired from his office of chancellor of the Russian empire, and d. 1862.

Nes'sus. (*Myth.*) A celebrated centaur, son of Ixion and the Cloud. He offered violence to Dejanira, whom Hercules had intrusted to his care, with orders to carry her across the river Evenus. Hercules saw the distress of his wife from the opposite shore of the river, and immediately discharged a poisoned arrow, which struck the centaur to the heart. Nessus, as he expired, gave his tunic to Dejanira, assuring her that it had the power of calling a husband away from unlawful loves. Dejanira received the present, which afterwards caused the death of Hercules. See Hercules.

Nest, *n.* [A. S., Du., and Ger. *nest.*] The place or bed formed, generally by interweaving, by a bird for incubation, or the mansion of her young until they are able to fly. See Bird. — Any place where irrational animals are produced.—An abode; a place of residence; a warm, close place of abode; a receptacle of numbers, or the collection itself. — (*pl.*) Boxes or drawers; little pockets or repositories.
(*Geol.*) A detached mass of a particular mineral isolated in a rock.
—*v. n.* To build or occupy a nest.
—*v. a.* To place in a nest.

Nest'-egg, *n.* An egg left in the nest to keep the hen from forsaking it; — hence, the nucleus of a hoard.

Nestle, (*nes'l,*) *v. n.* To settle; to harbor: to lie close and snug, as a bird in her nest. — To move about in one's seat like a bird when forming her nest.
—*v. a.* To house, as in a nest; to cherish. — To nourish and protect, as a bird her young.

Nestling, (*nes'ling,*) *n.* A young bird in the nest or just taken from the nest.
—*a.* Newly hatched; being yet in the nest.

Nes'tor, son of Neleus and Chloris. His father and eleven brothers were killed by Hercules; but the conqueror spared Nestor's life and placed him upon the throne of Pylas. As king of Pylas and Messenia, he led his subjects to the Trojan war, where he distinguished himself among the rest of the Grecian chiefs by eloquence, wisdom, and justice. After the Trojan war he retired to Greece, where he enjoyed the peace and respect due to his old age and his surpassing prudence of mind. The ancients declare that he lived three generations of man.

Nesto'rianism, *n.* The doctrine or principles of the Nestorians.

Nesto'rians, *n. pl.* (*Eccl. Hist.*) The followers of Nestorius, a bishop of Constantinople in the 5th cent. In strenuously opposing certain errors of his time, regarding only one nature in Christ, he went to the other extreme, and maintained not only that he was both God and man, but that the two natures were distinct, and that the actions and sensations of Christ as the Son of God were to be carefully discriminated from those of Christ as the Son of Man. Hence, he objected to the Virgin Mary being styled the mother of God, because it was only the human nature of Christ that was born of her, seeing that God could neither be born nor die. His opinions were vigorously combated by St. Cyril, bishop of Alexandria, and were condemned by several councils. Nestorius himself being declared guilty of blasphemy, was deprived of his bishopric, and sent into banishment. His followers, however, continued to increase, and his doctrines were propagated throughout the East, particularly in Persia. A famous Nestorian school was established at Nisibis; and before the close of the 16th cent. the heresy had spread over Chaldæa, Assyria, Syria, Egypt, Arabia, &c. In 1551, a dispute arose among them respecting the election of a patriarch, and at that time a section of them became reconciled to the Church of Rome, and their patriarch was consecrated by the Pope. These united Nestorians are now commonly known as Chaldæan Christians, and are under the patriarch of Babylon. The non-united Nestorians still remain as a distinct body, and inhabit principally the W. part of Persia, amounting to about 70,000.

Nesto'rius, a bishop of Constantinople in the early part of the 5th century, under Theodosius II. He was a native of Syria, and was deposed from his bishopric for denying the doctrine of the Incarnation, or the two natures of God. — See Nestorians.

Net, *n.* [A. S. *net, nett*; Du. *net*; Ger. *netz.*] A texture of twine, thread, &c., with meshes, commonly used to catch fish, birds, &c. The contrivance is of very ancient date, as appears from the allusions to it in Isa. xix. 8, 9, but more especially in the representations of nets and the modes of using them by the ancient Egyptians, preserved upon their monuments (Figs. 1935, 1936). They appear to have been the most efficient means these people possessed of securing game of all kinds; and they consequently

Fig. 1935.

had the greatest variety of nets, and of all sizes, sufficient even to enclose considerable tracts of land, into which they drove antelopes and gazelles, and sometimes hyænas and jackals. The animals, being thus confined, became an easy prey to the hunters. Their net for birds was ingeniously contrived, so that when spread and the birds had collected over it, the two sides could be made to collapse by the persons in charge suddenly drawing a rope attached to it (Fig. 1936). Fishing-nets

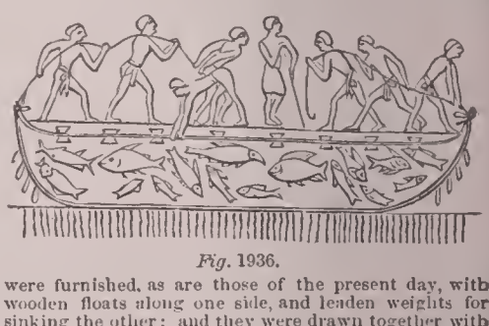

Fig. 1936.

were furnished, as are those of the present day, with wooden floats along one side, and leaden weights for sinking the other; and they were drawn together with the fish they enclosed by numbers of men upon the shore. Large nets are now employed for taking shoals of fish off our coasts, by means of two boats sailing in company and spreading the net between them, weighed along one edge. Nets are usually made by the fishermen and their families during periods of leisure.
—A cunning device; a snare; an inextricable difficulty.
—*v. a.* To make into a net or network. — To capture by wile or stratagem. — To gain or produce, as clear profit.
—*v. n.* To knit; to form into network.
—*a.* (*Com.*) Being beyond all charges or outlay, as gain; being clear of all deductions; neat; as, *net* weight, *net* profit, *net* amount.

Neth'er, *a.* [A. S. *mithere, mithror, neothra*, lower.] Lying or being beneath or in the lower part; opposed to *upper*; in a lower place; belonging to the regions below.

Neth'erlands, (Kingdom of the.) See Holland.

Neth'er Prov'idence, in *Pennsylvania*, a township of Delaware co.

Neth'ermost, *a.* Lowest; as, the *nethermost* hell.

Nethin'ims. *n. pl.* [Heb.] Among the Jews, the servants of the priests and Levites, employed in the lowest and meanest offices about the temples.

Net'ting, *n.* A piece of network.
(*Naut.*) A network of rope or small lines, used for stowing away sails or hammocks.

Nettle, (*net'l,*) *n.* [A. S. *netele, nelle.*] (*Bot.*) See Urtica.
(*Naut.*) The same as Knittle.
—*v. a.* To fret or sting, as with nettles; to irritate or vex; to excite sensations of displeasure or uneasiness in, not amounting to wrath or violent anger; to pique.

Net'tle-cloth, *n.* A thick, tissued cotton, japanned, and used as a substitute for leather for the peaks of caps, waist-belts, &c.

Net'tle Creek, in *Illinois*, a township of Grundy co.

Net'tle Creek, in *Indiana*, a township of Randolph co.

Net'tler, *n.* One who irritates, provokes, or piques.

Net'tle-rash, *n.* [Lat. *urticaria.*] (*Med.*) A disease characterized by a rash or eruption of the skin, attended with intense itching, and taking its name from the close resemblance it bears to that produced by the stinging of nettles. The eruption consists of little solid eminences of irregular outline, but generally roundish or oblong, and either white or red, or, which is most common, both red and white, the whiteness occupying steadily the central and most projecting part of the spot, or becoming manifest there when the integuments are put upon the stretch. It is accompanied

with intense heat, and a burning or tingling in the affected spots. No part of the body is exempt from nettle-rash. There are two varieties of this disorder, one of which is regarded as acute, and the other as chronic, and either persistent or intermittent. The acute form is usually preceded or attended with feverishness, and a feeling of general uneasiness, headache, nausea, and vomiting. In general, it appears in the morning, vanishes in the course of a few hours, and perhaps reappearing again twice or thrice during the day. It usually disappears entirely in six or eight days. The chronic form of this complaint is intractable and difficult to remove, coming and going for a lengthened period, but with little or no feverishness. In most cases, probably in all, this disease arises from some derangement, manifest or latent, of the stomach; and it may frequently be traced to the use of some particular articles of food, as shell-fish, oatmeal, mushrooms, &c. It is very rarely fatal; and the treatment is simple. The great thing is to ascertain and avoid the offending article of food, and by means of a light diet and mild laxative medicine, the disease may usually be got rid of in a few days. An emetic is frequently of great service in expelling the offending substance. A few grains of rhubarb, or rhubarb and magnesia, taken daily, just before breakfast and just before dinner, have been found to cure chronic cases of long standing. Dusting the itching surface with flour will be found to afford temporary relief.

Net'tle-tree, *n.* (*Bot.*) See CELTIS.

Nettu'no, a seaport-town of S. Italy, in the Campagna, 31½ m. S.S.E. of Rome; *pop.* 3,000.

Net'ty, *a.* Like a net; netted.

Net'work, *n.* A complication of threads, twine, or cords united at certain distances, forming meshes, interstices, or open spaces between the knots or intersections: reticulated work.

Neu-Brau'denburg, a town of Mecklenburg-Strelitz, on Lake Tollens, 17 m. N.N.E. of Neu-Strelitz. *Manuf.* Cottons, woollens, playing-cards, and tobacco; *Pop.* 7,000.

Neuburg, (*noi'boorg,*) a town of Bavaria, on the Danube, 29 m. N.N.E. of Augsburg. It contains a handsome palace, and a royal castle. *Pop.* 6,500.

Neufchatel, or **Neuchatel,** (*nu(r)sh'a-tel,*) a cant. of W. Switzerland, between Lat. 46° 50′ and 47° 10′ N., Lon. 6° 25′ and 7° 5′ E.; having N.E. and E. the cant. of Berne, S.E. the Lake of Neufchatel, S.W. Vaud, and W. and N.W. the dept. of Doubs in France; *area*, 280 sq. m. *Desc.* The surface is mountainous, being traversed by the Jura, which in some parts attains an elevation of 5,000 feet. The soil is principally calcareous, and is devoted to pasturage and the culture of the vine. *Lakes.* Neufchatel, and a part of that of Bienne. *Rivers.* The Doubs, Reuss, Thiele, and Tyon. *Manuf.* Matches, cotton fabrics, hosiery, metallic wares, and cutlery. *Cap.* Neufchatel.

NEUFCHATEL, cap. of the above cant, on the N.W. shore of the Lake of Neufchatel, 17 m. N.W. of Freyburg, and 45 m. E.S.E. of Besançon. The principal public buildings are the castle, the town-hall, and the church, a fine Gothic edifice. *Manuf.* Printed cottons and linens.

Neufchatel, (Lake of,) or LAKE OF YVERDUN, in W. Switzerland, between the cantons Neufchatel, Vaud, Freyburg, and Berne. *Ext.* 24 m. long from N.E. to S.W.; average breadth 4 m.; *area*, 90 sq. m. The elevation of its surface above the sea is 1,320 feet; its greatest depth 400 feet. It receives several rivers, and discharges its surplus waters by the Thiele, to the Lake of Bienne, and thence to the Aar and Rhine.

Neu-Hal'densle'ben, a town of Prussia. See HALDENSLEBEN.

Neuhaus, (*noi'hous,*) a town of Austria, in Bohemia, on the Nescharka, 70 m. S.S.E. of Prague. *Manuf.* Cloth, paper, and chemicals. *Pop.* 8,000.

Neu'hausel, a town of Austria, in Hungary, on the Neutra, 74 m. N.W. of Pesth. *Manuf.* Woollens. *Pop.* 7,300.

Neuil'ly-sur-Seine, (*nu(r)'ye,*) a town of France, dept. of Seine, on the river Seine, near the W. extremity of Paris. *Manuf.* Porcelain, starch, and chemicals. *Pop.* 13,216.

Neu'münster, a town of Prussia, in Holstein, 17 m. S.E. of Kiel. *Manuf.* Woollen goods. *Pop.* 4,300.

Neu'ral, *a.* [Gr. *neuron*, nerve.] Relating to a nerve, or to the nervous system or centres.

N. arch. (*Anat.*) The arch of the vertebra or primary segment of the skeleton which protects a corresponding segment of the neural axis; it is posterior in man, superior in other vertebrates, and is formed below by the *centrum*, laterally by the neurapophyses, and above by the *neural spine*. — *N. axis* is the central trunk of the nervous system, consisting of brain and myelon; it is sometimes called *cerebro-spinal axis*.

Neuralgia, (*nu-răl'je-a,*) *n.* [Gr. *neuron*, a nerve, and *algos*, pain.] (*Med.*) An increased and perverted sensation in a nerve, arising from some disease affecting the function or structure of the nerve or its centres. It is thus of two kinds, — functional (when unconnected with organic lesion at any part of the nervous course or at the nervous centres), or, as is more frequently the case, structural — connected with some organic change, acute or chronic, more frequently the latter, at some part of the nerve's course or at the nervous centres. The causes of neuralgia are various, and generally obscure. They may be either constitutional or local; the former arising from some enfeebled state of the body, or an impoverished condition of the blood, the latter from inflammation of the enveloping sheath of the nerves, or the development of tumors near or along their course. It may also be caused by the circulation of poisonous secretions, as urea, bile, &c., in the blood, or by the miasma of marshy regions. The pain is intense, but intermittent; sudden in its onset, and abrupt in its departure, shooting or plunging in its character, and often quite excruciating; readily excited by the slightest external impression; but seldom aggravated by firm pressure on the part — on the contrary, often relieved thereby. The treatment necessarily depends much upon the cause whence it proceeds. When it arises from an enfeebled or impoverished state of body, tonics, nourishing diet, and out-door exercise are to be employed; and in the other cases the treatment has to be directed to removing the causes from which it springs. Where it depends on the pressure of tumors that can be removed, the pain will generally disappear with the removal of the cause. In inflammation of the nerve-sheath, local counter-irritation by cupping, blisters, issues, setons, &c., usually gives relief, and generally effects a cure. Temporary relief in all forms of neuralgia may be obtained by the administration of powerful anodynes, as morphine, used either externally or internally.

Neural'gic, *a.* Pertaining to neuralgia.

Neuri'tis, *n.* (*Med.*) Inflammation of a nerve. — *Dunglison.*

Neurog'raphy, *n.* (*Anat.*) A description of the nerves.

Neurolog'ical, *a.* Relating to neurology.

Neurol'ogist, *n.* A person who describes the nerves.

Neurol'ogy, *n.* [Fr. *neorologie.*] (*Anat.*) The doctrine of the nerves.

Neurop'ter, *n.* [Fr. *neoroptere.*] (*Zoöl.*) One of the neuroptera.

Neurop'tera, *n.* [Gr. *neuron*, a nerve, and *pteron*, a wing.] (*Zoöl.*) A sub-order of insects. It comprises the *Dragon-flies*, *May-flies*, and similar species. The *Neuroptera* are distinguished by their two upper wings, which are membranous, generally naked, diaphanous, and similar to the under ones in texture and properties; they are also distinguished by the number of these organs, as well as by their mouth, which is either fitted for mastication, or else furnished with mandibles and true maxillæ. The abdomen is destitute of a sting,

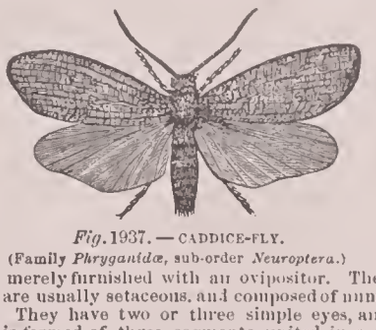

Fig. 1937. — CADDICE-FLY.

(Family *Phryganidæ*, sub-order *Neuroptera.*)

and is merely furnished with an ovipositor. Their antennæ are usually setaceous, and composed of numerous joints. They have two or three simple eyes, and the trunk is formed of three segments united in a single body, distinct from the abdomen, and bearing six legs the first of these segments is usually very short, and in the form of a collar. The number of joints in the tarsi varies. The body is usually elongated, and with rather soft, or with slightly squamous segments; the abdomen is always sessile. Many of these insects are carnivorous in their first state and in their last. Some merely experience a semi-metamorphosis, the rest a complete one; but the larvæ have generally six hooked feet, which they employ to reach their food.

Neurop'teral, Neurop'terous, *a.* Belonging to the *Neuroptera.*

Neuroskel'eton, *n.* [Gr. *neuro*, and *skeletos*, dried up.] (*Anat.*) The deep-seated bones which are connected with the nervous axis and locomotion.

Neurot'ic, *a.* [Fr. *neorotique.*] Relating to the nerves. — *n.* (*Med.*) A disease having its foundation in the nerves. — A medicine used in disorders of the nerves.

Neu'rotome, *n.* (*Anat.*) A long and very narrow two-edged scalpel used to dissect the nerves.

Neurotom'ical, *a.* Pertaining to the anatomy of nerves.

Neurot'omist, *n.* [Fr. *neorotome.*] The person who dissects the nerves.

Neurot'omy, *n.* [Fr. *neorotomie*; Gr. *neuron*, and *tome*, incision.] (*Anat.*) Dissection of nerves. — An incised wound of a nerve.

Neurypnol'ogy, *n.* [Gr. *neuron*, nerve, *upnos*, sleep, and *logos*, discourse.] The philosophy of the sleep of the nerves, or animal magnetism, — or a treatise on the subject.

Neu'satz, a town of Austria, in Hungary, on the Danube, opposite Peterwardein, 46 m. N.W. of Belgrade; Lat. 45° 16′ N., Lon. 19° 52′ 11″ E. It has a considerable trade with Turkey. *Pop.* 20,000.

Neusiedel, (Lake of,) (*noi'seedl,*) a lake of Austria, in N.W. Hungary, 22 m. S.E. of Vienna; *ext.* 23 m. long, and 6 m. in average breadth. It receives the Vulker River, and its surplus waters are discharged by the Rabnitz Canal.

Neusohl, (*noi'sole.*) a town of Austria, in Hungary, on the Gran, 85 m. N. of Pesth. *Manuf.* Sword-blades, paper, colors, beet-root sugar, &c. In the vicinity are copper and iron mines. *Pop.* 6,200.

Neuss, (*noiss,*) a town of Rhenish Prussia, on the Rhine, 4 m. S.W. of Düsseldorf. *Manuf.* Woollens, cottons, ribbons, leather, velvets, dyes, &c. *Pop.* 9,776.

Neustadt, (*noi'stat.*) a town of Prussian Silesia, 29 m. S.W. of Oppeln. *Manuf.* Woollen and linen fabrics. *Pop.* 7,263.

Neu'stadt, or **Wie'ner-Neu'stadt,** a town of Lower Austria, 28 m. S. of Vienna. *Manuf.* Silk, velvet, and cotton fabrics, and leather. *Pop.* 13,700.

Neu'stadt-au-der-Waag, a town of Austria, in the N.W. of Hungary, 33 m. N.N.E. of Neutra. *Manuf.* Woollens. *Pop.* 6,750, nearly half of which are Jews.

Neu-Stre'litz, a town of N. Germany, cap. of the Grand-Duchy of Mecklenburg-Strelitz, 60 m. N.N.W. of Berlin. It was founded in 1733, and contains the ducal palace, with a library of 70,000 vols. *Pop.* 7,000.

Neus'tria, or WEST FRANCE. (*Fr. Hist.*) The name given in the times of the Merovingians and Carlovingians to the western portion of the Frank empire, after the quadruple division of it which took place in 511. *N.* contained three of these divisions. It extended originally from the mouth of the Scheldt to the Loire, and was bounded by Aquitania on the S., and by Burgundy and Austrasia (*Francia Orientalis*) on the E. The principal cities were Soissons, Paris, Orleans, and Tours. Bretagne was always loosely attached to Neustria, of which the strength lay in the Duchy of Franco. After the cession of the territory afterwards called Normandy to the Normans in 912, the name Neustria soon fell into disuse.

Neu'ter, *a.* [Lat. *ne*, not, and *uter*, whether or which of the two.] Neither the one nor the other; neither of two; not adhering to either party; taking no part with either side; indifferent.

(*Gram.*) Of neither gender; neither masculine nor feminine, said of a noun, or pronoun; neither active nor passive, said of a verb.

(*Bot.*) Having neither stamens nor pistils.

— *n.* A person who takes no part in a contest between two or more individuals or nations. — An animal of neither sex, or incapable of propagation.

Neu'tra, or **Nei'tra,** a town of Hungary, on the Neutra, 45 m. E.N.E. of Presburg; *pop.* 10,000.

Neu'tral, *a.* Being neuter; not engaged on either side; not taking an active part with either of two contending parties; indifferent; having no bias in favor of either side or party. — Neither very good nor bad; indifferent.

(*Bot.*) Having neither stamens nor pistils.

N. bodies, (*Chem.*) are those which exhibit neither an alkaline nor an acid reaction, and which neither act as bases nor as acids. In organic chemistry they are generally distinguished by the absence of the final *e* at the end of the word; such, for instance, as paraffin, naphthalin, stearin, salicin, benzole, and many others. They form their compounds by the displacement of one or more of those atoms by one or more atoms of some other substance.

Neu'tral, *n.* A person or nation that takes no part in a contest between others.

Neutral'ity, *n.* [Fr. *neutralité.*] The state of being neutral, or of being unengaged in disputes or contests between others; the state of taking no part on either side; a state of indifference in feeling or principle.

(*International Law.*) The impartial position maintained by one nation with regard to others which are at war. A neutral nation may render services to either of the belligerents, which do not necessarily tend to assist in carrying on the war; but it may not supply him with troops, arms, or ammunition.

Neutraliza'tion, *n.* [Fr. *neutralisation.*] Act of neutralizing; act of reducing to a state of indifference or neutrality.

Neu'tralize, *v. a.* [Fr. *neutraliser.*] To render neutral to reduce to a state of indifference between different parties or opinions. — To destroy, as the peculiar properties or opposite dispositions of parties or other things, or reduce them to a state of indifference or inactivity.

(*Chem.*) To destroy, or render inert or imperceptible, as the peculiar properties of a body, by combining it with a different substance.

Neu'tralizer, *n.* The person who, or thing which, neutralizes.

Neu'trally, *adv.* Without taking part with either side; indifferently.

Neuvaines', *n. pl.* [Fr. *neuvaine*; It. *novena.*] (*Eccl.*) In the Roman Catholic Church, prayers offered up for nine days successively, in order to obtain the favor of heaven.

Neuwied, (*noi'veed,*) a town of Rhenish Prussia, on the Rhine, 7 miles N.N.W. of Coblentz. *Manuf.* Silk, cotton, and woollen fabrics, hardware, pipes, &c. *Pop.* 7,766.

Ne'va, a river of Russia, govt. of St. Petersburg, with a W. course of 40 m., and connecting Lake Lagoda with the Bay of Cronstadt, in the Gulf of Finland. It is the principal medium of communication between the interior of Russia and the sea. The city of St. Petersburg stands at one end of it, and Schlüsselberg at the other.

Neva'da, the fourth in size of the States forming the American Union, is bounded N. by Oregon and Idaho, W. by California, S. by the last-named State and Arizona, and E. by Arizona and Utah, comprising the center of the great elevated basin extending from the Rocky Mountains W. to the Sierra Nevada range. The length of the State from N. to S. is 483 m., with a maximum width, E. to W., of 323 m. *Area*, 110,700 sq. m., or 70,848,000 acres, of which 1,690 sq. m., or 1,081,600 acres, are covered by the water-surface of its numerous lakes. — *Gen. Desc.* A peculiar feature of *N.* is the remarkable uniformity with which mountain and valley succeed each other in almost parallel lines nearly throughout its whole extent, the mountains being rocky and but sparsely covered with herbage or timber, and the valleys generally dry, sandy plains, interspersed with salt and alkali flats, though in some cases possessing broad, shallow streams, bordering on which are wide

belts of alluvial formation, covered by luxuriant herbage varied with well-grown timber, the soil possessing elements of the richest fertility. The Sierra Nevada range of mountains, within the W. boundariss of ths State, has an elevation of from 7,000 to 13,000 ft. above sea-level, and is covered with dense forests, the trees being principally varieties of evergreens of spscies abounding on the Pacific coast, many of them attaiuing to extraordinary circumfereuce and altitude. The timber of the interior is mainly composed of cotton-wood, birch, willow, dwarf-cedar, nut pine, or piñon, and other similar species, gensrally soft in texture, and of small dimsnsions, but very useful for fuel in the absencs of harder and larger timber. The monntains are often intersected by ravines, constitnting passes possessing great natural advantages for the construction of wagou-roads and railroads, many of them furrowing ths vast piles of grauite and limestoue at a level but slightly above that of the surrounding plains. Ths E. part of ths Stats is intersected by the East Humboldt, the Silver, the Mammoth, aud Augusta ranges of mountains; in the centre are the New Pass, Shoshone, Taiya-he, Simpson Park, and Lough ranges, and in ths E. section, ths E. Humboldt, Ah-Youug Spring, Shonicodit, and Diamond Spring Monntains. The principal rivers of *N.* are the Truckee, which rises in Pyramid Lake, and after receiving a branch from Winemucca Lake, flows S.E. and S.W. into Lake Tahoe; Humboldt River, which is formed by the Little Humboldt and other small streams in the N.E portion of the Stats, takes a S.W. dirsction, and smpties into Humboldt Laks; Walksr River, rising in the S.E. section and emptying into Walker Lake; King's and Queen's rivers, in ths N. part of the State; Reese River, in ths central region; Muddy, Colorado, and Franklin rivers in the S. part; and Carson River in ths W. The rivers of *N.* are generally very shallow and unnavigable, with hurrisd currents and occasional rapids, although there is not a cascade or cataract in the State. The waters are generally wholesome and palatable throughout thsir entire courss, while those of ths mountain rills are always excellent. All the lakes, as well as the larger and some of the smaller streams, contain an abundance of fish, some varieties of which, especially ths trout in the mountain brooks, are unsurpassed in delicacy. The principal lakes in this State are Pyramid, Walker, Humboldt, Winemucca, and Tahoe. The latter, one-third of which lies in *N.*, has a depth of 1,500 feet, and, although 6,000 feet above the ocean level, never freezes: ths temperature of its waters, which, in common with those of Pyramid Lake, abound in trout of large sizs and excellent flavor, remains nearly the same throughout the entire year. Tbis lake is surrounded by high mountains, rising abruptly from its shores, clotbed with vast forests of pine, spruce, and fir, and wearing a cap of snow during 8 months of the year. There are numerous small shallow pools, usually called *mud lakes*, which are quite extensive bodies of water during and snbsequent to the rainy season, but generally become perfectly dry during the summer months. Their waters are strongly impregnated with alkaline solutions, which, upon evaporation of the water, appear in glistening sheets overlying tbe clay which constituted the beds of the former lakes, giving them, at tbis stage, the name of *alkali flats*.—*Meteorol.* The climate of *N.*, considering the general elevation of the country above sea-level, is mild, not being subject to great extremes either of heat or cold. The days of summer are not warmer than on the E. side of the Rocky Mountains, while the nights are uniformly cool and refreshing. The winters in the valleys are less severe than in N. New York or New England, and but little snow falls except on the mountaiu ranges. Not much rain falls between April and Oct. in the N. and W. part of the State. In the S. and E. there is a greater rain-fall, and showers are not unusual during the summer months. The maximum quantity of water falls during the autumn and winter. *Min.* Not only the precious metals, but also minerals possessing value from their use in the mechanical arts and in domestic economy, are found in the State, many of the latter existing in such abundance as cannot fail to render them of great importance when better facilities for transportation to the localities of manufacture shall have been introduced. Among them are vast beds of borax, salt, ores of iron and copper, rich in these metals; Nickel, beds of sulphur, from which this substance can often be obtained quite pure, although it is sometimes combined with calcareous deposits; seams of lignite, and, possibly, true coal; yet so far as explored, *N.* is not a strongly marked carboniferous region; cinnabar, gypsum, manganese, plumbago, kaoline, and other clays, useful in the making of pottery and fire-brick; mineral pigments of many kinds; soda, nitre, alum, magnesia, platinum, zinc, tin, galena, antimony, nickel, cobalt, and arsenic, besides various rocks useful for building purposes, as limestone, sandstone, granite, marble, and slate. The salt-beds constitnte not only an important feature in the chorography of the State, but also form a considerable item in the economical resonrces, furnishing a great requisite for the reinction of most of the gold and silver ores. They sometimes extend over hundreds of acres, with strata each about a foot in thickness, separated by thin layers of clay, the beds being encompassed by belts of alkali lands. The importance of these salt-beds can be appreciated from the fact that the companies owning and working them can furnish the article clean, dry, and white, (being, indeed, almost pure chloride of sodium,) for $40 per ton delivered at the mills, when formerly an inferior article brought from California would cost from $120 to $180 per ton on delivery. The saline deposits in *N.*, however, are not confiued to beds or plains, as they sometimes occur in elevated positions, the strata being many feet thick, imbedded in hills and mounds of such extent as almost to attaiu to the dignity of being called mountains of salt; one of these, situated in the S.E. portion of the State, is composed of cubical blocks of nearly pure chloride of sodium, as transparsnt as window-glass, and often a foot squars. The silver mines of *N.*, thus far in ths history of the settlement of the State, have been the great source of its wealth, aud the prime inducement for its settlement. At the time of the first discovery of these mines, in 1859, eleven years after its acquisition by the United States under the treaty of Gaudaloupe Hidalgo, and ten years after its first settlement by the whites, it contained less than 1,000 inhabitants, thess being principally Mormon farmers and herdsmen located in the fertile lands of Carson and Washoe valleys; two years later, or in 1861, ths population had increased to 17,000. The first discovery of the extraordinary wealth of this section of the Union in deposits of argentiferous ore occurred on the Comstock lode, from which mine bullion has since been extracted amounting to more than $100,000,000. Taken as a whole, the Comstock was one of the most valuable silver-bearing lodes ever found, equalling in its wealth of metal any deposit ever encountered in ths history of mining enterprise, aud surpassing the famous mines of Mexico and Peru. For its development the great Sutro Tunnel was excavated for a length of 3½ miles iuto the solid rock, passing through the ramifications of the Comstock lode, and draining the mines at a depth of 3,000 feet. Mining is still the chief interest of *N.*, but it has greatly changed its character and fallen off in its profits since those early days, wheu tbe production of silver was so enormous as to produce a material change in its market value, and lift *N.* rapidly from the condition of an uninhabited dssert to that of a State of ths American Union. The high grades of ore seem now to be practically exhausted, and the product has fallen to so great an extent that of the 60,000,000 ounces of silver produced in a recent year, *N.* contributed only 1,561,300, while Colorado yielded 25,838,600; Montana, 16,945,000; Utah, 7,196,300; Idaho, 3,919,600; and Arizona, 2,935,700, so that from the first it has fallen to the fifth rank. Of this silver product less than half now comes from silver mines proper, more than half being an incidental product in the mining of lead and copper ores. In addition to silver, *N.* has been somewhat prolific in gold, its yield up to the beginning of 1895 being $33,678,267, which makes it the fifth State in gold, as in silver, product. The White Pine district of *N.*, from which so much was expected in yield of metal, has greatly disappointed expectation. This comprises an area of about 12 miles square, covering a bold chain of hills, whose altitude varies from 6,000 to 9,000 feet, while several high ridges reach a height of 11,000 feet, and whose sides are covered with a dense growth of white pine, from which these mountains, and subsequently the district and county, received their names. Little has been done in the way of developing the other mineral deposits of *N.*, the barrenness of the State forbidding extensive exploration under favorable circumstances. The State is rich in springs—thermal, mineral, and others—often of great size, their great volume, high temperature, and the composition of their waters raising them to the rank of geological curiosities. Many of them are surrounded by incrustations of tufa, often in weird and fantastic forms.—*Soil and Agric.* *N.* is not wanting in the elements of fertility. The soil in the vicinity of most of the streams is found to be rich alluvion, formed of disintegrated rock, clay washings, and vegetable débris from the forest-covered mountains, and where irrigation is available it can be made very productive, yielding good crops of the cereals, vegetables, and fruits. Among the most successful crops are winter wheat and barley, which ripen sufficiently early to escape the drought of the summer months, potatoes, and garden fruits and vegetables. The fruits raised are apples, pears, peaches, plums, and grapes, while considerable available pasturage exists for stock-raising, in most of the habitable valleys of the State neither shelter nor food, except that provided by the pastures, being needed for the wintering or maintenance in good condition of cattle, sheep, or swine. In cereal product, however, the State ranks exceedingly low, being the least productive of all the States. Of the three principal cereals grown, corn, oats, and wheat, the latest statistics give no return for the two former, while the yield of wheat was but 122,627 bushels, grown on 5,651 acres. The total area of cultivated land in the State in 1890 was 723,052 acres, valued at $12,339,410, and yielding crops worth $2,705,660. The live stock was valued at $5,801,820. Thus after nearly 50 years of occupation but little over 1 per cent. of the land area of the State has been utilized for agricultural purposes, and the promise of a much greater extension in this direction is not inviting. The rainfall is exceedingly light, nowhere being more than 15 inches annually, and averaging for the whole State scarcely more than 5 inches. Some sections receive no rain for several years in succession. The native vegetation is composed only of those plants capable of enduring drought, such as sage-brush and other innutritive growths. It has been estimated that with careful irrigation about 3 per cent. of the land may be brought under cultivation, but the great remainder of the State must always remain an uninhabitable desert. Nearly the whole of *N.* is included in the Great Central Basin, occupying the region between the Rocky and the Sierra Nevada Mountains, and very largely a nearly rainless and irreclaimable desert. This basin formed at some former period the bed of a great inland sea, which eventually was drained off, leaving a number of great lakes. These, in their turn, have disappeared, their deepest depressions being marked at present by Walksr, Carson, Humboldt, Pyramid, and Winemucca lakes, with smaller water beds known as sinks and *playas*, or shallow mud lakes which evaporate in the dry season. The ancient shore line of the former great sea can be distinctly tracedin several localities. At that period the climate of the Great Basin, now arid, was moist, and the surrounding area produced an abundant vegetation, though now frowned upon by treeless mountains. The bed of the old sea is almost totally unfit for vegetation, and is traversed by regions of nearly absolnte desert. The mountains contain rocks of every geological period, while many of them are volcanic. Metamorphic and trap rocks also abundantly occur. The valleys are occupied by the sediments deposited during long ages by the central sea, which ars mingled with cinders and other volcanic débris which made their way downward through the waters. At the mouths of the cañons exist vast moraines, significant of glacial action at a former frigid age.—*Drainage.* But little of the water of *N.* reaches the sea. In the N. is a small area drained by the Owyhee river, a tributary of the Snake, and in the S. another area forms part of the Colorado valley. With these exceptions, the streams all sink away in the sands, or flow into the lakes, or the salt sinks and *playas*. The Humboldt pursues a winding course of 350 m. *N.* is marked by a dry atmosphere, remarkably clear in winter. In the summer it is rendered hazy by dust, in minuts particles, which produce extraordinary color effects on the sunlight.—*Polit. Div.* Ths State comprises 15 counties, viz.:

Churchill,	Eureka,	Lyon,	Storey,
Douglas,	Humboldt,	Nye,	Washoe,
Elko,	Lander,	Ormsby,	White Pine.
Esmeralda,	Lincoln,	Roop,	

Principal Cities. The most important cities are Virginia City and Gold Hill, which are situated close together on the Comstock lode, and Carson, the State capital. Other towns are Eureka, Pioche, Reno, and Belmont. There are over 900 miles of railroad.—*Education.* The public schools, about 280 in number, with 7,000 pupils, are under the control of a State board of education. There is a State University at Reno. The State has on reservations about 9,500 Indians, mostly Pah Utes and Shoshones, and there are well-attended schools in the reservations.—*Government.* The executive consists of governor, lieutenant-governor and snbordinate State officers, and the legislative branch, of a Senate and House of Representatives. *N.* sends one member to the national House of Representatives, and has three electoral votes. *N.* was originally part of the Territory of Utah, from which it was separated and organized as a Territory, March 2, 1861. The great output of gold at that period, and the rapid increase of population led to the belief that it would soon become populous, and it was admitted as a State, March 21, 1864, with a population considerably below the ratio of representation at that period. The population in 1870 was 42,491; in 1880, 62,265; in 1890, 45,761; in 1900, 42,535. It is thus the one State in the Union whose population is decreasing.

Neva'da, in *Arkansas*, a S. W. co.; *area*, 616 sq. m.; bounded on the N. E. by the Little Missouri river, and drained by Cypress Bayou and Rouge creek. *Surface*, rolling; *soil*, fertile. *Products*, cotton, corn; live stock. *Cap.* Prescott. *Pop.* (1890) 14,832.

Neva'da, in *California*, a N.E. co., adjoining Nevada (State); *area*, about 1,000 sq. m. *Rivers.* Middle, Yuba, South Yuba, and Bear rivers, and Deer creek. *Surface*, mountainous, the Sierra Nevada traversing the E. part; *soil*, in the valleys fertile. *Min.* Gold, and some copper. *Products*, principally fruits, grapes being produced in large quantities; but little attention is given to other agricultural interests. *Cap.* Nevada City. *Pop.* (1890) 17,369.

Nevada, in *Colorado*, a village of Gilpin co., about 40 m. N.W. of Denver.

Nevada, in *Illinois*, a post-township of Livingston co., on a branch of the Chicago & Alton R.R.

Nevada, in *Indiana*, a post-village of Tipton co., about 31 m. S.S.E. of Logansport.

Nevada, in *Iowa*, a township of Palo Alto co.

—A post-village and township, cap. of Storey co., about 33 m. N.N.E. of Des Moines.

Nevada, in *Minnesota*, a village and township of Mower co., about 12 m. S.E. of Austin.

Nevada, in *Missouri*, a village of Grundy co., about 22 m. N.W. of La Clede.

—A city, cap. of Veruon co., abt. 80 m. N.W. of Springfield. *Pop.* (1897) 8,100.

Nevada, in *Ohio*, a post-village of Wyandot co., about 9 m. W. of Bucyrus.

Nevada, in *Wisconsin*, a village of Green co., about 9 m. E. by N. of Monroe.

Nevada, or **Nevada City,** in *California*, a post-town and capital of Nevada co., on the Nevada Co. R.R., about 60 miles N.N.E. of Sacramento. Rich mines of gold and silver are located in the vicinity; the manufacturing interests include sash, door and blind factories, foundries, wagon works, planing mills, &c.; and the town is a general supply depot for the mining and fruit-growing region surrounding. *Pop.* (1897) about 2,850.

Nevada, or **Nevada City,** in *Montana*, a village of Madison co., about 5 m. N.W. of Virginia City.

Nevada, Sierra, in *Spain* and *California* See Sierra Nevada.

Ne'vans, in *Indiana*. See Nevins.

NEVADA

SCALE OF MILES
10 5 0 10 20 30 40 50 60

Indian Reservations

State Capital ☆ County Seats ○

Places of 2,000 and over	RENO
" " 1,000 to 2,000	Lovelock
" " 500 to 1,000	Elko

Hammond's 8 x 11 Map of Nevada
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OREGON
IDAHO
HUMBOLDT
ELKO
LANDER
EUREKA
WHITE PINE
LINCOLN
CHURCHILL
LYON
STOREY
WASHOE
DOUGLAS
CARSON CITY
ESMERALDA
NYE
Winnemucca
Lovelocks
Pyramid Lake
Pyramid Lake Ind. Res.
Humboldt & Carson Sink
Carson Lake
Walker Lake
Walker River Ind. Res.
Mono Lake
Lake Tahoe
Honey Lake
Upper Lake
Middle Alkali Lake
Goose Lake
Warner Lake
Alkali Lake
New Year Lake
Massacre Lakes
Owyhee Ind. Res.
Duck Valley Ind. Res.
Fort Bidwell
Cedarville
Hausen
Duck Flat
Madeline
Sheepshead
Roop
Buffalo Meadows
Deephole
Pah-Rum Pk.
Smoke Creek Desert
Black Rock Deeert
Disaster Peak
Quinn River Range
Pine Forest Mts.
Mc Dermitt
Rebel Creek
Paradise Valley
Amos
Willowpoint
Harleigh Hills
Cottonwood Mts.
Sonoma Range
Northa Ranch
Tom Point
Benin
Rose Creek
Lima
Cosgrave
Mill City
Iyanga
Humboldt House
Vatey
Preble
Herrin
Stone House
Keunedy
Galena
Rye Patch
Unionville
Zola
Oreand
Woolsey
Folta
Tuscarora
Fairlawn
Edgemont
Andersen
Whiterock
Gold Creek
Charleston
Mountain City
Owyhee R.
Owyhee
Crowhee
S. Fork
Independence Range
O'Neil
San Jacinto
Contact
Thousand Spring Cr.
Gartney
Tecoma
Montello
Lucin
Ullin
Loray
Toano
Pequop
Peko
Halleck
Natchez
Elko
Ft Halleck
Avenel
Molcen
Carlin
Palisade
Bullion
Lee
Raines
Evans
Ruby Valley
Hay Ranch
Huntington
Skelton
Schley
Franklin Lake
Ruby Lake
Casecreek
Mineral Hill
Mineral
Sherman
Hobson
Gosiute Lake
Snow Water Lake
Arthur
Clover
Lamoille
Blaine
Voigt
Wood
Qsino
Toano Range
Great American Desert
Battle Mountain
Reservy
Argenta
Shoshone
Cortez Mts.
Cortez
Dillon
Dean
Bailgys
Lewis Jc.
Helena
Watts
Bridges
Canyon
Ravenswood
Vaughns
Curtis
Catons
Spencer
Austin Jc.
Austin
Alpine
Newpass
New Pass Mts.
Humboldt Range
Desatoya Peak
Bunker Hill Peak
Slate Peak
Eagleville
Junction
Potts
French Peak
Berlin
Reese River
Toiyabe Range
Toquima Range
San Antonio
Belmont
Morey
Hotcreek
Little Smoky Valley
Monitor Range
Hot Creek Range
Reveille Range
Tybo
Butler
Tonopah
Reveille
Sharp
Quinn Canyon Range
Pahroc Range
Eye Range
Patterson Peak
Portuguese Mts.
Geyser
Sunnyside
Currant
Whiterver
Newland
Ursine
Fay
Pioche
Frelburg
Worthington Peak
Pahroc
Pauaca
Uvada
Caliente
Logano
Hiko
Delmar
Meadow Valley Wash
Kershaw
Ursine
Isiu
Barclay
Acoma
Alderman
Meadow Valley Range
Muddy
Mesquite
Bunkerville
Moapa
Logan
Overton
Salut Thomas
Virgin R.
Virgin Mts.
Gass Peak
Charleston Peak
Manse
Las Vegas
Arrow Canyon Range
Desert Valley
Ralston Desert
Great Amargosa Desert
Belted Range
Telescope Mts.
Death Valley
Kingston Range
Spring Mtn. Range
Sandy
Goodsprings
Eldorado Canyon
Searchlight
Ivanpah
Perdy
Chloride
Kingman
Colorado River
Los Angeles
San Pedro
Cherrycreek
Schellbourne
Aurum
Glencoe
Strawberry
Coldcreek
Long Valley Range
Egan Range
Schell Creek Range
Sacramento Pass
Tippett
Romano
Summit
Garden Pass
Diamond
Eureka
Prospect
Pine
Oak
Birch
Tonkin
Alpha
Cortez Mts.
Roberts Mts.
Sulphur Springs Range
Shoshone Range
Gerald
Cluro
Wood
Arthur
Clover
Lamoille
Blaine
Voigt
Ft Halleck
Avenel
Molcen
Carlin
Palisade
Bullion
Lee
Raines
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Ruby Valley
Hay Ranch
Huntington
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Franklin Lake
Ruby Lake
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Mineral Hill
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Deep Creek Mts.
Cherrycreek
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Long Valley Range
Egan Range
Schell Creek Range
Tippett
Cleveland
Osceola
Baker
Illipah
Ely
Hamilton
Sellgman
Wheeler Peak 12,063
Barues
Duckwater
Preston
Lund
Snoshone
White R.
Pahroc Range
Pahroc
Eye Range
Newland
Ursine
Fay
Pioche
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Sandy
Goodsprings
Eldorado Canyon
Searchlight
Ivanpah
Perdy
Chloride
Kingman
Colorado River
Los Angeles
San Pedro
Joes Peak
Silver Peak
Carroll Peak
Harlans Peak
Lida
Silverpeak
Owens Lake
Keeler
Independence
Bishop
Benton
Dyer
Summit
Crater
Basalt
Monte
Rhodes
Belleville
Junction
Candelaria
Fletcher
Bridgeport
Bodie
Sweetwater
Hawthorne
Luning
New Boston
Sodaville
Kinkead
Hawthorne
Sweetwater
Wellington
Smith
Gardner V.
Holbrook
Yarington
Nordyke
Schurz
Gillis
Pinegrove
Markleeville
Sheridan
Genoa
Glenbrook
Carson City
Virginia City
Frankstown
Gold Hill
Mound House
Como
Churchill
Lyon
Silver City
Dayton
Wadsworth
Fallon
Stillwater
Salt Lake
Hill
Leetyville
Hot Spgs.
Leete
Whitepine
Mirage
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Brown's
Granite Point
Woolsey
Oreand
Folta
Zola
Unionville
Rye Patch
Humboldt R.
Humboldt Mts.
Tuscarora
Fairlawn
Edgemont
Andersen
Whiterock
Gold Creek
Charleston
Mountain City
Owyhee R.
Owyhee
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S. Fork
Independence Range
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San Jacinto
Contact
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Lucin
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Loray
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Halleck
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Elko
Ft Halleck
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Molcen
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Palisade
Bullion
Lee
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Bishop
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Dyer
Summit
Crater
Basalt
Monte
Rhodes
Belleville
Junction
Candelaria
Fletcher
Bridgeport
Bodie
Sweetwater
Hawthorne
Luning
New Boston
Sodaville
Kinkead
Hawthorne
Sweetwater
Wellington
Smith
Gardner V.
Holbrook
Yarington
Nordyke
Schurz
Gillis
Pinegrove
Markleeville
Sheridan
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Hill
Leetyville
Hot Spgs.
Leete
Whitepine
Mirage
Gressid
Brown's
Granite Point
Woolsey
Oreand
Folta
Zola
Unionville
Rye Patch
Humboldt R.
Humboldt Mts.
Yosemite National Park
Mariposa
Raymond
Madera
Pollasky
Fresno
Calwa
Colfax
Hanford
Visalia
Tulare
Porterville
Bakersfield
Mojave
Los Angeles
San Pedro
Pyramid Lake
Winnemucca Mts.
Truckee R.
Truckee
Verdi
Cedar
Sierra
Francis
Plumas
Dewey
Tahoe
Lake Tahoe
Glenbrook
Genoa
Carson City
Douglas
Lawton
Anderson
Sneakers
Browns
Steamboat
Washoe
Truckee
Clark
Gold Hill
Mound House
Como
Churchill
Lyon
Silver City
Dayton
Wadsworth
Fallon
Stillwater
Salt Lake
Hill
Leetyville
Hot Spgs.
Leete
Whitepine
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Lake Tahoe
Glenbrook
Genoa
Carson City
Douglas
Lawton
Anderson
Sneakers
Browns
Steamboat
Washoe
Truckee
Clark

A 120° B 119° C 118° Longitude D West 117° from E Greenwich 116° F 115° G 114° H

NEVADA.

Land surface,
Sq. m. 109,740
Water surface,
Sq. m. 960
Pop. 1900...42,335
White.....35,405
African.....134
Indian 5,216
Chinese 1,352
Japanese.....228
Native-born,
32,242
Foreign-born,
10,093
Males 25,603
Females...16,732

COUNTIES.

Churchill .... C 3
Douglas. .....B 4
Elko..... F 1
Esmeralda .. C 4
Eureka.....E 2
Humboldt. .. C 1
Lander .....D 3
Lincoln..... F 5
Lyon .....B 3
Nye .....E 4
Ormsby . .....B 3
Storey ..... B 3
Washoe .....B 2
White Pine .. F 3

CITIES-TOWNS

Pop. Thousands.

4 Reno .....B 3
2 Virginia City
B 3
2 Carson City. B 3
1 Wadsworth. B 5
1 Lovelock ...C 2
1 WinnemuccaD 2

Pop. Hundreds.

9 Delamar ... G 5
8 Elko.....F 2
7 Eureka.....E 3
7 Austin..... D 3
4 Dayton.....B 3
4 Hawthorne..C 4
3 Genoa.....B 3
2 Ely.. .....G 3
2 Belmont.....E 4
2 Pioche .....G 5
1 Stillwater....C 3

Neve, (*nā'va,*) *n.* (*Geol.*) The crest of a glacier, above the perpetual snow-line.

Nev'er, *adv.* [A. S. *næfre, nefor,* from *ne,* not, and *afer,* ever.] Not ever; not at any time; at no time.—In no degree; not at all.—Not.

Nevers, (*ne-vair',*) a city of France, cap. of the dept. of Nièvre, at the junction of the Loire and Nièvre, 133 m. S.S E. of Paris. Prominent among the public buildings is the cathedral, a fine Gothic edifice of the 10th cent. It has also a triumphal arch to commemorate the battle of Fontenoy. *Manuf.* Glass, porcelain, iron, and earthenware, brandy, and leather. There is also an important cannon-foundry. *Pop.* 20,700.

Nev'ersink, in *New York,* a post-township of Sullivan co.

Nev'ersink Hills, in *New Jersey.* See HIGHLANDS.

Nev'ersink (or NAVESINK) **River,** in *New Jersey,* enters Sandy Hook Bay from Monmouth co. Above tide it is called *Swimming River.*

Nev'ersink River, in *New York,* rises in Ulster co., and enters the Delaware River near Port Jervis, in Sullivan co.

Nevertheless', *adv.* Not the less; that is in opposition to anything, or without regarding it; notwithstanding; yet; however.

Nev'il Bay, an inlet of British North America, at the N.W. part of Hudson Bay.

Ne'ville, in *Ohio,* a post-village of Clermont co., about 33 m. S.E. of Cincinnati.

Ne'ville, (Port,) an inlet of British Columbia, in the N. part of Vancouver's Island; Lat. 50° 32′ N., Lon. 125° W.

New'ins, in *Indiana,* a township of Vigo co. *Pop.*(1897) 3,220.

Nev'is, an island of the Leeward Group, W. Indies, belonging to Great Britain, about 2 m. S.E. of St. Kitt's; *area,* abt. 20 sq. m. *Cap.* Charlestown. *Pop.* 12,000.

Nev'isink River, in *New Jersey.* See NEVERSINK RIVER.

New, (*nū,*) *a.* [A. S. *niwe;* Du. *nieuw;* Ger. *neu;* Gr. *nua, nuadh.*] Lately made, invented, produced, or come into being; that has existed but a short time only; recent in origin; novel;—opposed to *old.*—Lately introduced to our knowledge; not before known; recently discovered; strange; unknown.—Modern; not ancient; not of ancient extraction, or of long-descended lineage.—Recently produced by change; renovated; repaired.—Not habituated; not familiar.—Not before used; fresh; newly come.

—*adv.* Newly;—used in composition.

Newa'go, in *Michigan.* See NEWAYGO.

New Aberdeen', a village of Waterloo co., prov. of Ontario, abt. 8 m. E.S.E. of Goderich.

New Al'bany, in *Indiana,* an important city, cap. of Floyd co., on the Ohio river, 5 m. below Louisville, Ky.; is reached by the Balt. & Ohio, S.W., and 3 other R. Rs.; has immense glass works, cotton and woollen factories, rolling mills, iron, engine, and boiler works, &c. Seat of DePauw Female College (Methodist). *Pop.* (1897) about 26,000.

New Al'bany, in *Iowa,* a township of Story co.

New Al'bany, in *Mississippi,* a post-town, cap. of Union co., 34 m. S.E. of Holly Springs.

New Al'bany, in *Ohio,* a village of Mahoning co.

—A post-village of Franklin co., 15 m. N.E. of Columbus.

New Al'bion, in *New York,* a post-town and township of Cattaraugus co. *Pop.* (1897) 1,920.

New Alexan'dria, in *Pennsylvania,* a post-borough of Westmoreland co., about 36 m. E. of Pittsburg.

New Al'maden, in *California,* a post-village of Santa Clara co., about 13 m. S. of San Jose.

New Al'sace, in *Indiana,* a post-village of Dearborn co., about 30 m. S.E. of Indianapolis.

New Am'sterdam, a seaport-town of British Guiana, S. America, near the junction of the Berbice and Cange rivers; Lat. 6° 14′ 51″ N., Lon. 57° 31′ 8″ W.

New Am'sterdam, in *Indiana,* a post-town of Harrison co., about 125 m. S. of Indiana.

New Am'sterdam, in *Wisconsin,* a village of La Crosse co., about 14 m. N. of La Crosse.

New An'tioch, in *Ohio,* a post-village of Clinton co., about 37 m. S.E. of Dayton.

New Archan'gel, in *Alaska.* See SITKA.

New'ark, a town of England, co. of Nottingham, on the Newark river, a branch of the Trent, 16 m. N.E. of Nottingham, and 110 m. N. W. of London. *Manuf.* Linen sheeting, and tiles; also brass and iron foundries. *Pop.* (1897) 15,850.

New'ark, a vill. of prov. of Ontario. See NIAGARA.

New'ark, in *California,* a village of Sierra co., about 13 m. N. of Downieville.

New'ark, in *Delaware,* a post-town of New Castle co., about 12 m. W.S.W. of Wilmington. It is the seat of Delaware College.

New'ark, in *Illinois,* a post-village of Kendall co., about 62 m. W.S.W. of Chicago.

New'ark, in *Indiana,* a village of Warrick co., about 14 m. N.E. of Evansville.

New'ark, in *Iowa,* a village of Linn co., about 25 m. N. by W. of Iowa City.—A former post-village of Marion co., about 33 m. E.S.E. of Des Moines.

New'ark, in *Maryland,* a post-village of Worcester co., about 100 m. S.E. of Annapolis.

New'ark, in *Michigan,* a former township of Allegan co.—A post-township of Gratiot co. *Pop.* (1897) 1,460.

New'ark, in *Missouri,* a post-town of Knox co., about 100 m. N. of Jefferson city.

New'ark, in *New Jersey,* a city, port of entry, and the cap. of Essex co., on the Passaic river, about 47 m. N.E. of Trenton; Lat. 40° 45′ N., Lon. 74° 10′ W. *N.* is the largest, most populous, and most important manufacturing town in the State. It is regularly laid out in rectangular blocks, and contains many elegant public and private edifices, among the former of which may be mentioned the Court-House, a capacious structure in the Egyptian style of architecture, the U. S. Custom-House, the Post-Office, the City Hall, the Library Building, and the Academy. There are also over 100 churches, and numerous public schools. *Manuf.* Jewelry, India-rubber goods, carriages, omnibuses, machinery, castings, leather and leather goods, clothing, &c. Numerous railroads radiate from *N.*, affording immense facilities for inland traffic, while its communication with the Atlantic Ocean through New York and Newark Bays enables its inhabitants to carry on an extensive coast trade. It was settled in 1666 by a company from Connecticut. *Pop.* (1900) 246,070.

New'ark, in *New York,* a post-village of Wayne co., about 30 m. E. by S. of Rochester. *Manuf.* Iron furnaces, foundries, flour mills, &c. *Pop.* (1897) 2,920.

New'ark, in *Ohio,* a manufacturing city, cap. of Licking co., 33 m. E. of Columbus. *Manuf.* Iron, engines, glass, &c. *Pop.* (1897) 17,250.

New'ark, in *Vermont,* a post-town of Caledonia co.

New'ark, in *West Virginia,* a post-village of Wirt co.

New'ark, in *Wisconsin,* a village and township of Rock co., about 78 m. W.S.W. of Milwaukee.

—A village of Washington co., about 38 m. N.N.W. of Milwaukee.

New'ark Valley, in *New York,* a post-village of Tioga co., about 10 m. N.E. of Oswego.

New Ash'ford, in *Massachusetts,* a post-township of Berkshire co.

New Ath'ens, in *Ohio,* a post-village of Harrison co.

New Au'burn, in *Minnesota,* a post-village and township of Sibley co., about 65 m. W.S.W. of St. Paul.

Newau'kum, in *Washington,* a post-village of Lewis co., about 6 m. E. of Claquato.

Neway'go, in *Michigan,* a W. co. of the lower peninsula; *area,* about 860 sq. m. *Rivers.* Muskegon, Notipeskago, White and Marquette (or Pere Marquette) rivers. *Surface,* nearly level; *soil,* fertile. *Cap.* Newaygo. *Pop.* (1894) 19,124.

—A post-village, cap. of the above co., about 35 m. N. by W. of Grand Rapids. *Pop.* (1897) 1,380.

New Bal'timore, in *New York,* a post-village and township of Greene county, about 16 miles S. of Albany.

New Bal'timore, in *Ohio,* a post-village of Stark co., abt. 16 m. N.N.E. of Canton.

New Bal'timore, in *Virginia,* a post-village of Fauquier co., abt. 105 m. N. by W. of Richmond.

New Barba'does, in *New Jersey,* a township of Bergen co.

New Bar'gain, or NEW BARGAINTOWN, in *New Jersey,* a village of Monmouth co., abt. 10 m. S.E. of Freehold.

New Bea'con, or GRAND SACHEM, in *New York,* the highest summit of the Highlands. *Height,* 1,685 ft. It is in Dutchess co., and commands an extensive view of the Hudson River and the neighboring mountains During the war of Independence beacons were lighted upon its top, as well as on the adjacent hills,—hence the name.

New Bed'ford, in *Massachusetts,* a city, port of entry, and semi-cap. of Bristol co., on Buzzard's Bay, at the mouth of Acushnet River, abt. 55 m. S. of Boston; Lat. 41° 38′ N., Lon. 70° 55′ W. It is conveniently located for trade, is regularly laid out, and generally well-built. Among the more prominent edifices are a fine City-hall, in the Doric style, a Custom House, an Almshouse, and several elegant churches. It has an excellent harbor, defended by Fort Phœnix, and is noted for its extensive fisheries. There are numerous manufactories, principally of shoes, carriages, cordage, Prussian-blue, leather, flour, soap, candles, machinery, oils, &c. This town was occupied and afterwards nearly destroyed by the British during the war of Independence, and again suffered severely in the war of 1812. Since then, however, its progress has been rapid and continued, and it is now one of the leading New England towns. *Pop.* (1895) 55,254.

New Bed'ford, in *Ohio,* a post-village of Coshocton co., about 100 m. E.N.E. of Columbus.

New Bed'ford, in *Pennsylvania,* a post-village of Lawrence co., about 240 m. W.N.W. of Harrisburg.

New'berg, in *Ohio,* a former village of Cuyahoga co., now the 18th ward of Cleveland, and spelled NEWBURG.

—A village of Jefferson co., abt. 9 m. N. of Steubenville.

—A former township of Miami co.

—A village of Noble co., about 9 m. N. of Steubenville.

New'berg, in *Wisconsin,* a post-village of Washington co., about 30 m. N.N.W. of Milwaukee.

New Ber'lin, in *Michigan,* a village of Ionia co., about 30 m. E. of Grand Rapids.

New Ber'lin, in *New York,* a post-village and township of Chenango co., about 95 m. W. by S. of Albany.

New Ber'lin, in *Ohio,* a post-village of Stark co., about 124 m. N.E. of Columbus.

New Ber'lin, formerly LONGSTOWN, in *Pennsylvania,* a post-borough of Union co., abt. 60 m. N. of Harrisburg.

New Ber'lin, in *Wisconsin,* a post-township of Waukesha co.

New'bern, in *Alabama,* a post-village of Hale co., 43 m. W.N.W. of Selma.

Newbern, in *Illinois,* a village of Jersey co., about 16 m. N.W. of Alton.

Newbern, in *Indiana,* a post-village of Bartholomew co., about 9 m. E.N.E. of Columbus.

Newbern, in *Iowa,* a post-village of Marion co., about 36 m. S.S.E. of Des Moines.

Newbern, in *Ohio,* a village of Shelby co., about 7 m. N. of Piqua.

New'bern, in *Virginia,* a post-village, cap. of Pulaski co., abt. 2.2 m. W.S.W. of Richmond. The Kanawha near here passes along an almost perpendicular wall of rock 500 feet high and several miles in length, called the *Glass Windows.*

Newbern, or NEW BERNE, in *North Carolina,* a city, port of entry, and the cap. of Cavern co., at the junction of the Neuse and Trent rivers, abt. 120 m. S.E. of Raleigh; Lat. 35° 20′ N., Lon. 77° 5′ W. It was formerly the seat of the State government, and is still a place of much importance. It has an active trade, chiefly in grain, lumber, tar, naval stores, &c. *Pop.* (1897) 8,200.

New'berry, in *Indiana,* a post-village of Greene co., abt. 10 m. S. of Bloomfield.

Newberry, in *Kentucky,* a village of Wayne co., abt. 120 m. S. of Frankfort.

Newberry, in *Ohio,* a township of Miami county.

Newberry, in *Pennsylvania,* a post-village of Lycoming co., abt. 3 m. W. of Williamsport.—A township of York co.

Newberry, in *S. Carolina,* a N.W. central dist.; *area,* abt. 616 sq. m. *Rivers.* Broad, Saluda, Ennorce, and Little rivers. *Surface,* diversified; *soil,* fertile. *Cap.* Newberry.

—A post-village, cap. of the above co., abt. 45 m. W.N.W. of Columbia.

New'berrytown, in *Pennsylvania,* a post-village of York co., abt. 12 m. S.S.E. of Harrisburg.

New Beth'el, in *Indiana,* a village of Marion co., abt. 9 m. S.E. of Indianapolis.

New Beth'lehem, in *Pennsylvania,* a post-village of Clarion co., abt. 60 m. N.E. of Pittsburg.

New Bloom'field, in *Missouri,* a post-village of Callaway co., abt. 15 m. N.E. by N. of Jefferson city.

New'-born, *a.* Recently born.

New'born, in *Georgia,* a village of Newton co., abt. 50 m. N.W. of Milledgeville.

New Bos'ton, in *Connecticut,* a post-village of Windham co., abt. 50 m. E.N.E. of Hartford.

New Boston, in *Illinois,* a post-village of Mercer co., abt. 156 m. N.W. of Springfield.

New Boston, in *Indiana,* a post-village of Spencer co., abt. 4 m. N. of Maxville.

New Boston, in *Iowa,* a post-village of Lee co., abt. 90 m. S. of Iowa city.

New Boston, in *Massachusetts,* a post-village of Berkshire co., abt. 125 m. W.S.W. of Boston.

New Boston, in *New Hampshire,* a post-township of Hillsborough co.

New Boston, in *Ohio,* a village of Clermont co., abt. 25 m. E. by N. of Cincinnati.—A village of Highland co., abt. 64 m. E. by N. of Cincinnati.

New Brain'tree, in *Massachusetts,* a township of Worcester co.

New Braun'fels, in *Texas,* a city, cap. of Comal co., about 32 m. N.E. of San Antonio. *Pop.* 1,800.

New Brem'en, in *New York,* a post-township of Lewis county.

New Bremen, in *Ohio,* a post-village of Auglaize co., about 100 m. W.N.W. of Columbus.

New Bridge, in *New Jersey,* a village of Bergen co., about 14 m. N. by W. of Jersey City.

New Brighton (*brī'ton*), in *New York,* on Staten Island. Now part of New York city.

New Brighton, in *Pennsylvania,* a post-borough of Beaver co., about 28 m. N.W. of Pittsburg.

New Brit'ain, a group of Islands in the S. Pacific Ocean, in Lat. between 6° and 6° 30′ S., Lon. 148° and 152° 30′ E., and consists principally of two large and populous islands, discovered by Dampier in 1699.

New Britain, in *Connecticut,* a post-town of Hartford co., 10 m. S.W. of Hartford. *Pop.* (1897) 22,000.

New Britain, in *Pennsylvania,* a post-township of Bucks co.

New Brook'field, in *Wisconsin,* a village of Vernon co., 4 m. S. of Viroqua.

New Brunswick, a Province forming part of the Dominion of Canada on the W. side of the Gulf of St. Lawrence, bet. 45° and 48° N. Lat., and 63° 47′ and 67° 53′ W. Lon., bounded S. by Nova Scotia and the Bay of Fundy, N. by prov. of Quebec, and W. by the State of Maine. Extreme length from N. to S., 200 m., greatest breadth, 160 m.; *area,* 27,344 sq. m. The Prov. is divided into 14 cos., and by the Dom. act of 1867 into 15 Electoral Districts, including the City of St. John. It has 500 m. of coast line, and is much less indented than Nova Scotia. The surface is undulating though not mountainous, the greatest elevations being in the N. W., where a continuation of the Apalachian range branches off and rises to the height in some places of nearly 2,000 ft. The country is finely watered. The principal rivers are the St. John, Miramichi, and Restigouche, whose branches with other streams form a complete network over the Province. The principal indentations on the E. coast, Chaleur and Miramichi Bays, Shediac Harbor, and Baie de Verte; on the South are St. John Harbor and Passamaquoddy Bay, into which flows the St. Croix River, dividing the Province from the State of Maine.—*Geol.* The geological character of *N. B.* is as yet imperfectly known; but limestone seems to be the prevailing feature, though clay-slate, graywacke, and even the primitive formations occasionally occur. Coal is found in abundance at Grand Lake and in Albert County. Iron, manganese, copper, lime, granite, slate, and grindstone, are found in abundance.—*Soil, Prod., &c.* A large part of the Prov. is still covered with dense forests containing excellent timber. More than half this soil is of excellent quality, and only about ¼ is unfit for cultivation. The prosecution of the lumber trade is constantly increasing the quantity of cleared land. The fauna and flora of the Prov. nearly

resemble those of Nova Scotia, to which it formerly belonged under the name of Acadia.—*Meteor.* The climate is severe but healthy. Dense fogs prevail on the S. coast, but they do not seem to be injurious to the health. Vegetation is very rapid in summer. Winter lasts from Nov. to April. Agriculture, notwithstanding the rich tracts of alluvial soil skirting the rivers, is considerably less advanced than in Nova Scotia and Ontario, owing, in part, to its late settlement, but principally to the superior importance attached to the timber-trade. Within the last few years, however, great improvements have taken place in these respects, owing to the introduction of agricultural societies, and a more improved system of husbandry. Wheat, maize, barley, and oats are the principal crops, but by far the most important article of produce is potatoes. Red and white clover are the grasses most cultivated; and beans, peas, turnips, and mangel wurzel and beet-root thrive well, and are raised in considerable quantities. Pasturage is followed to a considerable extent. The exports consist principally of lumber, ships, live stock, fish, &c. Annual value, $6,500,000. Imports, British and American manufactured goods, W. I. produce and flour. Annual value, $7,000,000. Shipbuilding is largely prosecuted at St. John and other ports on the Bay of Fundy, and also on the Miramichi. There are woollen, cotton, and leather manufactures.—*Govt.* The constitution places the local administration in the hands of the Lieut.-Governor, aided by a responsible Executive of 9 members, and a Legislative Council and House of Assembly. The Province is represented in the Dominion Parliament by 16 members in the House of Commons and 12 Senators. The judiciary comprises the Court of Chancery, in which the Governor presides; the Supreme Court, directed by 4 justices; a Court of Common Pleas; and circuit and minor courts. There is no regular army, the British Govt. having withdrawn its troops since the confederation of the Provinces in 1867. Numerous volunteer corps have since been enrolled, and the militia placed on a better footing than formerly. The church establishment is similar to that of Nova Scotia, and forms the diocese of Fredericton. There are, likewise, Roman Catholics, Presbyterians, Methodists, and Baptists. The religion of the inhabitants is sufficiently broad and liberal, but is characterized by more of the Puritan element than in the U. S. Education is carefully attended to. A free school system nearly similar to that of Massachusetts has been for some years in operation, with a Normal School for teachers, and a complete system of public schools. There are two colleges, besides a number of academies and private seminaries. The inhabitants consist of a mixed race of British extraction, intermixed with a few French.—*Cities and Towns.* St. John, Fredericton, St. Stephen, St. Andrew's, Portland, Woodstock, Moncton, Chatham, Newcastle, Richibucto, Bathurst, Dalhousie, &c. *Pop.* (1897) about 360,000.

New Brun'swick, in *Indiana*, a post-village of Boone co., about 8 m. S. of Lebanon.

New Brunswick, in *Minnesota*, a village of Cottonwood co., about 70 m. W. of Mankato.

New Brunswick, in *New Jersey*, a city, cap. of Middlesex co., on the Raritan river, about 26 m. N.N.E. of Trenton; Lat. 40° 30′ N., Lon. 74° 30′ W. It is well laid out, and contains many handsome edifices. *Manuf.* Wall paper, India-rubber goods, &c. *Pop.* (1895) 9,910.

New Bu'da, in *Iowa*, a village and township of Decatur co., 10 m. S.S.W. of Leon.

New Buf'falo, in *Michigan*, a post-village and township of Berrien co., about 63 m. E. of Chicago, Ill. The village is on the Mich. Cent. R. R. Considerable freight is shipped here.

New Buf'falo, in *Ohio*, a post-village of Mahoning co.

New Buf'falo, in *Pennsylvania*, a post-borough of Perry co., about 19 m. N. of Harrisburg.

New Buf'falo, in *Wisconsin*, a village of Sauk co.

New'burgh, a seaport-town of Scotland, co. of Fife, on the Tay, 13½ m. S.W. of Dundee, and 9 m. S.E. of Perth. It has a good harbor. The town was founded in the 12th century.

New'burgh, in *Illinois*, a village of Boone co., about 85 m. N.W. by W. of Chicago.

—A village and township of Pike co., about 70 m. W.S.W. of Springfield.

New'burgh, in *Indiana*, a village of Fountain co., about 8 m. E.S.E. of Covington.

—A township of La Grange co.

—A post-town of Warrick co., about 13 m. S.E. of Evansville. *Pop.* (1897) 1,150.

New'burgh, in *Iowa*, a village and township of Mitchell co., about 27 m. N.N.W. of Charles City.

New'burgh, in *Kentucky*, a post-village of Jefferson co., about 11 m. S.E. of Louisville.

New'burgh, in *Maine*, a post-town of Sauk co.

New'burgh, in *Michigan*, a township of Cass co.

—A post-village of Lenawee co., abt. 12 m. N.E. of Adrian.

—A village of Shiawassee co., about 7 m. S.E. of Corunna.

New'burgh, in *Minnesota*, a post-village and township of Fillmore co., about 50 m. S.E. of Rochester.

New'burgh, in *Missouri*, a post-village of Pbelps co. *Pop.* (1897) 640.

New'burgh, in *New York*, a city and township of Orange co., on the West Shore R.R., 60 m. N. of New York City. It is finely located on the Hudson river (here 1 m. wide), and commands an active trade. Extensive manufactories have been established, chiefly of cotton, wool, flour, machinery, &c., and the surrounding country is noted for its dairies. *N.* also possesses much historical interest, being the scene of many important events during the War of Independence, and the place where the American army was disbanded at the close of the struggle, June 23, 1783. *Pop.* (1897) about 26,500.

New'burgh, in *Pennsylvania*, a post-borough of Cumberland co., about 20 m. S.W. of Carlisle.—A village of Huntingdon co., about 90 m. W. of Harrisburg.

New'burgh, in *Tennessee*, a post-village of Lewis co., abt. 72 m. S.S.W. of Nashville.

New'burgh, a village of Addington co., prov. of Ontario, abt. 23 m. W. of Kingston.

New Bur'lington, in *Ohio*, a post-villags of Clinton co., abt. 20 m. S.E. of Dayton.

Newbury, (*nu'bur-e,*) a town of England, co. of Berks, on the Kennet, 24½ m. S. of Oxford, and 53 S.W. of London. *Manuf.* Woollen goods. *Pop.* 6,161.—The Royalist army, commanded by Charles I., attacked the Parliamentarians at this village in Berkshire, Sept. 20, 1643. The cavalry were completely defeated by the Royalists, but the infantry stood firm, and Essex was enabled to retire in good order. Lord Falkland fell in this encounter. A second battle was fought at Newbury, Oct. 27, 1644, when the Parliamentarians, commanded by Waller and the Earl of Manchester, failed in their attack upon the King's forces, and afterwards withdrew into winter-quarters.

Newbury, in *Indiana*, a township of La Grange co.

Newbury, in *Kansas*, a post-village of Newbury township, Wabaunsee co.

Newbury, in *Massachusetts*, a township of Essex co.

Newbury, in *New Hampshire*, a post-township of Merrimack co.

Newbury, in *Ohio*, a post-township of Geauga county.

Newbury, in *Vermont*, a post-village and township of Orange co., abt. 25 m. S.E. of Montpelier. The Monte bello iron and sulphur springs are here.

New'buryport, in *Massachusetts*, a city, port of entry, and cap. of Essex co, on the Merrimac River, about 34 miles N. by E. of Boston; Lat. 42° 48′ 32″ N., Lon. 70° 52′ 47″ W. Its proximity to the Atlantic Ocean affords great facilities for commerce. The city is generally well built, and contains some very handsome edifices. *Manuf.* Iron, machinery, leather goods, &c. *Pop.* (1895) 14,554.

Newburyport Lights, in *Massachusetts*, two fixed lights on the N. end of Plumb Island; Lat. 42° 48′ N., Lon. 70° 49′ 30″ W

New Caledo'nia, an island of Australia, in the Pacific Ocean, between Lat. 20° and 22° 30′ S., and Lon. 164° 5′ and 167° E.; *area*, nbt. 6,000 sq. m. It is surrounded on all sides by coral reefs, connecting numerous islets, rocks, and banks of sand, rendering the navigation so intricate and dangerous that the island can be approached by two openings only. Vessels may anchor securely at Port Balade, on the N.E., and at Port St. Vincent on the S.W. Capt. Cook discovered this island, Sept. 4, 1774, and landed upon it, and named it the following day. The French took possession, Sept. 20, 1853, and made it a convict settlement.—British Columbia was at first called New Caledonia. An insurrection took place among the natives in 1878, which was suppressed, but not without considerable bloodshed. The island is rich in gold, copper, and nickel. *Pop.* (1890) 57,000.

New Can'ada, in *Minnesota*, a township of Ramsey co.

New Can'ton, in *Tennessee*, a post-village of Hawkins co., abt. 275 m. E. of Nashville.

New Canton, in *Virginia*, a post-village of Buckingham co., abt 63 m. W. of Richmond.

New Carlisle, (*kar-lil',*) a seaport-town of Bonaventura co., prov. of Quebec, on the Bay of Chaleurs; Lat. 48° 3′ N., Lon. 65° 19′ W.

New Carlisle, in *Indiana*, a post-villags of St. Joseph co., abt. 145 m. N. by W. of Indianapolis.

New Carlisle, in *Ohio*, a post-village of Clarke co., abt. 55 m. W. of Columbus

New Car'thage, in *Louisiana*, a former post-village of Madison parish, about 240 m. N. of Baton Rouge.

New Cas'sel, in *Wisconsin*, a post-village of Fond-du-Lac co., about 18 m. S.S.E. of Fond-du-Lac.

New Cas'tine, in *Ohio*, a village of Darke co., about 12 m. S. of Greenville.

New'castle, a town of Ireland, in Munster, abt. 25 m S.W. of Limerick; *pop.* 2,500.

New Castle, a river-port of Northumberland co., New Brunswick, abt. 130 m. N.N.E. of St. John.

Newcastle, a village of Durham co., prov. of Ontario, abt. 25 m. W. of Coburg.

New Castle, in *Delaware*, a N. co., adjoining Pennsylvania on the N., New Jersey on the E., and Maryland and Pennsylvania on the W.; *area*, abt. 520 sq. m. *Rivers.* Delaware River and Bay, and Appoquinnimink, Blackbird, Brandywine, Christiana, Duck, Red-clay, and White-clay creeks. *Surface*, agreeably diversified; *soil*, fertile, producing Indian corn, wheat, oats, hay, potatoes, and fruit in abundance. *Cap.* Wilmington. *Pop.* (1897) 106,450.

—A city, port of entry, and former cap. of the above co., on the Delaware river, about 42 m. N. of Dover. *Manuf.* Locomotives, machinery, &c. *Pop.* (1897) 4,010.

New Castle, in *Indiana*, a township of Fulton co. *Pop.* about 1,500.

—A post-town, cap. of Henry co., about 40 m. E. by N. of Indianapolis.

New Castle, in *Kentucky*, a post-village, cap. of Henry co., about 26 m. N.W. of Frankfort.

New Castle, in *Maine*, a post-village and township of Lincoln co., about 25 m. S.E. of Augusta.

New Castle, in *Missouri*, a post-village of Gentry co., about 37 m. N.E. of St. Joseph.

New Castle, in *New Hampshire*, a post-town and township of Rockingham co.

New Castle, in *North Carolina*, a P. O. of Wilkes co.

New Castle, in *New York*, a post-village and township of Westchester county, about 40 miles N. N. E of New York.

New Castle, in *Ohio*, a post-village and township of Coshocton county, about 71 miles E. N. E. of Columbus.—A village of Monroe county, about 36 miles N. E. of Marietta.

New Castle, in *Pennsylvania*, a manuf. city, cap. of Lawrence co., about 45 m. N.N.W. of Pittsburg. *Pop.* (1897) 13,500.

—A borough and township of Schuylkill co.

New Castle, in *Virginia*, a post-village, cap. of Craig co., abt. 193 m. W. of Richmond.

New'castle-under-Lyne, or **Lyme,** a town of England, co. of Stafford, 15 m. N.N.W. of Stafford, and 135 m. N.W. of London. *Manuf.* Hats, and silk and cotton goods. *Pop.* 12,938.

New'castle-upon-Tyne, a town of England, cap. of the co. of Northumberland, on the Tyne, 54 m. E. of Carlisle. It is built on an acclivity extending along the river. The principal public buildings are St. Nicholas' church, the Mansion House, the Trinity House, Exchange, and Moot Hall. In Grey Street is erected a column 136 feet high, and surmounted by a colossal statue of Earl Grey. *Manuf.* Glass, pottery, chemicals, iron, tin, and other metal goods. Ship-building is carried on largely. Its importance is mainly owing to the coal trade from the mines along both banks of the Tyne. *Pop.* (1897) 201,100.

New Cen'terville, in *Pennsylvania*, a borough of Somerset co., abt. 10 m. S.W. of Somerset.

New Chester, in *Pennsylvania*, a post-vill. of Adams co., abt. 30 m. S.S.W. of Harrisburg.

New City, in *New York*, a village, cap. of Rockland co., abt. 35 m. N. of New York city.

New Colum'bia, in *Pennsylvania*, a post-village of Union co., abt. 16 m. N. of Sunbury.

New Colum'bus, in *Pennsylvania*, a post-village of Luzerne co., abt. 30 m. W.S.W. of Wilkesbarre.

New'comb, in *New York*, a post-township of Essex co.

New'-come, *a.* Just arrived.

New'-comer, *n.* One who has recently arrived.

New'comerstown, in *Ohio*, a post-village of Tuscarawas co., abt. 85 m. N.E. of Columbus.

New Con'cord, in *Kentucky*, a post-village of Callaway co., abt 10 m. S.E. of Murray.

New Con'cord, in *Ohio*, a post-village of Muskingum co., 15 m. E.N.E. of Zanesville.

New Cor'ydon, in *Indiana*, a post-villags of Jay co., abt. 105 m. E.N.E. of Indianapolis.

New Cum'berland, in *Indiana*, a post-village of Grant co., abt. 16 m. S.E. of Marion.

New Cum'berland, in *Ohio*, a post-village of Tuscarawas co., abt. 110 m. E.N.E. of Columbus.

New Cum'berland, in *Pennsylvania*, a post-village of Cumberland co., abt. 4 m. S.E. of Harrisburg.

New Cum'berland, in *West Virginia*, a post-village, cap. of Hancock co., about 20 m. N. of Wheeling.

New Denmark, in *Wisconsin*, a township of Brown co.

New Der'ry, in *Pennsylvania*, a post-village of Westmoreland co., about 45 m. E. of Pittsburg.

New Dig'gins, in *Wisconsin*, a post-village and township of La Fayette county, about 8 miles N.N.E. of Galena.

New Dungeness (*dunj-ness'*), in *Washington*, a village, former cap. of Clallam co., on the Strait of Juan de Fuca, about 70 m. N. by W. of Olympia.

New Dur'ham, in *Indiana*, a small village and township of La Porte county, about 12 miles S. of Michigan City.

New Durham, in *New Hampshire*, a post-town of Strafford co.

New Dur'ham, in *New Jersey*, a post-village of Hudson co., abt. 9 m. N.E. of Newark.—A village of Middlesex co., abt. 34 m. N.E. of Trenton

New'el, *n.* (*Arch.*) The central column round which the steps of a circular staircase wind; sometimes continued above the steps up to the vaulting of the roof, and supporting a series of ribs which radiate from it as in Fig. 1938. The term is also used for the principal post at the angles and foot of a staircase. The newel staircase occurs in all turrets, as no other staircase could be designed to occupy so small a space. It is essentially Gothic in its construction, and is not found in the classical styles.

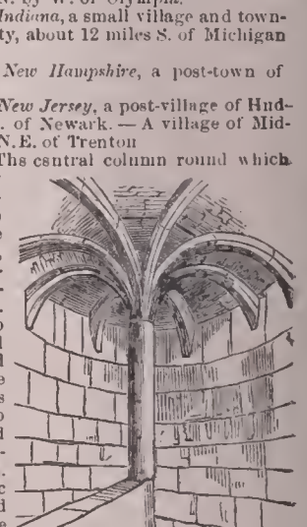

Fig. 1938. — NEWEL.
(From Belsay Castle, England.)

New'ell, in *Illinois*, a township of Vermilion co; *pop.* abt. 3,200.

New England, the N.E. region of the U. States, granted by James I. to the Plymouth Company, in 1606, under the name of *North Virginia*, and which, being explored by Capt. John Smith in 1614, was named by him *New England*. It comprises the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island,

VERMONT AND NEW HAMPSHIRE

SCALE OF MILES
0 5 10 20 30 40

State Capitals ⊛ County Seats ⊙
Places of 20,000 and over — BURLINGTON
" " 10,000 to 20,000 — Portsmouth
" " 5,000 to 10,000 — St.Albans
" " 2,000 to 5,000 — Littleton

A 73° B 72°30′ C 72° D 71°30′ E 71° F

Hammond's 8 x 11 Map of Vermont and New Hampshire
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Longitude West from Greenwich

NEW HAMPSHIRE.

Land surface, Sq. m. 9,005
Water surface, Sq. m. 300
Pop 1900....411,588
White.... 410,791
African.....662
Indian.....22
Chinese.....112
Japanese.....1
Native-born, 323,481
Foreign-born, 88,107
Males 205,379
Females..206,209

COUNTIES.

Belknap.....E 5
Carroll.....E 4
Cheshire .....C 6
Coos .. ..E 2
Grafton.....D 4
Hillsboro.....D 6
Merrimack....D 5
Rockingham..E 6
Strafford.....E 5
Sullivan . .....C 5

CITIES-TOWNS

Pop. Thousands.		
56	Manchester	E 6
23	Nashua ...	E 6
19	Concord ...	D 5
13	Dover.....	F 5
10	Portsmouth	F 5
9	Keene.....	C 6
8	Berlin.....	E 3
8	Rochester...	F 5
8	Laconia	E 4
7	Somersworth	F 5
6	Claremont ..	C 5
5	Franklin....	D 4
4	Lebanon. ...	C 4
4	Exeter	F 6
4	Littleton ...	D 3
3	Milford.	D 6
3	Derry	E 6
3	Haverhill ...	C 3
3	Lancaster..	D 3
3	Pembroke...	E 5
3	Conway.	E 4
3	Newport. ...	C 5
2	Newmarket .	F 5
2	Walpole. . .	C 5
2	Goffstown...	D 5
2	Peterboro...	D 6
2	Westfield....	A 6
2	Wolfeboro ..	E 4
2	Winchester	C 6
2	Farmington.	E 5
2	Hillsboro ...	D 5
2	Lisbon... ..	D 3
2	Whitefield ..	D 3
2	Pittsfield ...	E 5
2	Salem.....	E 6
1	Northumberland.	D 2
1	Plymouth...	D 4
1	Hinsdale...	C 6
1	Tilton	D 5
1	Jaffrey.....	C 6
1	Hanover	C 4
1	Colebrook...	D 2
1	Enfield.....	C 4
1	Gorham ...E	3
1	Meredith....	D 4
1	Rollinsford .	F 5
1	Wilton	D 6
1	Hooksett....	E 5
1	Hopkinton	D 5
1	Wakefield...	E 4
1	Epping.....	E 5
1	Milton.....	F 5
1	Greenville	D 6
1	Bristol.....	D 4
1	Swanzey ...	C 6
1	Weare.....	D 5
1	Troy	C 6
1	Marlboro ...	C 6
1	Henniker ...	D 5
1	Alton	E 5
1	Seabrook ...	F 6
1	Allenstown	E 5
1	Ossipee.	E 4
1	Charlestown	C 5
1	Boscawen...	D 5
1	Canaan.....	C 4
1	Londonderry	E 6
1	Antrim	D 5
1	Franklinville	D 6
1	Warner	D 5
1	Northwood .	E 5
1	Belmont	E 5
1	Ashland.. ..	D 4
1	Bethlehem..	D 3
1	Hudson	E 6
1	Merrimack..	E 6
1	Amherst	D 6
1	Northfield...	D 5
1	Hampton ...	F 6
1	Barrington..	E 5
1	Andover....	D 5
1	Deerfield...	E 5
1	Stewartstown	E 2
1	Bedford.....	D 6
1	Rye..... ..	F 5
1	Milan	E 2
1	Kingston ...	E 6
1	Raymond ...	E 5
1	Gilmantown	E 5
1	Lyme...	C 4
1	Jefferson....	E 3
1	Sandwich ...	E 4
1	Barnstead...	E 5
1	Candia	E 5
1	Tamworth...	E 3
1	Strafford..	E 5
1	Plaistow.....	E 6
1	Bartlett	E 3
1	Bath	D 3
1	New Boston.	D 6

Pop. Hundreds.		
9	Campton..	D 4
9	Durham. .	F 5
9	Fitzwilliam.	C 6
9	Chesterfield.	C 6
9	Stratford....	D 2
9	Cornish	C 5
9	Loudon.. .	E 5
9	Brentwood .	F 6
9	Sunapee.....	C 5
9	Sanbornton	D 4
9	Newton	E 6
9	New Ipswich	D 6
9	Hollis...	D 6
9	Moultonboro	E 4
8	Orford.....	C 4
8	Westmoreland	C 5
8	Pelham	D 6
8	Chester.....	E 6
8	Rindge	D 6
8	New Hampton	D 4
8	Rumney ...	D 4
8	Hamstead..	E 6
8	Canterbury.	D 5
8	North Hampton	F 6
8	Bradford....	D 5
7	Alstead.....	C 5
7	Warren.....	D 4
7	Harrisville..	C 6
7	Sutton.....	D 5
7	Epsom	E 5
7	New London	D 5
7	Grafton....	D 4
7	Stark.....	E 2
7	Stratham....	F 5
6	Francestown	D 6
6	Columbia ...	D 2
6	Pittsburg ..	E 1
6	Lyndeboro..	D 6
6	Auburn	E 5
6	Bennington.	D 5
6	Tuftonboro	E 4
6	Holderness..	D 4
6	Gilford	E 4
6	Franconia .	D 3
6	Danbury....	D 4
6	Wilmot.....	D 4
6	Newfields ..	F 5
6	Hancock...	D 6
6	Windham..	E 6
6	Nottingham.	E 5
6	Piermont ...	C 4
6	Alexandria..	D 4
6	Woodstock	D 4
6	New Durham	E 5
6	Jackson	E 3
6	Dublin	C 6
6	Bow	D 5
6	Wentworth.	D 4
6	Danville.. .	E 6
6	Greenland ..	F 5
6	Greenfield ..	D 6
6	Salisbury ...	D 5
6	Hill	D 4
6	Effingham...	E 4
5	Chichester ..	E 5
5	Acworth	C 5
5	Freedom....	E 4
5	Dalton	D 3
5	Gilsum ...	C 5
5	Newcastle...	F 5
5	Unity	C 5
5	Hampton Falls	F 6
5	Thornton ..	D 4
5	Dunbarton..	D 5
5	Lee	E 5
5	Monroe.....	C 3
5	Lincoln	D 3
5	Madison	E 4
5	Kensington.	F 6
5	Brookline ..	D 6
5	Landaff	D 3
4	Marlow . ..	C 5
4	Deering	D 5
4	Washington	C 5
4	Richmond ..	C 6
4	Mason.....	D 6
4	Mt. Vernon..	D 6
4	Lyman.....	D 3
4	Newbury....	C 5
4	Center Harbor	E 4
3	Lempster ...	C 5
3	Newington..	F 5
3	Grantham ..	C 5
3	Croydon	C 5
3	Stoddard....	C 5
3	Eaton	E 4
3	Dummer....	E 2
3	Groton.....	D 4
3	Goshen.....	C 5
3	Madbury	F 5
3	Dorchester .	D 4
3	Clarksville..	E 1
3	Errol.....	E 2
3	Middleton ..	E 5
2	Brookfield ..	E 4
2	Sullivan....	C 5
2	Chatham...	E 3
2	Surry.....	C 5
2	Easton	D 3
2	Bridgewater	D 4
2	Hebron.....	D 4
2	Benton ...	D 3
1	Livermore..	E 3
1	Randolph ...	E 3
1	Waterville .	E 4
1	Millsfield....	E 2

and Connecticut; extending from Lat. 41° to 48° N., and from Lon. 67° to 74° E.; area, 165,000 sq. m.; coast line, abt. 700 m.

New Echo'ta, in *Georgia*, a village of Gordon co., abt. 80 m. N.W. of Atlanta. It was formerly the chief town of the Cherokee Nation.

New Ed'inburgh, a seaport-town of Digby co., Nova Scotia, abt. 125 m. W. of Halifax.

New E'gypt, in *New Jersey*, a post-village of Ocean co., abt. 19 m. S.E. of Trenton.

New Eng'land, in *New Jersey*, a village of Cumberland co., abt. 20 m. S.E. of Salem.

New Eng'land, in *Tennessee*, a village of Blount co., abt. 15 m. S. of Knoxville.

New Eng'land Village, in *Massachusetts*, a post-village of Worcester co., abt. 40 m. W. by S. of Boston.

New Era, in *Pennsylvania*, a post-village of Bradford co., abt. 15 m. S.S.E. of Towanda.

New E'rin, in *Illinois*, a village of Stephenson co., abt. 135 m. W.N.W. of Chicago.

New Eure'ka, in *Kansas*, a small village of Jackson county.

New Fair'field, in *Connecticut*, a post-township of Fairfield co.

New Fane, in *New York*, a post-township of Niagara county.

New Fane, in *Vermont*, a post-township of Windham co. *Pop.* (1897) 990.

New-fangled, (*nu-fang'gld,*) *a.* New-made; formed with the affectation of novelty.—Desirous or fond of novelty.

New-fan'gledness, Newfan'gleness, *n.* Vain and foolish love of novelty.

New Farm'ington, in *Indiana.* See FARMINGTON.

New-fash'ioned, *a.* Made after a new form or fashion.

New'field, in *Maine*, a post-township of York co., 22 m. W. of Portland.

New'field, in *New York*, a post-township of Tompkins co.

New Flor'ence, in *Pennsylvania*, a post-village of Westmoreland co., abt. 64 m. E. of Pittsburg.

Newfoundland, (*nu-fund-länd',*) an island and British colony of North America, lies in the Atlantic Ocean, at the mouth of the Gulf of St. Lawrence, separated from Labrador on the north by the Straits of Belle Isle (about 12 miles broad), and extending in Lat. from 46° 38′ to 51° 37′ N., and in Lon. from 52° 44′ to 59° 30′ W. In shape it resembles an equilateral triangle, of which Cape Bauld on the north, Cape Race on the south-east, and Cape Ray on the south-west, form the angles. It is 370 m. in length, 290 m. in breadth, about 1,000 m. in circumference; *area*, 40,200 sq. m. The country is very unequal, covered with hills and mountains, everywhere overgrown with pines, so as to be practicable only in those parts where the inhabitants have cut roads. In winter the cold is excessive, nothing but snow and ice being seen, and the bays and harbors entirely frozen. The whole circuit of the island is full of bays and harbors, so spacious and sheltered on all sides by the mountains, except their entrance, that vessels lie in perfect security. *Rivers.* The Humber, and the River of Exploits. *Prod.* The soil being ill-adapted to agricultural purposes, kitchen vegetables are the principal crops. Timber is scarce, and the chief resources of the population are in the cod, seal, and salmon fisheries. The plains abound with large herds of the Cariboo deer, which, with dogs, bears, foxes, wolves, and beavers, form the prevailing animals. The fisheries are of two kinds—the "Shore Fishery," and the "Bank Fishery;" the former comprises the shores and bays of *N.;* the latter comprises a great tract known as the "Banks" of *N.*, from 500 to 600 m. in length, and abt. 200 m. in breadth. The Banks form the greatest submarine plateau known; the depth of the water is from 20 to 108 fathoms, and the most productive "ground" is said to extend between Lat. 42° and 46° N. Great varieties of valuable fish are found in the waters around the colony, as the cod, salmon, herring, &c. The settlements are chiefly on the peninsula of Avalon. The principal are St. John's (the cap.), Harbor Grace, Bonaventure, Carbonear, Ferryland, and Trinity. *Pop.* (1897) about 200,000.

Newfoundland Dog, *n.* (*Zoöl.*) A splendid variety of the canine race, remarkable for its strength, nobility of character, sagacity, and attachment to its master. There is no doubt that this dog derived its origin from the large Spanish dogs which were introduced into America by the early discoverers; and that from thence it was brought over to Europe. The natives of Newfoundland made them draw sledges and carts, and put them to other degrading uses. There are several varieties of *N. D.*, particularly a smooth breed, with rather small head, white and spotted with black, which seems now to be extinct; a very large breed, with broad muzzle, head raised, noble expression, waved or curly hair, very thick and bushy curled tail, black and white color; and a smaller, almost black breed. Some of the breeds seem to be crossed with hounds and other dogs. The *N. D.* is remarkable for memory, and for patience and forbearance of temper. It is, however, apt to become irascible in confinement, and will then bite even its master. Some of the most interesting anecdotes of the affection and sagacity of the dog, relate to the *N. D.* No dog excels it as a water-dog. Its paws are half-webbed, and its power of endurance in swimming is very great.

Fig. 1939.
NEWFOUNDLAND DOG.

New Frank'fort, in *Indiana*, a village of Scott co., abt. 85 m. S.S.E. of Indianapolis.

New Frank'lin, in *Illinois*, a village of Wayne co., abt. 28 m. E.S.E. of Salem.

New Frank'lin, in *Ohio*, a post-village of Stark co., abt. 60 m. S.S.E. of Cleveland.

New Frank'lin, in *Pennsylvania*, a village of Franklin co., abt. 4 m. S.E. of Chambersburg.

New Gar'den, in *Indiana*, a post-village and township of Wayne co.

New Gar'den, in *N. Carolina*, a post-village of Guilford co., abt. 98 m. W. by N. of Raleigh.

New Gar'den, in *Ohio*, a post-village of Columbiana co., abt. 145 m. N.E. of Columbus.

New Gar'den, in *Pennsylvania*, a post-township of Chester co.

New Gene'va, in *Pennsylvania*, a post-village of Fayette co., abt. 195 m. W. by S. of Harrisburg.

New Geor'gia, a name formerly applied to that part of the W. coast line of N. America, between the Gulf of Georgia on the N. and the Columbia River on the S., including Vancouver Island.

New Ger'mantown, in *Indiana*, a village of Boone co., abt. 95 m. N.W. of Indianapolis.

New Ger'mantown, in *New Jersey*, a post-village of Hunterdon co., abt. 35 m. N. of Trenton.

New Ger'mantown, in *Pennsylvania*, a post-village of Perry co., abt. 45 m. W. of Harrisburg.

New Gla'rus, in *Wisconsin*, a post-village and township of Green county, about 15 miles north of Monroe.

New Glas'gow, a village of Two Mountains co., prov. of Quebec, abt. 30 m. N.N.W. of Montreal.

New Glas'gow, in *Virginia*, a post-village of Amherst co., abt. 119 m. W. of Richmond.

New Gloucester, (*glos'ter,*) in *Maine*, a post-township of Cumberland co.

New Go'shen, in *Indiana*, a post-village of Vigo co., abt. 10 m. N. by W. of Terre Haute.

New Go'shenhoppen, in *Pennsylvania*, a village of Montgomery co., abt. 21 m. N.N.W. of Norristown.

New Gran'ada, a republic of S. America. See COLOMBIA.

New Granada, or NEW GRENADA, in *Pennsylvania*, a post-village of Fulton co., abt. 72 m. W. of Harrisburg.

New Guil'ford, in *Ohio*, a post-village of Coshocton co., abt. 18 m. W. of Coshocton.

New Guil'ford, in *Pennsylvania*, a village of Franklin co., abt. 143 m. W. of Philadelphia.

New Guinea. See PAPUA.

New Ham'burg, in *New York*, a post-village of Dutchess co., abt. 66 m. N. of New York city.

New Hamp'shire, one of the 13 original States of the American Union, is bounded N. by Lower Canada, E. by the State of Maine and the Atlantic Ocean, S. by Massachusetts, and W. by Vermont, from which it is separated by the Connecticut River. The State lies between Lat. 42° 41′ and 45° 11′ N., and Lon. 70° 40′ and 72° 28′ W.; length, N. to S., 168 miles; maximum breadth 90 miles, with an average of 45 miles, comprising an area of 9,280 square miles, or 5,939,200 acres. GEN. DESC. For about 30 miles from the seaboard, the surface is generally level, diversified, however, with hills and valleys. Beyond this limit, the country assumes a character of entire hilliness, rising, in the N. part of the State, into the extensive range known as the White Mountains, with the outlying and detached groups of the Grand Monadnock and Kearsarge. The culminating peak of this range is Mt. Washington, at an altitude of 6,285 feet above sea-level; being the highest summit in New England. With the exception of the strip of level land selvaging the seaboard, the whole State is mountainous and rugged, possessing, however, many fine valleys near the river courses. The coast-line extends for about 18 miles only, and the shore is, in most parts, a sandy beach fringed with salt marshes. Portsmouth, at the mouth of the Piscataqua, forms the only eligible harbor for large ships, although there are numerous small coves or creeks suitable to the reception of small craft. The general slope of *N. H.* is from N. to S., and the principal rivers are, the Connecticut, which, rising near the N. frontier, forms nearly the whole W. boundary, and has for its affluents the Upper and Lower Ammoosuck, and the Ashuelot; the Merrimack and its parent streams; Salmon Falls River, and the Piscataqua; the Cocheco, Margallaway, &c. About 110,000 acres of the area of this State present a water-surface; the chief lakes are those of Winnipisiogee, Umbagog, Sanapee, Squam, &c. The magnificent *coup d'œil* exhibited by the scenery of *N. H.* has entitled it to the designation of the "Switzerland of America," (see Fig. 947.)—*Geol. and Min.* The geological formations of the State are almost wholly those of the ancient metamorphic rocks, the mica and talcose slates, quartz rock, granular limestone, granite, gneiss, &c. Though these strata contain numerous metallic ores, they have not, as yet, assumed any developable degree of importance. Large beds of magnetic and specular iron-ores exist, but have been, hitherto, only partially worked. Copper, zinc, and lead ores—most of the latter silver-bearing—are found in various parts of the State. A vein of lead, combined with a small quantity of oxide of tin, and associated with arsenic, occurs in the town of Jackson. Beryls, tourmalines, and mica, are found in large sizes, and superior quality. Sulphuret of molybdenum, graphite or plumbago, and steatite or soapstone, are also met with.—*Soil and Veg.* The soil of *N. H.*, naturally infertile, has been to a great degree improved by industry and art. The N. part of the State is principally pasture and woodland. The best soils lie in the valleys of the rivers, some of which are subject to annual inundations. The natural productions include the oak, pine, hemlock, ash, beech, birch, and other large timber, which supply a large annual export of lumber. The sugar-maple and the pitch-pine exist in plenty.—*Clim.* The climatic tendency of *N. H.* is to severity, the temperature being a trifle colder than that of Maine, but more equable. Difference of elevation within the State, however, causes a corresponding difference in the scale of temperature; so much, indeed, as from 20 to 25 degrees between the valleys and the more elevated localities. In the summer solstice the thermometer sometimes ascends to as high as 100° Fahr., while in winter the cold has been known to freeze mercury. In the region of the White Mountains the winters are excessively cold, and the peaks are covered, more or less, with snow three-fourths of the year,—from which circumstance they have derived their distinguishing appellation. Taken altogether, the climate may be said to be highly salubrious, and cases of remarkable longevity are frequent. The cold season begins about the middle of Sept., and continues until May; and from the close of Nov. till the opening of spring, the whole surface is thickly covered with snow, and the rivers are all ice-bound.—*Zool.* The indigenous animals, as wolves, bears, &c., though much thinned in numbers, are still found in the mountainous and forest regions in the N. part of the State. Wild game and fowl are abundant, and all the waters—still and running—are well stocked with fish.—*Agric.* The soil, except in the fertile valleys, is better adapted to pasturage than to agriculture. The yield of the chief cereal products for the year 1895 was as follows: Corn, 1,079,531; wheat, 48,134; oats, 1,094,122 bushels. Apples are quite largely exported. In the census year (1890) there were in the State 29,151 farms, embracing 3,459,018 acres, of which 1,727,387 were improved, the land and improvements being valued at $66,162,600, implements and machinery at $3,594,850, live stock at $10,450,125, and farm products at $13,761,050. Large numbers of cattle and sheep find their way to Brighton and Cambridge, and horses are also sold from the hill pastures. More than half of the land is included within farm limits, though it cannot all be classed as improved. Yearly, however, the number of acres under close cultivation increases, both in old enclosures and from new lands. The average value of farm holdings is about $30 per acre; the average value of wild land is difficult to estimate, much of it being sold to companies for the lumber, and then resold at a nominal price, or suffered to lie until covered with another growth. The flush times succeeding the civil war tempted many young men to leave the farms, which, in some instances, not meeting with ready sale, were deserted. For this, and for various other causes, farms in towns remote from the great centres were almost unsalable. Within a few years, however, the number is diminishing. Not only have men returned to the homesteads, but they are re-taken by Germans and Irish, who, by their frugal ways and industrious habits, have made profitable investments. The population is about equally divided between agriculture and manufacturing and mechanical pursuits. Pisciculture is becoming an object of increasing importance, and the propagation of the various home species of fish, with the introduction of foreign kinds, engages the active attention of the State authorities. Wool, dairy-produce, pulse, flax, tobacco, hops, molasses, beeswax and honey, must, also, be taken into enumeration as steadily advancing articles of growth and production. There are still more than a million acres of forest in the State, its value per acre about double that of cleared land. *Polit. Div.* The State is sectionized into 10 counties, as follows:

Belknap,	Coos,	Merrimack,	Sullivan.
Carroll,	Grafton,	Rockingham,	
Cheshire,	Hillsborough,	Stafford.	

Cities and towns. The principal centres of urban population are Concord (cap. of the State), Portsmouth, Manchester, Dover, Nashua, Keene, Exeter, Bristol, Claremont, Rochester, and Somersworth.—*Govt. & Const.* The State executive consists of a governor, and an advisory council of five members. The former is chosen annually, by a majority of votes, or, in case of no choice by the people, the General Court, in joint ballot, elects one of the two persons having the highest number of votes. The qualifications for the gubernatorial office are, viz., age, not under 30, and domiciliary residence for seven years. Salary attaching to the position, $1,000 per annum. In case of death or disability, the functions of governor are exercised by the president of the Senate. The governor convenes the council, and their resolutions are recorded in a register, and signed by those agreeing thereto. The governor and council nominate and appoint all judicial officers, the attorney-general, and solicitors, sheriffs, coroners, registrars of probate, and general field-officers of militia. The governor and council have a negative on each other, both in the nominations

Fig. 1940.—SEAL OF THE STATE.

and appointments. The administrative officers of the State are: Secretary, Treasurer, Auditor of Accounts, and Commissary-General, who are chosen by joint ballot of the General Court. County treasurers, registrars of deeds, and commissioners, are elected by the votes in the several counties. The legislative power is vested in two bodies — a Senate, and a House of Representatives. Members of both houses are chosen annually. Senators, must be 30 years of age, inhabitants of their several districts, and have been citizens of the State for 7 years. Senatorial districts are set off according to the proportion of direct taxes paid by the said districts. In case of non-election in any such district, the General Court chooses one of the two persons having the majority of votes. Representatives must be residents of their district, and have been, for two years next preceding election, inhabitants of the State. Every town having 150 ratable male polls 21 years old may elect one representative, and every 300 such polls additional shall entitle the town to another representative. The judiciary consists of a Supreme Court, courts probate, and justices of peace. All judges are nominated and appointed by the governor and council, and hold office during good behavior. Justices of peace are appointed for 5 years, and exercise jurisdiction in cases below $13.33: Clerks of court are appointed by court. The elective franchise is extended to every male citizen of 21 years of age, paupers only excepted. The apportionment, based on the census of 1890, gives to *N. H.* 2 representatives in the U. S. Congress, and 4 Electoral votes.—*Manuf.* Agricultural interests have steadily declined for a number of years past, though the growing popularity of *N. H.* as a summer resort has opened a new and lucrative market for the farmers, whose rough and sterile soil did not enable them to compete with the products of the more fertile States. But the decline in agriculture is more than made good by a rapid growth in manufacture, which is much the leading interest of the State. Nature seemingly intended *N. H.* to be the great workshop of New England, providing it with enormous water-power, much of which yet awaits development. The Merrimac is said to turn more spindles and propel more shuttles than any other river in the world, and is not yet utilized up to its full capacity. The chief centers of manufacture are Manchester (the largest city), Nashua, and Dover. The State is particularly noted for the extent of its manufactories of textile fabrics, few of the States surpassing it in its product of cotton goods, its mills producing sheetings, shirtings, lawns, and fine muslins, print cloth, flannels, ginghams and checks, cassimeres, and other classes of goods in great variety and quantity. In addition may be mentioned the production of paper, the next largest interest; the Concord coach-works, the Manchester locomotive and steam fire-engine works, and the iron foundries at Nashua, all of which have a national reputation. In 1890 the manufactories of *N. H.* employed 63,361 hands, paid in wages $24,268,054, and produced goods valued at $85,770,549.—*Scenery.* The salubrious climate and highly picturesque natural scenery of this State have, as above stated, brought it into deserved repute as a place of resort for summer visitors, particularly in the region of the White Mountains. These, in addition to Mt. Washington, include more than 100 peaks of note, a number of them over 5,000 feet high, among which the name of Washington is followed by those of the succeeding presidents, Adams, Jefferson, Madison, and Monroe. This group of mountains, in addition to its healthful and invigorating climate, is rich in attractive scenery, and is annually visited by large numbers from neighboring and distant States.—*Finances.* The total net debt of *N. H.* in 1890 aggregated $8,148,362, being $21·64 per capita. Of this the State debt was $2,691,019; the county debt, $556,987; the municipal debt, $4,718,025, and the school district debt, $182,331. The assessed valuation of real and personal property was $263,059,798, being $698·64 per capita.—*Shipping.* The greater part of the foreign products consumed in *N. H.* is entered at Boston. Portsmouth is a U. S. port of entry, but the amount of export and import business done there is unimportant.—*Education.* The educational requirements of the State are provided for by the legislature, which has authorized a public-school tax to the amount of over $2,000,000. In 1894 there were 3,187 teachers and 62,437 pupils enrolled. The scholastic system is generally excellent. Dartmouth College, founded at Hanover, in 1769, as a school for the instruction of Indians, has well-appointed academic, scientific, medical, and agricultural departments, with libraries aggregating 75,000 volumes. There is a State normal school at Plymouth. The other leading educational institutions are the Chandler Scientific School at Hanover, and the Methodist Biblical Institute at Concord. In fact, it may be said that the educational arrangements are good. The New Hampshire Asylum for the Insane is spoken of as one of the best institutions of the kind in the U. States. Journalism flourishes in a corresponding ratio with that of the neighboring States. The value of church property is estimated at more than $1,500,000. —*Hist.* In 1623, the English colonists, Mason and Gorges (see MAINE), jointly held a grant of land from the Merrimac to the Kennebec rivers, and, in the following year, the first settlements were commenced at Portsmouth, and at Dover. In 1629 the grant was divided, and a separate grant made to Mason of that region W. of the Piscataqua River, called *New Hampshire*, while Gorges retained the territory E. of the Piscataqua, called *Maine*. In 1641, Massachusetts extended her jurisdiction over *N. H.*, and maintained her authority there till 1679, when the case being brought before the highest court of appeal in England on colonial matters, it was decided that the claim of Massachusetts was illegal, and *N. H.* was thereupon constituted a separate province. In 1686, the charter of Massachusetts having been annulled, New Hampshire, Maine, Massachusetts, and Narragansett were united in one Royal Province, under President Dudley, and afterwards under Governor Andros. In 1689, upon news of the English Revolution, the govt. of Andros was overthrown, and Massachusetts resumed her old charter. Some of the people of the Colony petitioning Massachusetts to be received under control and protection till orders should come from England, Massachusetts assented, and exercised a merely nominal authority over it. In 1692, the province of *N. H.* was reëstablished by the English government, and ever after remained separate from its neighbor. In 1776, the province issued a public declaration of independence, and organized a temporary government. After taking a prominent and distinguished part in the War of the Revolution, *N. H.*, in Convention (1788), gave in her adhesion to the United States Constitution by a majority of 11 votes in an assembly numbering 103; and in 1807, the seat of government was permanently established at Concord. On July 1, 1869, the State ratified the 15th Amendment to the national Constitution. *Pop.* (1880) 346,984; (1890) 376,530; (1900) 411,588.

New Hamp'ton, in *Iowa*, a post-village and twp., cap. of Chickasaw co., about 112 m. W.N.W. of Dubuque.

New Hamp'ton, in *New Hampshire*, a post-township of Belknap co.

New Hamp'ton, in *New Jersey*, a post-village of Hunterdon co., about 10 m. N.N.W. of Flemington.

New Hamp'ton, in *New York*, a post-village of Orange co., about 74 m. N. by W. of New York city.

New Han'over, in *New Jersey*, a township in Burlington co.

New Han'over, in *North Carolina*, a S.E. co., bordering on the Atlantic Ocean; *area*, about 90 sq. m. *Rivers.* Cape Fear and South rivers. *Surface*, level; *soil*, not very fertile. *Cap.* Wilmington. *Pop.* (1890) 24,026.

New Han'over, in *Pennsylvania*, a post-township of Montgomery co.

New Har'mony, in *Indiana*, a post-town of Posey co., about 15 m. N. of Mount Vernon.

New Har'risburg, in *Ohio*, a post-village of Carroll co., about 6 m. N.W. of Carrollton.

New Hart'ford, in *Connecticut*, a post-village and township of Litchfield co., about 20 m. N.W. by W. of Hartford.

New Hart'ford, in *Illinois*, a post-village of Pike co., about 80 m. W.S.W. of Springfield.

New Hart'ford, in *Iowa*, a post-village of Butler co., about 10 m. W. of Cedar Falls.

New Hart'ford, in *Minnesota*, a post-township of Winona co.

New Hart'ford, in *New York*, a post-village and township of Oneida county, about 4 miles W. by S. of Utica.

New Hart'ford Center, in *Connecticut*, a village of Litchfield co., about 20 m. N.W. of Hartford.

New Ha'ven, in *Connecticut*, a S. by W. co., bordering on Long Island Sound; *area*, about 619 sq. m. *Rivers.* Housatonic, Naugatuck, and Quinepiac rivers. *Surface*, uneven and hilly; *soil*, moderately fertile. *Pop.* (1890) 209,058.

—A city, port of entry, seat of justice of the county, until 1874 the semi-cap. of the State, about 76 m. N.E. of New York city and 160 m. S.W. of Boston; Lat. 41° 18′ 23″ N., Lon. 72° 56′ 30″ W. It is pleasantly located, and the houses are generally built with neatness and regularity. Among the public edifices are the former State House, the State Hospital, City Hall, St. Paul's Chapel, and Yale University. The commerce of this city is, in a great measure, restricted by the shallowness of New Haven Bay, but an immense inland traffic is carried on by means of the numerous railroads which radiate from here in every direction. Extensive manufactories have been established, chiefly of clocks, carriages, India rubber goods, boots, shoes, and ironware. *N. H.* was settled in 1638 by a company of London immigrants under Theophilus Eaton and Rev. John Davenport, and incorporated as a city in 1784. *Pop.* (1897) 102,000.

New Ha'ven, in *Illinois*, a post-village and township of Gallatin co., on the Wabash river, about 8 m. above its mouth.

New Ha'ven, in *Indiana*, a post-town of Allen co., about 6 m. E. of Fort Wayne.

New Ha'ven, in *Kansas*, a former post-village of Douglas co., about 10 m. W. of Lawrence.

New Ha'ven, in *Kentucky*, a post-village of Nelson co., about 54 m. S.W. of Frankfort.

New Ha'ven, in *Michigan*, a township of Gratiot co. —A township of Shiawassee co.

New Ha'ven, in *Minnesota*, a township of Olmsted co., 11 m. N.W. of Rochester.

New Ha'ven, in *Missouri*, a post-village of Franklin co., 70 m. W. of St. Louis.

New Ha'ven, in *New York*, a post-village and township of Oswego co.

New Ha'ven, in *Ohio*, a village of Hamilton co., about 17 m. N. W. of Cincinnati.

—A post-village and township of Huron co., about 53 m. N. by E. of Columbus.

New Ha'ven, in *Pennsylvania*, a post-borough of Fayette co., about 44 m. S.E. of Pittsburg.

New Ha'ven, in *Vermont*, a post-village and township of Addison co., about 32 m. S.W. by W. of Montpelier.

New Ha'ven Mills, in *Vermont*, a post-village of Addison county, about 40 miles S.W. by W. of Montpelier.

New Heb'rides. See HEBRIDES.

New Heb'ron, in *Illinois*, a p.-village of Crawford co.

New Hol'land. See AUSTRALIA.

New Hol'land, in *Indiana*, a post-village of Wabash co., about 38 m. S.W. of Fort Wayne.

New Hol'land, in *Pennsylvania*, a post-village of Lancaster co., about 49 m. E. by S. of of Harrisburg.

New Hol'stein, in *Wisconsin*, a post-village and township of Calumet co.

New Hope, a village of Waterloo co., province of Ontario, about 9 m. N.W. of Galt.

New Hope, in *Iowa*, a prosperous township of Union county.

New Hope, in *Missouri*, a post-village of Lincoln co., abt. 55 m. N.W. of St. Louis.

New Hope, in *Ohio*, a post-village of Brown co., abt. 7 m. N. of Georgetown.

New Hope, in *Pennsylvania*, a post-borough of Bucks co., abt. 32 m. N.N.E. of Philadelphia.

New Hope, in *Virginia*, a post-village of Augusta co., abt. 114 m. N.W. of Richmond.

New Hope, in *Wisconsin*, a post-township of Portage co.

New Hope River, in *N. Carolina*, rises in Orange co., and enters the Cape Fear River in Chatham co.

New Hor'ton, a seaport of Albert co., New Brunswick, abt. 85 m. N.E. of St. John.

New Hud'son, in *New York*, a post-township of Allegheny co.

New Hur'ley, in *New York*, a post-village of Ulster co., abt. 10 m. N.W. of Newburgh.

New Ibe'ria, in *Louisiana*, a post-town, cap. of Iberia parish. *Pop.* (1897) 4,100.

New Id'ria Mines, in *California*, a village of Fresno co., about 75 m. W.S.W. of Millerton.

New'ington, in *Conn.*, a post-town of Hartford co.

New'ington, in *N. H.*, a post-town of Rockingham co.

New Ips'wich, in *New Hampshire*, a post-village and township of Hillsborough co., abt. 40 m. S.W. by S. of Concord.

New Ireland, a long, narrow island in the So. Pacific Ocean, N.E. of New Britain. *Length*, averages 200 m.; *breadth*, 20 m.; *area*, abt. 4300 sq. m.; *Sur.*, hilly. *Pop.* abt. 11,000.

New'ish, *a.* Somewhat new; nearly new.

New Jas'per, in *Ohio*, a p. v. and twp. of Greene co.

New Jefferson, in *Iowa*. See JEFFERSON.

New Jefferson, in *Ohio*, a village of Harrison co., abt. 11 m. N.N.E. of Cadiz.

New Jer'sey, a N.E. State of the American Union, is bounded on the N. by New York State, E. by the Atlantic, S. and S.W. by Delaware Bay, and W. by Pennsylvania; extreme length, N. to S., 167 m.; maximum breadth, 58 m.; average breadth, abt. 40 m. It lies between Lat. 38° 44′ and 41° 20′ N., and Lon. 74° and 75° 20′ W. *Area*, 7,576 sq. m., or 4,849,069 acres. *Coast-line*, 120 m.—or, including bays, 540 m.—*Gen. Desc.* *N. J.* occupies a portion of the great Atlantic slope of the U. States, and partakes to some extent of the physical characteristics which belong to the whole region. The Appalachian chain, with its broad belt or series of ridges, laps over with the N. and N.W. of the State, and gives to it form and character. The belt of red sandstone, with its trap ridges, which is so prominent a feature in all the States from Massachusetts to South Carolina, gives character to the central section, while the comparatively level border, with its sandy soil and forests of pine, which fringes the Atlantic seaboard from New York to Florida, covers all the lower half of the State. The offsets of the Appalachian range in *N. J.* may be grouped in two main ranges — the Blue or Kittatinny Mountains, and the Highland Range. The former, known in New York State as the Shawangunk, and in Pennsylvania as the Kittatinny Mountains, forms an almost unbroken ridge from the New York State-line to the Delaware Water Gap, a distance of 40 miles. It is the highest ground in the State, being at the Water Gap 1,497 ft. above sea-level, (Fig. 788.) This mountain-range is a remarkable feature of the landscape as seen from the Kittatinny Valley or from the Highland Range beyond. Its almost level crest is everywhere covered with forest; its steep slope brings the trees, fields, and houses on its sides in view as plain as a picture; and the contrast between the wooded crown and upper slope, and the smooth fields of the lower slope, forms a *coup d'œil* of attractiveness. Towards the N.W the Kittatinny slopes off very gently, and rises again to lower but still considerable elevations in one or several parallel but subordinate ranges. Nearly the entire surface of these is rocky and wooded, though the underlying rock, being a red sandstone or shale, is subject to disintegration, and in some places is covered with tillable soil. Unlike the Kittatinny Mountains, the Highland Range is composed of a great number of hilly ridges; and while it occupies a belt of country 22 miles wide on the New York State line, and 10 miles wide on the Delaware, it really includes no long, unbroken

Fig. 1941.—SEAL OF THE STATE.

NEW JERSEY

SCALE OF MILES
0 5 10 15 20

KILOMETERS
0 5 10 20 30

Hammond's 8 X 11 Map of New Jersey
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Longitude West from Greenwich

NEW JERSEY.

Land surface, Sq. m. 7,525
Water surface, Sq. m. 290
Pop. 1900..1,883,669
White. 1,812,317
African....69,844
Indian.....63
Chinese 1,393
Japanese.....52
Native-born, 1,451,785
Foreign-born, 431,884
Males.....941,760
Females..941,909

COUNTIES.

Atlantic.....C 5
Bergen .....D 2
Burlington....C 4
Camden .....C 4
Cape May.....C 5
Cumberland..B 5
Essex.... .....D 2
Gloucester....B 4
Hudson... ...D 2
Hunterdon....C 2
Mercer..... C 3
Middlesex.....D 3
Monmouth....D 3
Morris.... ....C 2
Ocean..... D 4
Passaic.....D 4
Salem..... B 4
Somerset.....C 2
Sussex.....C 1
Union..... D 2
Warren.....C 2

CITIES-TOWNS

Pop. Thousands.	
246	Newark .. D 2
206	Jersey City D 2
105	Patersou..D 2
75	Camden....B 4
73	Trenton....C 3
59	Hoboken...D 2
52	Elizabeth..D 2
32	Bayonne...D 2
27	Atlantic City D 5
27	Passaic.... D 2
24	Orange.....D 2
21	E. Orange..D 2
20	NewBrunswick D 3
17	Perth Amboy D 3
15	Plainfield..D 2
13	Montclair..D 2
13	Bridgeton..B 5
11	Morristown D 2
10	Harrison...D 2
10	Millville....B 5
10	PhillipsburgB 2
9	Bloomfield..D 2
9	Hackensack D 2
8	Long BranchE 3
7	Rahway ....D 2
7	Burlington..C 3
6	Gloucester ..B 4
6	South AmboyD3
6	Englewood..E 2
5	Dover..... D 2
5	Salem ..... B 4
5	Red Bank...D 3
5	Summit .... D 2
5	North Plainfield C 2
4	Somervlle..C 2
4	LambertvilleC 3
4	S. Orange...D 2
4	Mt. Holly....C 3
4	Rutherford..D 2
4	Newton.....C 1
4	Vlneland....B 5
4	Asbury ParkD 3
4	Bordentown C 3
4	Woodbury...B 4
3	Boonton.....D 2
3	Princeton ...C 2
3	Madison .... D 2
3	Washington C 2
3	Garfield.....D 2
3	Keyport.....D 3
3	Raritan.....C 2
2	Freehold....D 3
2	South River D 3
2	Ridgewood..D 2
2	East Rutherford D 2
2	Carlstadt....D 2
2	Ocean Grove D 3
2	Harrison....D 2
2	Hackettstown C 2
2	Cape May ...C 6
2	Pleasantville C 5
2	Flemingtou C 3
2	Hawthorne..D 2
2	Port Oram.. C 2
1	Glen Ridge..D 2
1	Clayton ..... B 4
1	Beverly.....C 3
1	Lodi.....D 2
1	Pennsgrove...B 4
1	Egg Harbor City C 5
1	Metuchen....D 2
1	Belvidere... B 2
1	Hightstowu C 3
1	Tenafly.....E 2
1	Roselle .... D 2
1	CollingswoodB4
1	Secaucus... D 2
1	Merchantville B 4
1	Matawan....D 3
1	Manasquan..D 3
1	Rockaway.. C 2
1	Atlantic Highlands D 3
1	High Bridge C 2
1	Woodstown B 4
1	Caldwell ....D 2
1	Chatham....D 2
1	Midland Park D 2
1	Riverton ....B 3
1	Ocean City.. C 5
1	Frenchtown B 2
1	Hasbrouck Heights D 2
1	Little Ferry D 2
1	Dunellen....D 2
1	Highlands...D 3
1	Seabright....E 3
1	Elmer.....B 4
1	Jamesburg..D 3
1	Fairview.....E 2

Pop. Hundreds.	
9	Junction.....C 2
9	Bradley Beach D 3
9	Hopewell .. C 3
9	Cliffside ....D 2
9	Netcong.....C 2
9	Belmar.....D 3
8	South Boundbrook C 2
8	Park Ridge..E 2
8	Pompton Lakes D 1
8	Westwood.. D 2
8	Clinton .....C 2
8	Leonia.....E 2
7	Pemberton..C 4
7	Fremont ....E 6
7	Point Pleasant Beach D 3
7	Pennington..C 2
7	Bergenfields E 2
6	West Cape May C 6
6	Allentown...C 3
6	Allendale .. D 1
6	Palisades Park E 2
6	Dumont.....E 2
5	Stockton ....C 3
5	Ridgefield...E 2
5	Holly Beach C 6
5	New Providence D 2
5	Totowa ..... D 2
5	Milltown.....D 3
5	Maywood... D 2
5	Absecon ... D 5
5	Spring Lake D 3
5	Branchville..C 1
4	Wenonah....B 4
4	Cresskill... .E 2
4	Fieldsboro...C 3
4	Helmetta... D 3
4	Montvale....D 1
4	Saddle River D 1
4	EnglishtownD 3
4	Linden..... D 2
3	Fanwood... D 2
3	Bogota .....D 2
3	Woodcliff...D 1
3	Somers PointC5
2	Arlington...D 2
2	Chesilhurst C 4
2	Mt. Arliugton C 2
2	Bayhead.....D 3
2	Beach Haven D 4
2	Englewood Cliffs E 2
2	Millstone.... C 3
1	Allenhurst. E 3
1	Brigantine..D 5
1	Seaside ParkD 4
1	Deal ..... E 3
1	Harvey Cedars D 4
1	Lavallette .. D 4
1	Surf City.... D 4

ridges, except the Green Pond; and the subordinate ridges by which it is configured are not really in line with each other, nor are their axes parallel to the direction of the main range, but are somewhat obliqne to it, so that if the directlou of the range is N.E., that of these ridges would be about N.N.E. The effect of this peculisr arrangement is to make it possible to cross from one side of the range to the other in a N.N.E. direction, without surmounting any considerable elevation, while it is lmpossible to cross it from S.E. to N.W. without risiug over a succession of steep and high mountain ridges. The Sparta, the Ringwood, the Rockaway, and many other valleys, owe tbeir forui and direction to this remarkable feature of these ridges. The crests of the other mountain groups in the Stste, too numerons to enumerate, vary greatly in their surfaces, though all are much smoother and more rounded in outline than the Kittatinny Mountain or the trap ridges of the red sandstone. Many of them are covered so deeply with earth or decayed rock that they are susceptible of cultivation to their summits even, while others are covered with stony debris or hare rock, and can be only left ln wood. There is one striking feature observable in the greater number of these elevntions, and that is the very gentle slope with which they subside towards the N.E., and are lost; whilc nt their S.W. extremities they present a very abrupt fall. The mineral wealth of this mountain region early attracted the attention of settlers, and the working of iron-mines was begun about the year 1700, butthe hills, bad roads, and more or less stony surface, joined to the quicker returns of mining, have discouraged agriculture. There are, however, large districts in which the rocks disintegrated rapidly, and which now exhibit a rich and productive soil. The mountains near the Delaware, along the New Jersey Central Railroad, a large tract between Morristown and Dover. and the country ahout Mcndbam and Chester, are of this character. These localities are making a good name for themselves, and gradually becoming occupied and improved in sheep-husbandry, dairy-farming, or in arable culture. The red-sandstone region of the State is traversed by various and irregularly distributed ridges of trap-rock. These rough, rocky, and arboraceous ridges are remarkable from their occurrence in the midst of a rich, highly cultivated. and productive agricultural territory. The principal of these elevations are Sonrland, Round Valley, and Palisade Mountains, Rocky and Bergen Hills, &c. They are rough in configuration, very steep in their descent toward the S.E., and easy in their slope toward the N.W. High Point, in Passaic co., ls a high summit of the trap series, being 868 feet above tide-water level. The S. division of the State is characterized by the absence of any rocky eminences, or any elevations worthy the name of mountains. Its circular hills are all earthy, and are results of denudation or erosion. The Navesink Highlands, on which the Navesink light-honses are located, aud which are the first points of land sighted when entering New York harbor from sea, are about 400 feet high, and exhibit the highest altitude found in this portion of *N. J.* The Delaware Valley, striking both sides of the Delaware River in its course from Carpenter's Point to tbe Water Gap, a distance of ahout 40 miles, runs nearly parallel to the base of Kittatinny Mountain. This valley, from half a mile to three miles in width, contalns limestone and much good land, affording abundant crops to its owners, and presents a variety of picturesque scenery. The belt of country lying between the Kittatinny and Highland ranges is known as the *Kittatinny Valley.* It is a part of that great Appalachian basin of the U. States which extends from Canada to Tennessee, and which is everywhere known for its fine scenery and agricultural wealth. In *N. J.*, it has a length of 39 m., with an average width of 10 m. Its surface is variegated in the direction of its length by short eminences of slate and limestone. These ridges are of slight elevation, covered with soil, and present throughout the summer the richest verdure. Between the subordinate ranges of the Highlands, valleys of various extent are found, adding beauty to the scenery and importance to husbandry. Of such are the valleys of the Request, the Pohatcong, and the Musconetcong, which open to the Delaware. So, too, are the valleys of Sparta and Vernon, which debouch on the Kittatinny Valley in New York State. German Valley, on the S. Fork of the Rapidan, is almost enclosed by mountains. Succasunny Plains, at the head-waters of the same river, lie between the hills at an altitude of 755 feet above high-water mark. Toward the N.E., tbey open into Berkshire and Longwood valleys. Some of the vales of the Rockaway and its feeders, which nestle among rugged and wooded hills, are perfectly charming in their picturesqueness. The Valley of the Passaic, which is almost enclosed by the Highlands on the one side, and by the trap ridges of the First, Second, and Third mountains on the other sides, is on the S E. edge from 160 to 180 ft. above tide-level, while along its N.W. horder and along the Morris Plains it rises to 400 feet. The fine valley extending from the N. Y. line almost to the Raritan, and having the First Mountain on the N.W., and the Palisades and Bergen Hill on the S.E., is another feature of the red-sandstone plain. Some portions of its surface attain the height of from 150 to 200 feet, as at Orange, and Scotch Plains, while the tide flows for a long distance across it in the Hackensack and Passaic. The S.E. selvage of this plain is the least elevated of any land in the centre line of the State. The Delaware and Raritan Canal crosses the State here without any deep cuttings, and with a summit level only 57 ft. above mean tides. The S. half of the State is low, level, sandy, and in many parts barren. It may he described as a great plain, which slopes gently from its centre towards the Atlantic Ocean and the Delawsre, and which has been eroded in the Drift Perlod, so as to leave bossy hillocks of a few feet in height, and also heen furrowed by the streams which give it drainage. A great part of the E. shore is fringed with a chain of low islands, similar to those on the coasts of the more S. maritime States, but with more numerous, larger, and decper inlets betwcen them. Great and Little Egg Harbors, Barnegat, Delaware, Newark, and Sandy Hook bays, Shark Inlet, and the united bays of Navesink and Shrewsbury, afford shelter to vessels of considerable hurden. The tide-marshes form a noticeable feature of tbe country bordering the oceau, and the tidal waters of *N. J.* They are usually grassed and sodded, and their upper surface is near high-water level. They are usually of soft mud underlyiug the sod, and frequently so boggy that horses or cattle cannot pass over tbem. This substratum of mud varies from 6 inches to 30 ft. iu depth, and is underlaid, in its turn, by firm, gravelly, or sandy soil. These marshes are capable of reclamation, and it is stated that of the 295,474 acres which form thelr area, a considerable percentage have been brought into an improved and cultivable condition, and are utilizable as land. This process of reclamation is still pursued with encouraging rcsults.—*Rivers, &c.* The principal rivers of the State are the Delaware, scparating it from Pennsylvania, and receiving quite a number of affluents; and the Passaic, Hackeusack, Raritan, Rahway, Navesink, Shrewsbury, Touis, aud Little and Great Egg Harbor rivers, all euptying into the Atlantic. The water-sheds of the State may be thus classified: the Atlantic receives tbe drainage of au area of 4,546 sq. m.; the Delaware River and Bay, of 2,850 sq. m., and the Hudson River, of 180 sq. m. In the N.W. part of the State there are several small but pleasantly situated lakes. — *Clim.* The climatic differenco betweeu the N. and S. parts of the State is very striking. The plain country of the S. is warmer than might have been expected from tlie Lat., the temperature approximating to that of E. Virginia, and admitting of the partial culture of cotton; while the winter in tbe N. assimilates in severity to that of the N. States. The melons, sweet-potatoes, and other semi-tropical products, which are raised in perfection in the S. and middle cos., and are scarcely attempted in the extreme N. ones, owe their excelleuce to a mean summer temperature not more than 3 or 4 degrees higher than is observed in the N. part of the State. Fevers and agne prevail in the neighborhood of the marshes; but upon the seaboard, and in the hilly regions, tbe climate is in the highest degree healthful and invigorating.—*Geol. and Min.* The State is separated into 5 distinct geological divisions, each of which is clearly defined hy its peculiar formations, mineral products, and soils. These represeut the azoic; palezoic; triassic, or red sandstone; cretaceons; and tertiary and recent formations. Of the azoic, the Highland range of mountains forms the extent, and with the palezoic, includes the iron-ore and limestone districts. Tbe triassic formation occupies the belt of conntry which crosses tbe State from N.E. to S.W., adjoining the Highlaud Range on the S.E., and comprises the red sandstone and trap-rocks. The cretaccous is found immediately S.E. of the red sandstone, iu a long and narrow strip reaching from Raritan and Sandy Hook bays to the head of Delaware Bay, near Salem. In this formation is included tbe green sand marl-beds. Lastly, come the tertiary and recent formations, which are almost entirely limited to the S. part of the State, covering Atlantic, Cumberland, and Cape May cos., and the greater part of Ocean co. The superficial character of this region is that of a sandy plain covered with forests of pitch-pine and oak, and cedar swamps. Extensive deposits of bog-iron ores are found here. Calcareous marls of the miocene period are fonnd in the W. part of Cumberland co., and from the N. outcrop of this formation, which further extends S. and furnishes immense quantities of shclly debris for manure. In tbe same county, a plentiful supply of suitable sand is extensively made available in the glass manufacture carried on at Millville and other places. Tbe cretaceous formation, known as the *green-sand* or *marl dist.*, forms the upper secondary gronp of alternating sands and clays, in which, setting aside a few instances of a brown sandstone, and of a yellowish limestone (inclosing shelly and coralline remains), the mineral beds wholly consist of loose, unconsolidated materials. Nnmerous deposits of green sand are dispersed througbout this dist., and contribute much to its fertility; and it contains some of the best farming lands in the State. In this district, too, are fonnd extensive beds of plastic clay, largely worked near Amboy, aud at other localities for the making of fire-brick. The great belt of metamorphic rocks of the triassic formation extends from Trenton toward the outcrop of the margin on the N. side of Staten Island, and along New York Island; on the other hand, the same group stretches out toward the Pennsylvania frontier. From the N.W. of the State to the border of the green-sand formation, the metamorphic group is overlaid and hidden by the red sandstone of the middle secondary. The strata of argillaceous red sandstone forming the hase of this formation dip smoothly toward the N., and describe a hasin of 20 m. wide, extending from the Hudson River near the Highlands S.W. through the middle Atlantic States. This is the territory of the red rocks and red sandy soil of the State, whose surface presents a series of moderate undulations, checkered by numerous abrnpt and rugged eminences, and long, narrow ridges, with very steep and rocky declivities composed of greenstone trap. The longest of these ridges fringes the W. bank of the Hudson River, and forms the Palisades (*q. v.*), finally terminating to the hack of Jersey City in New York Bay. The *N. J.* copper ores occur uear the line of demarcation of the sandstone with these greenstone ridges. The metamorphic group occnpies the Highlsnds, developing gneissic rocks from the Ramapo to Pochuck Mountain, where the lower silurian limestone crops out in the valleys stretching S.W. between the parallel ridges of gneiss and metamorphic slates. Toward the S. and W. the limestones run in continuous parallels with the valleys across this section of the State. In this region occur valuable and extensive beds of magnetic and specular iron ores, which yield abundant supplies of raw material to the great iron-manufacturing concerns of the State. In the limestone at Franklin, near its point of association with the gneiss, beds of red oxide of zinc, in combination with franklinite, are met with. This tract is on the W. boundary of the metalliferous region, or, in other words, may be defined by a line reaching from Pochuck Mountain to Belvidere on the Delaware. Lastly succeed the formations pertaining to the lower section of the Appalachian system of rocks. The lower silurian limestones make gradual way to a belt of the Hudson River slates, extending as far W. as the Delaware Water Gap, to the foot of a high ridge of coarse white sandstone, the course of the Shawanjunk Mountain and of its charncteristic grit rock advancing in a ridge, almost without a break, from near Rondout on the Hudson across the N.W. selvage of the State into Penna. (We must, in this place, express our acknowledgments for the valuable information afforded us hy the magnificent work on the *Geology of New Jersey*, compiled by Geo. H. Cook, Esq., State Geologist, by authority of the Legislature.)—*Soil, Veg., and Agric.* Sections of the soil of the great plain of the S. and central divisions of the State are not normally fertile: but since the application of marls and other fertilizing substances thereto, the soil has been rendered very productive. In some tracts, however, as those near the seaboard, the soil is of a white, sandy nature, and is not susceptible of any high degree of melioration; nevertheless, even on the coast some arable lands are met with, such as the beaches at Deal and Long Branch, which may be said to be the sole fertile patches immediately on the Atlan tic from the extreme N.E. to the S. limit of the U. States coast-line. The N. portion of the State is admirably suited to agriculture and grazing. Excellent pasturelands are also found among the mountain valleys, while the alluvial bottoms are preëminently productive. The central division of *N. J.* is the most thoroughly developed region of the State, and may be described as an immense market-garden, whose produce supplies, in great part, the demands of the cities of Philadelphia and New York. The apples and cider of this part of the country have deservedly won a high reputation, as also have the peaches and other semi-tropical fruits and vegetables of the more S. districts. The vegetation is not characterized hy any distinctive features, it corresponding with that of the Middle States generally. The oak, hickory, and other forest timber grow to a sizable extent in the N. part, while the S. contributes valuable pine and cedar woods, together with an abundant yield of stunted oak, which derives importance as an article of fuel. Maize, wheat, and the other cereals (excepting a limited product of barley), with the usual hardier fruits and vegetables, are raised in ample quantities; dairy-produce, beeswax, and honey are in good supply; and there is also a tolerably fair product of wine, tobacco, silk, hops, and maple-sugar. The smaller kind of fruits, comprising the principal varieties of berries, form quite a considerable quota of the pomological returns of the State. It is estimated that more than half of all the cranberries produced in the United States are grown in *N. J.* Some 20,000 acres, a large proportion of it being wild or uncultivated land, are devoted to the culture of this fruit, yielding an annual crop of between 100,000 and 200,000 bushels. In addition to the small fruits and market vegetables, the vine is largely cultivated, particularly at Vineland and Egg Harbor, where a large quantity of excellent wine is produced. To the leading cereals about 500,000 acres are devoted, with a yield in 1895 of 9,233,034 bushels of corn, 1,340,924 of wheat, and 3,818,416 of oats. There is also a considerable yield of rye, barley, and buckwheat. But of the cultivable acreage in the central and southern districts the chief portion is devoted to the growth of market vegetables, fruits, and berries.—*Curiosities and Summer Resorts. N. J.* offers numerous attractions to travellers, among which are the Falls of the Passaic, at Paterson; the passage of the Delaware through the Blue Mountains, called the "Delaware Water Gap;" the well-known bathing places of Cape May, Long Branch, Deal, Squan Beach, Atlantic City, Beach Haven, &c.; Schooley's Mountain, in Morris co., with a mineral spring on its summit; Lake Hopatcong, Greenwood and Budd's lakes, and other points in the northern highlands. In addition to the older summer resorts along the Atlantic coast, there have more recently been added Asbury Park, Ocean Grove, and others, all of them having rapid railroad communication with New York and Philadelphia.—*Pol. Div.* The State consists of 21 counties, viz.:

Atlantic,	Essex,	Middlesex,	Salem,
Bergen,	Gloucester,	Monmouth,	Somerset,
Burlington,	Hudson,	Morris,	Sussex,
Camden,	Hunterdon,	Ocean,	Union,
Cape May,	Mercer,	Passaic,	Warren.
Cumberland,			

Chief Cities and Towns. The principal centers of population in *N. J.* are Trenton (cap. of State), Newark, Jersey City, Camden, Paterson, Elizabeth, Orange, New Brunswick, Burlington, Rahway, Bridgeton, Gloucester, Ho-

boken, Harrison, Salem, Passaic, Princeton, Phillipsburg, Perth Amboy, Vineland, &c.—*Government, &c.* The Constitution dates from Sept. 2, 1844, and is almost identical with the one framed in 1776. It was amended in 1875. The governor is chosen, by a plurality vote of the people, for 3 years. The general election is held on the first Tuesday in November. The Sec. of State is appointed by the governor with the advice and consent of the Senate. His term of office is 5 years. The treasurer is elected by the legislature on joint ballot, and until his successor is qualified; and the State librarian is appointed for 3 years. The adjutant and quartermaster-general are chosen by the governor. Senators, 21 in number in 1897, are elected every three years, one-third every year. Delegates to the Assembly of Representatives, 60 in number in 1897, are elected annually. The pay of a member of either branch of the legislature is $3 per diem for the first 40 days, and $1.50 per day afterwards. The presiding officers receive $4, and $2 per diem correspondingly. The legislature meets annually at Trenton every second Tuesday in Jan. The judiciary is vested in a supreme court, a court of chancery held at Trenton, circuit courts, and courts of oyer and terminer, held in most of the counties quarterly; and inferior courts of common pleas, which, with courts of quarter-sessions of the peace, are held in the different counties by unsalaried judges appointed by the legislature. The elective franchise is applicable to every male citizen of the U. States, who has been a resident in the State 1 year, and in the county 5 months next preceding the election. The apportionment based on the census of 1890, gives to *N. J.* 8 representatives in the National Congress and 10 electoral votes.—*Finances and State Institutions.* The debt of the State, largely contracted during the war for the support of the families of volunteers, &c., was reduced by 1890 to a net total of $1,022,642. The county debt aggregated $3,728,130, and that of municipalities $42,990,338. The assessed valuation of real and personal property was $893,859,866, being an increase of nearly $2,000,000 within the decade, and constituting a per capita valuation of $618.62. Upon the total valuation of the State there is levied a general tax of one and a half mills and a school tax of two mills per dollar. Railroad corporations are taxed one quarter of one per cent. on the value of their roads, equipments, &c. The annual taxes amount to about $3,000,000. The value of farm lands comprising about 2,000,000 acres, amounts to about $160,000,000, and that of farm products and live stock to $45,000,000. Of the public institutions may be named, in addition to a number of county asylums, two large State lunatic asylums near Trenton and Morristown, of which the latter is regarded as a model. There is also an institution for the deaf and dumb, an industrial school for girls, and a State prison, at or near Trenton; a reform school for boys near Jamesburg; and a home for disabled soldiers at Newark.—*Education.* A well-organized public school system is in successful operation, for whose support the State tax yields nearly $2,000,000 annually. There are about 1,400 school districts, with about 250,000 enrolled pupils. There is a State Normal School at Trenton, with several hundred pupils, and a preparatory school at Beverly. Rutger's College, at New Brunswick, has connected with it the State agricultural and scientific school. The leading educational institution of the State, the College of New Jersey, founded in 1746, at Princeton, and now known as Princeton University, ranks high among the institutions of this country for the higher education. *N. J.* is unusually well provided with railroads, only Massachusetts and Connecticut having a greater length in proportion to territory. The communication with the seaside watering places is abundant and unusually rapid, some of the trains making a greater speed than 60 miles an hour.—*Com. and Manuf.* The manufacturing interests are large and varied. Newark occupies a high rank among the cities of the Union in the value of its manufactured products, and Jersey City, Paterson, Trenton, and some other places are important centers of production. The silk mills of Paterson, the iron works in the counties of Morris, Sussex and Warren, the steel, zinc, and black lead works of Jersey City, the potteries of Trenton, and the glassworks of Glassboro and Millville are all noted for the excellence of their productions. Other articles of manufacture include locomotives, machinery, leather, refined sugar, &c. The chief ports of the State are Newark and Perth Amboy, which are mostly interested in coastwise traffic only. Jersey City possessing a large and direct foreign trade, is included within the collection district of New York, while the commerce of the more S. part of the State is generally transacted through Philadelphia.—*Hist.* The earliest settlement of *N. J.* was made by the Dutch in 1612. Many Swedes and Danes afterwards settled in it, but the Hollanders continued to maintain possession until finally ousted by the English in 1664. In 1682, it came under the jurisdiction of Wm. Penn and his co-partners in the Commonwealth of Pennsylvania. The last governor for the English Crown was Wm. Franklin, the natural son of Benjamin Franklin. The province adopted a State Constitution in 1776, and throughout the Revolutionary War it was frequently the scene of stirring events. On its soil were fought the battles of Trenton, Princeton, Millstone, Red Bank, and Monmouth. The first legislature was convened at Princeton, in August, 1776, and the Federal Constitution was adopted by a unanimous vote, Dec. 18, 1787. The State capital was definitely located at Trenton in 1790. During the Civil War, *N. J.* sent 37 regiments of infantry, 5 of cavalry, and 3 batteries of artillery. *Pop.* (1900) 1,883,669.

New Jeru'salem Church. (*Eccl. Hist.*) See SWEDENBORGIANS.

New Kent, in *Virginia*, an E.S.E. co.; *area*, abt. 190 sq. m. *Rivers.* Pamunkey and Chickahominy rivers. *Surface*, undulating or hilly; *soil*, moderately fertile. *Cap.* New Kent Court-House.

New Kent Court'-House, in *Virginia*, a post-village, cap. of New Kent co., abt. 30 m. E. of Richmond.

Newkirk'ite, *n.* (*Min.*) Same as MANGANITE, *q. v.*

New Lan'caster, in *Indiana*, a post-village of Tipton co., abt. 10 m. S.E. of Tipton.

New Leb'anon, in *Illinois*, a post-village of De Kalb co., abt. 60 m. W.N.W. of Chicago.

New Leb'anon, in *Indiana*, a post-village of Sullivan co., abt. 110 m. S.W. of Indianapolis.

New Leb'anon, in *N. Carolina*, a village of Camden co., abt. 155 m. N.E. by E. of Raleigh.

New Leb'anon, in *New York*, a post-village and township of Columbia co., abt. 27 m. S. E. of Albany. The village is occupied by a society of Shakers, who possess the land in common, and who make brooms, baskets, &c., and deal largely in garden seed.

New Leb'anon, in *Ohio*, a post-village of Montgomery co., abt. 12 m. W. of Dayton.

New Leb'anon Springs, in *New York*, a post-village of Columbia co., abt 25 m. S.E. of Albany.

New Len'ox, in *Illinois*, a post-township and post-village of Will co., on the C. R. I. and P. R. R.

New Le'on, a State of Mexico. See NUEVO LEON.

New Lex'ington, in *Alabama*, a post-village of Tuscaloosa co., abt. 130 m. N.W. of Montgomery.

New Lex'ington, in *Iowa*, a village of Van Buren co., abt. 80 m. S. by W. of Iowa City.

New Lex'ington, in *Ohio*, a village of Highland co., abt. 60 m. E.N.E. of Cincinnati.

—A post-village, cap. of Perry co., about 21 m. S.S.W. of Zanesville.

New Lib'erty, in *Kentucky*, a post-village of Owen co., abt. 32 m. N. of Frankfort.

New Limerick, in *Maine*, a township of Aroostook co.

New'lin, in *Pennsylvania*, a township of Chester county.

New Lis'bon, in *Indiana*, a post-town of Henry co., about 50 m. E. by N. of Indianapolis.

—A village of Randolph co., about 90 m. E.N.E. of Indianapolis.

New Lis'bon, in *New York*, a post-township of Otsego county.

New Lis'bon, now called LISBON, in *Ohio*, a post-village, cap. of Columbiana co., on 2 R. R. lines, 35 m. E. of Canton. Its post-office is LISBON. *Pop.* (1897) 2,340.

New Lis'bon, in *Wisconsin*, a city of Juneau co., 62 m. E. of La Crosse. *Pop.* (1895) 1,067.

New Liv'erpool, former cap. of Levis co., prov. of Quebec, on the St. Lawrence, about 7 m. S.W. of Quebec.

New Lon'don, a seaport of Queen's co., Prince Edward Island, on the W. side of the entrance to Greenville Bay; Lat. 64° 33′ N., Lon. 63° 32′ W.

New Lon'don, in *Connecticut*, an extreme S.E. co., adjoining Rhode Island on the E., and washed by Long Island Sound on the S.; *area*, abt. 650 sq. m. *Rivers.* Connecticut, Pancatuck, Shetucket, and Thames rivers. *Surface*, hilly, and in some parts mountainous; *soil*, moderately fertile, but rather adapted to grazing. *Caps.* New London and Norwich.

—A city, port of entry, and semi-capital of the above co., on the Thames River, 3 m. from its mouth, and abt. 50 miles E. of New Haven: Lat. 41° 22′ N., Lon. 72° 9′ W. Owing to the unevenness of the site, the city is for the most part irregularly laid out. It contains, however, many handsome public and private structures; and possessing, as it does, one of the finest harbors on the coast, it occupies a very prominent rank among the commercial cities of New England. The inhabitants were for years extensively engaged in the whale-fishery. *Manuf.* Glass, machinery, hardware, &c. The harbor is defended by forts Griswold and Trumbull. *N. L.* was settled in 1644. *Pop.* (1890) 14,250.

New Lon'don, in *Iowa*, a post-village and township of Henry co., about 19 m. W N.W. of Burlington.

New Lon'don, in *Maryland*, a post-village of Frederick co., abt. 8½ m. E. of Frederick City.

New Lon'don, in *Michigan*, a village of Sanilac co., abt. 11 m. N. of Lexington.

New Lon'don, in *Missouri*, a post-village, capital of Ralls co., abt. 98 m. N.N.E. of Jefferson City.

New Lon'don, in *New Hampshire*, a post-township of Merrimac co.

New Lon'don, in *New York*, a post-village of Oneida co., abt. 7 m. W. of Rome.

New Lon'don, or KINO'S CORNERS, in *Ohio*, a post-village and township of Huron co., about 47 m. S.W. of Cleveland.

New Lon'don, in *Pennsylvania*, a post-township of Chester co.

New Lon'don, in *Virginia*, a former post-village of Campbell co. Now ENFORD SPRINGS.

New Lon'don, in *Wisconsin*, a post-village of Waupaca co., 22 m. N.W. of Menasha.

New Lon'don Cross Roads, in *Pennsylvania*, a former post-village of Chester co.

New Lon'don Light-house, in *Connecticut*, is on the W. side of the entrance to Thames river. It exhibits a fixed light 80 feet above the sea; Lat. 41° 18′ 54″ N., Lon. 72° 5′ 48″ W.

New Lots, in *New York*, a former township of King's county.

Newly (*nu'ly*), *adv.* Lately; freshly; recently.

—With a new form, different from the former.

—In a manner not existing before.

New Lyme, in *Ohio*, a post-village and township of Ashtabula county, about 195 miles north-east of Columbus.

New Mad'ison, in *Indiana*, a post-village of Madison co., abt. 13 m. N. of Anderson.

New Madison, in *Ohio*, a post-village of Darke co., abt. 100 m. W. of Columbus.

New Madrid', in *Missouri*, a S.E. co., adjoining Kentucky and Tennessee; *area*, about 620 sq. m. *Rivers.* Mississippi and Whitewater rivers. In 1811 and 1812, this county suffered severely from earthquakes, during which nearly half of its area sunk several feet, and is now covered with water. *Surface*, generally level; *soil*, alluvium and very fertile, without rock of any description. *Cap.* New Madrid. *Pop.* (1890) 9,317.

—A city, cap. of the above co., on the Mississippi river, 40 m. S.W. of Cairo, Ill. *Pop.* (1897) 1,250.

Newman, JOHN HENRY, an English divine and polemical writer, b. in London, 1801, was educated at the University of Oxford, where, in 1822, he was elected Fellow of Oriel College, and subsequently became Vice-Principal of Alban Hall. In 1833 he assumed a leading position in what was then termed "the Oxford movement;" and, in conjunction with Messrs. Pusey, Keble, and others, commenced the publication of the *Oxford Tracts*, which so deeply affected the theological world, and in which an attempt was made to recede from the principles of the English Reformation, and to approach the doctrines of the Roman Catholic Church. The last and 90th number was written by Dr. *N.* himself; and after its publication, the Bishop of Oxford was called upon to put an end to the series. In 1845, Dr. *N.* entered the communion of the Roman Catholic Church, and, in 1852, became rector of the new university established by that religious body in Dublin. His letters, addressed to the Duke of Norfolk (1875), in reply to Gladstone's *Vatican Decrees*, have been extensively read. In 1879 he was made Cardinal. His younger brother, FRANCIS WILLIAM, has written extensively on theological matters; but his reputation rests chiefly on his works on philology, the most important of which is a *Grammar of the Berber Language.* Died 1890.

Newman's Mills, in *Penna.* See CANOE PLACE.

New'manstown, in *Pennsylvania*, a village of Lebanon co., abt. 37 m. E. of Harrisburg.

New Mar'ion, in *Indiana*, a post-village of Ripley co., abt. 75 m. S.S.E. of Indianapolis.

Newmar'ket, a town of England, partly in the co. of Cambridge, and partly in co. of Suffolk, 13 m. E.N.E. of Cambridge. It is principally noted for its horse-races. The course is upwards of 4 m. in length, and belongs to the Jockey Club. *Pop.* 4,000.

New Market, a village of York co., prov. of Ontario, abt. 30 m. N.N.W. of Toronto.

New Market, in *Alabama*, a post-village of Madison co., abt. 200 m. N. of Montgomery.

New Market, formerly GULLETTSVILLE, in *Georgia*, a post-village of Monroe co., abt. 35 m. N.W. of Macon.

New Market, in *Indiana*, a village of Clarke co., abt. 23 m. S.S.W. of Madison.

New Market, in *Indiana*, a village of Harrison co., abt. 35 m. S.W. of Louisville, Kentucky. — A village of Vigo co., abt. 80 m. W.S.W. of Indianapolis.

New Market, in *Iowa*, a village of Van Buren co., abt. 70 m. S W. by S. of Iowa city.

New Market, in *Kentucky*, a post-village of Marion co., abt. 68 m. S. by W. of Frankfort.

New Market, in *Maryland*, a village of Baltimore co., abt. 30 m. N. of Baltimore. — A post-village of Frederick co., abt. 10 m. E. by S. of Frederick

New Market, in *Minnesota*, a township and post-village of Scott co., 8 m. S.W. of Fairfield station.

New Market, in *Missouri*, a post-village of Platt co., abt. 210 m. W.N.W. of Jefferson city.

New Market, in *N. Carolina*, a post-village of Randolph co., abt. 80 m. W. of Raleigh.

New Market, in *New Hampshire*, a post-township of Rockingham co.

New Market, or SNYDERTOWN, in *New Jersey*, a village of Hunterden co., abt. 9 m. S. by E. of Flemington.

New Market, in *New Jersey*, a post-village of Middlesex co., abt. 9 m. E. of Summerville.

New Market, in *Ohio*, a post-village and township of Highland co., abt. 68 m. South south-west of Columbus.

New, Market, in *Tennessee*, a post-village of Jefferson co., 26 m. E.N.E. of Knoxville.

New Market, in *Virginia*, a village of Nelson co., abt. 108 m. W. of Richmond, and the centre of more than one engagement during the rebellion.—A post-village of Shenandoah co., abt. 150 m. N.W. of Richmond.

New Marl'borough, in *Massachusetts*, a post-township of Berkshire co.

New Mar'tinsburg, in *Ohio*, a post-village of Fayette co., abt. 50 m. S.W. of Columbus.

New Mar'tinsville, in *West Virginia*, a post-town of Wetzel co., about 40 m. S. by W. of Wheeling.

New Mays'ville, in *Indiana*, a post-village of Putnam co., about 14 m. N.E. of Greencastle.

New Mex'ico, a territory of the United States, formerly constituting a portion of the Mexican Republic, and ceded to the United States in 1848, by the treaty of Guadalupe Hidalgo, lies immediately S. of Colorado, and is bounded on the E. by the State of Texas, on the S. by Texas and Mexico, and on the W. by the Territory of Arizona. Length, about 360 m., breadth, about 400 m. *Area*, 122,580 sq. m., or 78,617,600 acres.—*Gen. Desc.* A large portion of this extensive region consists of high table-lands intersected by many mountain ranges, and here and there dotted with isolated peaks. The general direction of the mountain system is N. and S. Between the ranges are many broad and fertile valleys; the prin-

John Henry Newman

1801–1890

NEW MEXICO

SCALE OF MILES

10 0 10 20 30 10 50 60

Territorial Capital ✱ County Seats ○

Military Reservation Boundaries

Indian " "

Forest " "

Places of 5,000 and over SANTA FE

" " 2,000 to 5,000 Gallup

" " 1,000 to 2,000 Mora

" " 500 to 1,000 Gibson

Hammond's 8 x 11 Map of New Mexico
Copyright, 1904, by C. S. Hammond & Co., N.Y.

Longitude West from Greenwich

NEW MEXICO.

Land surface,
Sq. m. 122,460
Water surface,
Sq. m. 120
Pop. 1900...195,310
White..., 180,207
African 1,610
Indian 13,144
Chinese.....341
Japanese 8
Native-born,
181,685
Foreign-born,
13,625
Males 104,228
Females.. 91,082

COUNTIES.

Bernalillo.....C
Chaves.....E 5
Colfax.....E 2
Donna Ana....B 6
Eddy..... ..E 6
Grant.....A 6
Leonard Wood D 4
Lincoln.....D 5
Luna.....B 6
McKinley.....A 3
Mora..... D 2
Otero.....C 6
Quay.....F 4
Rio Arriba....B 3
Roosevelt.....F 4
Sandoval.....B 3
San Juan.....A 2
San Miguel....D 3
Santa Fe.....C 3
Sierra.....B 5
Socorro . .....B 5
Taos.....D 2
Union .....F 2
Valencia.....B 4

CITIES-TOWNS

Pop.	Thousands.	
6	Albuquerque	C 3
5	Santa Fe	...D 3
3	Las Vegas	..D 3
3	Raton	.....E 2
3	East Las Vegas	D 3
2	Gallup	.....A 3
2	Silver City	..A 6
2	Roswell	....E 5
1	Lascruces	...C 6
1	Alamogordo	C 6
1	Lemitar	.....C 4
1	Mesilla	.....C 6
1	Taos	.....D 2
1	Pinos Altos	..A 6
1	Lincoln	.... D 5
1	Isleta	.....K14

Pop.	Hundreds.	
9	Gardiner	...E 2
9	Carlsbad	....E 6
9	Puerto de Luna	E 4
8	Parkview	...C 2
7	Tularosa	....C 5
7	Fierro	.....A 6
7	Old Albuquerque	C 3
7	Dona Ana	...C 6
7	Mora	....D 3
6	Clarkville	.. A 3
6	Belen	.. ...C 4
6	Fort Bayard	A 6
5	Anton Chico	E 3
5	Questa	.....D 2
5	Gibson	.....A 3
5	Guillon	. .. D 3
5	Sandoval	....C 3
5	Penablanca	. C 3
5	Hillsboro	... B 6
4	Cerrillos	....C 3
4	Aztec	.....A 2
4	Los Lunas	.. C 4
4	Clayton	....F 2
4	Tierra Amarilla	C 2
3	Santa Rosa	..E 4
3	Portates	.....F 4
3	Palomas	.....F 3

cipal one, the Valley of the Rio Grande, extends from the N. to the S. limits of the Territory. The Sierra Madre Mountains form the W. boundary of this valley; and the Jamaues, Del Cahello, with other offshoots of the Rocky Mountains, form its E. frontier. Considerably more than half of the Territory lies E. of the Sierra Madre. In the E. division, and diverging from the main chain of the "Rockies," are the Guadalupe, Sacramento, and Organ mountains, and the Sierras Blanca, Hueca, and other divisions, form the W. limit of the Pecos Valley. W. of the Sierra Madre is a series of detached ranges as yet imperfectly explored, though a number of exceedingly fertile valleys are known to exist in this part of the Territory. N.W. from Santa Fé, in the Sierra Madre, is Mount Taylor, rising to a height of 10,000 ft. above the basin of the Rio Grande, the latter being between 5,000 and 6,000 ft. above sea-level in the N. part, and 3,000 ft. at El Paso, Chihuahua, near the S. confine of the Territory. The mountain chains bordering the valleys of the Rio Grande and Picos rivers, S. of the Lat. of Santa Fé, have a general altitude of 6,000 to 8,000 ft., while near the N. limits of the Territory they attain an elevation of 10,000 to 12,000 ft. above the level of the sea, their summits being perpetually snow-capped, and presenting to the eye scenes of indescribable beauty and grandeur. The country W. of the Rio Grande consists, for the most part, of lofty plateaux or *mesas*, interspersed among volcanic peaks, and separated from each other by broad valleys, through many of which meander streams of considerable magnitude, their banks fringed with cotton-wood and other timber, affording excellent facilities for cultivation of the soil, and the grazing of live-stock. The Rio Grande del Norte, the largest river of the Territory, takes its rise in the mountains of Colorado, and after traversing the Territory in a longitudinal direction, forms the line of demarcation between Texas and Mexico, and finds its embouchure in the Mexican Gulf. The Rio Pecos drains the S.E. section of the Territory, and the Canadian, an affluent of the Arkansas, the N.E. part. W. of the Sierra Madre, the country forms the watershed of the Gila, Rio Puerco, and the San Juan, tributaries of the Colorado of the West. None of these streams are important for navigation, being seldom of depth sufficient for larger craft than canoes or scows. — *Meteor.* There exists great diversity in the climate of *N. M.*; in the N. region, among the mountains, the winters are long and severe, but not so subject to sudden fluctuations of temperature as in more humid climates. The common annual range of the thermometer is from 10° to 75° above zero, Fahr. Near El Paso, in the S. part of the Territory the temperature is mild, rarely falling below the freezing-point. The sky is usually clear, and the atmosphere remarkably dry, the entire country being considered one of the healthiest regions in the Union. Maladies so common in the Mississippi Valley are almost unknown here, and pulmonary complaints are of rare occurrence. In the S. part of the Territory the rainy season extends over July and August. — *Soil, Vegt. Prod., &c.* The table-lands, mountain-slopes, and valleys are abundantly supplied with a variety of nutritious grasses, which, being cured by climatic action, afford excellent pasturage the year round. The most valuable and widely distributed of these is the "gamma" grass or *mezquite*; its peculiar value consisting in its adaptation to all the requirements of an arid climate. The herdsmen and shepherds of *N. M.*, being thus furnished with excellent pasturage during the winter months, have a great advantage over the farmer and stock-raiser of the N. and E. States, who are necessitated to expend a great portion of their time and labor in the production of provender to sustain their beasts during the winter season. The wide range afforded by the extensive grazing-lands of the Territory seems to have had a very cordial effect on the health of sheep and cattle, as diseases common to many localities are here almost unknown. The houses are notable for their staying powers, and the beef and mutton are celebrated for their prime quality. All meats are cured without the use of salt, being jerked, Indian-fashion, by exposure to the sun and air. Although a portion of the Territory is unsuited to cultivation, the river-bottoms, and even the table-lands, where irrigation is feasible, are exceedingly productive. In the valleys maize, wheat, barley, and oats yield ample crops, while apples, peaches, melons, apricots, and grapes are grown in great perfection. The grape is especially prolific, and the quality of the wine produced is excellent. In the S. division of *N. M.* many of the semi-tropical fruits thrive spontaneously. Owing to the necessity of irrigation, agricultural operations are principally confined to the valleys of the water-courses. In some localities the crops are occasionally curtailed by the failure of the streams in a long-continued drought. Where water is abundant, however, the crops are sure and remunerative, and the husbandman, regulating the supply of moisture himself, need never have his crops destroyed by freshets, and much less permit them to suffer from drought. Forests of pine, cedar, spruce, and other kindred trees, clothe the mountain ranges. On the foot-hills are found extensive tracts of piñon and cedar, while a variety of deciduous timbers skirt the margins of the streams, — cotton-wood and sycamore being the most abundant, — and in the S. districts groves of oak and walnut are met with. The public lands of *N. M.*, although surveyed, have not as yet been brought into market.—*Minerals.* Veins of the precious metals, and rich deposits of copper, iron and coal, are found in many parts of the Territory, and new discoveries are constantly being made and developed. The yield of gold up to the year 1895 amounted to $6,080,775, and that of silver to $7,059,250. Nearly every section of the Territory yields the precious metals, some of the most fully explored regions being the Old and New Placers, Pinos Altos, the Cimarron mining district, Arroyo Hondo, Manzano, Organ Mountains, Sierras Blanca, Carriga, Jicarilla, and the Mogollon and Magdalena Mountains. The region called the Old and New Placers extends over about 200 sq. m. of territory, situated in Santa Fé and Bernalillo cos. In this district a large number of lodes of gold-bearing quartz have been discovered, the principal ones being the Ortiz, Ramirez, Mammoth, and Candelaria. The Pinos Altos mining district, in Grant co., embraces within its limits about 200 sq. m., and contains miles of gold, silver, and copper, the principal gold mines being the Pacific, Arizona, Atlantic, Laugston, and Aztec. The veins vary from a few inches to 4 feet in width, and in some of the mines are very rich. The silver ores in this district yield from $20 to $30 a ton. The copper ores occur in a felspathic rock, about 2 miles broad and 20 miles in length. Some of the most important mines of the precious metals are in the southwest, near Silver City, Deming, and Lordsburg; others in the central region in the vicinity of Socorro, and others farther north, near Santa Fé. There are also valuable mines in the extreme northwest, in San Juan co. Some of the mines were rudely operated by the early Spaniards, who made the Pueblo Indians work for them like slaves. The Indians subsequently successfully revolted from this tyranny, and filled up the shafts. Several such shafts have been found and reopened. The ore from the Stephenson mine, in the Organ Mountains, yields 80 per cent. of lead, from each ton of which is extracted $50 worth of silver. In the Cimarron district, embracing 400 sq. m., a ditch 37 m. in length has been constructed, yielding a limited supply of water for the working of the gulch mines. In this district is located the celebrated Maxwell lode, which has turned out as much as $15,000 in a single week, while no ore taken from this lode has yielded less than $30 per ton. In the Manzano Mountains, gold, silver, and copper mines are met with. The Carson lode, which has been opened to a depth of 60 ft., furnishes from $60 to $1,200 in gold per ton of ore. In the Sierra Blanca a number of rich lodes have been discovered, which give promise of large yields when developed. Veins of bituminous coal have been found cropping out in various places, and anthracite of a superior quality is met with about 20 m. S. of Santa Fé. Zinc, antimony, kaolin, and other minerals are also found, and near Santa Fé are the famous turquoise mines. Mineral and hot springs are numerous. Since the organization of the surveying district In 1854 for *N. M.*, 49,980,824 acres of public lands have been surveyed and prepared for market, of which 42,702,550 remain vacant and subject to entry. This is exclusive of reservations and private claims.—*Polit. Div.* The Territory is divided into 18 counties, viz.:

Bernalillo,	Grant,	San Juan,	Socorro,
Chaves,	Guadalupe,	San Miguel,	Taos,
Colfax,	Lincoln,	Santa Fé,	Union,
Donna Ana,	Mora,	Sierra,	Valencia.
Eddy,	Rio Arriba,		

Chief towns. Santa Fé (the cap.), Las Vegas, Albuquerque, and Taos.—*Govt.* The executive comprises a governor, secretary, purveyor, and superintendent of Indian affairs. The legislative power is vested in the governor and assembly, the latter consisting of a Council and House of Representatives. The council is composed of 13 members, chosen by the people for 2 years, and the house of 26 members, elected annually. The Spanish is the prevailing language. It is both spoken and written. The proceedings of the Territorial Government in both the Senate and House are carried on in this tongue, but they are printed in both Spanish and English.—*Educ.* The school system is in a backward state, and a large percentage of the population are unable to read or write. In 1880 there were no free schools in the Territory except those taught by the Sisters of Charity of the Roman Catholic Church. There were at that time 1 college, 4 academies, and 181 schools, with a total attendance of 8,018. In 1890, the pupils enrolled in the public schools had increased to 21,471 with an average attendance of 16,987.—*Pop.* The present population is of a mixed character, composed of domesticated nomad Indians, Mexicans, Spaniards, and Americans. Independent, however, of the more civilized inhabitants, large tribes of Indians of a wild and warlike character roam over the Territory, and fix their temporary residence therein. The principal of these are the Apaches proper and the cognate tribes, the Navajoes, the Utahs, the Cheyennes, and the Comanches.—*Hist.* This Territory was early settled by the Spaniards, and formed a province of the Republic of Mexico until 1848, when it was ceded to the U. S. In Sept., 1850, it was constituted a Territory of the U. S., and in 1854, a slice of the country then obtained from Mexico was added to it. In this condition it remained till Feb., 1863, when nearly half of the E. part of the Territory was taken away to form the Territory of Arizona. In 1875, a bill for the admission of *N. M.* as a State failed to become a law. *Pop.* (1900) 195,310.

New Mid'dletown, in *Ohio*, a post-village of Mahoning co., about 12 m. E.S.E. of Canfield.

New Mil'ford, in *Connecticut*, a post-town and township of Litchfield co., about 35 m. N. by W. of Bridgeport. *Manuf.* Tobacco, hats, boots, paper, &c.

New Milford, in *Illinois*, a post-village and township of Winnebago co., about 7 m. S. of Rockford.

New Milford, in *New Jersey*, a post-village of Bergen co., about 18 m. N. of Jersey City.

New Mil'ford, in *Pennsylvania*, a post-borough and township of Susquehanna co., about 10 m. E. of Montrose, on the D., L. & W. R. R.

New-mod'el, *v. a.* To remodel; to give a new form to.

New Mount Pleasant, in *Indiana*, a post-village of Jay co., about 80 m. N.E. by E. of Indianapolis.

New Mu'nich, in *Iowa*, a village of Sac co., about 80 m. E. of Sioux City.

New'nan, in *Georgia*, a city, the cap. of Coweta co., on the Atlantic & West Point and the Central R. R. of Georgia, 40 m. S.S.W. of Atlanta; has manufactures of cotton goods, iron, guano, cottonseed oil, &c., and a considerable shipping trade, chiefly in cotton. *Pop.* (1897) about 3,240.

New'nanville, in *Florida*, a village, former cap. of Alachua co., about 120 m. E.S.E. of Tallahassee.

New'ness, *n.* The state or quality of being new; lateness of origin; recentness; the state of being lately invented or produced. — The state of being first known or introduced; novelty. — Recent change; innovation. — Want of practice or familiarity. — Different state or qualities introduced by change or regeneration.

New Nor'folk, in *Alaska*, a name formerly applied to the coast-line bet. Admiralty Bay and Baranoo Island.

New Or'egon, in *Iowa*, a post village and township, cap. of Howard co., abt. 20 m. N.W. of Decorah, and 3 m. S.S.W. of Cresco.

New Orleans'. [Fr. *La Nouvelle Orléans.*] A city and river-port of the U. States, in Louisiana, and the commercial metropolis of the S. and W. divisions of the Union, is situate on the Mississippi, abt. 120 m. from its mouth; Lat. 29° 58′ N., Lon. 90° W. It is a beautiful city, regularly built, except in its older portion, which extends itself on the convex side of a bend of the river, whence the familiar name of *Crescent City*. The limits of the old city, as it existed under the French and Spanish governments, are defined by Canal, Rampart, and Esplanade streets. These three streets, occupying what was formerly the line of the defensive works, are nearly 200 feet in width, with a sidewalk and carriage-way on each side, and in the middle an unoccupied space (called the *Neutral Ground*) planted with a double row of trees. Within the above limits the streets are comparatively narrow, crossing each other at right angles, the houses compactly built, but without uniformity, and the whole presenting the appearance of an European city. This portion of the city constituted the 2d district. Next above, extending from Canal Street to Felicity Road, lies the 1st district, formerly the faubourg St Mary; while still beyond is the 4th district, prior to 1852 the city of La Fayette, in which the dwellings are remarkably spacious and of great elegance, with ample grounds for shrubbery, &c. Below the old city, again, lies the 3d district, formerly the faubourg Marigny, which is the residence of a large portion of the creole population. *N. O.* is built on a wide level, and the ground is so spongy that none of the houses have cellars. The surface of the river at high water is from 2 to 4 feet above the level of the city; and even in its lowest stages it is above the level of the swamps in the rear. To obviate inundations, a *levée*, or embankment, from 5 to 30 feet in height, has been raised for abt. 100 m. along the river. This levee, in front of the city, is extended by a continuous series of wooden wharves or piers, forming a kind of esplanade, several miles in extent, which, during the busy season, present a scene of singular variety and animation. Among the public buildings and monuments the most noticeable are the cathedral of St. Louis, a noble Gothic edifice, flanked by two lofty towers, and erected in 1850, on the site of the original parish church, fronting Jackson Square; the Custom House, commenced in 1848 and costing $4,500,000; the Post-Office and the branch mint of the U. S. The archiepiscopal palace, erected in 1737, is the oldest building in the city. There are 5 or 6 squares in New Orleans. Jackson Square, formerly the *Place d' Armes*, is coeval with the foundation of the city. It is tastefully adorned with shrubbery and statuary, prominent amid which, in the center of the square, is a bronze equestrian statue of Jackson, by Clark Mills. A colossal statue of Henry Clay (see Fig. 1636) was inaugurated, in 1860, in the center of Canal Street. In addition to this there are handsome statues, monuments to Jackson, Lee, Franklin, and others. By its width, the splendor of its buildings, and the elegance and good taste of its stores, Canal Street, which is the line of separation between the two parts of the town popularly called the *French* and the *American*, may advantageously compete with any street of our Northern States. There are in *N. O.* about 200 churches, belonging to various sects; the Roman Catholic possess more than any other denomination. The Creole population belong almost exclusively to that church. The benevolent institutions are numerous, the most remarkable being the Charity Hospital, which accommodates over 800 patients, and is attended by the Sisters of Charity; the asylums for old men and widows, belonging to the Ladies of Providence; Stowe's Hospital; the Franklin Infirmary; the U. S. Naval Hospital, &c. There are about 17 cemeteries in and around the city, in which the usual mode of sepulture is above ground, the soil being so moist and marshy that interment beneath is objectionable. Many of these tombs are costly and elegant structures. Besides the public schools, which make great progress, there are numerous private schools, 2 flourishing medical colleges, a Roman Catholic ecclesiastical seminary, a college under the Jesuits, a convent and academy of Ursuline nuns, a convent of Redemptorists, free schools directed by members of several religious orders, &c. The principal theaters are the elegant French Opera House, and the St. Charles Theater. The most

noted hotel is the *St. Charles*. During the time this city was the capital of the State, the legislature met in the building formerly known as the St. Louis hotel, at one time the prominent hotel in the old French quarter, and noted for its handsome rotunda. During the months of July, Aug., Sept., and Oct., the population is much reduced through fear of the yellow fever, which appeared for the first time in *N. O.* in 1769, or, according to Dr. Bennet Dowler, in 1796. Usually this dreadful sickness is almost exclusively caught by strangers and foreigners: but in the great epidemic of 1878 the yellow fever seemed to assume a new character, and did not spare the natives. It is, nevertheless, remarkable that this fever is not now so permanently dangerous as it was in the first half of this century, becoming epidemic only one or two times in ten years. The city is well provided with water, and its fire department is admirably organized. *N. O.* is the grand emporium of all the vast regions traversed by the Mississippi, and its tributary streams, and enjoys, in consequence, a greater command of internal navigation than any other city either of the New or Old World. Dense populations are still to be found in comparatively small portions only of the immense territories of which this city is the entrepôt; and yet her progress has been rapid the coming decade will doubtless show still greater growth. *N. O.* has direct R. R. connection with San Francisco. There are also steamship lines running to Havana, Baltimore, Philadelphia, New York, Boston, Texas ports, Liverpool, Havre, Bremen, &c. Including those of the R. R's. many ferry boats cross the river at short intervals to and from various points on the respective banks of the river. Among the improvements on the levee is a line of sugar-sheds and extensive grain elevators. These, with its numerous cotton presses, cotton pickeries, and cotton brokers, and wagons filled with that staple, suggest the origin and ramifications of the chief industries of *N. O.* In 1883 was inaugurated a new and splendid cotton-exchange, built in Carondelet street, in the Renaissance style. The cotton district, of which *N. O.* is the port of entry, embraces nearly the entire valley of the Mississippi, with ports of delivery at various points. The direct foreign commerce of a large extent of country accordingly is transacted through this port. In the value of its exports and of its entire foreign trade, it ranks next to New York, though several ports surpass it in the value of imports.—*Hist.* This city was founded by the French in 1717; in 1769 it was occupied by the Spaniards, in whose hands it continued for about 34 years. The most memorable event in the history of *N. O.* is the battle of Jan. 8, 1815, for which see JACKSON (ANDREW). *N. O.* joined the war movement of the so-called "Confederate States," Jan. 25, 1861, on which day the Louisiana Convention passed an "ordinance of secession." The city remained with the Confederates for about a year, till April 25, 1862, when Admiral Farragut, having destroyed their fleet in the Lower Mississippi, and passed by Forts Jackson and St. Philip, appeared before the city with a U. S. flotilla. After negotiations, continued over the two following days, *N. O.* was surrendered to him on the 28th. The loss of this important city was the first great blow to the Confederate cause. Serious political disturbances broke out in 1874, resulting in a battle on the levees between the citizens and the police and militia, in which 46 persons were killed and 216 wounded. Another outbreak occurred in 1877. In 1891 the lynching of some Italians, accused of murder, gave rise to a serious international complication with Italy. In 1880 Baton Rouge succeeded *N. O.* as the capital of Louisiana. In 1885 an International Exposition, on an imposing scale, was held in this city. *Pop.* (1900) 287,104

New Paltz, in *New York*, a post-village and township of Ulster co.

New Paltz Landing, in *New York*, a village of Ulster county, on the Hudson River, opposite Poughkeepsie.

New Par'is, in *Indiana*, a post-village of Elkhart co., abt. 7 m. S. of Goshen.

New Paris, in *Ohio*, a post-village of Preble co., abt 57 m N.W. of Cincinnati.

New Pat'erson, in *New Jersey*, a village of Sussex co., abt. 5 m W. of Newton

New Pe'tersburg, in *Ohio*, a post-village of Highland co., abt. 70 m. E. by N. of Cincinnati.

New Philadel'phia, in *Indiana*, a post-village of Washington co., abt. 9 m. S. by E. of Indianapolis.

New Philadelphia, in *Ohio*, a city, cap. of Tuscarawas co., about 100 m. E.N.E. of Cincinnati. Coal and iron ore abound here, and manufacturing is extensive.

New Philadelphia, in *Pennsylvania*, a borough of Schuylkill co., abt 5 m. E.N.E. of Pottsville.

New Phil'ippines. See CAROLINE ISLANDS.

New Pitts'burg, in *Ohio*, a post-village of Wayne co., abt. 90 m. N.E. of Columbus.

New Point Com'fort, in *Virginia*, forms the S. extremity of Matthews co., in Chesapeake Bay. It exhibits a fixed light 60 ft. above the sea, abt. 18 m. N. of Old Point Comfort.

New'port, in England, a town of the co. of Monmouth, on the Usk, 20 m. S.W. of Monmouth, and 124 N.W. of London. *Manuf.* Nails, ropes, and pottery. It has an extensive iron, tin, and coal trade; and ship-building is largely carried on. *Pop.* 23,249.

—A town, cap. of the Isle of Wight, on the Medina, 14 m. S.S.E. of Southampton, and 75 m. S.W. of London. *Manuf.* Lace. *Pop.* 7,931.

Newport, a seaport-town of Hants co., Nova Scotia, abt. 30 m. N.N.W. of Halifax.

Newport, in *Delaware*, a post-village of New Castle co., abt. 4 m. W. of Wilmington.

New'port, in *Florida*, a post-office of Wakulla co.

Newport, in *Illinois*, a village of Greene co., about 14 m. W.N.W. of Carrollton.

—A township of Lake co.

Newport, in *Indiana*, a post-town, cap. of Vermilion co., abt. 75 m. W. of Indianapolis. — A village of Wayne co., abt. 10 m. N.N.W. of Richmond.

Newport, in *Iowa*, a village and township of Johnson co., abt. 8 m. N.E. of Iowa City.

Newport, in *Kansas*, a village of Dickinson co., abt. 16 m. W.S.W. of Junction City.

Newport, in *Kentucky*, a city, former cap. of Campbell co., on the Ohio River, opposite Cincinnati, Ohio, and abt. 80 m. N.N.E. of Frankfort. The city is beautifully located, and generally well built. It contains many extensive manufactories, chiefly of iron, machinery, silk, &c., and is connected with Cincinnati and with Covington by superior iron bridges.

Newport, in *Maine*, a post-village and township of Penobscot co., abt. 27 m. W. of Bangor.

Newport, in *Maryland*, a post-village of Charles co., abt. 50 m. S.W. by S. of Annapolis.

Newport, in *Michigan*, a post-village of Monroe co., abt. 8 m. N.E. of Monroe City.—A village of St. Clair co., abt 45 m. N.E. of Detroit.

Newport, in *Minnesota*, a post-village and township of Washington county, about nine miles below St. Paul.

Newport, in *Missouri*, a village of Franklin co., abt 67 m. W. of St. Louis.

Newport, in *New Hampshire*, a post-village and township of Sullivan co., abt. 35 m. N.W. by W. of Montpelier.

Newport, or NANTUXET, in *New Jersey*, a post-village of Cumberland co., abt. 28 m. S.E. of Salem.

Newport, in *New York*, a post-village and township of Herkimer co., abt. 85 m. W.N.W. of Albany.

Newport, in *Ohio*, a village of Madison co., abt. 27 m. W.S.W. of Columbus. — A post-village of Portage co., abt. 12 m. E of Ravenna. — A village of Shelby co., abt. 112 m. N. of Cincinnati. — A post-village and township of Washington co., abt. 14 m. S.E of Marietta.

Newport, in *Pennsylvania*, a township of Luzerne co.; *pop.* about 900.—A post-borough of Perry co., about 24 m. N.W. of Harrisburg.

Newport, in *Rhode Island*, a S.E. co., adjoining Massachusetts on the E., and washed by the Atlantic Ocean on the S.; *area*, about 100 sq. m., consisting of several islands in Narragansett bay, and the mainland on its E. shore. *Surface*, uneven; *soil*, generally fertile. *Min.* Coal in considerable quantities, and some plumbago. *Cap.* Newport. *Pop.* (1895) 30,972.

—A city, port of entry, seat of justice of the above co., and *semi-capital* of the state, on the W. coast of the island of Rhode Island, in Narragansett Bay, abt. 28 m. S. by E. of Providence; Lat 41° 29′ N., Lon. 71° 19′ 12″ W. The harbor is one of the best on the coast, and is defended by two strong forts; — Fort Adams on Brenton's Point, abt. 1½ m. S.W. of the town; and Fort Wolcott on Goat Island, directly opposite *N.*, are beautifully located and contain some very fine edifices. Its salubrious climate, refreshing ocean-breeze, and beautiful scenery, have contributed to render it a favorite summer resort. The most prominent public buildings are the State-house, the Redwood Library (containing over 15,000 vols.), and the Jewish Synagogue. There are also abt. 15 churches, and numerous school-houses. *Manuf* Clocks, carriages, cabinet-ware, oil, soap, candles, calicoes, muslins, woollen goods, &c. The fisheries are carried on to a certain extent, but the commerce of *N.* is very limited, though several railroad and steamboat lines connect it with the important places in the vicinity. The attention of the inhabitants seem to be more especially directed to the improvement of the town for the convenience of the visitors, who are numbered by thousands during the summer months. *Pop.* (1897) 23,200.

New'port, in *Tennessee*, a post-village, cap. of Cocke co., about 47 m. E. of Knoxville.

New'port, in *Vermont*, a post-village and township of Orleans county, about twelve miles north of Irasburg.

Newport, in *Virginia*, a village of Augusta co., abt. 18 m. W. of Staunton.

New'port, in *Wisconsin*, a township of Columbia co.— A post-village of Sauk county, about 3 miles S.W. of Kilburn City.

New Portage, in *Ohio*, a post-village of Summit co.

New Port'land, in *Maine*, a p. twp. of Somerset co.

—In *Missouri*, a village of Ralls co.

New'port News, in *Va.*, a post-town of Warwick co., abt. 7 m. ab. Fortress Monroe and the terminus of the Chesapeake & Ohio R. R. The harbor is unsurpassed, large grain elevators have been erected and it has become a favorite port of entry.

New port Pag'nel, a town of England, co. of Buckingham, at the junction of the Ouse and Ousel, 13 m E.N.E. of Buckingham. *Manuf.* Lace. *Pop.* 4,000.

New'port Pratt, a seaport-town of Ireland, in Connaught, co. Mayo, about 8 miles W.N.W. of Castlebar; *pop.* 1,000.

New'port Rivers, (NORTH and SOUTH.) in *Georgia*, enter St. Catherine's Sound from Liberty co.

New'port Tip, a town of Ireland, in co. Tipperary, abt. 9 m. N.E. of Limerick; *pop.* 1,000.

New'portville, in *Pennsylvania*, a post-village of Bucks co., abt. 116 m. E. by S. of Harrisburg.

New Pres'ton, in *Connecticut*, a post-village of Litchfield co., abt. 40 m. N.N.W. of New Haven.

New Pros'pect, in *Alabama*, a village of Greene co., abt. 100 m. N.W. by W. of Montgomery.

New Pros'pect, in *Indiana*, a village of Orange co. abt. 8 m. W. of Paoli.

New Pros'pect, in *New Jersey*, a village of Bergen co., abt. 22 m. N. by W. of Jersey City.

New Prov'idence, a British island of the W. Indies, the most important of the Bahama group, between Eleuthera and Andros; Lat. 25° 5′ N., Lon. 77° 21′ W. It is 17 m. in length, with an extreme breadth of 7 m. *Surface*, generally low and level. The chief town, Nassau, is situate on an excellent bay of the same name on the N. side of the island.

New Prov'idence, in *Indiana*, a post-village of Clarke co., abt. 19 m. N.W. of New Albany.

New Prov'idence, in *New Jersey*, a post-village and township of Union co., abt. 13 m. W. of Newark.

New Prov'idence, in *Tennessee*, a post-village of Montgomery co., abt. 47 m. N.W. of Nashville.

New Red Sandstone, *n.* (*Geol.*) The name given to a group of sandstones, generally of a red color, belonging to the lowest and oldest division of the secondary period, and distinguished by fossil contents from some other important sandstones, also of a red color, but in rocks below the carboniferous limestone. The latter are called *Old Red Sandstone.*

New Rich'mond, in *Indiana*, a post-village of Montgomery co., abt. 17 m. S.S.W. of Lafayette.

New Rich'mond, in *Ohio*, a post-village of Clermont co., abt. 20 m. S.E. of Cincinnati.

New River, in *Louisiana*, enters Lake Maurepas between St. James and Ascension parishes.

New River, in *N. Carolina*, enters the Atlantic Ocean from Onslow co.

New River, in *S. Carolina*, enters the Atlantic Ocean from Beaufort dist.

New River, in *Virginia*. See GREAT and LITTLE KANAWHA.

New Rochelle, (*ro-shel'*,) in *New York*, a post-village and township of Westchester county, abt. 20 m. N.E. of New York city.

New Rock'ford, in *Indiana*, a village of Jackson co., abt. 60 m. S. of Indianapolis.

New Ross, in Ireland. See Ross.

New Ross, in *Indiana*, a post-village of Montgomery co., abt. 30 m. N.W. by W. of Indianapolis.

New Rum'ley, in *Ohio*, a post-village of Harrison co., abt. 128 m. E.N.E. of Columbus.

New'ry, a town of Ireland, prov. of Ulster, on Newry Water, 34 m. S.W. of Belfast, and 56 N. of Dublin. *Manf.* Flint glass, cotton cloth, and linen. *Pop.* 11,426.

New'ry, in *Indiana*, a village of Jackson co., abt. 15 m. E. of Brownstown.

New'ry, in *Maine*, a post-township of Oxford county.

New'ry, in *Minnesota*, a township of Freeborn county.

New'ry, in *Pennsylvania*, a post-village of Blair co. abt. 125 m. W. of Harrisburg.

News, (*nūz.*) [Fr. *nouvelles.* This word has a plural form, but is almost always united with a verb in the singular.] Recent account; fresh information of something that has lately taken place at a distance, or of something before unknown; tidings; intelligence; also, a newspaper.

New Sa'lem, in *Illinois*, a village of Edwards co, abt. 8 m. N. of Albion.

—A township of McDonogh co.

—A post-village and township of Pike co., abt. 34 m. E.S.E. of Quincy.

New Sa'lem, in *Indiana*, a post-village of Rush co., abt. 47 m. E.S.E. of Indianapolis.

New Sa'lem, in *Massachusetts*, a post-township of Franklin co.

New Sa'lem, in *N. Carolina*, a post-village of Randolph co., abt. 10 m. N. of Ashborough.

New Sa'lem, in *Ohio*, a post-village of Fairfield co., abt. 11 m. N.E. of Lancaster.

New Sa'lem, in *Pennsylvania*, a post-village of Fayette co., abt. 190 m. W. by S. of Harrisburg.

—A borough of Westmoreland co., abt. 28 m. E. of Pittsburg.

New Sa'lem, or **Sa'lem,** in *West Virginia*, a post-village of Harrison co., abt. 14 m. W. of Clarksburg.

New Sa'lem, in *Texas*, a post-village of Rusk co.

New Sal'isbury, in *Indiana*, a post-village of Harrison co., abt. 110 m. S. of Indianapolis.

New Santan'der, a town, and formerly a province of Mexico. See NUEVO SANTANDER, and TAMAULIPAS.

News'boy, *n.* A boy who sells or delivers newspapers.

New Scot'land, in *New York*, a post-township of Albany co.

New Sew'ickley, in *Pennsylvania*, a township of Beaver co.

New Sha'ron, in *Maine*, a post-village and township of Franklin county, about 26 miles N.N.W. of Augusta.

New Sheffield, in *Pennsylvania*, a post-village of Beaver co., abt. 20 m. W.N.W. of Pittsburg.

New Shore'ham, in *Rhode Island*, a post-township of Newport co.

New Sibe'ria, a group of barren islands in the Arctic Ocean, lying N.N.W. of the mouth of the river Lena, in E. Siberia; Lat. between 73° 20′ and 76° 12′ N., Lon. 135° 20′ and 150° 20′ E; *area*, 20,480 sq. m.

News'-letter, *n.* A letter sent to convey news.

News-monger, (*nuz'mung-ger,*) *n.* One who deals in news; one who employs much time in hearing and telling news.

New Som'erset, in *Ohio*, a village of Jefferson co., abt. 143 m. E. by N. of Columbus.

New South Shet'land, an archipelago in the S.

Sir Isaac Newton

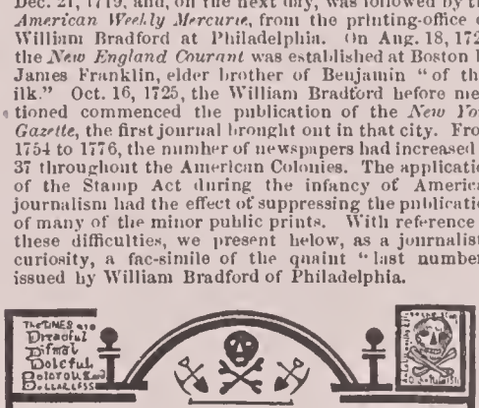
1642–1727

Atlantic Ocean, 600 m. S. of Cape Horn, between Lat. 60° 32′ and 67° 15′ S., Lon. 44° 54′ and 68° 15′ W.

New South Wales, a colony in the S.E. of Australia, belonging to Great Britain, bordering on the S. Pacific Ocean; Lat. between 28° and 37° 31′ S., Lon. between 153° 45′ W. and 141° E.; *area*, estimated at 323,437 sq m. The surface is very diversified, and is traversed through the centre from N. to S. by the Blue Mountains, or Australian Alps. The coast is bold and abrupt, with numerous and excellent harbors, the principal of which are Moreton Bay, Hervey Bay, Port Stephens, Port Hunter, Port Macquarie, Broken Bay, Port Jackson, Botany Bay, Jervis Bay, Sussex Haven, and Twofold Bay. *Rivers.* The Murrumbidgee, Lachlan, Bogan, Macquarie, Peel, Hunter, Parramatta, George, Clyde, Hastings, and the Clarence. The soil is very fertile, and the climate salubrious, the average annual temperature being 64°. *Prod.* Wheat, maize, barley, oats, rye, potatoes, tobacco, and fruits. Numerous herds of cattle, horses and sheep are reared. *Min.* Gold, silver, copper, iron, coal. The trade is principally with Great Britain. *Exp.* Gold, wool, and tallow. *Govt.* The constitution of *N. S. W.* was proclaimed in 1858. It vested the legislative power in a Parliament of two houses, called the Legislative Council, and the Legislative Assembly. The first consisted of 21 members, nominated by the Crown, for the term of 5 years; the latter, of 137 members, elected in 74 constituencies. The executive is in the hands of a governor nominated by the Crown. The principal towns are Sydney (the cap.), Newcastle, Goulburn, Parramatta, Bathurst, and Maitland. *N. S. W.* was discovered in 1770 by Capt. Cook, who took possession of it in the name of the King of England, calling it *New South Wales.* At his recommendation it was made a colony for convicts, and continued so until 1840, when transportation ceased. The discovery of gold in 1851 gave the colony a great impetus. In addition to mining, sheep pasturage has been greatly developed, the colony possessing at present over 50,000,000 sheep. *Pop.* (1891) 1,200,000.

News'paper, *n.* A public print for the circulation of news, advertisements, public announcements, and the like; a sheet of paper printed and distributed for disseminating intelligence of passing events.

(*Hist.*) Among the Romans the *Acta Diurna*, or Journals of Public Events, were, as the name indicates, simply records of daily occurrences; but our accounts of these ancient news-letters are somewhat obscure and uncertain. In modern Europe, Venice appears to have taken the initiative in communicating intelligence to the public through a sheet called *Notizie Scritte*, first published about 1536, and continued monthly. The earliest copy in the library of the British Museum is dated 1570. In England, "news-letters," as they were called, were introduced as early as the reign of Henry VI., (1422–1461.) In these the gossip of the town was collected by "correspondents," and posted to their employers in the country, at a small yearly compensation. The first authentic newspaper published in England was *The Certaine News of the Present Week*, bearing date May 23, 1622. The *Daily Proceedings of both Houses of Parliament*, from Nov. 3, 1640, to Nov. 3, 1641, in 2 vols., formed the first systematic account of the kind laid before the public. This was followed by quite a host of journals, including the famous *Mercurius Britannicus*, from 1642 to 1654. The *London Gazette* appeared in Feb. 5, 1666. The earliest commercial newspaper was the *City Mercury*, conducted by Sir Roger L'Estrange, which commenced operations Nov. 4, 1675. The parent of English literary prints, the *Mercurius Librarius*, was published April 9, 1680. The *Daily Courant*, the first morning paper, appeared March 11, 1702, shortly followed by the *Review*, Defoe's celebrated sheet. In Scotland, the first number of the *Mercurius Politicus*, printed by order of Cromwell, was brought out Oct. 26, 1653. In Ireland, the *Dublin News Letter* made its appearance in 1685. During the early part of the 18th century, the tone of the public press had become so libellous that a newspaper-tax was levied in 1712, as the most effectual mode of suppression. Towards the middle of the century the provisions and the penalties of the Stamp Act were made more stringent, and the gaol population largely increased by the number of offences against it. Notwithstanding this, the popularity of newspapers continued to increase. In 1767 the aggregate number of copies sold in England was upwards of 10,000,000. That famous paper the *North Briton*, edited by the equally famous John Wilkes (*q. v.*), first appeared in 1762; and the same year witnessed the advent of the *Englishman*, a print which, in 1766, was supported by the powerful pen of Burke, (*q. v.*) The letters of "Junius" began to appear in the *Public Advertiser* in 1767, and contributed powerfully to raise the political importance of the newspaper-press, or, as it has been styled in England, the "Fourth Estate." The long reign of George III. exhibits a series of restrictions and criminal prosecutions against the public press, and the newspaper-tax had gradually increased from one penny in 1756, to four pence (less a discount of 20 per cent) in 1815. The stamp-duty on newspapers, first imposed in the reign of Anne (1712), was abolished in 1855. The *Times*, (sometimes called the "Thunderer,") one of the leading journals of the world, and the leviathan of the English newspaper-press, first appeared in 1785. The other chief London daily prints are the *Morning Post* (founded in 1772); *Morning Herald* (1781); *Morning Advertiser* (1794); *Telegraph*; *Standard*; *News*; *Pall Mall Gazette*, &c. The first illustrated paper, the *Illustrated London News*, was founded in 1842. There are various others, and several critical and other weeklies of wide influence. In France, newspapers were under strict control during the Empire; the censorship was continued until 1819, and re-established in 1820, but again abolished in the following year. At that period a law was passed compelling the proprietors to give security for the good conduct of their journals, under a penalty of 10,000 francs in Paris, and various lesser sums in the departments. The censorship was, however, re-instituted, and again abolished in 1827. By the famous ordinances of 1830 the liberty of the periodical press was suspended, a measure which caused the outbreak of the revolution of that year. At the present time, France possesses about 4,000 newspapers, the leading sheets being the *Temps*, *Presse*, *Siècle*, *France*, *Constitutionel*, *Justice*, *Debats*, *Republic Francaise*, *Figaro*, &c. *Le Petit Journal* has a circulation of over 1,000,000 copies. The *Gazette de France* appeared regularly from 1631 to 1792, forming a collection of 163 vols.; it was continued, also, but with some interruptions, through the era of the Revolution. *Galignani's Messenger*, established in 1815, is the only journal published in Paris in the English language. The number of journals published in Spain is about 850, the principal being the *España* and the *Imparcial*, both dailies. In Portugal, the government organ, *Diario do Governo*, and some half-dozen others, are published in Lisbon, and a like number in Oporto and other cities. The number of newspapers published in Germany is estimated at about 5,500. In Berlin, the principal are the *Vossische Zeitung* (middle-class organ), *Spenersche Zeitung* (conservative), *Neue Preussische Zeitung* (reactionary organ), and *Volkszeitung* (democratic). In Vienna, the *Wiener Zeitung* (official government organ), *Oesterreichische Zeitung*, *Wanderer*, *Ostdeutsche Post*, &c. In Augsburg, the celebrated *Allgemeine Zeitung*. In Cologne, the *Kölnische Zeitung*; and in Leipzig, the *Deutsche Allgemeine Zeitung*. In Brussels, the *Independence Belge*. The principal Russian organs are the *Journal de St. Petersbourg*, and the *Invalide Russe*. In British India, the *Bengal Hurkuru* is the leading journal. The *Boston News Letter*, the first number being dated April 24, 1704, was the first newspaper published in America, being a half-sheet of paper 12 inches by 8, with two columns on each page. It was published (and probably edited) by John Campbell, postmaster of Boston, a bookseller of Scotch extraction. This journal retained a weekly issue till 1776. The *Boston Gazette* appeared Dec. 21, 1719, and, on the next day, was followed by the *American Weekly Mercurie*, from the printing-office of William Bradford at Philadelphia. On Aug. 18, 1721, the *New England Courant* was established at Boston by James Franklin, elder brother of Benjamin "of that ilk." Oct. 16, 1725, the William Bradford before mentioned commenced the publication of the *New York Gazette*, the first journal brought out in that city. From 1754 to 1776, the number of newspapers had increased to 37 throughout the American Colonies. The application of the Stamp Act during the infancy of American journalism had the effect of suppressing the publication of many of the minor public prints. With reference to these difficulties, we present below, as a journalistic curiosity, a fac-simile of the quaint "last number" issued by William Bradford of Philadelphia.



During the revolutionary epoch, journalism in this country maintained its ground, each side being represented by its party organs. In 1794, the *Commercial Advertiser*, the senior of the existing New York journals, appeared, and, in 1801, was followed by the *Evening Post*, now under the editorial rule of Mr. Wm. Cullen Bryant. In 1828, the number of newspapers in the U. States had increased to 852, with a yearly issue of 68,117,776 copies. In 1833, the first "penny paper," the *Sun*, was founded in New York by Benj. H. Day. It was about 12 inches square, and being sold for one cent, rapidly achieved a circulation of 60,000 copies. This is now a large and influential journal under the conduct of Mr. Dana. In 1835, what has since become one of the "mammoths" of American journalism — the *New York Herald* — entered the arena as a penny sheet, price one cent, afterward raised to two. The other leading New York dailies are the *Tribune* (founded by Mr. Horace Greeley in 1841); the *Times* (established by Mr. H. J. Raymond in 1850); the *World*; the *Daily News*; the *Journal*, &c. Other leading journals are the *Ledger*, *Press*, and *Times*, of Philadelphia; the *Sun*, of Baltimore; the *Globe* and *Herald*, of Boston; the *Tribune*, *Inter-Ocean*, *Herald*, and *News*, of Chicago; the *Globe*, *Democrat*, and *Republic*, of St. Louis; the *Gazette* and *Enquirer*, of Cincinnati; the *Times-Democrat* and *Picayune*, of New Orleans; the *Chronicle*, *Examiner*, and *Bulletin*, of San Francisco. The newspapers and periodicals in circulation throughout the world at the present time are as follows: The total number is about 45,000, of which fully one-half are published in the United States and Canada, the U. S. issuing about 21,500. The remainder principally appertain to Europe, Germany being at the head with 5,500; France and Great Britain, about 4,000 each; Austria-Hungary, 3,500; Italy, 1,400, and the other nations in diminishing proportion.

New'stead, a village of England, co. of Nottingham, 8 m. N.W. of Nottingham. In the vicinity is Newstead Abbey, celebrated as the ancestral home of Lord Byron.

New'stead, in *New York*, a twp. of Erie co.

New Swe'den, in *New York*, a village of Clinton co.

News'-vender, *n.* One who sells newspapers.

Newt, (*nute.*) a small reptile of the family *Salamandridæ*, of which there are many varieties, the principal one being termed the Great Water-Newt, *Triton palustris*. This specimen, when it is full-grown, measures about six inches in length, and in its appearance greatly resembles the Salamander, (which see.) On the back the color is a dark brown; the sides are speckled with spots, and the under-surface of the body is a bright orange, variegated with black patches. The head is rather small, and the eyes are of a bright golden hue; the tail

Fig. 1942. — WATER-NEWT, (*Triton aquaticus.*)

is flattened in form, and has thin edges at the extremities; and the limbs are short, the fore-feet being divided into four, and the hind into five toes. The newt inhabits shady places and stagnant waters, and lives principally on insects, of which it consumes an immense quantity. Besides the great water-newt there is the common water-newt, *Triton aquaticus*, common in the Atlantic States, which, in its habits and appearance, so closely resembles the former, as not to need a distinct description. Other species, from 4 to 12 inches long, are also found in the United States.

New Tes'tament, *n.* (*Script.*) See BIBLE.

New'ton, Sir ISAAC, the greatest of English philosophers, a mathematician, and astronomer, was born at Woolthorpe, Lincolnshire, 1642. Losing his father in his childhood, the care of him devolved on his mother, who gave him an excellent education. In 1654 he was sent to Grantham School, and at the age of 18 removed to Trinity College, Cambridge, where he had the learned Isaac Barrow for his tutor. After going through Euclid's Elements, he proceeded to the study of Descartes' Geometry, with Oughtred's Clavis and Kepler's Optics, in all of which he made marginal notes. It was in this early course that he invented the method of fluxions, which he afterwards brought to perfection, though his claim to the discovery was unjustly contested by Leibnitz. At the age of 22 *N.* took his degree of Bachelor of Arts, and about the same time he applied himself to the grinding of object-glasses for telescopes; and having procured a glass prism in order to investigate the phenomena of colors discovered by Grimaldi, the result of his observations was his new theory of light and colors. It was not long after this, that he made his grand discovery of the law of gravitation; but it was not till 1689 that the Newtonian system was first published in his great work, the *Philosophiæ Naturalis Principia Mathematica*. On his return to the university, in 1667, he was chosen Fellow of his college, and took his degree of Master of Arts. Two years afterwards he succeeded Dr Barrow in the mathematical professorship, on which occasion he read a course of optical lectures in Latin. He had not finished them in 1691, when he was chosen Fellow of the

Fig. 1943. — SIR ISAAC NEWTON.

Royal Society, to which learned body he communicated his theory of light and colors, with an account of a new telescope invented by him, and other interesting papers. When the privileges of the university of Cambridge were attacked by James II., *N.* was appointed to appear as one of the delegates in the Illigh Commission Court. He was next chosen a member of the Convention Parliament, in which he sat till it was dissolved. In 1696 he was made Warden of the Mint, and afterwards Master; which latter place he held with the greatest honor till his death. On his last promotion he nominated Dr. Whiston to fill his chair at Cambridge, assigning to him the profits of the place, and resigned it entirely to him in 1703. During the same year he was chosen President of the Royal Society, in which station he continued 25 years. He was also a member of the Academy of Sciences at Paris, having been chosen in 1699. In 1704 he published his treatise on *Optics;* but the whole merit of this extraordinary work was not at first appreciated. In 1705 he received the honor of knighthood from Queen Anne; and he D. March 20, 1727. On the 28th his body lay in state in the Jerusalem Chamber, from whence it was conveyed to Westminster Abbey, the pall being borne by the Lord Chancellor, two dukes, and three earls. A monument was afterwards erected to his memory; and his statue, by Roubiliac, has been placed in Trinity College, Cambridge. He enjoyed his faculties to the close of his long life. His temper, also, was remarkably even, and he had the humility which always accompanies real greatness. The common estimate, however, of his almost superhuman calmness and freedom from self-love, is contradicted by the stories of his dispute with Leibnitz, and his unjust treatment of Flamstead. *N.* was not only a philosopher, but a Christian, and spent much of his time in elucidating the sacred Scriptures. When his friends expressed their admiration of his discoveries, he said, "To myself I seem to have been as a child playing on the sea-shore, while the immense ocean of truth lay unexplored before me." The fullest account of *N.* is to be found in Sir D. Brewster's *Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton*, published in 1855.

New'ton, in *Alabama*, a post-vill., former cap. of Dale co.

Newton, in *Arkansas*, a N.N.W. co.; *area*, about 838 sq. m. *Rivers.* Buffalo Fork of White river, and numerous less important streams. *Surface*, hilly, and in the S. part mountainous; *soil*, generally fertile. *Cap.* Jasper. *Pop.* (1890) 9,950.

Newton, in *Georgia*, a N. by W. central co.; *area*, about 260 sq. m. *Rivers.* South, Yellow, and Alcovy rivers. *Surface*, diversified; *soil*, generally fertile. *Min.* Granite and iron, with some gold. *Cap.* Covington. *Pop.* (1890) 14,310.

—A post-village, cap. of Baker co., about 130 m. S.S.W. of Milledgeville.

Newton, in *Illinois*, a city, cap. of Jasper co., on the P., Dec. & E., and Ind. & Ill. So. R. Rs., 42 m. S. of Mattoon. *Pop.* (1897) 1,650.

—A township of Livingston co.

Newton, in *Indiana*, a N.W. co., adjoining Illinois; *area*, about 400 sq. m. *Rivers.* Kankakee and Iroquois rivers, with several smaller streams and lakes. *Surface*, nearly level; *soil*, fertile. *Cap.* Kentland. *Pop.* (1890) 8,803.

Newton, in *Iowa*, a township of Buchanan co.

—A township of Carroll co.

—A city, cap. of Jasper co., about 35 m. N.E. of Des Moines. *Pop.* (1895) 3,213.

Newton, in *Massachusetts*, a city of Middlesex co., 8 m. W. of Boston. *Pop.* (1895) 27,622.

Newton, in *Michigan*, a township of Calhoun co.

Newton, in *Mississippi*, a S.E. central co.; *area*, about 576 sq. m. *Rivers.* Chickasawha river, and some smaller streams. *Surface*, generally level; *soil*, fertile. *Cap.* Decatur. *Pop.* (1890) 16,625.

Newton, in *Missouri*, a S.W. co., adjoining Indian Territory on the W.; *area*, about 648 sq. m. *Rivers.* Shoal, Oliver, Center, and other creeks. *Surface*, generally level; *soil*, fertile. *Cap.* Neosho. *Pop.* (1890) 22,108.

Newton, in *New Hampshire*, a post-township of Rockingham co. *Pop.* (1897) 1,110.

Newton, in *New Jersey*, a post-town and township, cap of Sussex co., about 68 m. N. of Trenton. *Pop.* (1895) 3,426.

Newton, in *North Carolina*, a post-village, cap. of Catawba co., about 175 m. W. of Raleigh. *Pop.* (1897) 1,120.

Newton, in *Ohio*, a village of Allen co.; now called West Newton.—A township of Licking co.

—A township of Miami co.

—A post-township of Muskingum co.

—A township of Pike co.

—A township of Trumbull co.

—A village of Union co., about 40 m. N.W. of Columbus.

—A post-village of Hamilton co., about 10 m. E. of Cincinnati.

Newton, in *Pennsylvania*, a township of Lackawanna co.

Newton, in *Texas*, an E. co., adjoining Louisiana; *area*, about 970 sq. m. *Rivers.* Sabine river, and Caney and Big Cow creeks. *Surface*, diversified; *soil*, very fertile. *Cap.* Newton. *Pop.* (1890) 4,650.

Newton, in *Wisconsin*, a township of Manitowoc co.

Newton Centre, in *Massachusetts*, a post-village of Middlesex co., about 8 m. W.S.W. of Boston.

Newton Cor'ner, in *Massachusetts*, a village of Middlesex co., about 7 m. W. of Boston.

Newton De'pot, in *New Hampshire*, a village of Rockingham co., about 40 m. N. of Boston

Newton Fac'tory, in *Georgia*, a post-village of Newton co., about 50 m. N.W. of Milledgeville.

Newton Falls, in *Ohio*, a post-village of Trumbull co., about 50 m. S.E. of Cleveland. *Pop.* (1897) 850.

Newton Ham'ilton, in *Pennsylvania*. See Hamiltonville.

Newto'nia, in *Missouri*, a post-town of Newton co., about 11 m. E. of Neosho.

Newto'nian System. See Solar System.

New'ton Lower Falls, in *Massachusetts*, a post-village of Middlesex co., abt. 11 m. W. of Boston.

Newton Stew'art, in *Indiana*, a post-village of Orange co., abt. 112 m. S. by W. of Indianapolis.

New'ton Upper Falls, in *Massachusetts*, a post-village of Middlesex co., abt. 9 m. W. of Boston.

New'tonville, in *Massachusetts*, a post-village of Middlesex co., abt. 8 m. W. of Boston.

Newtonville, in *Ohio*, a post-village of Clermont co., abt. 28 m. E.N.E. of Cincinnati.

New'town, in *Connecticut*, a post-borough and township of Fairfield county, about 24 m. W.N.W. of New Haven. *Manuf.* buttons, combs, hats, belting, etc.

Newtown, in *Indiana*, a post-village of Fountain co., about 14 m. E.N.E. of Covington.

Newtown, in *Iowa*, a village of Pottawattomie co., about 37 m. E.N.E. of Omaha City.

Newtown, in *Kentucky*, a post-village of Scott co., about 22 m. E. of Frankfort.

Newtown, now Pocomoke City, in *Maryland*, a post-village of Worcester co., about 15 m. S.W. of Snow Hill.

Newtown, in *Massachusetts*, a village of Dukes co., about 75 m. S.E. by S. of Boston.

Newtown, in *Mississippi*, a village of Hinds co., about 15 m. S. by W. of Jackson.

Newtown, in *Missouri*, a post-village of Sullivan co., on the Chic., Mil. & St. Paul R. R.

Newtown, in *New York*, a town and township of Queen's co., 4 m. N.W. of Jamaica. Its post-office is Elmhurst. *Pop.* 17,549.

Newtown, in *Pennsylvania*, a post-borough and township of Bucks co., about 20 m. N.E. of Philadelphia.

—A village of Greene co., about 10 m. S.E. of Waynesburg.

Newtown, or Stephensburg, in *Virginia*, a village of Frederick co., abt. 8 m. S. by E. of Winchester.—A post-village of King and Queen's co., abt. 38 m. N.E. of Richmond.

New'town-Ards, a seaport-town of Ireland, in Ulster, co. Down, abt. 10 m. E of Belfast; *pop.* 10,000.

Newtown Bar'ry, a town of Ireland, in Leinster, co. Wexford, abt. 3 m. S. of Clonegal; *pop.* 1,400.

Newtown Creek, in *New York*, enters the East River from Queen's co., opposite New York city.

Newtown Ham'ilton, a town of Ireland, in Ulster, co. Armagh; *pop.* 1,200.

Newtown-Limavad'dy, a market-town of Ireland, in Ulster, abt. 15 m. N.E. of Londonderry; *pop.* 3,000.

Newtown-Stew'art, formerly Lislas, a town of Ireland, in Ulster, a co. of Loudonderry, abt. 5 m. W. of Gorton; *pop.* 1,400.

New Tren'ton, in *Indiana*, a post-village of Franklin co., abt. 30 m. N.W. of Cincinnati, Ohio.

New Tri'er, in *Illinois*, a township of Cook county.

New Trip'oli, in *Pennsylvania*, a post-village of Lehigh co., abt. 85 m. E.N.E. of Harrisburg.

New Ulm, or Neu Ulm, in *Minnesota*, a city, cap. of Brown co., 24 m. W. of St. Peter. *Pop.* (1895) 4,790.

New Utrecht, (*u'trekt,*) in *New York*, a township of King's co.

New Ver'non, in *New Jersey*, a post-village of Morris co., abt. 5 m. S. of Morristown.

New Vernon, in *New York*, a village of Orange co., abt. 65 m. N.W. of New York city.

New Vernon, in *Pennsylvania*, a post-village and post-township of Mercer county, abt. 18 m. S. of Meadville.

New Vien'na, in *Ohio*, a post-village of Clinton co., about 11 m. S.E. of Wilmington.

New Vil'lage, in *New Jersey*, a post-village of Warren co., abt. 52 m. N.N.W. of Trenton.

New'ville, in *Indiana*, a post-township of DeKalb county.—A village of Wells county, abt. 100 miles N.E. of Indianapolis.

New'ville, in *New York*, a post-village of Herkimer co., abt. 65 m. W.N.W. of Albany.

Newville, in *Ohio*, a post-village of Richland co., abt. 12 m. S.E. of Mansfield.

Newville, in *Pennsylvania*, a post-borough of Cumberland co., abt. 12 m. S.W. of Carlisle.

New Vine'yard, in *Maine*, a post-township of Franklin co.

New Wake'field, in *Alabama*, a village of Washington co., abt. 164 m. S. by W. of Tuscaloosa.

New Wash'ington, in *Indiana*, a post-village of Clarke co., abt. 18 m. S.W. of Madison.

New Washington, in *Pennsylvania*, a post-village of Clearfield co., abt. 135 m. W.N.W. of Harrisburg.

New Waverly, or Waverly, in *Indiana*, a post-village of Cass co., abt. 8 m. E. of Logansport.

New Westmin'ster, a town, cap. of British Columbia, on the Fraser River, 70 miles north north-east of Victoria.

New Wil'mington, in *Pennsylvania*, a post-borough and township of Lawrence co., about 8 m. S.W. of Mercer.

New Win'chester, in *Indiana*, a post-village of Hendricks co., abt. 27 m. W. of Indianapolis.

New Wind'sor, in *Maryland*, a post-village of Carroll co., abt. 30 m. N.W. of Baltimore.

New Windsor, in *New York*, a village and township of Orange co., abt. 85 m. S. of Albany.

New Wine, in *Iowa*, a village and township of Dubuque county, about 20 miles west by north of Dubuque.

New Wood'stock, in *New York*, a post-village of Madison co., abt. 24 m. S.E. of Syracuse.

New'-Year, *a.* Pertaining to the beginning of the year; as, *a New-Year's* gift.

New'-Year's-Day, *n.* The day on which the year commences; the first of January; usually called *New-Year*, or *New-Year's.* The celebration of the commencement of the new year dates from high antiquity. The Jews regarded it as the anniversary of Adam's birthday, and celebrated it with splendid entertainments — a practice which they have continued down to the present time. The Romans also made this a holiday, and dedicated it to Janus with rich and numerous sacrifices; the newly elected magistrates entered upon their duties on this day; the people made each other presents of gilt dates, figs, and plums; and even the emperors received from their subjects New-Year's gifts, which at a later period it became compulsory to bestow. From the Romans the custom of making presents on New-Year's day was borrowed by the Christians, by whom it was long retained; but even in those countries where it has lingered longest, it is falling rapidly into desuetude.

New-Year's Islands, in the S. Pacific Ocean, on the N. coast of Staten Land; lat. 54° 41′ S., Lon. 64° 28′ W.

New York, one of the U. States of America, and, though not the largest, one of the most important States of the Union. It extends between 40° and 45° N. Lat., and 70° and 80° W. Lon. Its shape, exclusive of Long Island, at its S. extremity, is nearly triangular; it has E. Connecticut, Massachusetts, and Vermont, N. and N.W., the Dominion of Canada, being separated from the latter by the St. Lawrence, and Lakes Ontario and Erie; and S. Pennsylvania, New Jersey, and the Atlantic. Length, E. to W. including Long Island, 412 m.; maximum breadth, 311 m. *Area*, 47,000 sq. m., or 32,332,160 acres. Although one corner only of the mainland touches the Atlantic, the seaboard of the State is extended by Long Island, Staten Island, &c., to 246 m.; while it has a lake coast-line of 352 m., and 281 m. of border, or navigable rivers. — *Gen. Desc.* The State may be described generally as an elevated region with extensive indentations in various parts below its average level. The most remarkable depressions which occur in the surface are the important valleys of the Hudson and Mohawk rivers, by means of which, and the canal system incidental to them, the basin of the St. Lawrence is at many points placed in communication with the Atlantic. The Blue Ridge of the Alleghanies terminates in this State in the Highlands, whose peaks have a mean altitude of 1,500 feet above the Hudson tide-water; to the N. of these again, the Catskill group rise to a superior height, their highest summit, Round Top, having an elevation of 3,804 feet. The Adirondack range in the wild region W. of Lake Champlain, has for its principal peaks Mount Marcy and Mount Anthony, 5,337 and 5,000 feet high, respectively. *Rivers.* The chief river of the State is the Hudson, a broad and deep stream with a tidal flow of 150 m., and traversing a country almost unrivalled for picturesqueness of scenery. The St. Lawrence, which forms its N. boundary as aforesaid, the Genesee, Oswego, Mohawk, Oswegatchie, St. Regis, and the head-waters of the Delaware, Susquehanna, and Alleghany, form the remaining chief constituents of the riparian system of the State. Several lakes of considerable size are interspersed throughout the State, the larger ones being those of Champlain, Oneida, Cayuga, Seneca, Canandaigua, George, and Chautauqua. Lake George is famous for the picturesque beauty of its island and mountain scenery, and for the important historical events which have taken place in its vicinity, and several of the central lakes are of great beauty, Seneca lake being rendered especially attractive by the striking scenic beauty of Watkins Glen at its head. Cataracts of the first order occur within the State, among them the world-renowned Falls of Niagara, the greatest cataract of the earth. Others include the High Falls of the Genesee at Portage, the Trenton Falls on West Canada creek, the Taghanic Falls, near Ithaca, and various smaller ones. Water power is developed largely at Niagara, and in considerable measure at Little Falls and Cohoes on the Mohawk, at Fulton, &c., on the Oswego, at Rochester on the Genesee, at Waterloo and Seneca Falls on the Seneca, at Watertown on the Black river, and in many other localities. The Thousand Islands of the St. Lawrence have become a popular summer resort, while Chautauqua lake is the center of a popular educational meeting. The Adirondacks, with their many beauties of lake and forests, are similarly popular, while the springs of Saratoga, Richfield, and Sharon are noted summer resorts,—all of which are described elsewhere in this work.—*Geol. and Min.* There are many features of interest in the geology of *N. Y.*, since nearly the entire geological series, from the earliest to the latest period, is represented in its rocks, the principal exceptions being the Jurassic and some other Mesozoic strata. These deposits outcrop as follows: Within and surrounding the Adirondack region, in the northeastern section of the State, lies an area of Archæan rocks, of somewhat circular shape. Similar rocks appear along the eastern side of the Hudson, where they are continuous with those of New England. The Archæan rocks of the Adirondacks are in great part surrounded with a belt of Silurian deposits, extending southward west of the Hudson, and bordering on Lakes Ontario and Erie. A belt of Cambrian deposits occurs north of the Adirondacks, while Devonian strata exist largely south and west of the Silurian.

NEW YORK

SCALE OF MILES

0 5 10 20 30 40

Same Scale as Main Map

State Capital ⊛ County Seats ⊙

Places of 100,000 and over	SYRACUSE
50,000 to 100,000	Utica
25,000 to 50,000	Newburgh
10,000 to 25,000	Niagara Falls

Hammond's 8 x 11 Map of New York

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NEW YORK

Land surface, Sq. m. 47,620
Water surface, Sq. m. 1,550
Pop. 1900. 7,268,894
White.. 7,156,881
African ... 99,232
Indian..... 5,257
Chinese.... 7,170
Japanese..... 354
Native-born, 5,368,469
Foreign-born, 1,900,425
Males .. 3,614,780
Females 3,654,114

COUNTIES.

Albany.....N 5
Alleghany ....D 6
Broome.....J 6
Cattaraugus.. C 6
Cayuga.. .....G 5
Chautauqua . B 6
Chemung.....G 6
Chenango.. ..J 6
Clinton. .....N 1
Columbia .....N 6
Cortland .....H 5
Delaware.....K 6
Dutchess .....N 7
Erie .....C 5
Essex.....N 2
Franklin.....M 1
Fulton.....M 4
Genesee.....D 4
Greene.....M 6
Hamilton .....L 3
Herkimer.....L 4
Jefferson ..... J 2
Kings.. .....C 2
Lewis .....K 3
Livingston ....F 5
Madison.....J 5
Monroe .. ....E 4
Montgomery..M 5
Nassau .....D 2
New York.....C 2
Niagara..... C 4
Oneida .....K 4
Onondaga ....H 5
Ontario.....F 5
Orange.....B 1
Queens.....C 2
Orleans.....D 4
Oswego.....H 4
Otsego .....K 5
Putnam.....C 1
Rensselaer....O 5
Richmond.....C 2
Rockland.....C 1
St. Lawrence .K 2
Saratoga ..... N 4
Schenectady..M 5
Schoharie.....M 5
Schuyler.....G 6
Seneca .....G 5
Steuben.....F 6
Suffolk.....E 2
Sullivan.....L 7
Tioga .....H 6
Tompkins.....G 6
Ulster ..... M 7
Warren .....N 3
Washington...O 4
Wayne.. .. ..F 4
Westchester..C 1
Wyoming.....D 5
Yates.....F 5

CITIES-TOWNS

Pop. Millions.	
3 New York	C 2
1 Brooklyn	C 2
Pop. Thousands.	
352 Buffalo	C 5
162 Rochester	E 4
108 Syracuse	H 4
94 Albany	N 5
60 Troy	N 5
56 Utica	K 4
47 Yonkers	C 2
39 Binghamton	J 6
35 Elmira	G 6
31 Schenectady	N 5
30 Auburn	G 5
24 Newburg	C 1
24 Kingston	M 7
24 Poughkeepsie	N 7
23 Cohoes	N 5
22 Jamestown	B 6
22 Oswego	G 4
21 Watertown	J 3
21 Mt. Vernon	C 2
20 Amsterdam	M 5
19 Niagara Falls	B 4
18 Gloversville	M 4
16 Lockport	C 4
15 Rome	K 4
14 New Rochelle	C 2
14 Middletown	B 1
14 Watervliet	N 5
13 Ithaca	G 5
12 Ogdensburg	K 1
12 Glens Falls	N 4
12 Lansingburg	N 5
12 Saratoga Springs	N 4
11 Hornellsville	E 6
11 Dunkirk	B 6
11 Corning	F 6
10 Geneva	F 5
10 Little Falls	L 4
10 Peekskill	C 1
10 Johnstown	M 4
9 Hudson	N 6
9 Olean	D 6
9 Port Jervis	B 1
9 Batavia	D 4
9 N. Tonawanda	C 4
9 Cortland	H 5
8 Plattsburg	O 1
7 Ossining	C 1
7 White Plains	C 1
7 Rensselaer	N 5
7 Port Chester	C 2
7 Tonawanda	C 4
7 Oneonta	K 6
6 Seneca Falls	G 5
6 Oneida	J 4
6 Canandaigua	F 5
5 Malone	M 1
5 Mattenawan	N 7
5 Norwich	J 5
5 Hoosick Falls	O 5
5 Herkimer	L 4
5 Catskill	N 6
5 Fulton	H 4
5 Ilion	K 4
5 Owego	H 6
4 Bath	F 6
4 Green Island	N 5
4 Tarrytown	C 1
4 Mechanicsville	N 5
4 Penn Yan	F 5
4 Newark	F 4
4 Albion	D 4
4 Sandy Hill	N 4
4 Waverly	H 6
4 Whitehall	N 3
4 Lyons	G 4
4 Nyack	C 1
4 Waterloo	G 5
4 Salamanca	C 6
4 Fredonia	B 6
3 Ballston Spa	N 4
3 Potsdam	L 1
3 Lancaster	C 5
3 Saugerties	N 6
3 Gouverneur	K 2
3 Dansville	E 5
3 Hempstead	C 2
3 Fort Edward	N 4
3 Wappingers Falls	N 7
3 Brockport	E 4
3 Depew	C 5
3 Walden	M 7
3 Leroy	E 4
3 Lestershire	J 6
3 Warsaw	D 5
3 Canastota	J 4
2 Baldwinsville	H 4
2 Watkins	G 6
2 Patchogue	E 2
2 Dobbs Ferry	C 1
2 Ellenville	M 7
2 Goshen	C 1
2 Walton	K 6
2 Haddonfield	B 4
2 Perry	D 5
2 Canton	K 1
2 Coxsackie	M 6
2 Granville	O 4
2 Frankfort	K 4
2 Freeport	C 2
2 Saranac Lake	M 2
2 E. Syracuse	H 4
2 Clyde	G 4
2 Riverhead	E 2
2 Fairport	F 4
2 Mt. Morris	E 5
2 Geneseo	E 5
2 Homer	H 5
2 Camden	J 4
2 Cooperstown	L 5
2 East Aurora	C 5
2 Greenport	F 1
2 Lowville	K 3
2 Sidney	K 6
2 Cohleskill	M 5
2 Hamburg	F 3
2 Southampton	F 2
2 Athens	N 6
2 Babylon	D 2
2 Gowanda	C 6
2 Keeseville	N 1
2 Canajoharie	L 5
2 Addison	F 6
2 Delhi	L 6
2 Canisteo	E 6
2 Coldspring	N 7
2 Deposit	K 6
2 Amityville	D 2
2 Massena	L 1
2 Mohawk	L 5
2 South Glens Falls	N 4
2 Chatham	N 6
1 Springville	C 5
1 Sag Harbor	F 2
1 Cornwall	C 1
1 Philmont	N 6
1 Whitesboro	K 4
1 Silver Creek	B 5
1 Palmyra	F 4
1 Oxford	J 6
1 Dolgeville	L 4
1 Clayton	H 2
1 Ticonderoga	N 3
1 Horseheads	G 6
1 Rockville Center	C 2
1 St. Johnsville	L 5
1 Greenwich	O 4
1 Rosendale	M 7
1 Cazenovia	J 5
1 Northport	D 2
1 Attica	D 5
1 Elmira Heights	G 6
1 Liberty	L 7
1 Port Henry	O 2
1 Boonville	K 4
1 Warwick	B 1
1 Norwood	L 1
1 Hamburg	C 5
1 Rouse Point	O 1
1 Hamilton	J 5
1 Suffern	C 1
1 Clifton Springs	F 5
1 Avon	E 5
1 Schuylerville	N 4
1 Akron	C 4
1 Waterville	K 5
1 Sea Cliff	C 2
1 Richfield Springs	L 5
1 Croton on-Hudson	C 1
1 Phoenix	H 4
1 Weedsport	G 4
1 Alexandria Bay	J 2
1 Cuba	D 6
1 Skaneateles	H 5
1 Rhinebeck	N 7
1 Pulaski	H 3
1 Middleport	C 4
1 Charlotte	E 4
1 Salem	O 4
1 Cattaraugus	C 6
1 Holley	D 4
1 Groton	H 5
1 Clinton	K 4
1 Champlain	O 1
1 Cape Vincent	H 2
1 Wayland	E 5
1 Phelps	F 5
1 Fayetteville	J 4
1 Valatie	N 6
1 Adams	H 3
1 Dundee	G 5
1 Hancock	K 7
1 Wolcott	G 4
1 Sackett Harbor	H 3
1 Mexico	H 4
1 Greene	J 6
1 Trumansburg	G 4
1 Manlius	J 4
1 Friendship	D 6
1 Castleton	N 5
1 Randolph	C 6
1 Bolivar	D 6
1 Montour	G 6
1 Belmont	E 6
1 Honeoye Falls	E 5
1 Unadilla	K 6
1 Hammondsport	F 6
1 Monticello	L 7
1 New Berlin	K 5
1 Tivoli	N 6
1 Fonda	M 5
1 Falconer	B 6
1 Middleburg	M 5
1 Liverpool	H 4
1 Bainbridge	K 6
1 Marathon	H 6
1 Castile	D 5
1 Little Valley	C 6
1 Caledonia	E 5
1 Rockton	M 5
1 Naples	F 5
1 Northville	M 4
1 Millbrook	N 7
1 Newpaltz	M 7
1 Nunda	E 5
1 Pt. Byron	G 4
1 New Hartford	K 4
1 Stillwater	N 5
1 Schoharie	M 5

There are also traces of the Carboniferous formation, but no coal-bearing strata. The later strata, Secondary, Tertiary, and alluvial, occur in more limited localities. American geology of the Palæozoic period has received its names from *N. Y.* localities of the successive formations, these various geological strata having been first systematically studied, and yielding in great abundance the characteristic fossils of the formations. Gneiss and granite are the most abundant primary rocks, and carboniferous slate, greywacke, and limestone the principal transition and secondary formations In the latter. to the S. of Lake Erie, many salt springs exist, a bushel of salt being obtained from 45 gallons of brine. Productive salt-beds also occur in the N central part of the State, near Syracuse, and in 1878 large new salt deposits were disc. in Onondago co. Iron is extremely plentiful in the N., where a layer of argillaceous iron ore, yielding from 15 to 30 per cent. of metal, extends E. and W. for 200 m. In the Highlands are many beds of magnetic iron ore, and numerous deposits of white marble also are worked at several localities. As the rocks of the Appalachian system are traced from Pennsylvania and New Jersey, those of a later period than the Hudson River slates, instead of crossing the river on the general range of the outcrop toward the N.E., are deflected toward the N.W. before reaching the Mohawk River, the great development of azoic rocks in the N. part of the State seeming to split and turn aside these stratified formations. This is the case with all that group of silurian rocks which compose the Shawangunk Mountains, and run parallel with this ridge from the N.W. corner of New Jersey to the Hudson River at Rondout. In the valley W. of the mountains are the limestones and shales of the Helderberg and Hamilton groups. These rocks, as they approach the Hudson River, sweep around to the W., the great length of the State, and pass across the head of the Niagara River into Canada. In the intermediate formations are included the lead and copper ores of the Shawangunk grit, the fossiliferous iron ores of the Clinton group near Oneida Lake, and the salt and gypsum beds of the Onondaga group. Gypsum occurs in large deposits, and is highly useful in agriculture, being used generally in the proportion of about a ton to 10 or 15 acres of soil. An argillaceous limestone which makes a valuable cement, lead, marble, and peat, are the other chief mineral developments. Coal in small quantities has been found, and also petroleum and natural gas, in the W. part of the State. Among the numerous mineral springs, those of Saratoga and Ballston Spa are the most frequented watering-places of their kind throughout the Union. — *Meteorol.* The climate is very variable; but an estimate of five years gives 40° Fahr. as the mean annual temperature of the whole State. Thunderstorms accompanied with lightning occur frequently during the summer solstice, but the atmosphere is, for the most part, dry and equable, and the State is, in general, very healthy. — *Soil, Prod., and Agric.* In the N. and S.W. parts of the State much of the surface is covered with forests, and the principal business of the residents in these districts is the getting in and selling lumber. There is little or no underwood, and in cultivated tracts, wherever a sufficient quantity of land has been cleared, the woodland of a farm bears as high a price per acre as the land actually cleared. The trees are sometimes above 80 feet in height. Numerous varieties of oak, the hickory, black-walnut, chestnut, plane (*Platanus occidentalis*), maple, ash, beech, elm, tulip-tree (*Liriodendron tulipifera*), here called poplar, and wild cherry, are ordinary trees, with red cedar and pine. The locust-tree, which is not indigenous to the State, and the cedar, have been extensively planted, for the purpose especially of ship-building. The soil in the S. is rather unfertile, but it improves on proceeding northward. Along the banks of the St. Lawrence, and in the region around the Oneida, it is well adapted for grain-growing; upon the whole, however, the rearing of live-stock is the most profitable branch of rural industry, and a large portion of the State, especially about its center, is appropriated to sheep-farming. The principal wheat district commences in the valley of the Mohawk, about Lon. 75°, and extends W. to the Great Lakes, including the fertile Seneca valley and the Genesee country. The average produce of wheat is estimated at from 25 to 30 bushels per acre; but from 40 to 50 bushels are frequently reaped. Apples, pears, and cherries succeed admirably well. The apples called *Newtown pippins*, produced in this State, are superior to any grown in Europe, and are extensively exported to England. In the remote parts of the State, the original log cabins still remain upon farms well cleared, well fenced, and under high cultivation; but even there they are gradually giving way to more substantial and commodious buildings, and, in many cases, to large and elegant mansions. In the grazing counties, the buildings are generally of a better character than in the purely agricultural districts. Long Island, and the adjacent county of Westchester, though comparatively unproductive, are more improved and better farmed than most other parts of the State, probably in consequence of their vicinage to the city of New York. Agriculture, however, is everywhere improving. Agricultural societies are to be found in almost every co., and the State govt. has contributed large funds for the promotion of their objects, especially in premiums for raising the best crops. (Further allusion will be made to State encouragement of agricultnre in another place in this article.) In many parts, where the soil is inferior, it has been found that grazing husbandry has been substituted for tillage, especially since the Erie Canal has brought the produce of the more fertile W. cos. of the State into competition with those of the E. Land is almost always in the holding of the proprietor, except in the neighborhood of the cap. and some of the larger cities and towns. When it is let, it is generally on the *metayer* principle, the landlord providing half the seed, and receiving half the produce; and, in the case of pasture farms, half the stock belongs to the proprietor. Wheat is the most valuable crop, and the attention of the farmers seems chiefly directed to the raising enough of maize for home consumption only, and of wheat for sale. A good deal of buckwheat and rye is grown, but the degree of heat is not favorable for oats and barley. Potatoes, turnips, and other root crops are not at all general in large fields. Indian corn is sown during the latter half of May, in drills, from 3½ to 4 ft. apart, and is harvested in Oct., or sometimes later. The cultivation of this and other crops is largely done by means of the improved implements of agriculture, many of which are the invention of citizens of this commonwealth. From 35 to 40 bushels an acre is considered a good average crop of maize; the same proportion of wheat, however, is esteemed a very abundant crop. Hops are extensively grown. Hay is easily made, the sun in the hay-making season being very powerful, and, like other crops in this State, it is seldom damaged by bad weather. Clover and all sorts of grass are used. The soil and temperature of this State are well adapted to the successful cultivation of the principal crops and fruits of the temperate zone. Somewhat more than one-half of the total area of the State is improved and under successful cultivation; 37 per cent. of the ameliorated land is devoted to pasturage, 25 per cent. to meadow lands, 37 per cent. to the raising of oats, Indian corn, wheat, rye, buckwheat, and barley, and 1 per cent. to the minor crops and gardens. In the northern counties and the highland regions along the southern border, and near the Hudson, stock and sheep rearing, and dairy farming, are the almost exclusive agricultural pursuits; while the low-lands that form the greater part of the surface of the western portion of the State, are best adapted to cereal productions. Broom-corn has long been the staple crop of the Mohawk Valley and its sub-vales; tobacco is extensively raised in the Chemung Valley, an Onondaga and Wayne cos.; grapes are raised in several of the central lake valleys, and maple-sugar is an important product of the northern and central counties. Orchards are highly productive. Various kinds of excellent apples are grown, and a good deal of inferior cider is made from the crab fruit, selling at from $2 to $4 per barrel of 30 wine gallons. Melons and pumpkins are raised for domestic use, and for cattle-feeding. Great exertions are being made to improve the breeds of cattle and horses by importations of the best English stock of cattle and in selecting superior stud horses. Dairy produce forms an important element in the rural economy of the State. Milch-cows sometimes yield 10 or 11 lbs. of butter a week, and, perhaps, 20 quarts of milk a day. The manufacture of cheese, both for home use and export, is conducted on a very extensive scale, and the exportation to England has become within recent years a heavy annual item of commerce. The price of ordinary horses runs from $80 to $125. Sheep are less attended to than they deserve in a country where the dryness of the weather preserves them from diseases to which they are subject in other lands. The merinoes, and crosses with them, are the breeds generally seen; the mutton is generally of inferior quality. The great extent of the forests favors the breeding of hogs, which thrive well, and, before being slaughtered, are usually fattened with maize or meal. Turkeys, guinea-fowl, and the usual kinds of domestic poultry are in great abundance. From the S.E. counties immense quantities of eggs and spring chickens are sent to the New York markets. The products of the State comprise nearly the whole of those grown in the temperate zones. At the date of the census of 1890 *N. Y.* stood second in rank in the value of its farm produce, being surpassed only by Illinois, the yield of *N. Y.* being valued at $161,593,099, that of Illinois at $184,759,013. In number of milch cows it was surpassed only by Iowa, while it was far in advance of any other State in the value of its milk, butter, and cheese production, yielding 663,917,240 gals. of milk, 98,241,813 lbs. of butter, and 4,324,028 lbs. of cheese. The butter is made largely in creameries and nearly all the cheese manufactured in factories. In its buckwheat yield this State ranks first, while its hop product is greater than that of all the remainder of the U. S., it yielding 20,063,029 lbs. out of a total of 39,171,270 lbs. The dairy industry is mainly located in the central counties of the State and on the lower Hudson, in the vicinity of the great cities of that section. For the same reason market gardening is a thriving industry on Long Island, and in a smaller measure near the other large cities. Of fruits, in addition to apples, pears, plums, and cherries are abundant, and the smaller fruits and berries are largely grown. The State possessed, in 1890, 226,223 farms, embracing 16,389,380 acres of improved land, valued, with its buildings and fences, at $968,127,286, a landed value only surpassed by Illinois and Ohio. Its live stock was valued at $124,523,965. Of the area of cultivation 506,106 acres were devoted to wheat, yielding 18,014,170 bushels; 403,374 to corn, yielding 7,301,069 bushels; and 1,440,579 to oats, yielding 45,666,354 bushels.—*Div.* The State is partitioned into 60 counties, viz.:

Albany,	Franklin,	Oneida,	Schuyler,
Alleghany,	Fulton,	Onondaga,	Seneca,
Broome,	Genesee,	Ontario,	Steuben,
Cattaraugus,	Greene,	Orange,	St. Lawrence,
Cayuga,	Hamilton,	Orleans,	Suffolk,
Chautauqua,	Herkimer,	Oswego,	Sullivan,
Chemung,	Jefferson,	Otsego,	Tioga,
Chenango,	King's,	Putnam,	Tompkins,
Clinton,	Lewis,	Queen's,	Ulster,
Columbia,	Livingston,	Rensselaer,	Warren,
Cortlaud,	Madison,	Richmond,	Washington,
Delaware,	Monroe,	Rockland,	Wayne,
Dutchess,	Montgomery,	Saratoga,	Westchester,
Erie,	New York,	Schenectady,	Wyoming,
Essex,	Niagara,	Schoharie,	Yates.

Cities and Towns. New York, Brooklyn, Albany (State cap.), Buffalo, Rochester, Syracuse, Troy, Oswego, Utica, Batavia, Newburgh, Hudson, Binghamton, Auburn, Poughkeepsie, Schenectady, Canandaigua, Elmira, Saratoga, Coboes, Amsterdam, Corning, Dunkirk, Geneva, Ithaca, &c. The State possesses, besides, nearly 1,000 other towns, many of considerable size and importance. —*Govt.* The legislature of the State consists of a Senate of 50 members, elected for 2 years, and a House of Assembly of 150 members, chosen annually. The governor and lieut.-governor are elected for 3 years; and the latter presides in the Senate, where he has a casting vote. The secretary of state, comptroller, treasurer, attorney-general, state engineer and surveyor are also elected by popular vote for 2 years. The right of suffrage is enjoyed by every male citizen above 21 years of age, who has resided for 12 months in the State and for 4 months in the county for which he tenders his vote. The salary of the governor is $10,000 per annum; while the lieut.-governor receives $5,000. Each member of the legislature shall receive for his services an annual salary of $1,500. The two bodies meet annually at Albany on the first Tuesday of Jan., unless otherwise ordered.—*Judiciary* consists of a supreme court, with general jurisdiction in law and equity, subject to appelinte jurisdiction of the court of appeals, which latter is composed of a chief judge and 6 associate judges, who shall hold their office for 14 years. The superior court of the city of New York, the court of common pleas for the city and county of New York, the superior court of Buffalo, and the city court of Brooklyn, are continued with the powers and jurisdiction they now severally have; the county courts are continued. The entire judiciary is elective; the limitation of age is restricted to 70 years. The English common law, with various modifications, forms the basis of the jurisprudence. A new code of criminal procedure went into effect Sept., 1881, and a new penal code in May, 1882. *N. Y.* has 34 members in the U. S. Congress, and 36 electoral votes. There are 3 State prisons, viz.: at Auburn, Cayuga co.; Dannemora, Clinton co., and Sing Sing, on the Hudson, in Westchester co., abt. 35 m. N. of the city of New York. —*Finances.* The State debt of *N. Y.* in 1890 was $2,308,230, which has since been somewhat reduced. The assessed value of real estate in 1895 was $3,908,853,377; of personal property, $541,621,122. Of the total wealth of the U. S. in 1896—$65,037,091,197—*N. Y.* had $8,576,701,991, or more than one-eighth. The total resources of moneyed institutions was $1,557,783,682, of which national and State banks (about 550 in all) had $273,791,005; savings banks, $806,751,426; trust companies, $396,917,238, and other institutions the remainder. The annual receipts of the State treasury are about $30,000,000, of which about half comes from taxes, the remainder from other sources. Of this the Raines liquor law yields about $3,000,000. Of this revenue about $4,000,000 is devoted to school purposes; as much to State care of the insane; $2,000,000 to maintenance of the canals, and the remainder to various other purposes.—*Com. and Manuf.* The manufacturing interests of this, the "Empire" State, are most extensive, and in many sections they exceed those of agriculture or commerce. Since the increased development of lines of interior communications, manufactures have received an accession of importance which is seen in the flourishing factories and workshops found in almost every part of the State. Nearly every branch of mechanical industry is, more or less, brought into active operation, and it would be tedious to attempt to detail within our circum

Fig. 1944. — SEAL OF THE STATE.

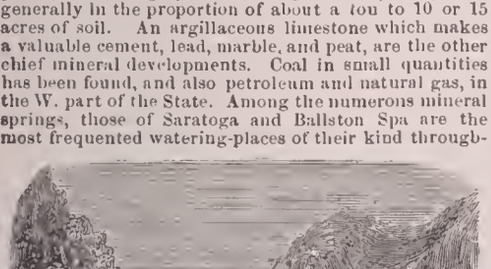

Fig. 1945. — HIGHLANDS OF THE HUDSON.

scribed limits each and every application of such manifold interests. It will suffice to say that in this branch of industry New York exceeds any other State in the Union, the value of its fabricated products, as returned by the federal census of 1890, being $1,711,577,671, exceeding Pennsylvania, the second State in production, by $380,000,000, and being nearly double that of any other State. Of these manufactured articles clothing holds the first rank, the second in order being cotton and woollen textiles, the third silk goods, the fourth foundry and machine shop products, and the fifth malt liquors. Clay, suitable for brick, terra-cotta, and tile manufacture, exists in practically inexhaustible quantity, and there is an immense output of bricks, to the number of 1,300,000,000 in a year. Half the hydraulic cement of the U. S. is made in this State, the water-lime group yielding the material. In its production of salt New York is exceeded only by Michigan, its yield of over 5,000,000 barrels annually being partly mined, partly obtained from brine. In iron ore it occupies the fifth rank, the works being mainly in the Adirondacks, while in building stones, including granite, marble, limestone, and slate, it ranks sixth among the States. The ports of entry for the collection of customs revenue are (excluding the city of New York) Sag Harbor, Plattsburg, Ogdensburg, Cape Vincent, Sackett's Harbor, Oswego, Rochester, Lewiston, Buffalo, and Dunkirk. The vast commercial business of the State having its center and outlet in New York city, we refer to our article thereon for a succinct view of the condition of the home and foreign trade of the State, on the authority of the latest statistical reports.—*Public Works.* New York is distinguished above every other State in the Union by her extensive inland water communications. Of these, the principal, formed partly by the navigable river, the Hudson, and partly by the Erie canal, 364 miles in length, from Albany on the Hudson to Buffalo on Lake Erie, connects the city of New York with the great American lakes, and makes her, in fact, the proper port of Upper Canada, and of all the vast and fruitful countries surrounding those lakes. Upper Canada may, indeed, be reached from Europe by way of New York in less than half the time in which it can be reached viâ the St. Lawrence and Quebec, and with incomparably less risk. The Erie canal, commenced in 1817, was opened for traffic throughout its entire extent in 1825. Originally it was only 4 ft. deep; but provision was made, in 1835, for increasing its depth to 7 ft. Its first cost amounted to $7,143,789, and the expense attending its enlargement was estimated at about $7,000,000 more. The canal is now free. Buffalo, at the W. termination, is 698 feet above the level of Albany, its E. terminus, where it commences. It is joined by a branch canal with Oswego, on Lake Ontario, and by another branch with the Susquehanna, and, consequently, with the Chesapeake. This great work was undertaken at the expense of the State, and has been eminently successful, both in a national and in a pecuniary point of view, the tolls, which are comparatively moderate, amounting to, on an average, $3,500,000 a year; in 1869, however, the receipts fell off to $3,335,544.41. New York city has also a direct communication with the basin of the St. Lawrence, by the Champlain canal. The latter, which may be regarded as the N.E. branch of the Erie canal, connects the Hudson with Lake Champlain, which latter unites, by means of the navigable river Richelieu, with the St. Lawrence. Another important canal connects the Hudson with Port Jervis, on the Delaware. The Harlem river ship-canal, connecting the Hudson river and Long Island sound, by way of Spuyten Duyvel creek and Harlem river, was opened for traffic in 1895. (See CANALS.) There are now considerably over 1,000 m. of canal intersecting the State, constructed at a total cost of upwards of $40,000,000. It is her canal system that has enabled New York to become so prominent and successful a factor in the great trade between the West and the Eastern seaboard. Various efforts to improve the transporting capacity of the Erie canal, by the employment of steam and electric trolley propulsion in place of the antiquated mule power, have been made, though the latter has not yet been superseded. The design of deepening this canal and adapting it to ship navigation, in order that vessels might be enabled to reach New York harbor without breaking bulk, has also been long entertained, and in 1897 the subject of a ship-canal from the lakes to the Hudson was investigated by a governmental commission. The report of this commission did not favor the utilization of the Erie as the basis of the proposed canal, but advocated a shorter route, via Lake Ontario and some of the minor rivers of the State to the Hudson. The question of the construction of this canal is still in embryo, many maintaining that so costly a work is inadvisable in view of the activity and cheapness of railroad transportation through the State. A still more important class of public works is that of railroads. The first railroad in New York (the Mohawk & Hudson from Albany to Schenectady, 17 m. long) was opened in 1831. In the following year the Saratoga & Schenectady, 21 m., and 1 m. of the New York & Harlem, were opened. The mileage of the State had increased to 719 m. in 1845, 1,361 in 1850, 2,682 in 1860, 3,928 in 1870, 5,991 in 1880, and 7,475 in 1890, with a considerable increase since the latter date. The two most extensive railroad corporations of the State are the N. Y., Lake Erie & Western (formerly Erie), and the New York Central & Hudson River. The former, chartered in 1832, now operates more than 2,000 m. of railroad, the latter more than 2,600.—*Public Inst.* The public institutions of the State comprise the State Lunatic Asylum at Utica; the New York State Asylum for Idiots at Syracuse; the State Inebriate Asylum at Binghamton, and the State Asylum for the Insane opened at Binghamton in 1880; besides other establishments for the relief of the sick or destitute in connection with N. Y. city (*q.v.*). The work of the State Board of Health in abating nuisances, improving the sanitary condition of various localities, diffusing useful information, and promoting the establishment of local organizations, has been of great and generally acknowledged value. For the first time in their history, the State prisons, in 1881, were self-sustaining. The earnings of the convicts paid current expenses, leaving a small balance to the credit of the prisoners. —*Relig., Educ., &c.* The principal religious denominations dispersed throughout the State, are the Methodists, Presbyterians, Baptists, Roman Catholics, Episcopalians, and Dutch Reformed. In no State of the Union is scholastic instruction more thoroughly carried out. The constitution of 1822 set apart the proceeds of future sales of certain State lands as a fund for the support of common schools, and the revised constitution declares the inviolability of the capital of this fund, of the literature fund as well, and of the U. S. deposit-fund, which is incorporated with the common-school fund. The product of this general fund is distributed among the townships on condition of their raising a proportionate sum to that given by the State. The whole of these sums are expended in payment of teachers' wages, the erection of school-houses, and the establishment of libraries. In each of the Senatorial districts there is an academy for teachers, and there are, besides the State Normal School at Albany, a number of others in active operation, with an attendance of several thousand students. In 1896 the school districts numbered 11,800, and the children of school age 1,651,858, of whom 1,176,074 attended school during some part of the year. The expenditure for school purposes aggregated $23,173,180, of which $15,542,171 was used for city, $7,581,019 for country schools. The high schools, in 1895, numbered 391; the academies, 133; and the students, in high schools and colleges, 76,704. The State possesses, besides its institutions for public education, the following colleges and universities: Union College, at Schenectady; Hamilton, at Clinton; Hobart, at Geneva; Genesee, at Lima; Elmira (for females); the People's College, at Havana; St. John's, at Fordham; New York City University; Madison University, at Hamilton; the universities of Rochester and Troy, and the Ingham University, at Le Roy. In addition to the above are the Cornell University at Ithaca, the State University at Albany, and the N. Y. State Agricultural College at Ovid, besides a number of medical colleges. At West Point (*q.v.*), on the Hudson, the celebrated U. S. Military Academy is located. The literary and journalistic requirements of the public are supplied by the diffusion throughout the State of printed books, magazines, and newspapers, counted by thousands.—*Hist.* The State was originally peopled by the "Iroquois, or Five Nations," comprising the *Mohawks*, *Oneidas*, *Onondagas*, *Cayugas*, and *Senecas*, ultimately becoming, with the accession of the *Tuscaroras* to the Iroquois league, the well-known "Six Nations." In 1609, a Frenchman, named Champlain, from Canada, explored the country as far as the lake which has since borne his name, and defeated the Mohawks. This event gave rise, among the Iroquois, to a feeling of hostility toward the French that endured till the final overthrow of the power of the latter on the American continent. In the same year, Henry Hudson, an English navigator in the employ of the Dutch East India Co., discovered the bay of New York, and sailed for some distance up the river which bears his name. The region he discovered was at once claimed by the Dutch, and called the *New Netherlands*. During the next 12 years, numerous colonists arrived from Holland, who further explored the country along the Hudson and around Long Island sound, and founded trading-posts at Fort Orange (now Albany), and at New Amsterdam, on Manhattan Island, the latter ultimately becoming the nucleus of the present city of New York. The Dutch settlements, in course of time, were invaded by the English from Connecticut, and by the Swedes in Delaware. The English having set up a claim to New Netherlands as being part of Virginia, priorly discovered by Cabot, Charles II., in 1664, granted a charter of all the lands lying between the Hudson and the Delaware to his brother, the Duke of York. This included New Netherlands, and a portion of the territory previously granted to Connecticut, Massachusetts, and New Hampshire. In August of the same year, the whole country passed into the possession of the English, who gave the name of *New York* to New Amsterdam, and that of *Albany* to Fort Orange (after the titles of the grantee—"Duke of York and Albany.") In 1664, the colony possessed more slaves in proportion to its inhabitants than Virginia. When the Duke of York ascended the English throne as James II., the government became an appendage to the crown, and was administered by viceroys bearing the title of governor. An insurrection, in 1689, headed by one Leisler, broke out, when the latter seized the government and administered it in the name of William III. and Mary, for two years, when he was superseded by a governor sent direct from England, who authoritatively caused Leisler to be arrested, tried for treason, and executed. From the dawn of the settlement, the French had been engaged in almost continual warfare with the Five Nations. In 1684, Gov. Dongan concluded an offensive and defensive treaty with the Indians; and from that time forward the English became their allies and fast friends. The peace of Ryswick, in 1697, terminating the war between England and France, Count Frontenac, the then French governor of Canada, directed his force against the Five Nations. This proceeding was, however, frustrated by the Earl of Bellamont, English governor of the province, who promised the Indians support in case of their being attacked. Border warfare continued to be conducted for some years on both sides; and in 1731 the French erected the important fort of Crown Point, on Lake Champlain, completely commanding the natural defile between the Hudson and the St. Lawrence. The great final conflict between England and France to decide the sovereignty of America broke out in 1754. Next year, a battle took place near Lake George, when the English, commanded by Sir W. Johnson, nearly annihilated a French force under Gen. Dieskau. In 1756, the French destroyed Oswego; and, in the following year, Fort William Henry capitulated to the French, when the English garrison was massacred by the Indian allies of the victors. In 1758, General Abercrombie was defeated at Ticonderoga, and Col. Bradstreet took Fort Frontenac. In 1759, Niagara surrendered to Gen. Prideaux and Sir W. Johnson, and Ticonderoga and Crown Point were abandoned, leaving no French troops within the limits of the colony. In 1775 the Revolutionary War broke out, and in February of the next year an American force took possession of New York city, which they held till August, when, after being disastrously defeated at Long Island, they surrendered the city and its environs to the British. In 1783, New York city was evacuated by the latter,—forming the closing scene of the Revolutionary drama. The first constitution of the State was adopted in 1777, and was successfully revised in 1801, 1821, 1846, 1877. In 1788 *N. Y.* adopted the Federal Constitution, and received popularly the name of the Empire State, from its importance as a member of the Union. The national government under the constitution was first located in New York city, which was also the State capital until 1797, when Albany was made the capital. During the war of 1812 important events took place on the northern boundary, along Lake Ontario and the Niagara river, and on Lake Champlain. Slavery was finally abolished throughout the State in 1817. Steamboat navigation began on the Hudson in 1807, and in 1825 the canal system was perfected by the completion of the Erie canal from the lakes to the Hudson. *N. Y.* took an active part in the Civil War, supplying large numbers of troops to the army. Since the close of the war rapid steps of progress have been made, and the State has attained a position which gives it fair claim to the title of Empire State. *Pop.* (1890) 5,997,853; (1900) 7,268,894.

Fig. 1946.—THE CAPITOL AT ALBANY.

New York, the principal city of the State of New York, the largest in population and the most important in commerce and finance in America, and the second in wealth and population on the globe. It is situated on the east side of the Hudson (locally known as the North) river, and on both sides of New York bay, including in its area Manhattan Island, Staten Island, the western extremity of Long Island with the municipality of Brooklyn, and part of the mainland north of Harlem river. Lat. 40° 42′ 43″ N., Lon. 74° 0′ 3″ W. The inner bay of New York, included within this area, forms one of the finest harbors in the world being about 8 m. in length north to south, and with a breadth varying up to 5½ m., and an area of about 14 sq. m. It has three channels of communication with the ocean—the Narrows, the East river (opening into Long Island sound), and Staten Island sound. Of these the first is much the best and far the most frequented. The bar at Sandy Hook, at the mouth of the outer bay, is crossed by two ship channels, from 21 to 32 feet deep at ebb tide, so that entrance is afforded to the largest vessels. Within the bar and along the Hudson the water is so deep that ships of the largest tonnage may lie close to the quays, while the strength of the tide and the vicinity of the ocean usually keep the bay free from impediment by ice. Navigation by way of Long Island sound is hindered by the rocky shoals and intricate currents at Hell Gate, but these have been largely removed by blasting. The inner bay is nowhere surpassed in the advantages which it offers to commerce. Over 6,000 steamers and 9,000 sailing vessels enter and clear from it annually, while its annual exports and imports aggregate nearly $1,000,000,000 in value. In the harbor near the city are a number of fortified islands, and the ap-

proach via the Narrows, which is a strait about a mile wide between Long and Staten Islands, is defended by Forts Wadsworth, Tompkins, and Hamilton, while the Sound entrance is defended by fortifications at Throgg's Neck and Willett's Point. The navigation on entering the harbor is very easy, and but for the risk of vitiating marine insurances a pilot would seldom be required. There is a light-house on Sandy Hook, and several others further in, while on Liberty (formerly Bedloe's) Island the lofty Bartholdi statue, its apex lit by an electric light by night, serves the purpose of an additional light-house. Across the East river stretches a great extension bridge, while others are projected, both across this stream and the Hudson.—*Area.* New York was originally confined to Manhattan Island, lying between the East and North rivers, and cut off from the mainland by Harlem river and Spuyten Duyvel creek (now the Harlem ship-canal). This island is about 13½ m. in length and 1⅞ m. in average breadth, with an area of 22 sq. m. In 1874 a portion of Westchester co., on the mainland north of Harlem river, reaching to the city of Yonkers, and bounded by the Hudson river and the Bronx (a small stream), was annexed, giving the city a total area of 38·85 sq. m. On the 1st of January, 1898, the city gained a much greater accession of territory and population, through legislation perfected in 1897, an addition which has raised it to the rank of the second city on the globe, and the largest in area and population in the United States. For many years previously it had been evident that the municipality, as then organized, did not include the whole population fairly entitled to be claimed as part of New York, the great city of Brooklyn and various smaller communities having grown up through the outflow of population from Manhattan Island. The feeling that it was desirable to consolidate these various communities into a single great municipality at length bore fruit, the necessary legislation being obtained and the consent of the various communities concerned given. Jersey City, one of the suburban municipalities, lying in a different State, could not be included, and the city as extended embraced the following communities, with areas and populations as given in the State census of 1892:

	Sq. m.	*Population.*
New York city (Manhattan)	38·85	1,801,739
Brooklyn	77·51	995,276
Richmond co. (Staten Island)	57·19	53,452
Flushing	29·65	19,803
Hempstead (in part)	17·86	17,756
Jamaica	33·50	14,441
Long Island city	7·14	30,506
Newtown	21·32	17,549
Jamaica Bay	25·63	.....
East Chester, West Chester and Pelham	50·00	35,000
TOTAL,	358·65	2,985,522

New York, as thus constituted, is mainly situated on islands (Manhattan, Long, and Staten Islands), but has added to its former extension on the mainland the territory east of the Bronx river. The population of its several sections in 1900 was as follows: Manhattan, 1,850,093; Brooklyn, 1,166,582; Bronx, 200,507; Queens, 152,999; Richmond, 67,021; total, 3,437,202. It is surpassed only by London (4,536,541 in 1901.)—*Manhattan.* As, however, the various localities above named as constituents of New York are elsewhere described in this work, we shall confine ourselves here to a description of the city as formerly constituted, now the Manhattan section of the new city. The oldest portion of the city, at the S. extremity of Manhattan Island, was laid out very irregularly, and contains a number of narrow and crooked streets. Yet in this section the wholesale traffic and the financial business of the city are largely concentrated. Wall Street, scarcely half a mile in length, is unequalled in the world for the extent of its monetary operations, while New and Broad Street are other important centers of banking and speculative business. At the extreme S. point of this district is located the Battery, an open space of some 20 acres, once a fashionable promenade. Here was once an old brick fort, succeeded by a building named Castle Garden, used successively as a concert hall and a depôt for arriving emigrants, and now transformed into a salt-water aquarium, which is growing to be a favorite place of resort. From this point extends northward Broadway, one of the finest thoroughfares of the world, 80 feet wide, lined on both sides with edifices of imposing architecture, and extending in a devious line through the center of the island to 59th Street, where it expands into a grand boulevard 150 feet wide, which pursues a somewhat winding course northward to 155th Street. Passing from the old to the more modern part of the city, we come to a series of broad, straight streets, comprising 12 great avenues and several smaller ones, 75 to 150 feet in width, which extend north and south, and are crossed at right angles from 14th Street northward by streets, mostly 60 feet wide, and running from river to river. Of these Fifth Avenue, the most central and the most striking in its edifices, divides the city into east and west sides. The streets are, as a rule, well paved and lighted, and under the new system are kept in a very satisfactory state of cleanliness. Several of them are traversed by elevated passenger railroads, besides which there are many lines of street railway, as yet largely operated by horses. From the Grand Central Depôt radiate several lines of railroad, while others run from Jersey City and Brooklyn. The rush of travel is so great that the ferry service across the rivers has long been unsatisfactory; more bridges are in contemplation, and it is proposed to tunnel the North and East rivers. Another great project which may soon be consummated is to excavate a great tunnel under the city for swift electric railway traffic from end to end of the island. On the Hudson and East rivers and down the Narrows pass night and day great passenger steamers, and various lines of ocean steamships connect New York with various ports of Europe and other parts of the world. The water frontage of Manhattan Island is nearly 25 m., with a considerable length of the shore awaiting future utilization. 13 m. of this are on the Hudson river side. There are more than 70 piers on each river, and the Brooklyn and Jersey City sides are similarly utilized, while about 30 steam ferries afford constant communication with the opposite shores. Into this port come about two-thirds of all the imports, and from it go nearly half of all the exports of the U. S., its total commerce

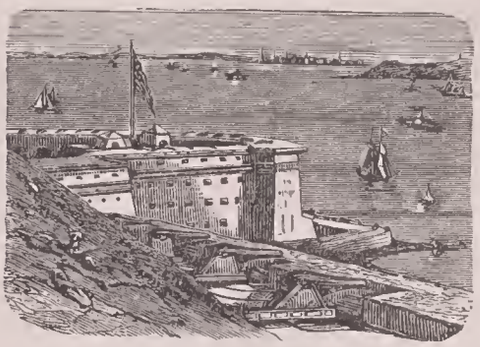

Fig. 1947.—NEW YORK FROM FORT RICHMOND.

in each of the specially large years 1892 and 1897 being over $1,000,000,000.—*Architecture.* The building material of the city in its humbler portions is red brick, while the dwellings of the richer classes are usually massive and stately brownstone edifices. The stores are built of iron, brown and yellow sandstone, and a few of marble, granite being little used, while wood is forbidden to be employed. The dwelling houses in the upper part of the city bring high prices, and the rents are so high as to be a severe burden to all other than the wealthy. Of late years the custom has grown to erect very lofty buildings, fireproof or semi-fireproof, for apartment houses and business and office purposes, the stairs being supplemented by passenger elevators which render access to the highest stories easy. Many of these structures are from 75 to 100 feet in height, and internally are roomy and elegant. Among the great apartment houses may be named the Spanish Flats, Dakota, Knickerbocker, Florence, and Central Park edifices. In the poorer districts equally lofty tenement houses arise in which the poor find contracted, incon-

Fig. 1948.—THE COURT-HOUSE.

venient, unclean, and insanitary quarters. In a tenement house recently constructed, however, by a public-spirited citizen, much more desirable and well-adapted homes have been provided for the poorer classes, and this step may lead to an abolition of the New York tenement-house abomination. The public buildings are numerous, large, and substantial, though with no particular claim to architectural merit. The Custom House, a granite edifice in the Grecian style, built at a cost of $1,800,000, is one of the finest structures in the city. The U. S. Sub-treasury (formerly the Custom House) was erected at a cost of $1,175,000. These are on Wall Street, which, in addition, contains many fine banking houses. The Stock Exchange is one of the finest edifices on Broad Street. The City Hall, long the chief public edifice of the city, stands in the center of an open square of about 10 acres called the Park, and is highly regarded for its architectural beauty. On the same square, facing on Chambers Street, stands the County Court-House, constructed of white marble, with Corinthian columns (Fig. 1948). On the S. extremity of the Park stands the U. S. Post-Office and Court building, a granite structure which cost over $6,000,000. Other buildings which call for mention are the Masonic Temple, Academy of Design, Cooper Union, Madison Square Garden Hall, the *World*, *Tribune*, and *Herald* buildings, University of the City of New York, Temple Emanuel, Trinity Church, and Roman Catholic Cathedral. The new buildings of Columbia University, now in part erected, on the plot of ground between 116th and 120th Streets, Amsterdam Avenue and the Boulevard, add to the attractions of that handsome section of the city. Of these may be mentioned the library building, on Morningside Heights, which is being erected at a cost of $1,000,000 and is adapted for 1,000,000 volumes. The other 2 large library buildings are the Astor and Lenox libraries. These are to be consolidated with the library provided for by the will of Samuel J. Tilden—setting aside a fund now amounting to $2,500,000—into a great New York Public Library, for which the city has donated the site of the distributing reservoir on 5th Avenue, between 40th and 42d Streets, and proposes to erect a building at a cost of $1,750,000. Of other interesting edifices employed for the benefit of recreation of the public may be named the Metropolitan Museum in Central Park, which contains a great wealth of objects of art, and the Museum of Natural History, on an annex to the park. New York is rich in hotels and theaters, the former including the Fifth Avenue, Windsor, Vendôme, Waldorf, Metropolitan, Langham, Hamilton, Normandie, Hoffman, Astor, and many others; the latter including the Grand Opera House, Academy of Music, Broadway, Fifth Avenue, Madison Square, Metropolitan, &c. Noted clubs are the Manhattan, St. Nicholas, Knickerbocker, Union League, Lotus, Century, &c. The principal railroad building is the Grand Central Depot, on 42d

Fig. 1949.—ST. PATRICK'S CATHEDRAL.

Street, which cost over $2,000,000, and is one of the finest buildings for its purpose in the country. It is used by 3 different railroad companies, the New York Central, the New York & Harlem, and the New York, New Haven & Hartford. Of the institutional edifices of the city may be named the several hospitals, the Almshouse, Female Lunatic Asylum, and Penitentiary, on Blackwell's Island, in East river; the Men's Lunatic Asylum, Inebriate Asylum, Soldiers' Retreat, &c., on Ward's Island; the Idiot Asylum, Infant Hospital, House of Refuge, Nursery, &c., on Randall's Island; the New York Hospital, on 15th Street; the Bloomingdale Insane Asylum, on 117th Street, and a series of private benevolent institutions far too numerous to mention. The churches of the city number over 400, the principal denominations being the Episcopalian, Methodist, Presbyterian, Roman Catholic, Baptist, and Jewish. The libraries, in addition to those named, include the Mercantile, Apprentices', Historical Society, &c. Prominent among the musical associations are the Liederkranz, Arion, and Philharmonic.—*Parks.* Central Park, begun in 1857, and with an area of 843 acres, has long been the principal park of New York. It extends from 59th to 110th Street, and is bounded by 5th and 8th Avenues, being 2½ miles long by ⅝ mile wide. Its upper extremity contains the reservoirs for supplying the city with water. This park has been converted into a beautiful landscape garden, containing walks and drives, artificial lakelets, bridges, statues, fountains, and various architectural structures, including the museums mentioned. Near the Metropolitan Museum, stands the Egyptian obelisk brought from Alexandria in 1880. Riverside Park is an irregular strip of land between Riverside Avenue and the Hudson, though the Hudson River R. R. passes between it and the river. It averages about 500 feet wide and is nearly 3 miles long, extending from 72d to 130th Street. Near its northern end is the tomb of Gen-

eral Grant, the most stately and beautiful mausoleum in this country. The park affords picturesque views of the river and the opposite Weehawken hills. The acquirement of great park expanses by Philadelphia and other cities has stimulated New York to active movements in this direction, and in the mainland district north of the Harlem six parks have been laid out, some of them of large area. The most extensive is Pelham Bay Park, on Long Island Sound, 12 m. north of the Grand Central Station. It contains about 1,700 acres, including Hunter's Island, and, with its coast indentations and open water front, has a shore line of 9 miles. Van Cortlandt Park, near the Hudson and the upper limit of the city, has 1,069 acres. Bronx Park, 653 acres in extent, is traversed by the Bronx river. Smaller parks are Croton, 135 acres; Claremont, 38 acres, and St. Mary's, 25 acres. Parkways or boulevards

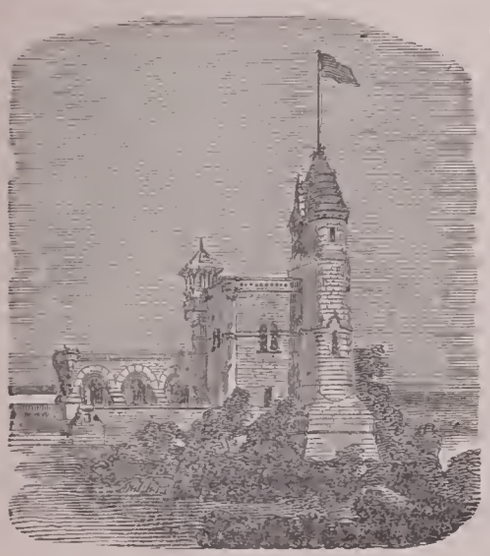

Fig. 1950.—THE BELVIDERE (CENTRAL PARK).

connect these parks, and in Bronx Park have been laid out a Botanical Garden of 250 acres in extent, and a Zoological Garden, to which 261 acres have been assigned.—*Croton Aqueduct.* New York, which in former times was insufficiently supplied with water, is now abundantly provided through the aid of the Croton Aqueduct, a work worthy of being ranked with the noblest of those of ancient Rome. The original aqueduct was completed in 1845, taking its water from a reservoir, 41 miles away, formed by a great dam in the Croton river. The aqueduct, of elliptic form, measures 8½ feet vertically and 7½ horizontally, and discharges 75,000,000 gallons every 24 hours. It crosses the Harlem river over the famous High Bridge, a granite structure 1,450 feet long and 110 feet high. Apart from Croton Lake there are several other reservoirs, artificial and

Fig. 1951.—THE TOMBS.

natural, with a total capacity of 9,500,000,000 gallons, or more than 3 months' supply. The receiving reservoir in Central Park has a capacity of 1,030,000,000. A new aqueduct was begun in 1883 and completed in 1890. This is constructed mainly underground, and has a working capacity of 250,000,000 gallons every 24 hours. (See AQUEDUCT.) A new dam is contemplated on the Croton which will give a reservoir capacity of 16,000,000,000 gallons.—*Education.* New York has an excellent public school system, embracing several grades of grammar and primary schools, and various institutions for higher education. These include a Normal College for girls, the College of the City of New York for boys, and numerous scholastic institutions under private control, of which the most important are Columbia University and the University of the City of New York.—*Manuf.* New York has large manufacturing interests, its industrial establishments in 1890 numbering 25,403, covering about 300 branches of industry. These had a capital of $426,118,273, and produced goods valued at $777,222,721. The leading branch of manufacture was clothing, of which the production averaged $50,000,000; printing and publishing, $35,000,000; malt liquors, $28,000,000; electric applications, $22,000,000; foundry products, $15,000,000; tobacco, $16,000,000, &c. This city is the center of the book publishing and general printing trade of the U. S., and of the issue of newspapers and other periodicals. Ship building is conducted on a large scale.—*Govt.* The city government is under a mayor, elected for 2 years, and a board of aldermen, chosen annually. The various heads of departments are appointed by the mayor, with approval of the board of aldermen. The police force and the fire department are large and well conducted. In the lighting of the city gas is generally used, though the electric light is rapidly growing in use. The street-cleaning department is remarkably well managed, though it was formerly greatly neglected. An important duty of the city government was, until 1890, the receiving and disposal of immigrants, of whom the great majority of those coming to the U. S. landed in this city. The U. S. government took charge of them in 1890, and in 1892 removed the immigrant headquarters from the Battery to Ellis Island in the bay. The greatest number landed was in 1882, when the total was 476,086.—*Fin.* The net funded debt of New York on Jan. 1, 1897, was $118,277,198, it having increased over $8,000,000 during 1896. The total value of real and personal property was $2,106,484,905, being an increase within a year of about $90,000,000. The city has 50 National banks, with a capital of $52,450,000; 46 State banks, with a capital of $16,472,000; and 25 savings banks, with $350,000,000 deposits. In addition, there are about 100 fire-insurance companies, 40 life-insurance companies, and a considerable number of trust, safe-deposit, and other financial institutions.—*Hist.* Manhattan Island was discovered by Henry Hudson in 1609, and a permanent settlement made on it by the Dutch in 1623. It was purchased from the Indians for $24 worth of trinkets in 1626. In 1636 there were 120 houses and 1,000 inhabitants. In 1664 the English took possession, changing the name from New Amsterdam to New York. In 1700 the population amounted to about 5,000. During the Revolutionary War the city was held by the English, being taken in 1776 and evacuated in 1783. At that time the population was less than that of either Philadelphia or Boston. In 1790 the city reached the lower end of the Park and had a population of 29,906. There were

Fig. 1952.—NEW YORK IN 1664.

severe attacks of yellow fever in 1789 and 1822, and of cholera in 1832, 1834, 1849, and 1854. A disastrous fire swept the 1st ward in 1835, destroying property valued at $18,000,000. The first street railroad was built in 1852, and an international exhibition held in 1853. The street railway system has been extended to cover every part of the city, with underground electric traction, and there are several lines of elevated railway, on which the electric-motor system is being applied. For the purpose of rapid transit an immense subway, or tunnel, to contain four tracks, is being constructed. This will extend from the City Hall to the upper end of Manhattan Island and for some distance into the Bronx district, and will be connected by a tunnel under East river with Brooklyn. Work was begun on it in March, 1900. *Pop.* (1900) 3,437,202.

New York, in *Tennessee*, a village of Montgomery co., about 55 m. W. by N. of Nashville.

New York Mills, in *New York*, a post-village of Oneida co.

New York Univer'sity. (*Educ.*) The present legal title of the institution which was incorporated April 18, 1831, by the name of the University of the City of New York, and opened in 1832. Until 1883 the government of the corporation was by a council of thirty-two members elected by the subscribers to the endowment, together with five officials of the city. By a change of the charter in 1883 the council was made self-perpetuating, one-fourth of the members going out each year unless re-elected. The city officials were dropped, and also a clause providing that no religious denomination shall have a majority in the council. The faculty of arts and sciences dates from 1832; until 1886 its instruction was to under-graduates only. This faculty has twenty professors and more than 400 students. It has included many names eminent in literary and scientific efforts, among whom were S. F. B. Morse, Loomis, Tayler Lewis, the Drapers, father and son. The faculty of medicine, founded in 1841, has its buildings on Twenty-sixth Street, opposite the Bellevue Hospital. This faculty has over 20 professors, and more than 30 lecturers and assistants. There are about 550 students. In 1858 was founded the faculty of law, which comprises 4 professors and 7 lecturers. Graduate law courses were opened in 1891, leading to the degree of LL.M. There are in the law department about 300 students. In 1896 was founded the Graduate Seminary, which receives candidates for the degrees of master of arts or sciences, and doctor of philosophy. A school of pedagogy was permanently established in 1890, having been begun provisionally in 1887. It is the first university school of pedagogy in the U. S. One of the first collegiate buildings in America was erected on Washington Square, E., in 1832–35. It was replaced in 1891–95 by a larger structure, partly as a source of income, partly for the use of the school of law, school of pedagogy, and the graduate department. In 1892 a tract of 20 acres, a superb site, at 200th Street, on the Harlem river, was purchased, on which new buildings have been erected for the undergraduate department. The value of the property of the university approaches $2,000,000 in value. Its income in 1896, exclusive of benefactors, was $140,000.

New Zea'land. See ZEALAND, NEW.

New Zealand Flax, *n.* See PHORMIUM.

Next, *a.* (super. of *nigh.*) [A. S. *next*, or *nexsta*, from *neh*, *neah*, nigh.] Nearest in place; that has no object intervening between it and some other. Immediately preceding or following in order. Nearest in time; as, the *next* day. Nearest in degree, quality, rank, right, or relation; as, *next* in rank, *next* in kindred.

—*adv.* At the time or turn nearest or immediately succeeding.

Nex'um, *n.* [Lat. *nexus*, bound.] A solemn contract by which the Roman law gave a creditor the power to enslave, sell, or even kill a defaulting debtor. Several creditors of one debtor could cut his body to pieces and share it in proportion to their claims.

Ney, MICHEL. Duke of Elchingen and Prince de la Moskva, peer and marshal of France, and one of her greatest military heroes, born at Saarlouis, in 1769. His early years were devoted to the study of the law, but disliking the confinement, he entered the army as a private hussar in 1787. His intrepid courage rendered him distinguished in the first years of the Revolutionary War, when serving with the army of the Rhine; and in 1796 he rose to the rank of brigadier-general. On his marriage with Mlle. Auguié, the friend of Hortense de Beauharnais, Napoleon presented him with a magnificent Egyptian sabre, and named him his envoy and minister plenipotentiary to the Helvetian republic; but in 1803 he was recalled to take command of the army intended to make a descent upon England. In the following year, when Napoleon received the title of emperor, he resolved on restoring titles and decorations. *N.* was then created a marshal, and also received other distinctions, while he was with one accord denominated by the army "the bravest of the brave." After a succession of victories, during which *N.* never relaxed in his exertions, he obtained the additional title of *Prince de la Moskva*; and in June, 1814, he was invested with the dignity of a peer of France. He retired to his seat in the country, from which he was recalled in March, 1815, by information that Napoleon had quitted Elba. Hitherto, one motive alone, the love of country, had impelled his every action; personal or family interest had never appeared throughout his conduct; he would have considered even a hare attempt at deception degrading. He thought the return of Napoleon would prove injurious to France, and maintained that the mischief ought to be prevented. Therefore, on taking leave of Louis XVIII., he made many protestations of his zeal and fidelity to the king, and expressed his determination to stay the progress of the invader. Arriving at Besançon, *N.* found the whole country hastening to meet the returning emperor at Lyons; the dukes d'Artois and d'Angoulême acknowledged the fruitlessness of resistance. The troops which he commanded shared the delirium; and *N.* himself yielded his opinion, and went over with his army to his former friend and master. He again fought under his banner at the battle of Waterloo, where he had five horses killed under him, and his cloak pertorated with bullets. After the conclusion of that eventful day, and the second abdication of Napoleon, *N.* was advised to quit France, for which money and every facility of escape were offered him. He refused them all, and retired to the residence of a near relative; but he was soon arrested, and brought to trial; and his colleagues and companions in arms having declared themselves incompetent to form a court-martial whereby to judge him, the affair was carried to the House of Peers, by whom he was condemned. Every avenue to the royal presence was purposely closed against his unhappy wife, who anxiously sought his pardon; and *N.* suffered with firmness, declaring with his last breath that he never had acted treacherously to his country. He was shot Dec. 7, 1815, in the garden of the Luxembourg, Paris.

Neyva, or **Neiva,** a town of the Island of Hayti, West Indies, about 70 m. E. of Port au Prince.

Nez Perce, in *Idaho*, a N. central co.; *area*, about 1,610 sq. m. *Rivers.* Clearwater river, and Lewis Fork of Columbia river, besides numerous smaller streams. *Surface*, much diversified; *soil*, in some parts fertile. *Min.* Gold in the eastern part. *Cap.* Lewiston. *Pop* (1890) 2,847.

Nez Perce Indians. See SECTION II.

N'Gami Lake (*nya'me*), a lake in Africa, discovered by Dr. Livingstone, in 1849; Lat. between 20° and 21° S., Lon. 22° 10′ and 23° 30′ E. *Ext.* about 60 m. long, with an average breadth of about 10 m.

N-gan-Hoei (Hwi), or **Ganhway,** a province in the E. of China; Lat. between 29° and 34° N., Lon. 113° and 119° E.; *area*, 48,461 sq. m. The surface is level and fertile. The principal river is the Yang-tse-Kiang. *Prod.* Tea, rice, grain, and silk. It is rich in minerals. *Cap.* Ngan-King-Foo. *Pop.* (1897) est. from 40,000,000 to 50,000,000.

Niag'ara, a river of N. America, being that portion of the great river St. Lawrence extending between lakes Erie and Ontario, the level of the former being 334 feet above that of the latter. The *N.* issues from the N.E. extremity of Lake Erie, at Black Rock, near Buffalo, where it is ¾ m. wide, and runs northward about 35 m., embracing in its course numerous islands, and running over a high ledge of rocks, forms the Great FALLS, the most stupendous cataract in the world. On flowing out of the upper lake, the river is almost on a level with its banks; so that any considerable rise of its level would make it lay under water the adjacent flat country of Upper Canada on the W., and of the State of New York on the E. For 3 m. from Lake Erie it has a rapid current; but it then becomes smooth and placid, and continues so till within a mile of the Falls. About 3 m. from Buffalo the river widens, forming several islands, one of which, called *Grand Island*, 12 m. in length, comprises about 17,000 acres. About 2 m. below Navy Island, on the left or Canadian bank, the river receives the Chippewa, which is connected with the Welland Canal, the artificial channel of communication between the upper and lower lake. The shores on either side are but thinly settled. The river, before reaching the Falls, is propelled with great rapidity, being a mile

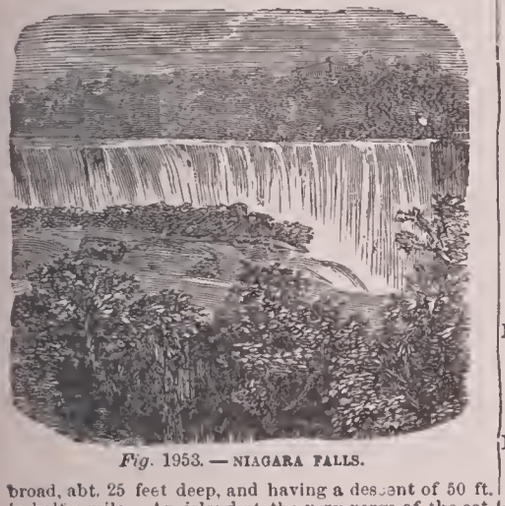

Fig. 1953. — NIAGARA FALLS.

broad, abt. 25 feet deep, and having a descent of 50 ft. in half a mile. An island at the very verge of the cataract divides it into two sheets of water: one of these, called the *Horse-shoe Fall*, is 600 yards wide, and 158 ft. in perpendicular depth; the other, called the *American Falls*, being about 200 yards in width, and 164 feet in height. The breadth of the island is about 500 yards. This great sheet of water is precipitated over a ledge of hard limestone in horizontal strata, below which is a somewhat greater thickness of soft shale, which decays and crumbles away more rapidly than the former stratum, so that the calcareous rock forms an overhanging mass, projecting 40 feet or more above the hollow space below. The depth of the water is much greater on the Canadian than on the American side; and hence, while the scarcely hidden rocks below the American Fall cause the flood to be broken into foam, the deep-green hue of the billows beneath the Horse-shoe Fall is but slightly changed by the crests rising above them. The finest view of the Fall is, perhaps, from the table-rock on the Canadian shore, and from the banks above it. Another good view is from a boat crossing the river 200 or 300 yards below the Falls, both of which are thus seen to the greatest advantage. The rapids, however, are best seen from Goat Island, to which a very ingeniously constructed and strong bridge has been thrown on the American side, over rapids and great blocks of rock. On the N. side of the island, the rocks, projecting into the river 200 or 300 feet immediately over the Falls, are accessible by a second wooden bridge, below which the water runs with fearful velocity. From the rocks the view over the precipice and great fall is terrific, absolutely appalling, in fact, although the prodigious volume of the tumbling waters is not so apparent at this spot as from the table-rock and the boat. The banks rise from the ravine perpendicularly above the river for upwards of 180 feet, and hence, artificial means are necessary for effecting a descent to the water's edge; spiral staircases have been constructed, both on the Canadian and the American sides; besides which a third was constructed, in 1829, at the lower end of Goat's Island, for the purpose of descending to a ledge actually underneath the Fall. By these means the spectator is enabled to view the falling waters in almost every possible direction. "The overwhelming sensation," says a traveller, "with which the spectator can hardly fail to be affected, are produced by the immense flood, precipitating at least 100,000,000 tons per minute, as well as by the stupendous mass and overpowering force of the roaring and falling waters. Every surrounding object, indeed, is viewed with indifference, while the mind is wholly absorbed in the contemplation of a spectacle so sublime, surpassing in majesty and grandeur and power all the works of Nature that have ever arrested the attention, or presented themselves to the imagination." These stupendous Falls have attracted, and continue to attract, large numbers of visitors, to accommodate whom numerous hotels have been built on both sides of the river. Many private villas have also been erected on the Canadian side. After the river has passed over the Falls, its character is immediately and completely changed. The waters, which had expanded at the Falls to an entire width of 1,300 yards, including Goat Island, are again contracted after their union into a stream not more than 160 yards broad; and the river then runs furiously along a deep wall-sided valley, or huge trench, which has been cut by the continued action of the stream during the lapse of ages. The cliffs on both sides are in most places perpendicular, and the ravine is only perceived on approaching the edge of the precipice. By the continued destruction of the rocks, owing to the eddies and spray rushing against the soft shale strata, the Falls have, within the last 50 years, receded upwards of 150 ft, or, in other words, the ravine has been prolonged to that extent. Through this deep chasm the Niagara flows with a constantly decreasing velocity for about 7 miles; and then the table-land, which is almost on a level with Lake Erie, suddenly sinks down at Queenstown, and the river emerges into a plain, continuing for 7 m. to Lake Ontario. There seems to be no reasonable ground for doubting that the Falls were once at Queenstown, or 7 m. below their present position; and that, from the force of the water undermining and wearing away the rock, they have receded from Queenstown to where we now find them. This recession is still going on, and a large projection on the Canadian bank, known as the Table Rock, had partly fallen off in 1863; consequently they seem destined, in process of time, to reach Lake Erie, which, being only about 70 feet in depth, would thus be completely drained. In 1885 the state of N.Y. purchased, at a cost of nearly $1,500,000, some lands near the falls, including Goat Island, Prospect Park, the American falls, and about half the Horseshoe falls, for a public park. On the Canadian side a somewhat larger area (154 acres) was laid out in 1888 as the Queen Victoria Niagara Falls Park. A tunnel has been constructed from the river above the Falls on the American side, and the great water-power of the stream utilized in generating electric power, it constituting the greatest electric power station in the world; for full description of this, see SECTION II.

Niag'ara, in *New York*, a W. co., bordering on Lake Ontario on the N. and Canada on the W.; *area*, about 490 sq. m. *Rivers.* Niagara and Tonawanda, Tuscarora and Wilkins' creeks. *Surface*, mostly level or undulating; *soil*, fertile. *Min.* Gypsum in extensive deposits. *Cap.* Lockport. *Pop.* (1890) 62,491.

Niag'ara Falls, in *New York*, a city of Niagara co., on Niagara river at its falls, 22 m. N. N.W. of Buffalo; a famous pleasure resort, and now an important manufacturing city. *Pop.* (1897) 13,200.

Nian'gua, in *Missouri*, a river rising in Webster co., and flowing N. into the Osage from Camden co.

Nib'ble, *v. a.* To bite by little at a time; to eat slowly or in small bits.—To bite, as a fish does the bait; just to catch by biting.

—*v. n.* To bite at slightly or gently, as fishes nibble at the bait.—To carp at; to find fault; to censure little faults.

—*n.* A little bite, or seizing.

Nib'bler, *n.* One who bites a little at a time; a carper.

Nib'blingly, *adv.* In a nibbling manner.

Nibelungenlied (*nē-bēl-oong'ĕn-lēd*), *n.* This German epic, the name of which signifies "Song of the Nibelungs," was composed by some anonymous poet near the close of the 12th century. It has been claimed that the poem, in the form in which it has come down to us, was not written by one person, but is a conglomeration of old hero-songs. The acutest critics, however, agree that the work has a unity which could not be attained by a mere compiler, but must owe its existence to the skill of a single mind. The Nibelungs, in German legend, were a race of northern dwarfs, so styled from their king, Nibelung. Later the name was applied to the followers of Siegfried, the principal hero of the first part of the *Lied*, who, with his followers, conquered from the Nibelungs in Norway a "hoard" or treasure collected by them. The poem is divided into cantos, called adventures, the number of which varies in the different manuscripts. Two great parts can be distinguished in the poem. Of the first part the principal hero is Siegfried, king of Niderland, the region about Xanten on the lower Rhine. Siegfried assists Gunther, king of the Burgundians, in obtaining the hand of Brunhilde, the powerful queen of Iceland, and is rewarded by getting for a wife Kriemhilde, the sister of Gunther. The envy and jealousy of Brunhilde cause a quarrel between her and Kriemhilde, as a result of which Siegfried is murdered by Hagen, his deadly enemy, and the faithful vassal of Gunther. The scene of this first part is laid on the Rhine, with Worms as the center. The second part begins 13 years after, when Kriemhilde, in order to get revenge for the murder of her husband, marries Attila (Etzel, in the poem), king of the Huns. She has, however, to wait for her revenge 13 years more, when she induces Hagen and Gunther and his two brothers to visit Attila's court on the lower Danube. They march thither, accompanied by 11,000 knights and men-at-arms. Here, after a long and dreadful struggle, all the Burgundians are killed, and also Kriemhilde. The scene of the chief events of the second part is on the lower Danube.

Beyond question, the subject-matter of the poem is based upon German hero-legends which originated in the times of the migration of the tribes. The legend of Siegfried, as well as that of the Burgundians, originated among the Franconians, and emigrated thence to other German tribes and Norway. In the old Norse version of the Siegfried legend in the *Eddas*, Siegfried and Brunhilde seem to belong to the family of Germanic gods and demigods. No trace of such divine origin has, however, been found in Germanic mythology. That the *Nibelungenlied* was once a very popular epic is proved by the number of manuscripts still extant. Yet for several centuries it was entirely forgotten, until Bodmer, in 1757, called attention to the epic by editing parts of it. His efforts did not arouse much interest, although the poem was studied and interpreted in several universities. It was resuscitated by the rise of national feeling during the wars of Napoleon I. In 1815 Zeune published an edition of the epic for young men to carry with them to the battle-fields. Since then the *Lied* has constantly increased in popularity, and the greatest German philologists of the nineteenth century have devoted themselves to its elucidation. It is now universally considered the greatest national epic of the Germans, who regard it as one of the most precious gems of their literature. It has little of the grace of courtly poetry. Its characters are without subtlety or refinement. We are throughout in the presence of vast elemental forces. These forces, however, are rendered with extraordinary vividness of imagination, and with a profound feeling for what is sublime and awful in human destiny. No competent critic now disputes the fact that the *Nibelungenlied* takes rank next after the Homeric poems among the great epics of the world. There are three English versions of the poem: Lettsom (1850), Foster-Barham (1887), and Birch (3d ed., 1887). Wagner, in his *Ring of the Nibelungs*, has taken little but names from the old epic. The source of his material is the old Norse version of the legend in the *Volsunga Saga* and the *Edda*.

Nicæ'a. See NICE.

Ni'caise, (St.,) a martyr of the 3d century, said to be the first bishop of Rome. Another martyr and saint of the name was bishop of Rheims, in the 5th century.

Nican'dra, *n.* (*Bot.*) A genus of plants, order *Solanaceæ*. The apple of Peru, *N. physaloides*, is a large, coarse herb, 1–5 feet high, very branching; leaves large, oblong; corolla slightly lobed, pale-blue, white, and with 5 blue spots in the centre. It is a native of Peru, and is cultivated in gardens.

Nicaudro, (St.,) (*ne-kan'dro,*) a town of S. Italy, prov. of Capitanata, 24 m. from Manfredonia; *pop.* 8,000.

Nica'nor, commander of the Syrian army for Antiochus Epiphanes, slain by Judas Maccabæus at Bethron, B. C. 161.

Nicaragua, (*nik-a-rah'gwa,*) a republic of Central America, having Honduras and San Salvador on the N., the Caribbean Sea on the E., Costa Rica and the Pacific on the S., and the latter again on the W. It lies between Lat. 10° and 15° N., and Lon. 82° 10′ and 87° 40′ W. *Area*, abt. 57,780 sq. m. The surface of *N.* is much diversified. It is traversed by two mountain ranges, the western of which follows the direction of the coast-line, varying from 10 to 20 m. from the Pacific. The eastern range (a part of the great range of the Cordilleras) runs nearly parallel to it, sending off several spurs towards the Mosquito Territory, *q. v.*, and forming the immense basin which contains Nicaragua and Managua lakes. These mountains often attain an elevation of 11,000 ft. The more important rivers are the Rio Coco, or Segovia, Escondido, or Bluefields, and San Juan. The soil is very fertile, producing a superior quality of sugar-cane, cacao, cotton, indigo, tobacco, maize, and rice, with all the fruits and edibles of the tropics in great abundance. *Exprts.* Sarsaparilla, aloes, ipecacuanha, ginger, copal, gum-arabic, caoutchouc, &c. *Min.* Gold, silver, copper, iron, and lead are found in the N. part. *N.* is divided into 4 departments — Rivas, Grenada, Segovia, and Matagalpa. *Cap.* Managua. *N.* was discovered by Gil Gonzales de Avila in 1521, and conquered by Pedro Arias de Avila, the governor of Panama, in 1822. During the great year of revolution in Central America — 1821 — it threw off allegiance to Spain, and, after a severe and desperate struggle, gained its independence, and became the second State in the Federal Republic of Central America. On the dissolution of that union, in 1839, *N.* became an independent republic; but, like most of the Central and South American republics, it has been the scene of much discord and confusion. The dispute with England, concerning the Mosquito Territory (1847–48), was settled in favor of *N.*, but subsequently, in 1855, the leaders of the opposing parties of "Liberals" and "Conservatives" plunged the country into all the horrors of civil war, which only ended in the total defeat of the former. In 1897 it joined with its neighboring republics to form the Greater Republic of Central America..

NICARAGUA, an extensive lake of Central America, in the above republic. It is about 110 m. in length, by about 40 m. in width, and covers an area of nearly 4,500 sq. m. Its surface is about 110 feet above sea-level, and it is surrounded on all sides by mountains. It receives numerous streams, and has its outlet in the Caribbean Sea through Rio San Juan. It contains many islands, and the scenery is said to be of the most beautiful description, while the waters abound in fish of fine quality. The island Zapatero, though uninhabited, is noted as containing extensive ancient ruins and monolithic idols. The other important islands are Ometepec, Selentanami, and the Coralee, a cluster of volcanic islets (several hundred in number) lying around the base of the volcano of Mombacho.

Nicaragua, a town of Nicaragua, on a lake of same name. *Pop.* (1897) 9,600.

Nicara'gua, San Juan de, a town of Central America. See SAN JUAN DE NICARAGUA.

Nicara'gua-wood, *n.* (*Bot.*) The wood of the *Cæsalpinia echinata*, a tree growing in Nicaragua; it is

a species of Brazil-wood, and is used with a solution of tin as a mordant, to dye a bright but fugitive red.

Nicaria, or **Nikaria,** (anc. *Icarus* or *Icaria,*) (*ne-ka'ree-a,*) an island of the Grecian Archipelago, belonging to Turkey, 12 m. W. of Samos; Lat. 37° 55′ N., Lon. 26° 10′ E.; *area,* 50 sq. m.; *pop.* 1,000.

Nicas'tro, a town of S. Italy, prov. of Calabria Ulteriore, 1,124 m. S. of Cosenza; *pop.* 10,000.

Nicaulis, (or, according to the Arabians, BALKIS,) queen of Sheba, who visited Solomon upon the report of his wisdom. Her country was probably that part of Arabia Felix which was inhabited by the Sabæans; but Josephus asserts that she reigned over Egypt and Ethiopia.

Nice, or **Nicæ'a.** (*Anc. Geog.*) A city of Bithynia, in Asia Minor, on the E. shore of the Lake Ascauia. This city, called Ancore, or Helicore, is said to have been colonized by Bottiæans, and destroyed by the Mysians. Antigonus rebuilt it B.C. 316, and named it *Antigonea;* but Lysimachus, having conquered this part of Asia, changed its name to Nicæa, in honor of his wife Nicæa, daughter of Antipater. It became a city of great importance, and the kings of Bithynia often resided here. The celebrated Council of Nicæa, the first general council, was convened, A. D. 325, at Nicæa in Asia Minor by the emperor Constantine, in order to settle the differences that had arisen in respect to the doctrines of Arius. This council was attended by upwards of 250 bishops, of whom a great majority came from the East, besides presbyters, deacons, and others from all parts of the Christian world. The chief question was the Arian heresy; and the council decreed in the excommunication of Arius. (See ARIANS.) The 2d council of Nice, recognized œcumenic Council of the Roman Catholics, assembled under the authority of Pope Adrian I. by the desire of the Empress Irene, and which sat from Sept. 24 to Oct. 23. The bishops declared the veneration of images and the cross to be agreeable to Sacred Scripture and reason, and to the teachings of the Church.

Nice, (*neece*) [It. *Nizza.*] A city and seaport of France, dept. of Alpes Maritimes, on the Mediterranean, 95 m. S.W. of Genoa. It is beautifully situated at the foot of the Alps, which protect it from the N. and E. winds. The port is convenient for vessels of 300 tons only. The river Paglione divides the city into Old and New Town, the latter is handsomely built. The principal public buildings are the cathedral, governor's residence, the municipal casino, completed in 1884, at a cost of $1,200,000, college, and public library. Also a fine arch in honor of Victor Amadeus III. *Manuf.* Silk, twist, soap, and perfumery. It has a fishery of anchovies. *Exp.* Oil, wine, oranges, and hemp. *Imp* Corn, salt-fish, manufactured goods, and colonial produce. Owing to its genial climate, it is a resort for invalids during the winter months. — *N.* is supposed to have been colonized by Phocæans from Marseilles in the 5th century. With the neighboring territory, it was made a Roman province under Augustus, and after undergoing various changes, became a dependency of Genoa in 630. It was incorporated with the French republic in 1792, and formally ceded by the King of Sardinia in 1796, but was restored to the latter in 1814. It was annexed to France by treaty in 1860. In April, 1881, the Opera House was burned, and 61 persons perished in it.

Nice, *a.* [A. S. *hnesc, nesc,* soft, tender; Du. *nisch.*] Tender; dainty; sweet or very pleasant to the taste; delicate. — Gratifying; pleasant; agreeable; as, a *nice* ride. — Fine; minutely elegant; accurate; exact; precise; requiring scrupulous exactness; as, a *nice* point. — Perceiving the smallest difference; distinguishing accurately and minutely by perception; perceiving accurately the smallest faults, errors, or irregularities; distinguishing and judging with exactness; refined. — Over-scrupulous or exact; fastidious; squeamish. — Scrupulously and minutely cautious; showing great delicacy; of a delicate nature; easily injured or impaired, as reputation.

Nice'ly, *adv.* With delicate perception; accurately; exactly; precisely; with exact order or proportion; finely; with minute elegance.

Ni'cene Creed, *n.* (*Eccl. Hist.*) The confession of faith in which the consubstantiality of the Father and Son is asserted against the Arians. (See ARIANS.) This creed was commenced by the council of Nice, A. D. 325, and completed by the second general council of Constantinople, A. D. 381. The Nicene Creed was generally used by the Eastern churches in the administration of baptism; but was not inserted in their daily service till the 5th century. In the service of the Church of Rome it was inscribed A. D. 1014.

Nice'ness, *n.* The state or quality of being nice; delicacy of perception; the quality of perceiving small differences. — Extreme delicacy; excess of scrupulousness or exactness; accuracy; minute exactness; precision; nicety.

Nicephorus, (*nī-sef'o-rus,*) the name of two saints — the *first,* a martyr of Antioch about 260; the *second,* a Greek historian and patriarch of Constantinople, B. abt. 750, D. 828.

Niceph'orus, CALLISTUS, a Greek historian, who, among other works, produced an *Ecclesiastical History,* in 23 books, the date of which commences with the year 610. This work was translated into French by Du Luc, and again into Latin by Lange. Flourished in the 14th century.

Niceph'orus I., Emperor of Constantinople, was at first chancellor of the empire, but usurped the throne, in 802, from the empress Irene, whom he banished to the isle of Mitylene. The beginning of his reign was marked by wisdom and clemency; but afterwards he committed such cruelties, that his subjects revolted, and proclaimed Bardanes, surnamed the "Turk," emperor. Bardanes was defeated, however, and sent to a monastery, where he was deprived of his eyes. The Bulgarians having invaded the empire, and ravaged Thrace, Nicephorus marched against them; but was vanquished and slain, 811.

NICEPHORUS II., (*Phocas,*) a nobleman of Constantinople, whose character was so popular, that he was raised to the imperial throne in 963. He married the widow of his predecessor, Romanus II., and drove the Saracens out of a great part of Asia. He was assassinated by John Zimisces and other conspirators, in 969.

NICEPHORUS III., was invested with the purple by the army which he commanded, in 1078. He was deprived of this dignity in 1081, by his general, Alexis Comnenus, who sent him to a convent, where he died shortly after.

Ni'cetas, (St.,) abbot of Mount Olympus; D. 824.

Nice'ty, *n.* Niceness; the quality of being nice; delicacy of perception; excess of delicacy; fastidiousness; squeamishness; minute difference; minuteness of observation or discrimination; precision; accuracy; delicate management; exactness in treatment.
—*pl.* Dainties; delicacies in food.

Niche, (*nich,*) *n.* [Ger. *nische;* Fr. *niche;* Sp. *nicho;* It. *nicchia.*] (*Arch.*) A recess in a wall for a statue, vase, or other erect ornament. Among the ancients they were sometimes square, but oftener semi-circular at the back, and terminated in a half-dome at the top; occasionally small pediments were formed over them, which were supported on consoles, or small columns or pilasters placed at the sides of the niches, but they were frequently left plain, or ornamented only with a few mouldings. In the Middle Ages architecture niches (often called *Tabernacles*) were extensively used, especially in ecclesiastical buildings, for statues (Fig. 1954.) The arches of the heads were either cinque-foiled, treloiled, or plain, and when canopies were used they were generally made to project.

Fig. 1954.
FROM MAGDALEN COLLEGE, OXFORD.
(End of 15th century.)

Niched, (*nicht,*) *a.* Put in a niche; having a niche.

Nicholas, (*nik'o-las,*) one of the seven deacons mentioned in the Acts. He was a proselyte of Antioch; but afterwards founded a sect called by his name, which permitted concubinage and the offering of meats to idols. By some, however, this Nicholas is said to have been a person other than Nicholas the deacon.

Nicholas I., Pope, was elected in succession to Benedict III., in 858. He excommunicated Photius, patriarch of Constantinople, whose schism led to the separation of the Roman and Byzantine churches. D. at Rome, 867.

NICHOLAS II., was a native of Burgundy, who became archbishop of Florence, and succeeded Stephen IX. in 1058. He was opposed by a rival, who styled himself Benedict X.; but being disavowed by the council of Satri, the latter was obliged to forego his claim to the papal chair. This pope assembled a council at Rome, and caused a decree to be passed which was very important in the subsequent elections to the tiara. He was succeeded by Alexander II. D. 1061.

NICHOLAS III. was of a noble Italian family, and elected pope in succession to John XXI., in 1277. He obtained from the Emperor, Rudolph of Hapsburg, large grants of Italian territory; among the rest, the exarchate of Ravenna. He dispatched a number of missions to heathen countries, and deprived Charles d'Anjou, King of Naples, of the dignity of a senator of Rome. His successor was Martin IV. D. 1280.

NICHOLAS IV. was a native of Ascoli, and was elected to the papal chair upon the death of Honorius IV., in 1288. He excommunicated James of Aragon and his followers in the island of Sicily, and advanced the claims of Charles II. of Anjou to that kingdom. He likewise endeavored to excite a new crusade, but without success. This disappointment hastened his death, which took place in 1292.

NICHOLAS V., Cardinal-Bishop of Bologna, became Pope after Eugenius IV., in 1447. He restored peace to the Roman and Western churches, and caused the sovereigns and states of Italy to forget their feuds. He collected books and manuscripts, and ordered translations to be made of the Greek classics. The Vatican library was also founded by him, and he embellished Rome with numerous fine edifices. He was an enlightened and distinguished pope. D. 1455.

Nicholas, an emperor of Constantinople, deposed after a few days' reign by Alexis Ducas, 1204.

Nicholas I., EMPEROR OF ALL THE RUSSIAS, the third son of Paul I., who was murdered by his officers in 1801, was B. in 1796. His early education was superintended by his mother, at whose desire he was especially instructed in modern languages, music, and the art of war, towards all of which he showed a great predisposition. On the general peace in 1814, the Grand-Duke Nicholas started on a foreign tour, visiting the courts of Berlin, Vienna, and St. James's. Shortly after his return to Russia, in 1816, he married Princess Charlotte, sister of Frederick William IV., King of Prussia, and from this period his time was divided between his domestic duties and the life of the camp, in which he took great delight. On Dec. 1, 1825, his eldest brother, the Emperor Alexander, D. at Taganrog. The Grand Duke Nicholas hastened to take the oath of fidelity to his elder brother Constantine, then governor of Poland, though he was well aware that the council of the empire was in possession of a sealed packet intrusted to them by the late emperor, which contained the announcement that his brother Constantine having voluntarily renounced all pretensions to the empire, the Grand-Duke Nicholas was to be his successor. After an interregnum of three weeks, on the 24th of Dec., *N.* was at last proclaimed emperor. *N.* had, however, to repress a formidable insurrection, comprising powerful members of the military and nobility. During that critical period, *N.* displayed a fearless and energetic character, which rapidly awed the insurrectionists, many of whom were shot down or subsequently executed, or banished to Siberia. Shortly after his coronation, he sent his troops against the Shah of Persia, whose army was defeated in several engagements by Marshal Paskiewitsch. The Shah was compelled to sign the treaty of Turkmanchay, by which the provinces of Erivan and Nakhichevan were ceded to Russia, an additional indemnity of about three millions sterling being exacted from him. *N.* also joined with England and France in aiding the Greeks to achieve their independence, and the Russian fleet co-operated with those of the two first-named powers in annihilating the Turkish flotilla at Navarino. In 1828 war broke out between Russia and Turkey; upon which General Diebitsch captured the fortress of Silistria, routed the Turkish army at Shumla, crossed the Balkan, and appeared before Adrianople. In 1829 the treaty of Adrianople was concluded, which gave to Russia, besides large tracts of territory in Asia, the right to trade in all parts of Turkey and upon the Danube, and the free passage of the Dardanelles. In virtue of this concession, *N.* likewise became the protector of the Danubian principalities. In 1830 he displayed considerable hostility towards the revolution that had brought about a change of dynasty in France; and in the same year an insurrection burst forth in Poland, which was not repressed until after a terrible struggle of 10 months. The brave but unsuccessful Poles were treated with the utmost rigor; many were sent to Siberia or the army of the Caucasus; the universities were suppressed, the libraries and other great establishments were transferred to St. Petersburg; and finally, in 1832, the kingdom of Poland became extinct. In 1839 a formal declaration of war was made against the Circassians, with whom the Russians had long been engaged in a desultory warfare. This struggle was vigorously maintained by the emperor throughout his whole life, but it remained for his successor, Alexander, to thoroughly subdue the brave mountaineers. During the Hungarian insurrection in 1849, the troops of *N.* enabled Austria to triumph over her revolted subjects, and to complete the subjugation of Hungary. In 1853 he dispatched Prince Menschikoff to Constantinople, to exact from the Porte a treaty whereby Russia might be permitted to interfere in the internal affairs of Turkey, and secure to herself the prerogative of protecting the Greek subjects of the Ottoman empire. The result of Prince Menschikoff's mission is well known; Russia occupied the Danubian principalities as "a material guarantee;" the fleet of *N.* destroyed the Turkish vessels at Sinope; and France and England, after employing every effort at conciliation fruitlessly, declared war against the Czar, invaded the Crimea, where the Russian arms were subjected to defeat at the Alma, at Inkermann, and at Sebastopol; all the forts upon the southern side of which were captured and destroyed. This last event, however, was subsequent to the death of the Emperor, who succumbed to a mortal malady, whilst busily engaged in projecting renewed efforts against the allies. The emperor Nicholas was a man of prodigious industry; his energetic character enabled him to assume the position of defender of order and legitimacy throughout the continent of Europe. Order and legitimacy signified to him, however, a total repression of national liberty. With respect to his own country, he was professedly despotic. "Despotism," he observed, "is the very essence of my government." The great object of his public life was to realize the ambitious projects of Peter I. and Catharine II., — the possession by Russia of Constantinople, and of the territories of the Sultan. D. March 2, 1855.

Nicholas, (*nik'o-las,*) in *California,* a town of Placer co.

Nicholas, (*nik'o-las,*) in *Kentucky,* a N.E. co.; *area,* abt. 300 sq. m. *Rivers.* Licking and South Licking rivers. *Surface,* diversified; *soil,* very fertile. *Cap.* Carlisle.

Nich'olas, in *W. Virginia,* a S. central co.; *area,* abt. 600 sq. m. *Rivers.* Kanawha, Gauley, and Meadow. *Surface,* hilly; *soil,* in some parts fertile, but mostly sterile. *Cap.* Summerville.

Nicholas, (St.,) bishop of Myre, in Lycia, lived in the 3d century and was persecuted by Diocletian. He is the patron of youth, and also of Russia. His festival day is celebrated Dec. 6.

Nich'olas, (St.,) a town of Belgium, prov. of E. Flanders, 20 m. E.N.E of Ghent. *Manuf.* Cotton, woollen, and silk fabrics, hosiery, hats, leather, and tobacco; besides sugar-refineries, distilleries, &c. It is one of the largest markets for flax in Europe. *Pop.* 23,388.

Nicholas, (St.,) one of the Cape Verd Islands, between Santa Lucia and Santiago; Lat. 16° 35′ N., Lon. 24° 15′ W. *Ext.* 30 m. long, and 13 broad. *Pop.* 6,000.

Nich'olasville, in *Kentucky*, a post-village, cap. of Jessamine co., abt. 12 m. S. of Lexington.

Nichols, (*nik'olz,*) in *New York*, a post-village and township of Tioga county, about 8 miles south-west of Oswego.

Nich'olson, in *Pennsylvania*, a post-township of Wyoming co.

Nich'olsville, or NICHOLVILLE, in *New York*, a post-village of St. Lawrence co., abt. 31 m. E. by N. of Canton.

Nicholsville, in *Ohio*, a post-village of Clermont co., abt. 24 m. E. of Cincinnati.

Nicias, (*nish'i-ăs,*) an Athenian general, who took a prominent part in the Peloponnesian war. He was a wealthy citizen, and a successful general, caution being his leading characteristic. On the death of Cleon, whom he had steadily opposed, he negotiated the treaty called the Peace of Nicias (a. c. 421), by which the Athenians and Spartans agreed to a truce of 50 years. In 415, the peace being almost a dead letter, Nicias was joined with Alcibiades and Lamachus in command of the expedition to Sicily, of which, however, he wholly disapproved. After temporary success the tide was turned by the arrival of Spartan auxiliary forces at Syracuse, to meet which Athenian reinforcements were sent under Demosthenes and Enrymedon; but after more than two years' efforts, the Athenians had to raise the siege and retire. An eclipse of the moon took place at the time fixed for their secret departure, and Nicias, a superstitious man, deferred the retreat; the Athenians were completely overthrown, and Nicias with his colleague put to death, 413.

Nicias, a celebrated Grecian painter, who was contemporary with Apelles. His greatest picture was that which illustrated the passage in Homer's *Odyssey*, where Ulysses invokes the shades of the departed. Ptolemy I., king of Egypt, offered Nicias sixty talents (about $75,000) for the picture; but the painter preferred to present it to his native city of Athens. One of his pictures was taken to Rome by Augustus, in whose temple it was afterwards fixed. He is likewise stated to have painted some of the statues of Praxiteles. Flourished about the 3d century B. C.

Nick, *n.* [Sw. *nick*; Du. *knik*, a nod; Ger. *nicken*.] The exact point of time required by necessity or convenience; the critical time. — A notch cut in anything; a score for keeping an account. — A winning throw at dice.

—*v. a.* To notch or make incisions in; to cut in nicks or notches. — To suit or fit into, as tallies cut in nicks. — To hit; to touch luckily; to perform a slight artifice used at the lucky time. — To defeat or cozen, as at dice; to disappoint by some trick or unexpected turn. — To notch or make an incision in, as a horse's tail, to make him carry it higher.

Nick. (*Northern Myth.*) [A. S. *hnœvan*, to kill; Icel. *nikker*, a water-spirit, a devil.] An evil spirit of the waters; — hence *Old Nick*, a term for the Devil, in vulgar discourse.

Nickel, (*nik'el,*) *n.* (*Chem.* and *Metal.*) A metal discovered by Cronstedt in 1751, with a singular analogy to cobalt, being always associated with it in nature. Its principal ore is kupfernickel, which is the diarsenide of the metal. It is also extracted from nickel speiss, which is an impure arseniosulphide of nickel, left after the manufacture of cobalt-blue from its ores. Nickel is extensively employed in alloys, of which German silver is the most important. The process for purifying it is kept a secret; but the following is generally supposed to be the method adopted at Birmingham. The speiss is first fused with chalk and fluor-spar, and the mass obtained reduced to powder, which is roasted for twelve hours to expel the arsenic. The residue is dissolved in hydrochloric acid, the solution diluted, and the iron peroxidized by the addition of bleaching-powder. The iron is then thrown down with milk of lime, and the precipitate well washed. The liquid, which contains all the cobalt and nickel, is treated with sulphuretted hydrogen, which throws down everything but these two metals, which are afterwards separated from it by precipitating the cobalt with the chloride of lime; and, lastly, the nickel with milk of lime. Pure nickel is a brilliant, silver-white, ductile metal, nearly as infusible as iron. It is magnetic up to 630° Fahr., and becomes oxidized by exposure to a current of air at a high temperature. It is easily attacked by nitric acid and aqua regia, and slowly by sulphuric and hydrochloric acids. *N.* forms useful alloys with copper and zinc, of which German silver and certain white compounds used for coining are the most important. It is also of great utility, from its resistance to oxidation, as a plating material for steel instruments, and for coating chemical vessels and iron cooking-pots. A new and important use for nickel is the alloying of steel for armor-plating of vessels, the steel being greatly hardened by its employment. Equiv. 58·6; Sp. gr. 8·3 to 8·7; *Symbol* Ni.

Oxides of N. With oxygen nickel forms two oxides, — the protoxide (NiO) and sesquioxide (Ni_2O_3). The protoxide is obtained as an olive-green powder by igniting the carbonate in a covered crucible, and as a bulky green hydrate by precipitating its salts with potash. The protoxide forms numerous well-defined salts, mostly of an apple-green color. The sesquioxide is a black powder, procured by treating the hydrated protoxide with chloride of soda. It does not combine with acids, but gives off a part of its oxygen when submitted to their action, and forms salts of the protoxide.

Salts of N. The principal are the sulphide, obtained as a black hydrate when salt of nickel is precipitated by sulphide of ammonium; the chloride, formed by dissolving the oxide in hydrochloric acid; — on evaporation, it yields green hydrated crystals, which, when submitted to a high temperature, sublime in crystalline, yellow scales; the sulphate is formed by dissolving the oxide in sulphuric acid. It crystallizes in green rhombic prisms, which, on exposure to light, are converted without loss of water into octohedra. It is sometimes used in medicine as a tonic. With potash it forms a double salt. The other salts of nickel are unimportant.

Nick'eline, NICKEL BLOOM, NICKEL VITRIOL, *n.* (*Min.*) The kupfernickel of the German miners. It is an important ore of nickel, and is found principally in Saxony, associated with cobalt, silver, and copper ores.

Nick'er, *n.* One who nicks; particularly one who watches for an opportunity to pilfer, or to practise some knavish artifice.

Nick'-nack, *n.* A bauble; a trifle; a small toy; — generally used in the plural. See KNICK-KNACK.

Nick-nack'ery, *n.* A trifle; a toy; a knick-knack.

Nick'name, *n.* [Fr. *nom-de-nique*, name of contempt.] A by-name; a name given in contempt, derision, or reproach; an opprobrious appellation.

—*v. a.* To give a name of reproach to; to call by an opprobrious appellation.

Nic'obar Islands, a group in the Indian Ocean, between Lat. 3° and 10° N., Lon. 93° and 94° E., about midway between Sumatra and the Andaman Islands. There are 7 large and 12 small islands. The principal are Sambelong and Carnicobar. The surface is generally hilly and the soil fertile, but they are deemed unhealthy for foreigners. *Prod.* Sugar, tobacco, cocoanuts, oranges, &c. *Pop.* unknown.

Nicodemus, (*nik-o-de'mus.*) (*Script.*) A member of the Jewish Sanhedrim, at first a Pharisee, and afterwards a disciple of Jesus. He was early convinced that Christ came from God, but was not ready at once to rank himself among His followers. In John iii. 1–20, he first appears as a timid inquirer after the truth, learning the great doctrines of regeneration and atonement. In John vii. 45–52, we see him cautiously defending the Saviour before the Sanhedrim. At last, in the trying scene of the crucifixion, he avowed himself a believer, and came with Joseph of Arimathea to pay the last duties to the body of Christ, which they took down from the cross, embalmed, and laid in the sepulchre. (John xix 39.)

Nicolai'eff, a town, and river-port of European Russia, govt. of Kherson, at the confluence of the Ingul with the Bug, 20 m. above where the latter falls into the æstuary of the Dnieper. It was founded in 1790, and intended as the naval depot for the Russian fleet in the Black Sea. Prominent among the public buildings are the cathedral, the admiralty, the town-hall, the marine barracks, and the naval hospital. It has extensive dock-yards for ship-building.

Nicola'itans, *n. pl.* (*Eccl. Hist.*) Heretical persons or teachers, mentioned in Rev. ii. 6–15. Whether they were the same as the Nicolaitans of the second century and later, is very doubtful. Some suppose them to be followers of Nicholas the deacon, but there is no good evidence that he ever became a heretic.

Nic'olaus, in *California*, a post-village in Sutter co., abt. 17 m. S. of Marysville.

Nicole, PIERRE, (*nik'ol,*) an eminent French divine and moralist, B. at Chartres, 1625. He became a member of the society of Port Royal, where he taught with great reputation, and assisted Arnauld in many of his works. In his latter years he espoused the cause of Bossuet against the Quietists, and was engaged in other controversies. His principal works are, *Moral Essays*, 23 vols.; *The Perpetuity of the Faith of the Catholic Church respecting the Eucharist*; and a *Treatise on the Unity of the Church*. D. 1695.

Nicolet, (*nee'ko-la',*) a central co. of prov. of Quebec; *area*, abt. 487 sq. m. *Rivers.* St. Lawrence and Becancour rivers. *Cap.* Nicolet. *Pop.* 24,000.

NICOLET, a town of prov. of Quebec, cap. of the above co., abt. 84 m. N.N.E. of Montreal.

Nicollet (*nik-o-la'*), in *Minnesota*, a S. central co.; *area*, abt. 455 sq. m. *Rivers.* Minnesota river, and numerous less important streams, besides several lakes. *Surface*, nearly level; *soil*, very fertile. *Cap.* St. Peter. *Pop.* (1895) 14,299.

Nicollet, in *Minnesota*, a post-village and township of the above county, about 10 miles north of Mankato.

Nicollet, in *Utah*, a lake in Ynab co., abt. 125 m. S.W. of Salt Lake City. It covers an area of 200 sq. m. The Nicollet River flows into it, but there is no apparent outlet.

Nic'olo, properly NICOLAS ISOUARD, a musical composer, B. at Malta, 1777. At Naples he completed his study of composition, under the famous Guglielmi. When the French evacuated Italy, General Vaubois took him to Paris as his private secretary. Here he formed himself on the compositions of Monsigny and Grétry, and produced the popular opera of *Cendrillon*, in 1810. In light dramatical compositions, he is distinguished for the ease and sweetness of his melodies, the fertility of his imagination, and the happy combination of the characteristics of the modern Italian school with those of the French. D. at Paris, 1818.

Nicomedes I., (*nik-o-me'dees,*) king of Bithynia, succeeded his father Zipœtas, B. C. 278. In the following year he sought the assistance of the Gauls against his brother Zibœtas, who disputed the throne with him. His barbarian auxiliaries subsequently turned against him, and overran the whole of Asia Minor. D. about 250 B. C.

NICOMEDES II., succeeded Prusias II., 149 B. C. During his long reign, he remained the ally of the Romans, and assisted the latter against Aristonicus, king of Pergamus, 131 B. C. The last years of his reign were spent in contending against Mithridates VI., king of Pontus. D. 91 B. C.

NICOMEDES III., son and successor of the preceding, was deposed in the first year of his reign, by Mithridates VI., but was afterwards restored to it by the Romans. In 88 B. C. he engaged with the Romans in attacking Mithridates, whose general defeated him in Paphlagonia; whereupon he fled to Italy, where he remained till the conclusion of the war, B. C. 84. Dying without issue, he left his crown to the Romans, 74 B. C.

Nicome'dia. (*Anc. Geog.*) The capital of ancient Bithynia, situated at the N.E. angle of the Gulf of Astacus, in the Propontis, now called the Bay of Ismid, was built about 264 A. D., by Nicomedes I., who made it the capital of his kingdom, and soon became one of the most magnificent and flourishing cities in the world. Constantine died at a royal villa in the immediate vicinity. Hannibal committed suicide in a castle close by. It was the birthplace of the historian Arrian. The small town of Ismid, or Ismikmid, now occupies its site, and contains many relics of ancient *N.*

Nicop'olis, a city of ancient Greece, in Epirus, on the Ambracian Gulf, built by Augustus, 31 B. C., to commemorate his victory over Antony at Actium. *N.* became subsequently the capital of Epirus, but in the Middle Ages it sank into obscurity and disappeared. It was probably the place where St. Paul passed the last winter of his life. — There were 5 or 6 other towns of this name in antiquity.

Nicop'olis, or **Nicopoli,** a fortified town of European Turkey, in Bulgaria, on the Danube, 56 m. W. of Roostchook; Lat. 43° 45′ N., Lon. 24° 8′ E. It was founded by Trajan, and here the Hungrians, under Sigismund, were, in 1396, defeated by the Turks. *Pop* 10,000.

Nico'sia, a town of Italy, in Sicily, prov. of Catania, 14 m. N.E. of Castro-Giovanni; *pop.* 13,630.

Nico'sia, the cap. of the Island of Cyprus. See LEFKOSIA.

Nicot, JEAN, (*ne'ko,*) a French courtier and writer, B. at Nimes, 1530, who was sent by Francis II. as ambassador to Portugal, whence he brought the plant named tobacco, which, in France, has been called *Nicotiana*, out of compliment to the importer. D. at Paris, 1600.

Nicotiana, (*ni-ko-she-a'na,*) *n.* [After John *Nicot*, of Languedoc, who seems to have introduced it into Europe.] (*Bot.*) A genus of plants, order *Solanaceæ*. They are coarse, narcotic, annual herbs, with simple leaves, and terminal flowers; corolla white, tinged with green or purple. The species and varieties supply the different kinds of *tobacco* now in general use in some form or other all over the globe. Most of the tobacco of commerce, as that of Virginia, is yielded by the species *N. tabacum*, a native of the warm parts of America, but now cultivated in various countries. The Shiraz, or Persian tobacco, is obtained from *N. Persica*; the Syrian and Turkish, from *N. rustica*; Cuba and Havana, from both *N. tabacum* and *N. repanda*; and Orinoco, from *N. macrophylla*. — See TOBACCO.

Fig. 1955. — NICOTIANA.

Nicotia'nin, *n.* (*Chem.*) The essential oil of tobacco, obtained on distilling the leaves with water. It has the appearance of camphor, and by distillation with caustic potash is said to give nicotine.

Nic'otine, *n.* (*Chem.*) A volatile alkaloid contained in the tobacco-plant (*Nicotiana tabacum*), in which it occurs in combination with malic and citric acids. It is also contained in the smoke of the burning leaves. It is a limpid, colorless, oily liquid, with an irritating and powerful odor of tobacco. It is extremely poisonous, a single drop being sufficient to poison a large dog. *Form.* $C_{10}H_{14}N_2$.

Nicoya, (*ne-ko'yu,*) a peninsula on the Pacific coast of Costa Rica, Central America, forming a gulf of the same name; Lat. 9° 40′ N., Lon. 85° W.

NICOYA, a river of Costa Rica, flowing W. into the Gulf of Nicoya.

NICOYA, two towns of Costa Rica, respectively 76 m. W. N.W. and 96 m. W. of Cartago; *pop.* of the latter 3,500.

Nic'tate, *v. n.* [Lat. *nicto, nictutus*, from *nico*, to beckon.] To wink.

Nicta'tion, Nictita'tion, *n.* (*Med.*) Winking of the eyes. This is generally a nervous affection, and very frequently it becomes a trick or habit. When it arises from any local irritating cause, bathing the eyes with warm water affords relief.

Nic'titate, *v. v.* To wink; to nictate.

Nidamen'tal, *a.* [From Lat. *nidus*, a nest.] (*Zoöl.*) Relating to nests; applied to the organs that secrete the materials of which many animals construct their nests.

Nid'day, in *Oregon*, a post-village of Josephine co., abt. 50 m. S. of Roseburg.

Nide, *n.* [Fr. *nid;* Lat. *nidus.*] A nest or brood.
Nidget, (*nij'et,*) *n.* [Fr. *nigaud.*] A worthless fellow; a coward; a poltroon.
Nid'ificate, *v. n.* [Lat. *nidificare,* from *nidus,* a nest, and *facio, facere,* to make.] To build a nest.
Nidifica'tion, *n.* [Fr. *nidification.*] Act of building a nest, and the hatching and feeding of young in the nest.
Nid'ulant, *a.* [Fr. *nidulant.*] (*Bot.*) Nestling or lying loose in pulp, as cottou.
Nid'ulate, *v. n.* To build or make a nest; to nidificate. (R.)
Nidula'tion, *n.* The time of remaining in the nest.
Nidus, *n.* [Lat.] A nest; a place where the eggs of birds, insects, &c., are deposited. Hence, a place where germs (of disease) are propagated.
Nie'buhr, Berthold Georg, a German historian and philologist, son of the following, b. at Copenhagen, 1776. At the age of 18 he was sent to the university of Kiel, where he studied two years. After holding situations in a government office at Copenhagen, he was invited to Berlin in 1805, and entered the service of the king of Prussia, whose confidence he long enjoyed, and who charged him with important diplomatic negotiations, and made him privy-councillor. On the establishment of the university of Berlin, *N.* was chosen lecturer on Roman history; and the lectures then delivered formed the basis of the great work by which his name is immortalized. He served in the campaigns of 1813–14, and was sent ambassador to the court of Rome in 1816. He succeeded in negotiating a concordat with the holy see in 1821. While at Rome he was the friend and associate of the learned Mai, librarian of the Vatican, and disputes subsequently arose between them as to certain literary discoveries. *N.* visited Verona, and there, after patient searching, discovered the fragments of the work of the great jurist Gaius. Quitting Rome in 1823, he was appointed adjunct-professor at the new university of Bonn. He occupied himself with the preparation of a new edition of his great work, and with a republication of the Byzantine historians; but his labors were interrupted and his health and spirits broken by the French revolution of July, 1830. He D. January 2, 1831. The *Römische Geschichte,* which first appeared in 1811, and in an extended and greatly altered form in 1827, is one of the most original historical works of the present century. It was a masterly attempt to reconstruct a true and vivid picture of the history of early Rome out of the most confused and hopeless materials, and was hailed as a great success. The method and system of *N.,* however, have not been able to stand the test of recent criticism. *N.* was a great linguist and philologist, as well as historian, and published, besides his History — *Frontonis Reliquiæ; Cicero pro Fonteio et Rabirio; Corpus Scriptorum Historiæ Byzantinæ;* and *Kleine historische und philologische Schriften.* The *History of Rome* was translated into English by Hare and Thirlwall; and some *Lectures on Roman History,* and on *Ancient Ethnography,* by Schmitz.
Niebuhr, Carstens, a celebrated traveller, was b. at Lüdingwort, in Hanover, in 1733. At the age of 22 he went to Hamburg, for the purpose of studying geometry, after which he devoted several years to the study of mathematics at Göttingen. Count Bernstorff, the Danish minister, having determined to send a scientific expedition for the purpose of exploring Arabia, *N.* accompanied it as geographer, in March, 1761, and after touching at Constantinople, proceeded to Egypt. Here they remained a year, and reached Yemen, their point of destination, in 1762. In September, 1763, he sailed for Bombay, and in December, 1764, set out on his return overland, through Persia and Turkey. He arrived at Copenhagen in November, 1767, and laid the fruits of his researches before the world in his *Description of Arabia,* and his *Travels in Arabia,* which have been translated into various languages. He was the only one that returned from the mission, was liberally rewarded by the Danish monarch, and D. in 1815. Carsten Niebuhr was father of the great historian. (See preceding memoir.)
Niece, (*nēs,*) *n.* [Fr. *niece;* Lat. *neptis,* from *nepos, nepotis,* a nephew, *q. v.*] The daughter of a brother or sister.
Niel, (*nēēl,*) Adolphe, a marshal of France, b. 1802 at Muret. Admitted in 1821 into the École Polytechnique, he became a lieutenant in the Engineers in 1827, and rose slowly to the rank of General of Division, in 1852. *N.* commanded the engineers at the siege of Bomarsund, upon the capture of which he was appointed aide-de-camp to the Emperor. He contributed largely to the success of the Crimean war, and was created a senator in 1857. At the commencement of the war in Italy, April, 1859, he was appointed to the command of the 4th corps of the army of the Alps, and after the victory of Solferino, in which the artillery played so important a part, he was appointed a marshal of France. In 1867 he was nominated minister of war, and D. 1869.
Niel'lo, *n.* [It. *niello;* Fr. *nielle;* Lat. *nigellum,* from *nigellus,* diminutive of *niger,* black.] (*Fine Arts.*) A kind of engraving of considerable antiquity, and the origin of engraving as it is understood at the present time. During the Middle Ages, when the art was chiefly practised, the method consisted in drawing a design with a style upon gold and silver plates, and then cutting it with a burin. These incised lines were filled with a composition made by heating together quicksilver, lead, and silver, the compound being of a bluish color; whence the name. It was the practice to decorate the communion-service of the churches, as well as other plate, in this manner. The art having passed out of use, old nielli are exceedingly rare, and are only to be found in the collections of national museums or of wealthy virtuosi.
Niemcewicz, Julian Ursin, (*neem'tse-vitch,*) a distinguished Polish statesman, poet, and miscellaneous writer, was born in Lithuania in 1757. He served a short time in the army, and became acquainted with Kosciusko; was a leading member of the constitutional Diet of 1788–1792; served the popular cause at the same time by several patriotic dramas; and was aide-de-camp to Kosciusko in the fatal campaign of 1794. After two years' imprisonment at St. Petersburg, he was released by the emperor Paul, and with his friend Kosciusko went to this country, where he married, and paid a long visit to Gen. Washington at Mt. Vernon. He came back to Europe in 1802, but soon quitted it again for America; once more returning after the treaty of Tilsit and the establishment of the grand-duchy of Warsaw. He was then named secretary of the Senate, and made a member of the Council of Public Instruction. He assisted, after the Congress of Vienna, in drawing up another constitution for Poland; was dismissed from the Council of Education in 1821, and lost his secretaryship after the failure of the insurrection of 1830–31, which he supported. He spent part of his exile in England, and then settled at Montmorency, near Paris. The most popular of his poetical works are the *Historical Ballads,* which were set to music. Among his other poems are a collection of Fables, several tragedies and comedies, and translations from popular English poems. *N.* published also Memoirs of his own Times, a series of Memoirs on Ancient Poland, an account of his visit to Washington, and several novels. He left many manuscripts unpublished. D. at Montmorency, 1841.
Niemen, or **Memel,** (*ne'men,*) a large river of Russian Poland, rising in the govt. of Minsk, and after a N.W. course of 400 m. falling into the Frische Haff by the Rass and Gilge mouths, 30 m. W. of Tilsit. On the waters of this river Napoleon I. and Alexander of Russia held an interview in 1807.
Niemes, (*neems,*) a town of Austria, in Bohemia, 18 m. W. of Buntzlau. *Manuf.* Cottou and linen goods and paper. *Pop.* 4,300.
Niep'ce-de-Saint-Vic'tor, Claude Marie Francois, a French chemist and photographer, and the discoverer of the process of obtaining images on glass, b. at St. Cyr, 1805. He is the nephew of that M. Niépce who was the friend and fellow-worker of M. Daguerre; was educated for the military profession, and was acting as lieutenant of dragoons in 1842, when an accident turned his thoughts towards the science of chemistry. Having stained his uniform with some drops of lemon-juice, he undertook a series of chemical experiments for the purpose of restoring the lost color, and at length succeeded by employing ammonia. This discovery having received a useful application, *N.* obtained an exchange into the municipal guard of Paris, which step gave him the means of prosecuting his scientific studies in the capital. During the revolution of 1848, the barrack in which he lodged was destroyed, and with it the whole of his scientific apparatus and collections. Notwithstanding, he contrived to conclude his experiments, and to present to the Academy his second memoir upon photography on glass, in the same year. Besides his first great discovery, he has made researches upon producing photographic images in colors, and photographically engraved steel plates. In 1855 he published a collection of his scattered memoirs, with the title *Photographic Researches;* and another entitled *Treatise upon Engraving upon Steel and Glass.* In 1850 Napoleon III. appointed him commandant of the Louvre, for the purpose of enabling him to prosecute more perfectly his photographic researches. D. 1870.
Nieu'port, Niew'port, a fortified town of Belgium, prov. of W. Flanders, on the Yperlee, near its mouth in the North Sea, 10 m. S.W. of Ostend. *Manuf.* Ropes; and ship-building is also carried on. *Pop.* 3,500.
Nièvre, (*ne-ai'vr,*) a river of France, which joins the Loire at Nevers after a S. course of 25 m.
Nièvre, a dept. of France, formerly comprised in the old prov. of Nivernais, between Lat. 46° 40′ and 47° 45′ N., Lon. 3° and 4° E., bounded by the depts. of Yonne, Cote d'Or, Saone-et-Loire, Allier, and Cher. *Area,* 2,595 sq. m. The surface is mountainous in the E., but level and fertile in the W. *Rivers.* Loire, Allier, and Yonne. *Prod.* Principally corn and wine. *Min.* Iron, copper, lead, and coal. *Manuf.* Linen and woollen cloths, cutlery, porcelain, glass, and jewelry. The chief industry is iron and steel works. *Chief towns.* Nevers (the cap.), Château Chinon, Clamcey, and Cosne. *Pop.* 342,773.
Nig'deh, or **Nikde,** a town of European Turkey, pashalic of Caramania, 47 m. N.E. of Ereglee; *pop.* 5,000.
Ni'ger, Jobba, Quorra, Kovaree, or Kwara, a celebrated river of Central Africa, having its sources near the W. coast of the continent. The river is estimated to be 2,600 m. long, and the area of its basin and that of its tributaries to be 1,023,280 sq. m. It rises in the region now known as the States of Samory, inland from Liberia and Sierra Leone, its headwaters being contiguous to those of the Senegal, which flows in an opposite course. Of the various streams which unite to form the Niger, the Tembe, rising in the Loma Mountains, at about 3,000 feet elevation, and in N. Lat. 8° 36′ and W. Lon. 10° 33′, is looked upon as the parent stream. The *N.* flows northeasterly as far as Timbuktu, 300 m. above which it is joined by the Mayel-Balevel, a large tributary, and splits up into numerous diverging channels. After passing Timbuktu, it flows easterly for 200 m.; then turns southeast through a rocky country. Finally, bending more to the south, it is joined by a tributary of first-class size, the Benue, or Mother of Waters, a rival in volume which has come from a source 860 m. to the E. The united stream now "passes through a series of bold picturesque hills by a narrow gorge," and eventually breaks up into one of the most remarkable mangrove-covered deltas of the world. In its course it passes through much fertile valley land, while numerous towns and villages stand on its banks, and a considerable canoe commerce is prosecuted. The exploration of the *N.* has been principally accomplished by English travellers, and Great Britain holds the protectorate of its border-lands as far as Timbuktu. Above this city the control is in the hands of the French, who have steamers on the upper stream, and forts on its banks. Slaves were formerly nearly the only article of export from the *N.,* but palm oil is now the principal staple, the delta outlets being known as Oil rivers. The *N.* is one of the greatest rivers in the world. So strong is its current that driftwood from the vast estuary is frequently carried scores of miles out to sea.
Nigel'la, *n.* (*Bot.*) A genus of plants, order *Ranunculaceæ.* The seeds of *N. sativa,* the common Fennel-flower, or Gith, were formerly employed instead of pepper. It is supposed that these seeds, or those of another species which are used by the Afghans for flavoring curries, are the *black cummin* of Scripture.

Fig. 1956.
NIGELLA SATIVA.
a, top of stem; *b,* fruit.

Nig'gard, *n.* [Goth. *njugg,* that holds fast or back, stingy.] One who is griping, stingy, parsimonious; a miser; a person meanly close and covetous.
—*a.* Miserly; meanly covetous; sordidly parsimonious. — Sparing; careful
—*v. n.* To stint; to supply sparingly.
Nig'gardish, *a.* Having some disposition to avarice.
Nig'gardliness, *n.* State or quality of being niggardly: mean, covetous, sordid parsimony.
Nig'gardly, *a.* Meanly avaricious; extremely sparing of expense; covetous; parsimonious: miserly; penurious.
—Careful; cautiously avoiding profusion.
—*adv.* Sparingly; with cautious parsimony.
Nigged Ash'lar, *n.* (*Arch.*) A mode of dressing the surface of stone, in which the face is left rough, or dressed only with a pointed hammer instead of a chisel; this kind of work is also known by the name of *hammer-dressed,* and it is generally employed in basements, or in rough masonry where the appearance of strength is desired.
Nig'ger, *n.* A negro; a black man; a colored person; — generally used in contempt or derision.
Nig'gle, *v. a.* and *n.* [O. Fr. *niger,* to trifle.] To mock; to play on; to make sport or game of. (R.)
Nig'gler, *n.* One who niggles. (R.)
Nigh, (*nī,*) *a.* [A. S. *neah, neahg, neh.*] Near; not distant or remote in place or time; close; adjacent; contiguous. — Closely allied by blood; intimate in relation; proximate; present.
—*adv.* Near; at a small distance in place or time, or in the course of events. — Almost; as, he was *nigh* dead.
—*prep.* Near: at no great distance from; almost close to.
Nigh'ness, *n.* Nearness; proximity. (R.)
Night, (*nīt,*) *n.* [A. S. *nicht;* Gr. *nacht;* Lat. *nox;* Gr. *nux.*] That part of the natural day between the time when the sun sinks below the horizon and the time of his rising, or the time from sunset to sunrise. (See Day). — Darkness; gloom; obscurity. — Unintelligibleness; a state of ignorance; intellectual and moral darkness; heathenish ignorance. — Adversity; a state of affliction and distress. — The time after the close of life; death.
Night'-blindness, *n.* (*Med.*) A peculiar affection of the eye, in which the patient sees very well during the day, but becomes blind as night approaches. It is generally met with in warm climates, and seems to arise from the excessive stimulus to which the eye is exposed during the day by strong light. It usually gives way to mild antiphlogistic treatment, purging, and blistering the temples.
Night-blooming Cereus. See Cereus.
Night'-cap, *n.* A cap worn in bed, or in undress. — A glass of warm liquor taken before retiring to bed. (Vul.)
Night'-cart, *n.* A cart used for removing night-soil.
Night'-crow, *n.* A bird that cries in the night.
Night'-dog, *n.* A dog that hunts in the night.
Night'ed, *a.* Darkened; clouded; black. — Benighted; overtaken by night.
Night'-eyed, *a.* Able to see at night; keen-sighted.
Night'fall, *n.* The close of the day; evening.
Night'faring, *a.* Travelling in the night.
Night'-fire, *n.* Ignis-fatuus; Will-o'-the-Wisp. — A fire which burns in the night.
Night'-flier, *n.* A moth or other insect that flies by night.
Night'-glass, *n.* A telescope for night use.
Night'-gown, *n.* A loose gown used as an undress.
Night'-hag, *n.* A witch supposed to wander in the night.
Night'-hawk, *n.* (*Zoöl.*) The *Chordeiles popetus* (Baird), a bird of the family *Caprimulgidæ,* common in N. America, generally measuring nine inches in length, and so well known as to require no further description here. Night-hawks are not strictly nocturnal, as the name implies; but are often upon the wing

throughout the entire day, especially if it be cloudy. They are generally most active just before night, and retire to rest at dark. Their loud, squeaking notes are familiar to all. The singular loud and half-booming

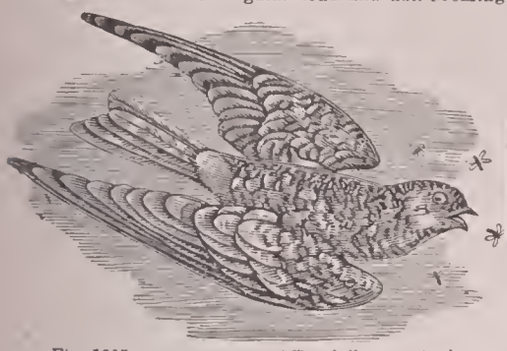

Fig. 1957. — NIGHT-HAWK, (*Chordeiles popetue.*)

sound which they make in plunging from the great height is said to be produced by the concussion caused by the new position of the wings at the moment when the bird passes the centre of its plunge and commences the ascent. The Night-hawk makes no nest, but deposits its two oval, freckled eggs on the bare ground, or on a flat rock, in fields or in very open woods. Some persons suppose that the Night-hawk and Whip-poor-will are identical, but they do not even belong to the same genus. The Night-hawk has the bristles of the bill hardly appreciable, wings sharp-pointed, longer than the tail, which is rather narrow, and forked or emarginate. The Whip-poor-will has the mouth margined by long stiff bristles, the wings short, not reaching the end of the tail, which is short and rounded; and they differ in their colors and markings.

Night'-heron, *n.* (*Zoöl.*) A genus of *Ardeidæ* (see HERON) intermediate between bitterns and herons, but with shorter and thicker bill than either, and legs shorter than in herons. This is abundant in N. America. It feeds chiefly by twilight or at night, and its cry is very loud and coarse.

Night'-house, *n.* A tavern, or inn, which is open at night; also, a brothel.

Night'ingale, *n.* [A.S. *nihtegale.*] (*Zoöl.*) An European migratory species of birds, family of Warblers or *Sylvicolidæ*. The males of the nightingale reach the southern counties of England sometimes in April, but more commonly not till the beginning of May; the females do not arrive till a week or ten days after the males. Migrating from the south, they visit the northern countries for the purpose of breeding, and the famed song of the male is his *love chant*, and ceases when his mate has hatched her brood. "Vigilance, anxiety, and caution now succeed to harmony; and his croak is the

Fig. 1958. — NIGHTINGALE.

hush, the warning of danger and suspicion, to the infant charge and the mother-bird." If by accident his mate be killed, the male resumes his song; and will continue to chant very late in summer unless he can attract, as he commonly soon does, another female. The nightingale feeds chiefly on the larvæ of insects. The nest is built near the ground; the eggs are four or five in number, of a uniform dark-brown color; the young are fledged in the month of June, and are ready to accompany the parents in their southward migration in the month of August.

Night'ish, *a.* Pertaining to night, or attached to the night.

Night'less, *a.* Having no night.

Night'ly, *a.* Done by night; happening in the night, or appearing in the night. — Done every night; nocturnal; as, a *nightly* watch.

—*adv.* By night; at night. — Every night.

Night'-man, *n.*; *pl.* NIGHT-MEN. One who carries away ordure in the night.

Night'mare, *n.* [Du. *nacht-merrie.*] A sensation in sleep resembling the pressure of a weight on the breast, and depriving of speech or motion. See INCUBUS.

—A morbid oppression, or sensation.

Night'-piece, *n.* A piece of painting so colored as to be intended to be viewed by candle-light, or seen to the best advantage by artificial light.

Night'-raven, *n.* A bird, supposed of ill-omen, that cries loud in the night.

(*Zoöl.*) The NIGHT-HERON, *q. v.*

Night'shade, *n.* (*Bot.*) See ATROPA.

Night'-shirt, *n.* A night-gown; a long, loose shirt for sleeping in.

Night'-soil, *n.* The contents of privies; — usually so called because carried away at night.

Night'-spell, *n.* A charm used as a preventive against accidents by night.

Night'-tripping, *a.* Going about lightly in the night; as, a *night-tripping* fairy.

Night'-walk, *n.* A walk in the evening or night.

Night-walker, (*nīt'wawk-er,*) *n.* One who walks in his sleep; a somnambulist. — One who roves about in the night for evil purposes.

Night'-walking, *n.* Walking in one's sleep; somnambulism. — A roving in the streets at night with evil designs.

Night'ward, *a.* Approaching toward night.

Night-watch, (*nīt'wotch.*) *n.* A watch or guard in the night. — A period in the night, as distinguished by the change of the watch.

Night'-watcher, *n.* One who watches during the night.

Night'-witch, *n.* A night-hag; a witch who appears in the night.

Nigres'cent, *a.* [Lat. *nigrescens.*] Growing black; approaching to blackness.

Nigrifica'tion, *n.* [Lat. *niger*, black, and *facio*, to make.] The act of making black. (R.)

Ni'grine, *n.* [Lat. *niger.*] (*Min.*) The reddish-brown or black varieties of titaniferous iron, from Transylvania.

Nigri'tia, a country of Central Africa. See SOUDAN.

Nigua, (*nee'gwa,*) a seaport on the S. of Hayti.

Ni hil, *n.* Nothing.

Ni'hilism, *n.* [Fr. *nihilisme*, Lat. *nihil, nihilum*, from *ne*, not, and *hilum*, a little thing, a trifle.] Nothingness.

Nihilis'tic, *a.* Pertaining to nihilism.

Ni'hilists, *n.* A political party of Russia, so-called from their aim to reduce society to its original state of nothingness and then to commence anew; they are socialistic. They want univ. suffrage, a free press. See *Arnaudo's Le N., Lavigne's L'hist. du N., Paris*, 1880. They date from 1869.

Nihil'ity, *n.* [Lat. *nihilum.*] Nothingness.

Nijni'-Novgorod, or LOWER NOVOGROD, a govt. of European Russia, between Lat. 54° 26′ and 57° 6′ N., Lon. 41° 40′ and 46° 38′ E., having N. the government of Kostroma, E. Kasan and Simbirsk, S. Pensa and Tamboff, and W. Wladimir; *area*, 18,740 sq. m. The surface is level, fertile, and generally well cultivated. *Rivers*, Wolga, Oka, Kama, Betlouga, and Piana. *Prod.* Corn, hemp, and flax. Great numbers of cattle and horses are bred. *Manuf.* Coarse linen, canvas, cordage, glass, hardware, and soap. Its commerce is extensive. *Exp.* Corn, flour, cattle, horses, leather, tallow, iron, timber, &c. *Cap.* Nijni-Novgorod. *Pop.* 1,285,196.

NIJNI-NOVGOROD, NIJEGOROD, or NIZHNI, capital of the above govt., at the junction of the Oka and Wolga. It is situated on a steep hill 400 feet high, the summit of which is occupied by the Kremlin or citadel. *N.* is the grand entrepôt for the trade of the interior of the empire, and during the fair held in the month of July it is visited by about 200,000 people, including merchants from all parts of Europe and Asia, and even some from America. Among the articles of traffic are gold, silver, copper, furs, silks, shawls, teas, corn, wine, cattle, &c. *Pop.* 31,543. The importance of the annual fair has of late much declined.

Nijni'-Tagilsk, a town of Russia, govt. of Perm, on the river Tagil, in the Ural Mountains, 150 m. E. of Perm. It is one of the most important mining towns of Russia, the soil in the vicinity being rich in iron, copper, gold, and platina. Not far off is the famous magnetic mountain Blagodat, 1,422 feet high. *Pop.* 25,000.

Nikola'iev, a town of Russia. See NICOLAIEFF.

Nik'olsburg, or **Nik'lasburg,** a town of Austria, in Moravia, 28 m. S. of Brünn. *Manuf.* Woollens. *Pop.* 8,500.

Nil, *n.* (*Book-keeping.*) A term used to denote an entry that is cancelled.

Nile. [Lat. *Nilus;* Gr. *Neilos*, from *nea ilus*, "new mud."] A large and famous river in the N.E. of the African continent, flowing north through Abyssinia, Nubia, and Egypt, to the Mediterranean Sea, celebrated alike for its magnitude, the inexhaustible fertility of the basin through which it flows, its connection with some of the most interesting events in the remotest periods of authentic history, the great cities that were early built on its banks, and the stupendous monuments still remaining to attest the wealth and power of their founders. The discovery of its *real* source was an object of intense inquiry to the ancients, as it remained, till within the last few years, to modern geographers and travellers. The *N.* is formed by the junction, at Lat. 15° 34′ N., and Lon. 32° 30′ 58″ E., of two great branches, the "Bahr-el-Azrek," or Blue River (often called *Blue Nile*), from the S.E., and the "Bahr-el-Abiad," or White River (*White Nile*), from the S.W. The sources of the former, which derives its name from the dark color of its waters, were discovered and described by Paez in 1618, and were subsequently visited by Bruce, the Abyssinian traveller, who ridiculously pretended to have, for the first time, ascertained the true sources of this river, and thus solved a problem that had for ages occupied the attention of the learned world. This E. arm rises from two springs near Geesh in Gojam, in Abyssinia, at an elevation of about 10,000 feet above sea-level, in Lat. 10° 59′ 25″ N., and Lon. 36° 55′ 30″ E. It thence flows N. to the lake of Demhea, or Tzana, a large sheet of water which receives many other streams; but the *N.* is said to preserve its waters with little intermixture with those of the lake, across which its current is always visible. Escaping from this lake it sweeps, in a S. direction, round the E. frontier of the provs. of Gojam and Damot, till, within 9° and 10° N. Lat., it travels a N.W. course, which it keeps, till at Khartoum it unites with the other great arm, the Bahr-el-Abiad, flowing from the S.W. The Bahr-el-Azrek receives in its course several important tributaries, and is in several parts interrupted by cataracts, one series of which has a fall of 280 feet. At the point of confluence with the sister-branch, it is about ¼ m. in breadth, and has a rapid current; but, during half the year, its waters are low. The W. arm, Bahr-el-Abiad, or "White Nile," derives its name from the fine whitish clay usually suspended in, and coloring, its waters. It is broader and deeper than the E. arm, brings down a larger volume of water, and appears to have been regarded by the ancients as the true *N.* If, however, the derivation of the name previously given be correct, the Babr-el-Azrek would seem to have the best right to be considered the *genuine N.*, inasmuch as it carries down the greater portion of the mud, whence its name has originated, and the deposits of which have, in the lapse of ages, formed the land of Egypt. The course of the Bahr-el-Abiad was traced, in 1827, by Linant, for about 160 m. from its confluence with the Bahr-el-Azrek. A party sent by the Pasha of Egypt on a slaving expedition, subsequently traced it to a much greater distance, or to a point in about 10° N. Lat., and 29° E. Lon.; and at this point no mountains were in sight, the river being, also, of great breadth, full of islands, and shallow. The course of the Babr-el-Abiad, so far as it was up to this time explored, was little further than to its junction with the Bahr-el-Azrek. At the point of junction, the Bahr-el-Abiad is only about 1,800 feet across; but a little above it enlarges much, its banks being frequently 3 and 4 m. apart, and, in some places during the inundations, the waters extend 21 m. from side to side. In its ordinary state, and in mid-channel, it has here from 3 to 4 fathoms of water. The honor of discovering the real source of this great river has hitherto been ascribed to three English explorers, Captains Grant and Speke, and Sir Samuel Baker (*q. v.*). According to their report, the *first* source of the *N.* is in the great lake called *Victoria Nyanza*, discovered by the two former; Sir Samuel Baker, however, discovered another great lake about 100 m. W. of M'Rooli, at Vacovia, in N. Lat. 1° 14′. This he named the *Albert Nyanza*, and determined it to be the *second* great source of the *N.* — second, not only in importance, but also in order of discovery to the Victoria. Later research has shown that several streams flow into the Victoria Nyanza, but it is not known which has its source farthest south, the credit lying between the Shiuiyn and the Isanga. Whichever be considered the mother stream of the *N.*, it may be looked upon as drawing its most distant waters from about 4° S. Lat. It flows from the Victoria Lake at its northern end, forming there the Ripon Falls, a cataract over 150 yards wide, but only 12 feet high. For 300 m. it flows between rocky walls, forming rapids and cataracts in its course, until it enters the Albert Nyanza, near its northeast corner. This lake forms a great basin much below the level of the adjacent country, receiving the entire drainage of extensive mountain ranges on the W., and of several native states on the E. At its southwestern extremity it is joined by the Semliki river, bringing the outflow of the Albert Edward Nyanza. This lake, discovered by Stanley, in 1889, receives the drainage of the snow-clad Ruwenzori and other mountains. Leaving the Albert Nyanza, under the native title of Bahr-el-Jebel, the *N.* flows in a generally northward course to the far distant Mediterranean. For 130 m. it traverses a level country, frequently expanding into lakes. For the next 120 m. rocky hills narrow the stream to a width of a quarter-mile, its course being broken by the Yarborah Rapids. At Lado it reaches the plains, through which it flows sluggishly to Khartoum, 900 m. N. This distance is navigable for steamers of considerable size, though in 7½° N. lat. the stream divides and flows for about 150 m. through a swampy country, both channels being often completely choked by great collections of vegetable growth. The Bahr-al-Ghazel, a large tributary, joins the main stream at 9½° N. lat. Farther on the two channels unite and are joined by the Sobat. It now flows to Khartoum without receiving another tributary, and here is joined by its great Abyssinian branch, the **Blue Nile.** The great united main stream of the *N.*, after the junction of its two branches, takes a direction generally N., but with almost innumerable windings. Not far from below the point of confluence is a low range of mountains, through which the river rushes in a narrow gorge, forming what is called the *Sixth Cataract;* and thence deflecting E. through extensive and verdant plains, it passes the cap. Shendy, and the ruins of the ancient Meroe. It receives, close to the town of Addamar, in Lat. 17° 45′ N., the waters of its important tributary, the Tacazzè (anc. *Astaborus*). From this point to its embouchure, a distance of about 1,350 m., the *N.* receives no affluent whatever, on either bank; a solitary instance, as Humboldt has remarked, in the hydrographic history of the globe. At Abu Hamed, in abt. 19½° N. Lat., and 33° E. Lon., the river, hitherto flowing N., trends suddenly to the W., and thence pursues a S.W. course to Edab, in the prov. of Dongola, 18° Lat. N., where it again makes a curve to the N. This deflection is called the *Great Bend of the Nile.* The river enters Lower Nubia in abt. 19° 40′ N. Lat., where it is precipitated over a ledge of granite rocks, forming what commonly is called the *Third Cataract.* Under the 22d parallel occurs the *second cataract*, that of Wady-Halfa. The *first*, or *lowest cataract* is that of Assouan (anc. *Syene*), near the island of Elephantine, where the river has cut a way through a ridge of granite rocks. It must be observed, however, that the term "cataract," as applied to the broken course of the *N.*, bears no analogy to the great cataracts of Niagara, the Pisso-Vache, and others; for most of the

scarcely exceed a few feet in height, and are, in fact, rather rapids than cataracts. At Kalabsheh (anc. *Talmis*), the *N.* rises from 30 to 40 ft. during the floods; and after their subsidence in Feb., the stream flows at the rate of 2 or 3 nautical miles per hour. The river, after crossing the Egyptian boundary at Philœ, 6 m. from Assouan, runs in a sluggish and very tortuous stream, generally N., through the entire length of the country, enriching it by its waters and deposits, which, indeed, not only give to Egypt its fertility, but also make it habitable. But with the exception of the dist. of Faïoum, the valley of the *N.* in Upper and Central Egypt is of very contracted dimensions, the mountains and the burning sands of the desert encroaching so closely upon it, that it seldom exceeds 10 m. in width, and is frequently not half so much. But how limited soever, this narrow strip is of extraordinary beauty and fertility, and contains the magnificent remains of some of the noblest and most populous cities of the ancient world. In antiquity, the *N.* seems to have discharged its waters into the sea by 7 mouths; but it has now only two outlets, those of Rosetta and Damietta. The former, or most W., has a width of 1,800 ft., with a depth of abt. 5 ft. in the dry season. The Damietta mouth is only 900 ft. wide; but its depth averages between 7 and 8 ft. when the river is lowest. The greatest breadth of the Delta is abt. 85 m. from E. to W., the distance of its apex from the sea being rather more than 90 m. Great changes have, however, taken place in it during the lapse of ages; the soil has not only been elevated many feet by alluvial accumulations, but its shape and the position of its apex have greatly altered even within the period of modern history. The river begins to swell in its higher parts in April, and even earlier in the Bahr-el-Abiad; but at Cairo no increase occurs till the beginning of June, its greatest height at that city being in Sept, when the Delta is almost entirely under water. The waters begin to subside in Nov., leaving a rich alluvium, which is the great source of the fertility of Lower Egypt. The greatest breadth of the river may be estimated at 2,000 ft., while its average current does not exceed 3 m. an hour. The water is always turbid; and even in April and May, when it is clearest, it has a cloudy hue. When it overflows, the color is of a dirty red, consisting chiefly of the red-clay deposits of the Bahr-el-Azrek; for, as already stated, the Bahr-el-Abiad brings down a fine whitish clay. The *N.* abounds with a great variety of fish, such as the *Labrus Niloticus*, or white trout, the *Mœna anquilla*, and a large species of salmon. Among the waterfowl peculiar to the *N.*, the most characteristic is the *Anas Nilotica*, or Turkey-goose, the flesh of which is both palatable and nutritious. Hippopotami are found on its banks in Nubia, but not in Egypt; the crocodiles, also, are greatly reduced in number, and are now confined to the dist. above Assiout. From Assouan to Cairo, abt. 360 m., the banks, except in the rocky parts, present no native plant, but abound with all sorts of esculent vegetables, raised by the industry of the inhabitants on this peculiarly fertile soil. Cultivation is, however, more common on the E. than on the W. bank of the river. See LIVINGSTONE, DAVID.

Nile, in *Ohio*, a township of Scioto co., on the Ohio river.

Niles (*nilz*), in *Illinois*, a post-township of Cook co.

Niles in *Indiana*, a township of Delaware co.

Niles, in *Iowa*, a post-town in Floyd co.

Niles, in *Michigan*, a city and township of Berrien co., about 191 m. W. by S. of Detroit, on the St. Joseph river and on the Mich. Cent. R. R. It is an important manufacturing center, chiefly flour, paper, woolleus, iron, furniture, carriages, &c. *Pop.* (1894) 5,508.

Niles, in *New York*, a post-township of Cayuga co. *Pop.* (1897) 1,620.

Niles, in *Ohio*, a city of Trumbull co., about 5 m. N.E. of Warren; has large iron works. *Pop.* (1897) 5,160.

Nill, *n.* Shining sparks emitted from brass when melted in a furnace.

Nilot'ic, *a.* Pertaining to the Nile.

Nil'wood, in *Illinois*, a post-township of Macoupin co., 29 m. S.W. of Springfield.

Nils'son, CHRISTINE. See SECTION II.

Nim'ble, *a.* [A. S. *numol*, capable, receiving, from Old S. *niman*, to take.] Moving with ease and celerity; agile; quick; lively; swift; speedy; active; prompt; expert.

Nim'bleness, *n.* Quality of being nimble; lightness and agility in motion; quickness; celerity; speed; swiftness.

Nim'bly, *adv.* With agility; with light, quick motion.

Nimbose', *a.* [Lat. *nimbosus.*] Stormy; tempestuous. (R.)

Nim'bus, *n.* (*Fine Arts.*) A halo round the head or body of divine persons. It is called a *nimbus* when it surrounds the head, and an *aureola* when it envelops the whole body — the union of the two being called a *glory*. It is of Pagan origin. Images of the gods were adorned with a crown of rays; and when the Roman emperors assumed divine honors, they appeared decorated in the same manner. It afterwards became so common, that it appears on coins, round the heads of the consuls of the late empire. It was for a long time avoided in the Christian representations, and the first example is a gem of St. Martin in the early part of the 6th century. After the 11th century it was employed to distinguish the Saviour, the Virgin Mary, the apostles, saints, &c. From the 5th to the 12th century the *N.* had the form of a disc or plato over the head; from the 12th to the 15th century it was a broad golden band round or behind the head; from the 15th century it was a bright fillet over the head, and in the 17th it disappeared altogether. See HALO.

(*Meteor.*) See CLOUD.

Nime'guen, or **Nymwe'gen,** a fortified town of the Netherlands, prov. of Guelderland, on the Waal, 9½ m. S. of Arnhem; Lat. 51° 51′ N., Lon. 5° 51′ E. *Manuf.* Pale ale, leather, and glue. *Pop.* 24,000.

Treaty of N. (*Hist.*) Conferences for peace were opened at Nimeguen in July, 1675, and Charles II. of England having signed a convention with Holland, Jan. 26, 1678, for the withdrawal of the English contingent from the French army, a treaty of peace was concluded at Nimeguen between France and Holland, Aug. 10. Spain acceded to the treaty Sept. 17, 1678, the Emperor of Germany Feb. 5, 1679, and Sweden March 29, 1679.

Nimes, or **Nismes,** (*neems,*) a city of France, cap. of the dept. of Gard, 23 m. W.S.W. of Avignon, and 30 m. N.E. of Montpellier; Lat. 43° 50′ 8″ N., Lon. 4° 21′ 15″ E. It is surrounded by boulevards on the site of the anc. fortifications. The principal public buildings are the cathedral, erected on the site of the temple of Augustus, the Palais de Justice, Hôtel Dieu, the general hospital, and the new theatre. But *N.* is particularly interesting for its numerous remains of antiquity, the most prominent of which are the *Maison Carrée*, an oblong temple, of the age of Augustus, built in the Corinthian style; the *Amphitheatre*, the *Roman baths*, and the *Tourmagne*, an ancient tower 200 ft. high. The Pont du Gard, formerly part of the Roman aqueduct 25½ m. long, crosses the river Gardon, 11 m. N. of *N.* (See AQUEDUCT.) *Manuf.* Silks, hosiery, ribbons, linen, and leather; likewise printing and dyeing works, and an extensive trade in raw and wrought silk, corn, wine, olive-oil, and dried fruit. *Pop.* 60,240.

Nimi'ety, *n.* The state of being in excess.

Nimishil'len, in *Ohio*, a creek flowing into the Tuscarawas River from Stark co.

—A township of Stark co.

Nim'rod, grandson of Ham, who is supposed by some to have been the founder of Babylon, where he reigned while Asshur ruled in Assyria. He is also supposed to be the first king, and the first conqueror. In the Scriptures, he is called "a mighty hunter before the Lord."

Nin'compoop, *n.* [A corruption of Lat. *non compos mentis.*] A fool; a blockhead; a trifling dotard. (Colloq.)

Nine, *a.* [A. S. *nigan*; Ger. *neun*; Lat. *novem.*] Denoting the number composed of eight and one.

—*n.* The number composed of eight and one.

Nine Ea'gles, in *Iowa*, a post-village of Decatur co., abt. 145 m. S.W. by W. of Iowa City.

Nine'fold, *a.* Nine times repeated.

Nine'-holes, *n.* A play in which nine holes are made in the ground in the angles and sides of a square, for the purpose of bowling a pellet into them according to certain rules.

Nine'-killer, *n.* (*Zoöl.*) A popular name of the butcher-bird. — See COLLYRIO.

Nine'-men's-morris, *n.* A game played with nine holes in the ground. — See MORRIS.

Nine'-pence, *n.*; *pl.* NINE-PENCES. An old English silver coin, valued at nine pence.

Nine'-pins, *n.* A play where nine pieces of wood are set up on the ground, to be thrown down by a bowl. In the U. States, it is sometimes called *ten-pins*, from ten pins being used instead of nine.

Nine'-score, *a.* Nine times twenty.

—*n.* The number of nine times twenty.

Nine'teen, *a.* [A. S. *nigantyne.*] Noting the number of nine and ten united.

—*n.* The sum of ten and nine.

Nine'teenth, *a.* [A. S. *nigantothe.*] Designating nineteen.

—*n.* One of nineteen equal parts.

Nine'tieth, *a.* The ordinal of ninety.

—*n.* One of ninety equal parts.

Nine'ty, *a.* [A. S. *nigan*, nine, and *t'g*, ten.] Nine times ten; as, *ninety* years.

—*n.* The sum of nine times ten.

Nin'eveh, or **Ni'nus.** (*Anc. Geog.*) A famous city, and the capital of the great Assyrian empire. Nimrod, or Asshur, is said to have founded this city about B. C. 2218: but some authorities believe that it had no existence till the reign of Ninus, B. C. 2182. It is mentioned on the tablet of Karnak (*q. v.*). Diodorus asserts that Nineveh was destroyed by Arbaces the Mede, B. C. 876;

Fig. 1959. — NINEVEH, (Modern Mosul.)

but Layard considers this destruction to have been most probably a mere depopulation. Jonah's prophecy to the inhabitants of Nineveh was delivered some time between B. C. 760–B. C. 750, or B. C. 862 according to some authorities; and the city was conquered and destroyed by Cyaxares B. C. 625. The extent of the ancient city was 60, or, according to some authorities, 74 square miles. Heraclius defeated Rhazates, the Persian general, in a great battle, on its site, Dec. 1, 627. Layard's discoveries of antiquities at Nineveh commenced in 1845, but no excavations of importance were made till the autumn of that year. The discoveries made by Layard and later explorers have been of the greatest importance, including numerous striking sculptures and the clay-inscribed books of an ancient library, from which much concerning the history and customs of ancient Assyria has been learned. See MOSUL.

Nin'eveh, in *Indiana*, a township of Bartholomew co.

—A post-village and township of Johnson co., abt. 30 m. E. by S. of Indianapolis.

Nin'eveh, in *Missouri*, a post-village of Adair co., abt. 36 m. N.E. of La Clede.

Nin eveh, in *New York*, a post-village of Broome co., abt. 16 m. E.N.E. of Binghamton.

Ning-po', a city of China, prov. of Tche-Kiang, at the confluence of the rivers Kiu and Yaou, near their mouth in the harbor of Chusan, 46 m. S.E. of Hang-choo-foo, and 180 S.E. of Nankin; Lat. 29° 55′ N., Lon. 120° 17′ E. The streets are broad and long; and the shops surpass those of Canton in elegance and splendor. *N.* is considered the fourth emporium of the Chinese empire; and its trade with N. and S. China and Siam is important. The port is open to European commerce. *Pop.* Estimated at 250,000.

Ni'nians, (St.,) a town and parish of Scotland, co. of Stirling, 2 m. S. of Stirling. *Manuf.* Woollens, leather, and nails. In this parish, which includes also the town of Bannockburn, three memorable battles were fought: the first in 1297, between the troops of Wallace and the English, whom they totally routed; the second was the famous battle of Bannockburn (*q. v.*); and the third, in 1488, in which James III of Scotland was defeated and killed by his rebellious nobles. *Pop.* 10,000.

Nin'inger, in *Minnesota*, a p. twp of Dakota co.

Nin'ny, *n.* [Sp. *niño*, a child; Gr. *nennos*, foolish, stupid.] A fool; a simpleton. (Vulgar.)

Nin'ny-hammer, *n.* A simpleton. (Vulgar.)

Nin'sin, or **Nin'zin,** *n.* (*Med.*) A bitter root of *Siam ninsi*, possessing medicinal properties similar to those of ginseng.

Ninth, *a.* [A. S. *nigetha.*] The ordinal of nine; designating the number nine; the next preceding ten.

—*n.* A ninth part.

(*Mus.*) One of the dissonant intervals, being the ninth from the fundamental, or an octave above the second, with which, however, it is not to be confounded, as its harmonial and contrapuntal treatment is different.

Ninth'ly, *adv.* In the ninth place.

Ni'nus, king of Assyria, and a celebrated conqueror, who, about 2068 B. C., succeeded Belus, his father, as king of Babylon and Nineveh. He entered into an alliance with the Arabs, subjugating Egypt and Bactria. He became enamored of Semiramis, the wife of one of his generals, and married her after her husband's death. Semiramis was supposed to have subsequently poisoned Ninus, who reigned during 52 years, and enlarged Nineveh, to which city he gave his name.

NINUS II., or NINYAS, son of the preceding and Semiramis, who profited by his youth to assume the regency. According to some, she subsequently voluntarily abdicated, while others state that she was put to death by Ninus. His reign is remarkable for its luxury and extravagance. His successors imitated the example of his voluptuousness; and very little further is known of the Assyrian monarchs until the age of Sardanapalus. His reign is placed between the years 2017–1927 B. C.

Nio, (anc. *Ios,*) (*ne'o,*) a small island of the Grecian Archipelago, 16 m. from Naxos; Lat. 36° 46′ N., Lon. 5° 24′ E. *Ext.* 11 m. long, and 5 broad. *Prod.* Cotton, oil, wine, and honey. *Pop.* 4,000.

Ni'obe. (*Gr. Myth.*) A daughter of Tantalus, married to Amphion, king of Thebes. Proud of her children, she provoked the anger of Apollo and Artemis, who slew them all. Her grief turned her into stone. (Soph. *Electr.* 151.) This fable is the subject of the beautiful group in the Tribune at Florence, known by the name of *Niobe and her Children*. Some antiquaries attribute it to Scopas. Winckelmann inclines to believe it the workmanship of Praxiteles.

Niobra'ra (or RUNNING) **River,** called also **L'EAU QUI COURT,** rises near Platte Bridge, in Wyoming, and flowing E. into Nebraska, enters the Missouri at Niobrara, in L'Eau Qui Court co. *Length*, about 500 m.

Niobra'ra, in *Nebraska*, a post-village, cap. of Knox co., 40 m. above Yankton, S. D.

Nip, *v. a.* [Du. *knippen*; Ger. *kneifen*; A. S. *knipan.*] To cut, bite, or pinch off with the ends of the fingers; to cut off, as the end of anything; to clip, as with the knife or scissors.—To blast; to kill or destroy the end of anything; to pinch, as frost; to check the progress or advance of.—To vex; to bite.

—*n.* A small bite or cut, or a cutting off the end.—A pinch with the nails, teeth, &c.—A blast, a blight.

Nip' pur An ancient city of Babylonia. See BABYLONIAN EXPLORATIONS, SECTION II.

Nipor'na, or **Napo'ma,** in *California*, a village of San Luis Obispo co., about 18 m. S.E. of San Luis Obispo.

Nip'penose, in *Pennsylvania*, a remarkable basin or valley in Lycoming co. It is surrounded by high mountains, and occupies an area of about 40 sq. m. The bed consists of cavernous limestone, which, absorbing the numerous streams that flow down from the mountains, collect the waters under ground, and send them forth in one large stream near a gap in the Bald Eagle Mountain.

Niort, (*nyor,*) a town of France, cap. of the dept. of Deux-Sevres, on the Sevre-Niortaise, 34 m. E.N.E. of La Rochelle, and 43 m. W.S.W. of Poitiers. It is pleasantly situated on the declivities of two hills, and has been latterly much improved. Among the public buildings are the castle, town-hall, and public library containing 20,000 vols. — *Manuf.* Leather, gloves, shoes, woollen stuffs, wooden and horn articles; *N.* is also an entrepôt for the wines of the Gironde. *Pop.* 2,775.

Niph'on, is the term which is wrongly applied by foreigners to the main island of the Japanese Empire. The Japanese call their country "Dai Nippon." It is a manifest error to restrict the name Nippon to one island. The name Japan has been corrupted from Nippon. Dai Nippon means Great Japan, or Great Root of Light. See JAPAN.

Nip'penose, in *Pennsylvania*, a post-township of Lycoming co.

Nip'per, *n.* He or that which nips.—A fore-tooth of a horse.

Nip'pers, *n. pl.* Small pincers.

(*Naut.*) A number of yarns marled together, used for fastening the messenger to the cable.

Nip'pingly, *adv.* With bitter sarcasm.

Nip'ple, *n.* A teat: a dug; the conical tubercle situate at the centre of the breast.—The orifice at which any animal liquor is separated. (R.)—(*Gun.*) That part of a percussion lock over which the cap is placed.

Nip'ter, *n.* (*Eccl.*) The ceremony of washing the feet, observed by members of the Greek Church on Good Friday.

Nirgua, (*neer'gwa,*) a town of Venezuela, abt. 50 m. W.S.W. of Valencia.

Nir'vâna. See BUDDHISM.

Ni'san, *n.* [Heb. *nisân.*] Among the Jews, the first month of the civil year, corresponding with the month of April.

Nisao, (*ne-sa'o,*) a river of Hayti, W. Indies, rises on the S. slope of the Ciboa Mountains, and flows S. into a bay of its own name. *Length*, abt. 55 m.

Ni'sey, *n.* An old term for a nincompoop; a fool; a simpleton.

Nishapoor', a city of Persia, prov. of Khorassan, 40 m. W.S.W of Meshed. It is situated in one of the most fertile valleys of Persia, but is very much decayed. *Pop.* 8,000.

Nishuabato'na River, rises in Carroll co., Iowa, and flowing a general S. by W. course into Missouri, enters the Missouri River from Holt co.

Nisi, (*ni'sī,*) *conj.* [Lat.] Unless; if not; as, to take a rule *nisi*.

Ni'si Pri'us. [Lat., unless before.] (*Law.*) The name (borrowed from the first two words of the old writ which summoned juries) usually given in England to the sittings of juries in civil cases. Thus a judge sitting at *nisi prius*, means a judge presiding at a jury trial in a civil cause, and the *nisi prius* sittings are the jury sittings.

Niskayu'na, in *New York*, a post-township of Schenectady co.; *pop.* abt. 1,860.

Nis'mes, a city of France. See NÎMES.

Nis'roch. (*Myth.*) A god of the Assyrians, in whose temple, and in the very act of idolatry, Sennacherib was slain by his own sons (2 *Kin.* xix. 37). According to the etymology, the name would signify "the great eagle;" and the earlier Assyrian sculptures recently exhumed at Nineveh have many representations of an idol in human form, but with the head of an eagle, as in Fig. 1960. Among the ancient Arabs, also, the eagle occurs as an idol.

Fig. 1960. — NISROCH.

Nis'sa, (anc. *Naïssus, Naisus,* or *Næsus,*) a fortified town of European Turkey, in Servia, on the Nissava, a tributary of the Morava, 130 m. S.E. of Belgrade; *pop.* 4,000.

Nissa'va, a river of European Turkey, in Servia, which after a W. course of 80 m., joins the Morava 8 m. W. of Nissa.

Nit, *n.* [A. S. *hnitu;* Du. *neet.*] The egg of a louse or other small insect.

Nitcheguon, (*nitch-e-gwon',*) a lake of Labrador, between James Bay and the Atlantic Ocean.

Ni'tency, *n.* [Lat. *nitentiu.*] Lustre; brightness; pellucidness.

—[From Lat. *nitor.*] Endeavor; attempt; effort.

Nith, a river of Scotland, rising in the co. of Ayr, and after a S.E. course of 60 m, flowing into the Solway Frith, 8 m. S. of Dumfries, by an estuary 5 m. in width.

Nit'id, *a.* [Lat. *nitidus.*] Bright; shining; lustrous; brilliant; as, a *nitid* yellow.

—Spruce; gay; debonnair. (R.)

Niti-Ghaut, or **Netee-Ghaut,** (*nee'tee-gawt,*) a pass across the Himalayas between Thibet and the British dist. of Kumaon, with an elevation of 17,000 ft. above the sea; Lat. 30° 47′ N., Lon. 79° 56′ E.

Nit'inat (or BERKELEY) **Sound,** an inlet of the Pacific Ocean, on the W. coast of Vancouver's Island, British Columbia; Lat. 48° 50′ N., Lon. 125° 24′ W.

Nitra'ria, *n.* (*Bot.*) A genus of trees, order *Malpighiaceæ*. The species *N. tridentata*, a native of the desert of Soussa, near Tunis, has fruit of a somewhat intoxicating nature, and is supposed to be the true lotus-tree of the ancients. It takes its name from the Latin *nitrum*, nitre, because it was first found by Schreeber near the nitre-works of Siberia.

Nitrate, (*ni'trait,*) *n.* (*Chem.*) A combination between nitric acid and a base. Nearly all the metallic oxides are dissolved by nitric acid; a numerous class of nitrates is thus produced, which, if prepared with heat and with excess of acid, generally contain the metal at its maximum of oxidizement. The nitrates are all decomposed by a red heat; they give off oxygen and nitrogen, either separate or combined, and the metallic oxide ultimately remains. They are also decomposed when heated with sulphur, phosphorus, or charcoal; and sulphurous, phosphoric, and carbonic acids, are usually expelled. When nitrates are decomposed by hydrated sulphuric acid, nitric acid is evolved, and *sulphates* are formed.

N. of Silver. See SILVER, (NITRATE OF.)

Ni'trated, *a.* In combination with nitric acid.—(*Photog.*) Prepared with nitrate of silver.

Ni'tratine, *n.* (*Min.*) A native nitrate of soda, covering large areas on the borders of Chili and Peru.

Nitre, (*ni'ter,*) *n.* [Fr., from Lat. *nitrum*; Gr. *nitron.*] (*Chem.*) Nitrate of potash. See POTASH, (NITRATE OF.)

Cubic nitre, nitrate of soda;—so called from its crystallizing in rhombs.

Ni'triary, *n.* An artificial hot-bed for the manufacture of nitre.

Ni'tric Acid, *n.* (*Chem.*) See NITROGEN, (OXIDES OF.)

Nitrifica'tion, *n.* [Fr.] Art, process, or operation of manufacturing nitre by the decomposition of animal substances. (See Section II.)

Nitrile, *n.* (*Chem.*) A name applied to artificial bases consisting of ammonia, in which the three equivalents of hydrogen are replaced by three equivalents of some other substance. Trimethylamine and triethylamine are examples of nitriles.

Nit'rify, *v. a.* To convert into nitre.

Ni'trite, *n.* [Fr.] (*Chem.*) A salt of the nitrous acids.

Nitro-aë'rial, *a.* Cousisting of a combiuation of nitre and air.

Nitro-ben'zole, *n.* (*Chem.*) See BENZINE.

Ni'trogen, *n.* [Fr. *nitrogene*; Gr. *nitron,* nitre, and *gennaō,* to produce.] (*Chem.*) A transparent, colorlese gas, first liquefied in 1877, one of the constituents of the atmosphere, which contains volumetrically abont 78 per cent., mechanically united with 22 per cent. of oxygen. Although characterized by its inactivity when in a free state, it enters into combination with the other elements, forming compounds possessed of the most energetic properties. With hydrogeu it forms ammonia; with oxygen, nitric acid; with carbon, cyanogen; with carbon, hydrogen, and other elements, an almost infinite number of bodies, known as the vegetable and artificial alkaloids, such as quinine, morphine, auiline, &c., &c. Besides these, most coloring-matters contain nitrogen, and it is an essential constituent of the proximate principles of animal and vegetable bodies; such as albumin, fibrin, casein, &c. It was at first called *azote*, from its incapability of supporting life; but Chaptal named it nitrogen, from its entering into the composition of nitre, nitric acid, &c It is readily obtained in a variety of ways by abstracting the oxygeu from the air. The easiest, perhaps, is by igniting a few pieces of phosphorus floating in a small capsule on water, and covering the whole with a bell-jar. The remaining gas is then washed from the phosphoric acid with which it is contaminated, and passed over caustic potash, to remove any traces of aqueous vapor and carbonic acid. Thus obtained, it is a colorless, uncondensable gas, tasteless, inodorous, and without action on vegetable colors. It is incombustible, and does not support combustion. It may be breathed with impunity as far as itself is concerned, but destroys life by preventing the inspiration of oxygen. Its compounds with the metallic elements are of little importance. Fulminating gold, silver, platinum, and mercury, are supposed to be nitrides of those metals; and a nitride of copper, Cu_6N, has been formed. The compounds it forms with the non-metallic elements are most numerous and important. From the similarity of their chemical characteristics, nitrogen, phosphorus, arsenic, antimony, and bismuth, have been formed by Gerhardt into a group termed by him the *Nitrogen group.* Equiv. 14; density 14; Sp. gr. 0·9713: *Symbol* N.

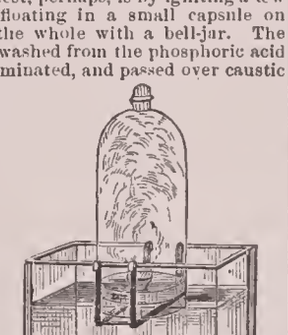

Fig. 1961.
PREPARATION OF NITROGEN.

Bisulphide of N. When chloride of sulphur is dissolved in ten times its bulk of bisulphide of carbon, and decomposed by ammoniacal gas, it yields, on filtration, beautifully golden-yellow rhombic crystals. It detonates powerfully by percussion, and explodes if heated to 314° Fahr.

Chloride of N. When a bottle of dry chlorine is inverted over a dish containing one part of sal-ammoniac dissolved in twelve parts of water, the chloride becomes gradually absorbed, oily drops of terchloride of nitrogen being formed. It is harmless while wet, but the slightest touch with oil, fat, turpentine, or phosphorus, causes it to detonate with fearful violence. It is one of the most violently explosive substances known. Nitrogen forms similar explosive compounds with iodine and bromine.

Oxides of N. With oxygen, nitrogen forms five well-defined compounds:

N_2O—Nitrous oxide, or protoxide of nitrogen.
NO—Nitric oxide, or deutoxide of nitrogen.
N_2O_3—Nitrous acid.
N_2O_4—Peroxide of nitrogen.
N_2O_5—Nitric acid.

The first of these, nitrous oxide, is commonly known as *laughing-gas,* from the exhilaratiug effects it produces on the human system when breathed. It was discovered by Priestley in 1776, and minutely investigated by Davy. It is best prepared by heating nitrate of ammonia in a retort to a temperature of 400° Fahr., beyond which the operation becomes dangerous. It may be condensed by powerful pressure into a colorless liquid, which freezes into a transparent solid at —150°. When liquid protoxide of nitrogen is mixed with bisulphide of carbon, and evaporated *in vacuo,* a temperature of —220° is obtained, which is a lower point than has been hitherto obtained by any other means. It is a transparent, colorless gas, soluble in three-fourths of its bulk of cold water, and has a spec. grav. of 1·527. It is neutral and non-combustible, but supports combustion with great energy. Deutoxide of nitrogen, or nitric oxide, is obtained by pouring nitric acid, diluted with twice its bulk of water, on copper clippings, placed in a retort. The red fumes at first given off are speedily dissipated, and a gas is disengaged, which, if collected over water, is colorless. The gas has a strong, disagreeable odor, and cannot be breathed. It has hitherto resisted all attempts to liquefy it. It is non-combustible, and will not support combustion. It is neutral in its properties, but is at once converted into the red peroxide of nitrogen in the presence of oxygen, for which it has a great affinity. From this circumstance, it is often used as a qualitative test of the presence of oxygen in any gaseous mixture. It is regarded by many chemists as a body acting both as a base and a radical, and is called by them azotyl or nitrosyl.—*Nitrous acid,* or *hyponitrous acid.* This gas is obtained by mixing in an exhausted flask four vols. of deutoxide of nitrogen and one of pure oxygen; brown fumes are formed, which at a cold of 0° Fahr. condense into a blue liquid. The presence of a small quantity of water converts the blue into a dark green liquid, and a larger quantity decomposes it into peroxide of nitrogen and nitric acid. Although so unstable in its free state, it forms permanent compounds with the alkalies known as nitrites.—*Peroxide of nitrogen.* The red fumes produced on mixing deutoxide of nitrogen with oxygen or atmospheric air consists mainly of this compound. It may be obtained in prismatic crystals by passing four vols. of deutoxide and two of oxygen into tubes cooled down to 0° Fahr. These crystals melt at 16° Fahr., and form an orange liquid, which boils at 72° Fahr. When once melted, it cannot be frozen again. Much speculation has been indulged in as to its real composition. When it reacts on an alkali, equal parts of the nitrate and nitrite of the base are formed. It has the property of replacing one or more equivalents of hydrogen in certain organic compounds, such as benzol, naphthaline, aniline, &c. It is readily absorbed by nitric acid, to which it communicates a deep brown or yellow tinge. It was formerly supposed to possess acid properties, and was called nitrous acid.—*Nitric acid.* Of all the compounds of oxygen and nitrogen, nitric acid is the most important; its power of forming useful compounds with most of the bases, and its powerful oxidizing properties, render its uses most manifold, both in the factory and the laboratory. It was known to the alchemists under the name of *aqua fortis;* but its composition was first made out by Cavendish. It may be formed systematically by passing a current of electric sparks through a mixture of nitrogen and oxygen; and nitrate of ammonia may be detected in rain-water during stormy weather,—the flashes of lightning passing through the moist air producing the same effect. Nitric acid occurs in nature in combination with potash or soda, as an efflorescence on the surface of the earth in tropical countries. Nitrate of potash, nitre, or saltpetre, is imported principally from Tirhoot, in Bengal; and nitrate of soda, or cubic nitre, is found in distinct layers under the surface of the soil in Chili and Peru. Nitric acid is produced for commercial purposes by distilling nitrate of soda and sulphuric acid in large iron retorts lined with fire-clay; the sulphuric acid uniting with the alkaline base, and the nitric acid passing off into a series of stoneware Wolf's bottles containing water. In its most concentrated form, nitric acid contains one equivalent of water, and has a specific gravity of 1·52. It is a colorless, limpid, powerfully corrosive liquid boiling at 184° Fahr., and freezing into a battery mass at —40°. The monohydrated acid is a very unstable compound, eliminating peroxide of nitrogen when heated until a tetrahydrated compound is formed, when it distils over unchanged. When weaker acids are boiled, they, on the contrary, lose water until this definite hydrate is formed. Nitric acid with four equivalents of water is a definite and stable compound. It has a specific gravity of 1·424, and distils at 250° without change. Nitric acid, especially when heated, is one of the most powerful oxygenants known, a property which is much increased when it contains peroxide of nitrogen in solution, as in the red fuming acid of commerce, often called *Anderson's.* It

Deville has succeeded in forming anhydrous nitric acid in transparent rhombic crystals by acting on nitrate of silver with dry chlorine gas. These crystals melt at 85° Fahr., and boil at 113° Fahr. They may be preserved in the cold for any length of time. With water they form nitric acid by evolution of heat. Nitric acid combines with one equivalent of the various bases to form neutral salts, known as nitrates. No acid nitrates corresponding to the acid sulphates are known; but several subnitrates may be formed. The nitrates are characterized by deflagrating when thrown on glowing coals, and by decomposing when heated to a high temperature, the oxide of the metal being generally left behind. Nitric acid is not precipitable from solutions of nitrates. The method of detecting its presence is described under the head of TESTS.

Nitro-cal'cite, *n.* (*Min.*) Native nitrate of lime. It occurs as an efflorescence upon old walls and on calcareous rocks, in the form of silky tufts, with a sharp and bitter taste.

Ni'trogenize, *v. a.* To imbue with the properties of nitrogen.

Nitrog'enous, *a.* Containing nitrogen; pertaining, or having reference to nitrogen.

Nitro-glyc'erine, (*-glĭs-*) *n.* (*Chem.*) A violently explosive substance, easily prepared by dissolving glycerine in a mixture of equal measures of the strongest nitric and sulphuric acids, previously cooled, and pouring the solution in a thin stream into a large volume of water, when the nitroglycerine is precipitated as a colorless heavy oil (sp. gr. 1·6). It is advisable to add the glycerine to the mixed acids in very small quantities at a time, and to cool the mixture in a vessel of water after each addition. When the *N.* has subsided, the water may be poured off, and the oil shaken several times with water, so as to wash it thoroughly. The formation of *N.* resembles that of gun-cotton, three equivalents of hydrogen being removed from the glycerine by the oxidizing action of the nitric acid, and three equivalents of nitric peroxide introduced in their place. This oil is far more violent in its explosive effects than gun-cotton, more nearly resembling the fulminates, though not so easily exploded. If a drop of nitro-glycerine be placed on an anvil and struck sharply, it explodes with a very loud report, even though not free from water; and if a piece of paper moistened with a drop of it be struck, it is blown into small fragments. On the application of a flame or of a red-hot iron to nitro-glycerine, it burns quietly; and when heated over a lamp in the open air it explodes but feebly. In a closed vessel, however, it explodes at about 360° Fahr. with great violence. For blasting rocks the nitro-glycerine is poured into a hole in the rock, and exploded by the concussion caused by a particular kind of fuse charged with a little gunpowder. It has been stated to produce the same effect in blasting as ten times its weight of gunpowder, and much damage has occurred from the accidental explosion of nitro-glycerine in course of transport. When *N.* is kept, especially if it be not thoroughly washed, it decomposes, with evolution of nitrous fumes and formation of crystals of oxalic acid; and it may be readily imagined that, should the accumulation of gaseous products of decomposition burst one of the bottles in a case of nitro-glycerine, the concussion would explode the whole quantity. *N.* is readily soluble in ether and in wood-spirit, and somewhat less soluble in alcohol; it is reprecipitated by water from these last solutions. It solidifies at 40° Fahr. A drop of *N.* is said to cause very violent headache, and in larger doses it appears to be decidedly poisonous. See BLASTING.

Nitro-mag'nesite, *n.* (*Min.*) A native hydrated nitrate of magnesia, found with nitro-calcite, which it resembles in color and other characters.

Nitrom'eter, *n.* [Fr. *nitromètre.*] (*Chem.*) An apparatus for determining the quality and value of nitre.

Ni'tro-prus'side, *n.* (*Chem.*) One of a very interesting series of new salts, discovered by Dr. Playfair. Their formation arises from the action of nitric acid upon ferrocyanides and ferricyanides. Exhibiting an intimate relation with the salts of the ferro- and ferricyanides, the general formula of the nitro-prussides would appear to be $M_2Fe_2Cy_5NO_2$. According to this scheme, the formation of the nitro-prussides would consist in the reduction of the nitric acid to the state of binoxide of nitrogen, which replaces one equivalent of cyanogen in two equivalents of ferrocyanide. A number of secondary attend upon the formation of these salts, such as hydrocyanic acid, oxanide, cyanogen, carbonic acid, nitrogen, &c. Perhaps the most important of the series is the nitro-prusside of sodium.

Nitrose', NITROUS, *a.* Pertaining to nitre; partaking of the qualities of nitre, or resembling it; as, *nitrous* oxide.

Nitrous Acid and Oxide. See NITROGEN, (OXIDES OF.)

Ni'try, *a.* Nitrous.

Nit'tany Mountain, in *Pennsylvania*, a ridge traversing Centre and a portion of Union cos.

Nit'ter, *n.* The horse-louse.

Nit'ty, *a.* Abounding with the eggs of lice; as, a *nitty* head.

Nivelles, (*nee-vell'*,) a town of Belgium, prov. of S. Brabant, 17 m. S. of Brussels. *Manuf.* Woollen, cotton, and linen fabrics, lace, and paper. *Pop.* 8,000.

Ni'ven, in *Pennsylvania*, a post-village of Susquehanna co., abt. 14 m. S. of Montrose.

Niv'eous, *a.* [Lat. *niveus*, from *nix*, *nivis*, snow.] Snowy; partaking of the qualities of snow; resembling, or characterized by, snow.

Nivose', *n.* See CALENDAR (¶ 6).

Nix'burg, in *Alabama*, a post-village of Coosa co.

Nixdorf, (*niks'dorf*,) a town of Austria, in Bohemia, 33 m. N.N.E. of Leitmeritz. *Manuf.* Woollens and linens. *Pop.* 5,090.

Nix'on, in *Illinois*, a post-township of De Witt county.

Ni'zam's Domin'ions, an extensive territory in the interior of Southern India, lying to the N.W. of the presidency of Madras, in Lat. 15° 10′ to 21° 42′ N., and Lon. 74° 40′ to 81° 32′ E. *Area*, 95,000 sq. m. The surface is a slightly elevated table-land. The principal rivers are the Godavari (Godavery), with its tributaries the Dudhna, Manjera, and Pranhita; and the Kistna (Krishna), with its tributaries the Bhmah and Tungabhadro. The soil is naturally very fertile, but poorly cultivated; yet, wherever it receives moderate attention, it yields harvests all the year round. The products are rice, wheat, maize, mustard, castor-oil, sugar-cane, cotton, indigo, fruits, and all kinds of kitchen vegetables. Marsh and jungle, however, occupy a great space, and originate fevers, agues, diseases of the spleen, &c., though the climate is quite healthy where these do not abound. The mean temperature of the capital, Hyderabad, in January, is 74° 30′, and in May 93°. The inhabitants manufacture for home use woollen and cotton fabrics, and export silk, dressed hides, dye-stuffs, gums, and resins. The ruler is called the *Nizam.*

Nizampatam', or **Nizampatnam,** a seaport-town of Hindostan, presidency of Madras, 30 m. S.S.E. of Guntoor; *pop.* 25,000.

Niz'za, a town of France. See NICE.

No, *adv.* [A. S. *na*; Goth. *ni.*] Nay;—a word of denial or refusal, expressing a negative. In the comparative degree, it is used instead of *not* before an adjective or adverb, for in *no degree, not at all*; as, *no* taster, *no* slower. It derives emphasis when immediately following another negative; as, not here, *no*, not here.

—*a.* Not any; none; not one.

"There is *no* new thing under the sun." — *Eccles.* i. 9.

—*n. pl.* NOES. A denial; a refusal expressed by using the word *no.*

—A negative vote; also, one who votes in the negative;—opposed to *aye*; as, the *noes* had the majority in the division.

Noa'chian, *a* Pertaining or having reference to Noah, or to the time he lived in; as, the *Noachian* Deluge.

Noah, (*no'a.*) (*Script.*) The name of the celebrated patriarch who was preserved by Jehovah with his family, by means of the ark, through the Deluge, and thus became the second founder of the human race. The history of Noah and the Deluge is contained in Genesis, ch. v.-ix. He was the son of Lamech, and grandson of Methuselah; was b. A. M. 1056, and lived six hundred years before the Deluge, and three hundred and fifty after it, dying two years before Abraham was born. Traditions resembling that of Noah are found in many parts of the world, ranging from the legend of the Greeks respecting the flood caused by Deucalion and Pyrrha to those of various tribes of American Indians, some of which bear a striking analogy to that of Noah. The study of the literature of ancient Babylonia has yielded the story of a deific hero of that country who was preserved in a boat from a universal deluge. This forms one section of a very ancient epic poem, and its resemblance to the story of Noah is so close that, in view of the fact that the fathers of the Hebrews came from Babylonia, and some literary connection with that country probably continued, literary critics are of the opinion that the story of Noah was a Hebrew renditiou of that of the Babylonian Izdubar.

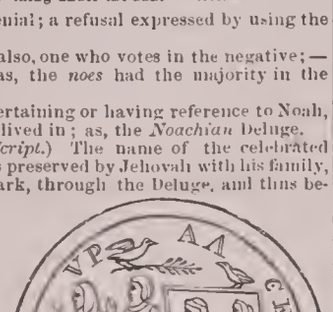

Fig. 1962.
ONE OF THE TWO MEDALS OF APAMEA.

Noank', in *Connecticut*, a post-vill. of New London co.

Nob, *n.* (See KNOB.) The head; the occiput. (Slang.)

—A person of wealth or consequence; an arlstocratic-looking man; a swell;—opposed to *snob*; as, he's a regular *nob.* (Slang.)

—One who strikes for higher wages. (An English localism.)

Nob'bler, *n.* A wine-glassful of neat spirits; as, a brandy *nobbler*;—an English colloquialism.

Nobil'ity, *n.* [Fr. *noblesse*; Lat. *nobilitas.*] State or quality of being noble;—hence, dignity of mind; elevation of soul; commanding excellence; greatness or eminence of natural gifts; grandeur.—Loftiness of birth; antiquity of family descent from honorable ancestors; patrician dignity; distinction by rank, dignity, or title.

"Virtue alone is true *nobility.*" — *Dryden.*

—The body of nobles; persons of noble lineage taken collectively; the aristocracy; the peerage; the patrician class.

"It is a purpos'd thing to curb the will of the *nobility.*" — *Shaks.*

No'ble, *a.* [Fr., from Lat. *nobilis.*] Renowned; illustrious; eminent; great; elevated; dignified; being above anything that can debase the soul and dishonor reputation; as, a *noble* heart, a *noble* mind.—Grand; stately; imposing; magnificent; splendid; as, a *noble* castle.

"An honest man's the *noblest* work of God." — *Pope.*

—Free; generous; magnanimous; liberal; ingenuous; candid: as, *noble* beneficence, a *noble* act.

—Specifically, of high or exalted rank; of aristocratic or patrician race or family; distinguished in birth above the class of commoners or plebeians; as, a man of *noble* blood

(NOTE. *Noble* is sometimes used in the construction of certain compounds which explain themselves; as, *noble*-hearted, *noble*-natured, *noble*-minded, &c.)

—*n.* In Europe, a person of rank above a commoner; a peer; a nobleman.

(*Numis.*) An English gold coin of the Middle Ages, of the value of 6*s.* 8*d.* sterling, equivalent to $1.61. It was struck in the reign of Edward III., in 1344.

No'ble, in *Illinois*, a post-village and township of Richland co., abt. 38 m. W. of Vincennes.

Noble, in *Indiana*, a N. E. co.; *area*, about 420 sq. m. *Rivers.* Elkhart river, and numerous less important streams, besides several lakes. *Surface*, nearly level; *soil*, fertile. *Min.* Iron ore in large deposits. *Cap.* Albion. *Pop.* (1890) 23,359.

—A township of Cass co.—A township of Jay co.—A township of La Porte co.—A township of Noble co.—A township of Rush co.—A township of Shelby co.—A township of Wabash co.

Noble, in *Michigan*, a post-township of Branch co.

—A post-village of Branch co.

Noble, in *Ohio*, an E. S. E. co.; *area*, about 415 sq. m. *Rivers.* Muskingum river, and Wills, Seneca, and Dutch creeks. *Surface*, undulating; *soil*, very fertile. *Min.* Coal and limestone. *Cap.* Caldwell. *Pop.* (1890) 20,753.

—A township of Auglaize co.

—A township of Defiance co.

—A township of Noble co.

—A post-office of Cuyahoga co.

No'bleborough, or **Noblesborough,** in *Maine*, a post-town and township of Lincoln co. *Pop.* (1897) 970.

No'bleman, *n.*; *pl.* NOBLEMEN. One of the nobility; an ennobled person; a peer; a noble: one who is distinguished by rank above a commoner, either by birth, patent, or official station.

"If I blush, it is to see a *nobleman* want manners." — *Shaks.*

No'bleness, *n.* State or quality of being noble; greatness; dignity; magnanimity; elevation of mind or of station; distinction derived from a noble ancestry; nobility; lustre of family pedigree.—Stateliness; grandeur; imposing appearance; as, the *nobleness* of a monument.

Noblesse', *n.* [Fr.; Sp. *nobleza.*] The nobility in general; persons of high rank, or noble birth, taken collectively, and of both sexes; as, the ancient French *noblesse.*

Noblesse oblige (*nō-blēs' o-bleezh'*). [Fr.] Rank has its duties; noble birth imposes obligations—used as a figure of speech.

No'blestown, in *Pennsylvania*, a post-village of Allegheny co., about 13 m. S.W. of Pittsburg.

No'blesville, in *Indiana*, a city and township, cap. of Hamilton co., about 20 m. E. N. E. of Indianapolis. *Pop.* (1897) 3,650.

—A village of Noble co., abt. 24 m. N.W. of Fort Wayne.

No'bleton, in *Missouri*, a village of Newton co.

No'blewoman, *n.*; *pl.* NOBLEWOMEN. A female of noble rank or high birth.

No'bly, *adv.* Of noble extraction; with nobility of birth or descent: of ancient and honorable lineage; as, *nobly* born.—With elevation of mind or greatness of soul; magnanimously; heroically.—Magnificently; statelily; splendidly; imposingly.

No'body, *n.* Not any body; no one; no person.

—An insignificant person; one of no worth, value, interest, or importance; a cipher. (Used colloquially.)

Nobosque Point, in *Massachusetts*, a promontory and light-house at the entrance of Buzzard's Bay. It exhibits a fixed light 80 feet above the sea; Lat. 41° 31′ 5″ N., Lon. 70° 39′ 53″ W.

No'cake, *n.* A kind of cake made of maize, and eaten by some of the N. American Indian tribes.

Nocent, (*no'sĕnt,*) *a.* [From Lat. *ocere*, to injure.] Having a bent or tendency to inflict harm or injury; mischievous; baneful; as, *nocent* qualities.

No'cently, *adv.* Harmfully; injuriously; mischievously.

Nocera dei Pagani, (*no-cha'ra da'e pa-ga'nee,*) a town of S. Italy, prov. of Principato Citeriore, on the Sarno, 8 m. N.W. of Salerno. *Manuf.* Linen and woollen fabrics. *Pop.* 8,000.

Noci, (*no'chee,*) a town of S. Italy, prov. of Bari, 29 m. S.E. of Bari; *pop.* 6,000.

Nockamix'on, in *Pennsylvania*, a township of Bucks co.

Noctambu'list, *n.* [Fr. *noctambule.*] A somnambulist; a sleep-walker.

Noctho'ra, *n.* [Gr. *nox*, *noktos*, night, and *thouros*, leaping.] (*Zoöl.*) The *Douroucouli*, a gen. of S. American quadrumanous animals, closely allied to the Lemurs, but having the face naked, the fingers of the fore-hands not susceptible of extension, and the tail not prehensile.

Noctilu'ca, *n.* [Lat.] A name anciently given to phosphorus.

Noctilu'cous, *a* Lambent by night.

Noctiv'agant, Noctiv'agous, *a.* [Lat. *nox*, *noctis*, night, and *vagari*, to roam.] Roaming abroad in the night, as wild animals after prey.

Noctivaga'tion, *n.* A roving or rambling by night.

Noctiv'agous, *a.* See NOCTIVAGANT.

Noc'tograph, *n.* [Gr. *noktos*, night, and *graphein*, to write.] A kind of frame for instructing the blind in writing.

Noc'turary, *n.* [From Lat. *noctis.*] A nightly journal; —opposed to *diary.*

Noctu'idæ, *n. pl.* (*Zoöl.*) A family of lepidopterous insects, to which belongs the Cotton-worm. The body is robust, and covered with scales; the antennæ almost always simple, or but rarely pectinated or ciliated in the males; the thorax stout, and often crested; and the mouth well developed, the maxilla being greatly elongated. The wings are of moderate size, with strong nervures, and ear-shaped spots on the disc of the anterior pair; and when in repose the wings are ordinarily deflexed at the sides of the body. The larvæ, for the most part, are naked, with 16 feet; and they in general undergo their transformations underground in cocoons, often formed of particles of earth mixed in with the silk. The typical groups of this family, as their name imports, fly only by night, and repose during the day in the crevices of the bark of trees, old walls, palings, &c. There are others, however, which fly also during the afternoon and at twilight.

Noc'turn, *n.* [Lat. *nocturnus*, from *noctus* — *nox, noctis*, night.] (*Eccl.*) An office, consisting of psalms and prayers, celebrated in the Roman Catholic Church at midnight. It now forms a part of the service of matins.

Noc'turnal, *a.* Pertaining to night; done or happening at night; nightly; done or being every night.

Noc'turnally, *adv.* In the night; nightly.

Noc'turne, *n.* [Fr.; It. *notturno.*] (*Mus.*) A serenade; a piece of night-music.

Nod, *v. n.* [Lat. *nuto*, from *nuo*; Gr. *neuo*, to incline in any direction, to beckon.] To incline or bend the head with a quick motion; to make a slight bow; to beckon with a nod. — To incline the head with a quick motion, either forward or sidewise, as persons do when sleeping in a sitting posture; to be drowsy. — To bend or incline with a quick motion; as, *nodding* plumes.

—*v. a.* To incline or bend; to shake. — To signify by a nod; as, a *nod* of approbation.

—*n.* A quick declination of the head; a quick declination or inclination. — A quick inclination of the head in drowsiness or sleep. — A slight obeisance; a salutation. — A command.

No'dal, *a.* Pertaining to a node or knot, or to nodes; nodated.

(*Mus.*) A vibrating chord can spontaneously divide itself into any number of aliquot parts, each of which will vibrate separately, as if it were fixed at its two extremities and formed a separate chord. The points of separation between two such contiguous parts, which do not participate in the vibration of either the one or the other, but remain at rest, are called *nodal points.* In like manner, when elastic plates are put into a state of vibration, the molecules separate themselves into parcels which vibrate independently of each other; and the lines of separation thus formed, or lines of repose in which no vibration takes place, are called *nodal lines.*

Noda'ted, *a.* [Lat. *nodatus*, from *nodus*, a knot.] Knotted; having knots.

Noda'tion, *n.* The state of being knotted, or act of making knots. (R.)

Nod'away, in *Iowa*, a township of Adams co.

—A township of Page co.

—A township of Taylor co.

Nod'away, in *Missouri*, a N.W. co., adjoining Iowa; *area*, abt. 600 sq m. *Rivers.* One Hundred and Two, Nodaway, and Little Platte rivers. *Surface*, generally level; *soil*, fertile. *Cap.* Maryville.

Nod'away River, rises in Cass co., *Iowa*, and flowing an almost direct S. course into Missouri, enters the Missouri River between Holt and Andrews cos.

Nod'der, *n.* One who nods.

Nod'ding, *a.* (*Bot.*) Having a drooping position.

Nod'dle, *n.* The head; — used in contempt.

Nod'dy, *n.* A simpleton; a fool. — A sort of vehicle, with two wheels, and usually drawn by one horse.

(*Zoöl.*) The Booby, *q. v.*

Node, *n.* [Lat. *nodus*; It. *nodo*; Fr. *nœud.*] A knot; a knob; a lump; a protuberance.

(*Astron.*) The point where the orbit of a planet intersects the ecliptic. The line in which the two circles intersect is called *the line of the nodes.* When the planet is in this line, in the act of passing from the south to the north side of the ecliptic, it is in its *ascending node*, and its longitude at that moment is the element called *the longitude of the node.*

(*Surg.*) A hard tumor or swelling upon a bone, usually attended with little pain; but sometimes the pain is considerable, particularly in the night time. The bones more particularly liable to it are those which are thinly covered with flesh.

(*Bot.*) A point situated upon the axis of a plant, whence a leaf or leaf-bud originates.

(*Geom.*) A small oval figure resulting from the intersection of one branch of a curve with another.

(*Dialling.*) A small hole in the gnomon of a dial, which indicates the hour by its light.

(*Lit.*) The plot of a drama, of a poem, &c.

(*Mus.*) A point of rest at which a vibrating string divides itself in producing its harmonic sounds.

No'dial Month, *n.* See Lunar Month.

Nodose', *a.* Knotty; having knots or swelling joints; knotted.

Nodos'ity, *n.* Knottiness; complication. — A knot; a node.

Nod'ular, *a.* Pertaining to, or having the shape of, a knot or nodule.

Nod'ule, *n.* [Lat. *nodulus*, dimin. of *nodus*, a knot.] A little knot or lump; a small woody body found in the bark of some trees; a rounded mineral mass, of irregular shape.

Nod'uled, *a.* Having little knots or lumps.

Nodulose', Nod'ulous, *a.* (*Bot.*) Having little knobs.

Noël, *n.* (*Eccl.*) The French name of Christmas-day, derived, it is said, from *dies natalis* (Lat., birthday).

Noe'mics, *n. sing.* The science of the understanding; metaphysics; psychology. (R.)

Noet'ic, Noet'ical, *a.* Belonging to the understanding.

Nog, *n.* [Abbrev. of *noggin.*] A mug; a noggin. — Hot, spiced ale; ns, egg-*nog.*

(*Naut.*) The bolt or tree-nail which secures the heel of each shore employed in sustaining a ship in dock or on the slip.

Nogent-le-notron, (*no'zhong-leh-no'trou.*) a town of France, dept. Eure-et-Loire, on the Huine, 31 m. W.S.W. of Chartres; *pop.* 7,000.

Nog'gin, *n.* A small mug or wooden cup; also, a small measure; as, a *noggin* of whisky.

Nog'ging, *n.* (*Arch.*) Brick-work carried up between upright pieces or quarters, introduced in order to give the wall or partition greater lateral stiffness and strength.

Noheacab, (*noh'ka-kab.*) a village of Mexico, in Yucatan; Lat. 20° 30′ N., Lon. 89° 35′ W. *Pop.* 6,000.

Noils, *n. pl.* Short pieces and knots of wool left after combing out the tops.

Noir, (*nwar,*) an island of S. America, in the Pacific Ocean, off the S.W. coast of Terra del Fuego; Lat. 54° 30′ S., Lon. 73° 5′ 40″ W.

Noirmontier, (*nwar-moo'te-a,*) an island of the Atlantic, on the coast of France, dept. of Vendee, from which it is separated by a narrow channel. *Ext.* 12 m. long, and 3 m. broad. *Cap.* Noirmontiers. *Pop.* 8,500.

Noise, *n.* [Fr. *noise*, strife; Lat. *noxa*, injury, from *nocere*, to injure.] Sound of any kind; a loud tone; as, a loud *noise.* — Outcry; clamor; boasting or importunate talk; loud, importunate, or continued talk expressive of boasting, complaint, or quarrelling. — Frequent talk; much public conversation.

—*v. n.* To sound loud.

—*v. a.* To spread by rumor or report; — followed by *abroad.*

Noise'less, *a.* Making no noise or bustle; silent.

Noise'lessly, *adv.* Without noise; silently.

Noise'lessness, *n.* State of being noiseless; a state of silence.

Nois'ily, *adv.* With noise; by making a noise.

Nois'iness, *n.* State or quality of being noisy; loudness of sound; clamorousness.

Noisome, (*noi'sum.*) *a.* [Norm. *noisife*; It. *nojoso*, wearisome, *nocivo*, harmful.] Noxious to health; hurtful; mischievous; unwholesome; insalubrious, destructive. — Offensive to the smell or other senses; disgusting; fetid.

Noi'somely, *adv.* With a fetid stench; with an infectious steam.

Noi'someness, *n.* Offensiveness; unwholesomeness; aptness to disgust.

Nois'y, *a.* Making a loud noise or sound; clamorous; turbulent; obstreperous. — Full of noise.

Noko'mis, in *Illinois*, a post-town of Montgomery co., about 27 m. N.E. of Litchfield. *Pop.* (1897) 1,560.

No'la, a town of Italy, prov. of Terra-di-Lavoro, 14 m. E.N.E. of Naples. *N.* was anciently one of the largest cities of Magna Græcia, and took a prominent part in the wars of Rome. It was besieged by Hannibal for three successive years, 216, 215, and 214 B. C. Augustus D. here A. D. 14. *Pop.* 9,000.

Nolana ceæ, *n. pl.* (*Bot.*) A small order of plants, alliance *Echiales* — Diag. Regular symmetrical flowers, 5 stamens, 5 or more nuts, distinct or partly confluent, a naked stigma, and straight inflorescence. — There are 35 species in 6 genera, consisting of prostrate or erect, herbaceous or suffruticose plants, natives of S. America. Their properties are unknown.

No'land's Fork, in *Indiana*, rises in Randolph co., and enters the West Fork of Whitewater River in Wayne co.

No'land's River, in *Texas*, enters the Brazos River from Hill co.

No'lensville, or Nolinsville, in *Tennessee*, a post-village of Williamson co., abt. 20 m. S.E. of Nashville.

No'lens vo'lens. [Lat., unwilling or willing.] (*Law.*) Whether one will or not; by force and compulsion.

Noli me tan'gere, *n.* [Lat., touch me not.] (*Surg.*) A disease of the skin, commencing with small ulcerations which eat away the part. These ulcerations sometimes affect the cartilage of the nose, which is destroyed by their progress. Almost all applications rather increase than stop the ravages of the disease, which has received the name of *lupus* (Lat. *wolf*) from its devouring qualities.

(*Bot.*) See Impatiens.

No'lin, in *Kentucky*, a post-village of Hardin co., abt. 53 m. S. of Louisville.

Nolin Creek, in *Kentucky*, enters Green River in Edmonson co.

Nolition, (*no-lish'un.*) *n.* [Lat. *nolitio*, from *nolle*, to be unwilling.] Unwillingness; — opposed to *volition.*

Nolle pros'equi. [Lat., unwilling to prosecute.] (*Law.*) A proceeding by which a plaintiff withdraws from the further prosecution of his suit, when he has either misconceived the nature of the action or mistaken the proper party to be sued. It may be entered as to a part of the suit only, or as to some of the defendants, in which case he is at liberty to proceed as to the rest. If it be entered before judgment, the plaintiff may bring another action for the same cause; but if after judgment, it operates as a restraint, and bars any future action for the same cause. When entered as to the whole declaration, or as to one or more of the defendants in any personal action, every such person is entitled to his costs.

Nom, (*nōng,*) *n.* [Fr.] Name.

Nom'ad, *n.*; *pl.* Nomads, or Nomades. [Gr. *nomas, nomados*, from *nomos*, pasture.] A roaming or wandering shepherd; one who leads a wandering life, and subsists by tending herds of cattle, which graze on herbage of spontaneous growth.

—*pl.* (*Hist.*) Tribes of men without fixed habitation. The nomades of ancient times were generally tribes devoted to pastoral pursuits; for the Greeks and Romans knew of no races subsisting wholly by the chase. The principal nomadic tribes of antiquity were those of Southern Russia and the interior of Asia, from whom sprang, in the decline of the Roman empire, many of the tribes which overran W. Europe; and, at a later æra, those which conquered empires in W. and S. Asia. The vast regions of Mongolia are inhabited by nations which still retain their wandering habits.

Noma'dian, *n.* The same as Nomad. (R.)

Nomad'ic, *a.* [Gr. *nomadikos.*] Pertaining to, or resembling nomads; pastoral; subsisting by tending of cattle, and wandering for the sake of pasturage.

Nomad'ically, *adv.* In a nomadic manner.

Nom'adism, *n.* The state of being a nomad.

Nom'adize, *v. n.* To lead a wandering or nomadic life; to subsist by grazing herds on herbage of spontaneous growth.

No'mancy, *n.* [Fr. *nomancie*, nomance; Lat. *nomen.*] The art of divining the fates of persons by the letters that form their names.

Nom'arch, *n.* [Gr. *nomos*, a district, and *arxein*, to rule.] The ruler of a district or division of a province, among the modern Greeks.

Nom'archy, *n.*; *pl.* Nomarchies. A district, or division of a province among the modern Greeks.

Nombles, (*num'blz.*) *n. pl.* [Fr. *nombles*, from Lat. *lumbulus*, dimin. of *lumbus*, a loin.] The entrails of a deer.

Nombre-de-Dios, (*nom'bra-da-dee'oce.*) a seaport of the United States of Colombia, on the N. coast of the Isthmus of Panama, abt. 40 miles N.E. of the town of Panama.

Nombre-de-Dl'os, a town of Mexico, abt. 60 m. E. of Durango; *pop.* 7,000.

Nom'bril, *n.* [Fr., the navel.] (*Her.*) The centre of an escutcheon.

Nom de guerre, (*nōm-de-gār'.*) [Fr., a name during the war.] A name assumed for a certain purpose; a fictitious name.

Nom de plume, (*-plūm'.*) [Fr., a pen-name.] A name assumed by an author; a pseudonym.

Nome, *n.* [Gr. *nomos*, from *nemein*, to distribute.] (*Anc. Geog.*) The Greek name for the provinces into which Egypt was anciently divided. According to Diodorus Siculus, the division into nomes was made by Sesostris, whom some modern writers consider as identical with the Rameses II. of the monuments; but such statements refer to a time of which we have no historical knowledge. There were thirty-six nomes, which, in the time of Strabo, were thus divided. — ten in the Thebaïd, sixteen in the Heptanomis or intermediate district (which, according to its name, probably consisted in earlier times of seven only), and ten in the Delta. This division was not materially altered until the latest age of the Roman government.

(*Algebra.*) A single quantity affixed to some other quantity by its proper sign.

(*Mus.*) In the ancient Greek music, a term used to denote any melody determined by inviolable rules.

(*Med.*) A phagedenic ulcer.

Nomencla'tor, *n.* [Lat., from *nomen*, a name, and *calo, calare*, to call.] A person who gives names to things, or classifies them by their names.

Nomencla'tress, *n.* A female nomenclator.

Nomenclat'ural, *a.* Pertaining to nomenclature.

No'menclature, *n.* [Lat. *nomenclatura.*] A list or catalogue of the more usual and important words in a language, with their significations; a vocabulary or dictionary. (R.) — In a more special sense, this term is employed to denote the language peculiar to any science or art; thus, we speak of the *nomenclature* of chemistry, botany, &c.

N., (*Chemical.*) See Chemical Nomenclature.

Nomenclat'urist, *n.* One versed in nomenclature.

No'mial, *n.* (*Alg.*) A single term; a nome.

Nom'inal, *a.* [Lat. *nominalis*, from *nomen, nominis*, a name.] Pertaining to a name or names; titular; consisting in names. — Existing in name only; as, a *nominal* distinction.

Nom'inalism, *n.* The doctrinal principles of the Nominalists.

Nominalis'tic, *a.* Belonging, or having reference to, the Nominalists.

Nom'inalists, Re'alists, Concep'tualists, (*nom'i-nāl-ists, rē'āl ists, kon-sep'tu-al-ists.*) were three prominent and conflicting sects among the scholastic philosophers. The contest turned upon the nature of general terms, or *universals.* While all parties agreed that the object of the science of logic was universals, they differed upon the question as to whether these universals were *real* things, or only *names.* The Nominalists maintained that the so-called universal ideas do not stand for any conception of the mind, still less for any entity out of it, but are merely verbal signs; that there is no such thing as an abstract animal, or a tree in general, but only individual animals and trees; that, in fact, there is nothing in the universe of matter or mind but separate individualities. The Realists, on the contrary, affirmed that universals were not mere figments of language, but that they have an objective existence, are incorporeal realities, the essences or types of things, not to be confounded with the things themselves.

Conceptualism was proposed as an intermediate doctrine between the two extremes. It gave to universals a logical or psychological existence, as mental conceptions. The Nominalists cited Aristotle as their authority; the Realists adduced Plato. The former maintained that particulars are the only real substances, and that general ideas are abstractions of the human reason. Plato, on the other hand, believed in the eternal existence of ideas. (See IDEA.)—Logic, with Aristotle, was the science of names and notions: with Plato, of names and realities. Rarehmus, a canon of Compiegne, in the 11th century, was the first to give a distinct and complete development to Nominalism. His opinions were believed to affect the doctrine of the Trinity, and were condemned by the Synod of Soissons (1092). He was attacked by Anselm in a work on the Unity of the Trinity; but Anselm's Realism was of an undecided and incomplete character. William of Champeaux, the founder of scholastic Realism, maintained that universals, so far from possessing a merely nominal existence, are the only real entities. Thus, Realism verged toward Pantheism, while Nominalism inclined toward scepticism. Abelard sought to reconcile the opposing parties by advancing the doctrine of Conceptualism. This, however, rather avoided than solved the problem; but its moderation secured its triumph. John of Salisbury wrote, "that there had been more time consumed in the discussion than the Cæsars had employed in making themselves masters of the world; that the riches of Crœsus were inferior to the treasures that had been exhausted upon it; and that the contending parties, after having spent their whole lives on this single point, had neither been so happy as to determine it to their satisfaction, nor to find in the labyrinths of science, where they had been groping, any discovery that was worth the pains they had taken." Nominalism had become nearly extinct, when it was revived by William of Occam, an English Franciscan of the 14th century. The contest was renewed with the greatest fury in the schools of Britain, France, and Germany: and when words failed to carry conviction, fists, and even clubs and swords, were had recourse to. Afterwards Realism became identified with the cause of the Pope and the Church, and flourished in Italy while Nominalism became associated with the political movement against the power of the papacy, and was generally received throughout the continent of Europe. However, in 1473, Louis XI. of France prohibited the teaching of Nominalism, and ordered the books which favored it to be seized and bound in chains in the public libraries. At length the revival of letters and the advent of the Reformation put an end to the fiercest controversy that has been known to prevail in philosophical speculation.

Nom'inally, *adv.* By name, or in name only; in a nominal manner.

Nom'inate, *v. a.* [Lat. *nomino, nominatus*, from *nomen, nominis*, a name.] To name; to mention by name.

"*To nominate* them all, it is impossible." —*Shaks.*

—To call; to denominate.—To name, or designate by name, for an office or place; to appoint;—usually, to name for an election, choice, or appointment; to propose by name; as, to *nominate* a candidate.

Nomina'tion, *n.* [Lat *nominatio.*] Act of proposing by name for an office.—The power of nominating or appointing to office; the state of being nominated.

Nom'inative, *a.* [Fr *nominatif;* Lat. *nominativus.*] Pertaining to the name which precedes a verb, or to the first case of nouns.

—*n.* (*Gram.*) The first case of nouns which are declinable. It is the simple position of a noun or name, designating a substance absolutely, or without relation to any other substance; and is chiefly placed before verbs, as the subject of the proposition or affirmation.

Nom'inatively, *adv.* As a nominative; in the manner of the nominative.

Nom'inator, *n.* One who nominates.

Nominee', *n.* [Fr. *nommé*, named.] One who is named or designated by another to any office, position, or duty.

Nom'inor, *n.* One who nominates, as to an office.

Nomog'raphy, *n.* [From Gr. *nomos*, a law, and *graphō*, to write.] A treatise on laws.

Nomol'ogy, *n.* Rational psychology.—*Sir W. Hamilton.*

Nom'othete, *n.* [Gr. *nomos*, law, and *tithenai*, to lay down, as a law.] A lawgiver.

Nomothet'ic, Nomothet'ical, *a.* Enacting laws; legislative. (R.)

Non, *adv.* [Lat.] Not;—used as a prefix, in the English language, to nouns and verbs, applying to them a negative sense, and governing and varying their meaning; as, *non*-agreement, *non*-residence. It is also, in some cases, prefixed to adjectives; as, *non*-electric.

Non-abil'ity, *n.* Want of ability.

(*Law.*) Want of ability to do an act;—a plea founded on such cause.

Non-acced'ing, *a.* Not acceding; declining to comply.

Non-acceptance, *n.* A want of acceptance; denial of acquiescence.

Non-ac'id, *a.* Not acid.

Non-acquaint'ance, *n.* State of being unacquainted; lack of acquaintance.

Non-acquies'cence, *a.* Refusal to comply or acquiesce.

Non-admis'sion, *n.* Failure to receive admission.

Non-adult', *n.* Not of age; not adult.

Non'age, *n.* State of being not of age, or under age; minority; the time of life before a person, according to the laws of his country, becomes of age to manage his own concerns. See INFANT.

Non'aged, *a.* Not having due maturity; being in nonage.

Nonagena'rian, *n.* [Lat. *nonagenarius.*] A person ninety years old.

Nonages'imal, *a.* [Fr. *nonagesime*, from Lat. *nonagesimus.*] Pertaining to a nonagesimal.

—*n.* (*Astron.*) The ninetieth degree of the ecliptic, reckoned from either of the points in which it is intersected by the horizon. It is, therefore, the highest point of the ecliptic at any instant; and its altitude is equal to the distance of the pole of the ecliptic from the zenith. The nonagesimal is used in calculating the parallaxes of the moon.

Non'agon, *n.* [Lat. *nonus*, nine, and Gr. *gonia*, an angle.] (*Math.*) A plane figure, having nine angles and nine sides. It will be found, by reference to MENSURATION, that when the side of a nonagon is 1, the area of the figure will be 6·1818242.

Non-alien'ation, *n.* The state of not being alienated.

Non-appear'ance, *n.* Default of appearance, as in court, to prosecute or defend.

Non-appoint'ment, *n.* Neglect of appointment.

Non-arriv'al, *n.* Failure to arrive.

Non-assump'sit. [Lat., he did not undertake.] (*Law.*) A plea by way of traverse in the action of *assumpsit*, or promises, whereby a man denies the existence of any promise to the effect alleged in the declaration, &c.

Non-attend'ance, *n.* A failure to attend; omission of attendance.

Non-atten'tion, *n.* Inattention; want of attention.

Non-bitu'minous, *a.* Containing no bitumen.

Nonce, *n.* The present purpose or occasion;—generally employed in the phrase *for the nonce.*

"I'll have prepar'd him a chalice *for the nonce.*" —*Shaks.*

Nonchalance, (*non-sha-lons',*) *n.* [Fr., from *nonchalant.*] Indifference; coolness; sang-froid; carelessness.

Nonchalant', *a.* [Fr., from *nonchaloir*, to have no care for a thing.] Indifferent; cool; careless; as, a *nonchalant* demeanor.

Non'-claim, *n.* Omission of claim within legally limited time.

Non-cohe'sion, *n.* Want of cohesion.

Non-coin'cidence, *n.* Lack or want of coincidence.

Non-coin'cident, *a.* Not coincident.

Non-com'batant, *n.* (*Mil.*) A person belonging to an army or navy whose position does not involve the duty of fighting, as a chaplain, bandsman, &c.

Non-commissioned, (*-mish und,*) *a.* Not having a commission, as a soldier or seaman.

Non-commissioned Officer, *n.* (*Mil.*) One who, while he is not commissioned as an officer, holds an appointment by virtue of which he exercises authority over the private soldiers. Such are sergeant-majors, quartermaster-sergeants, and sergeants. A non-commissioned officer can be reduced to the ranks by sentence of court-martial, or order of the colonel or other officer commissioned as *commandant* of his regiment; but so long as he holds his rank, he can receive no minor punishment.

Non-commit'tal, *n.* A forbearance of not committing one's self; a state of not being pledged or committed.

Non-communion, (*-mun'yun,*) *n.* Neglect of communion; not of the communion.

Non-comple'tion, *n.* Failure of completion; want of finish.

Non-compli'ance, *n.* Failure or neglect of compliance.

Non-complying, *a* Refusing or neglecting to comply

Non-com'pos, NON-COMPOS MENTIS. [Lat.] (*Law.*) Not of sound mind;—hence, used as a noun, a lunatic, an idiot; a person of deranged intellect.

Non-con, *n.* See NON-CONTENT.

Non-conclud'ing, *a.* Not closing or ending.

Non-concur', *v. n.* To disagree: to refuse to concur.

Non-concur'rence, *n.* A refusal to concur or assent.

Non-conduct'ing, *a.* Not transmitting; not conducting another substance or fluid.

Non-conduc'tion, *n.* The quality of not being able to transmit or conduct.

Non-conduct'or, *n.* (*Electricity.*) See CONDUCTOR AND NON-CONDUCTOR.

Non-conform'ing, *a.* Not conforming to, or joining in, the established religion.

Non-conform'ist, *n.* One who does not conform to an established church; particularly, one who refused to conform to the Established Church of England at the restoration of Charles II.—See DISSENT.

Non-conform'ity, *n.* Neglect or failure of conformity;—especially, in England, neglect or refusal to unite with the Established Church in its rites and mode of worship.

Non-con'stat. [Lat.] (*Law.*) It is not plain, clear, or conclusive.

Non-conta'gious, *a.* Not contagious, as a disease.

Non-conta'giousness, *n.* The state or quality of not being contagious, or of not being communicable from a diseased to a healthy body.

Non-contempora'neous, *a.* Not contemporaneous; not coeval

Non-content', *n.* (Sometimes abridged into *non-con.*) A member of the English House of Lords who votes in the negative;—opposed to CONTENT, *q. v.*

Non-contrib'uting, Non-contrib'utory, *a.* Not contributing

Non-deliv'ery, *n.* A failure or neglect to deliver.

Non-deposition, (*-zish'un,*) *n* A neglect or failure to deposit or throw down.

Non descript, *a.* [Lat. *non*, not, and *descriptus*, described.] That has not been described; that cannot easily be described.

—*n.* Anything that has not been described or classed; a person or thing not easily described or classed.

Non-devel'opment, *n.* A failure of development.

Non-discov'ery, *n.* Lack of discovery.

None, (*nun,*) *a.* and *pron.* [A. S. *nan, nænn*, from *ne*, and *an, æn, ain*, one.] No one; not anything;—often employed also partitively, or, as a plural, not any.

"With *none* who bless us, *none* whom we can bless." —*Byron.*

—No; not any;—rarely used adjectively, particularly before a vowel, as formerly.

"Thou shalt have *none* assurance of this life." —*Deut.* xxviii.

None of, not; not at all; also, nothing of;—employed emphatically.

"My people would not hearken to my voice; and Israel would *none of* me." —*Ps.* l xxxi. 11.

—*n.* [Lat. *nona*, ninth.] (*Eccl.*) In the Roman Catholic Church, one of the lesser canonical hours, so called from its recitation being primitively fixed at the ninth hour.

Non-elect', *n.* A person not elected or chosen to salvation.

Non-elec'tion, *n.* Failure to hold election, or be elected.

Non-elec'tric, Non-elec'trical, *a.* Not electric.

—*n.* A non-conductor of electricity.

Non-emphat'ic, Non-emphat'ical, *a.* Without emphasis; unemphatic.

Nonen'tity, *n* [Lat. *non*, and L. Lat. *entitas*, from Fr. *entité.*] Non-existence; the negation of being.—A thing not existing; as, a theological *nonentity.*

Non-epis'copal, *a.* Not episcopal; not belonging to the Episcopal Church.

Non-episcopa'lian, *n.* A person who does not belong to the Episcopal Church or denomination.

Nones, *n. pl.* [Lat. *nonæ*, from *nonus*, the ninth.] (*Roman Calendar.*) One of the three divisions of the Roman month, and so called because they fell on the *ninth* day, reckoned inclusively before the ides. The months of March, May, July, and October, the ides, fell on the 15th day of the month, and the nones consequently on the 7th. In the other months, the ides were on the 13th day, and the nones on the 5th.

Non-essen'tial, *a.* Not essential; not absolutely necessary.

—*n.* That which is not essential or necessary to a particular purpose.

Non est fac'tum. [Lat., is not his deed.] (*Law.*) A plea to an action of debt on a bond or other speculation.

Non est inven'tus. [Lat., he is not to be found.] (*Law.*) The term applied to a sheriff's return to a writ of capias, when the defendant is not to be found within his jurisdiction. The return is usually abbreviated N. E. I.

None'such, Non'such, *n.* A thing that has not its equal; an extraordinary thing.

(*Bot.*) See MEDICAGO.

Non-excommu'nicable, *a.* Not liable to be excommunicated.

Non-execu'tion, *n.* Failure of execution.

Non-exist'ence, *n.* Absence of existence; the negation of being.—A thing that has no existence.

Non-exist'ent, *a* Not having existence.

Non-exporta'tion, *n.* A failure or neglect of exportation.

Non-exten'sile, *a.* Not capable of being stretched; not extensile.

Nonfea'sance, *n.* (*Law.*) The offence of omitting what ought to be done.

Non-fulfil'ment, *n.* Failure or neglect of fulfilment.

Nonillion, (*-nil'yun,*) *n.* [Lat. *nonus*, and Eng. *million.*] According to the English method of numeration, the number obtained by involving a million to the ninth power, represented by a unit with fifty-four ciphers annexed;—according to the French method, in general use on the continent of Europe and in the U. States, the tenth power of a thousand, which is denoted by a unit with thirty ciphers following.—Also, the symbols which represent either of these numbers.

Non-importa'tion, *n.* Neglect or failure of importation.

Non-import'ing, *a.* Not importing or bringing from foreign countries.

Non-inhab'itant, *n.* One not an inhabitant; a foreigner; a stranger.

Non-join'der, *n.* (*Law.*) The omission of one or more persons who should have been made parties to a suit at law or in equity as plaintiffs or defendants.

Non-jur'ant, *a.* Non-juring; Jacobite.

Non-jur'ing, *a.* [Lat. *non*, and *juro, jurare*, to swear.] Not swearing allegiance; pertaining to non-jurors.

Non-ju'ror, *n.* (*Eng Hist.*) One who refused to take the oath of allegiance to the new government, and the Crown, at the Revolution of 1688, when James II having abdicated, the throne was offered to William III., partly in right of his wife Mary Stuart. The non jurors were the adherents of James, and called, also, *Jacobites.*

Non-limita'tion, *n.* A want of limitation.

Non-li'quet. [Lat., it does not appear.] (*Law*) A verdict given by a jury, when, in consequence of the absence of sufficient evidence, the trial is postponed to a future occasion.

Non-malig'nant, *a.* Not malignant;—said of a disease.

Non-manufact'uring, *a.* Not having manufactures.

Non-mem'ber, *n.* Not a member.

Non-mem'bership, *n.* The state of not being a member

Non-metal'lic, *a.* Not consisting of metal.—Not having metallic properties.

Non-metallic elements. (*Chem.*) The sub-divisions of these bodies is much more difficult than that of the

metals. If their arrangement be founded either on their general electrical or chemical relations, or into supporters of combustion and combustibles, or into acidifiable and acidifying substances, difficulties arise in the details which are of great practical inconvenience. The electrical arrangement brings together substances extremely dissimilar in their chemical character, such as oxygen and sulphur, both of which are electro-negative bodies. The chemical arrangement again leads us at one time to class oxygen with sulphur, both being supporters of combustion; and at another to separate them, as oxygen is preëminently a supporter of combustion, and sulphur as eminently a combustible. In all these arrangements, also, nitrogen, as an element, stands out as an obstinate exception. It is acidifiable by oxygen, but alkalifiable by hydrogen. It is not combustible, nor is it a supporter of combustion. These and other difficulties have caused the electrical and chemical analysis of the non-metallic elements to be rejected as a basis of classification. Berzelius divides them into *oxygen*, which he places by itself as a supporter of combustion, and into inflammable substances, in which he includes all the other elements; then adverting particularly to the non-metallic substances, he divides them into three classes; namely, — 1. Permanently elastic or gaseous bodies (*Gazolyta*), — oxygen, hydrogen, and nitrogen. 2 Metalloids, — sulphur, phosphorus, carbon, boron, and silicon. 3 Salifying substances (*Halogenia*), — chlorine, iodine, bromine, fluorine.

Non-nat'ural, *a.* Unnatural.

Non-nat'urals, *n. pl.* [Lat. *non naturalia.*] (*Med.*) Things which are necessary for the existence of man, without entering into his composition, or constituting his nature, such as air, meat, drink, sleep, watching, motion, rest, the retentions and excretions, and the affections of the mind.

Non-neces'sity, *n.* State of being unnecessary.

Non'ny, *n.* A nincompoop; a simpleton; a ninny.

Non-obe'dience, *n.* Lack of obedience.

Non-observ'ance, *n.* Failure to observe or fulfil.

Non-obstan'te. [Lat.] (*Law.*) Notwithstanding; in antagonism to what is to be stated or admitted.

Nonogena'rian, *n.* The same as NONAGENARIAN.

Nonpareil, (*non-pa-rel'*,) *n.* [Fr. *non*, and *pareil*, from Lat. *par, paris*, equal, like.] A person or thing having no equal.

"You were crowned the *nonpareil* of beauty."— *Shaks.*

(*Printing.*) A small kind of type. (This work is printed in *Nonpareil.*)

—A kind of apple. —A small bon-bon.—A kind of narrow riband.

Non-pay'ment, *n.* Neglect, or failure of payment.

Non-perform'ance, *n.* Failure of performance.

Non'plus, *n.* [Lat. *non*, and *plus*, more, compar. of *multus*, many.] A state in which one can say or do no more: puzzle; insuperable difficulty; a state in which one is unable to proceed.

—*v. a.* To bring to a state in which one can say or do no more; to put to a stand; to puzzle; to confound; to stop by embarrassment.

Non-ponderos'ity, *n.* Lack of weight.

Non-pon'derous, *a.* Wanting in weight.

Non-prepara'tion, *n.* Want of preparation.

Non-presenta'tion, *n.* Failure or neglect to present.

Non-production, (*-duk'shun,*) *n.* Failure to produce.

Non-professional, (*pro-fesh'un-al,*) *a.* Not of or belonging to a profession: not performed by or proceeding from professional men.

Non-profi'ciency, *n.* Failure to improve or make progress.

Non-proficient, (*-fish'ent,*) *n.* One who has failed to improve or make progress in any study or pursuit.

—*v. a.* To allow to drop without a trial; — said of a lawsuit.

Non-recur'rent, *a.* Not occurring again.

Non-recur'ring, *a.* Not recurrent.

Non-re'gent, *n.* In the English universities, a master of arts whose regency has terminated.

Non-rendi'tion, *n.* Failure to render what is due.

Non resem'blance, *n.* Want of resemblance; dissimilarity; unlikeness.

Non-res'idence, *n.* Failure or neglect of residing at the place where one is stationed, or where official duties require one to reside, or on one's own lands.

Non-res'ident, *a.* Not residing in a particular place, on one's own estate, or in one's proper place.

—*n.* One who does not reside on one's own lands, or in the place where official duties require.

Non-resist'ance, *n.* Passive obedience; submission to authority; omission of resistance.

Non-resist'ant, *a.* Making no resistance to oppression or power: non-resisting.

—*n.* One who maintains that no resistance should be made to the injuries inflicted by others.

Non-resist'ing, *a.* Making no resistance; non-resistant.

Non-ru'minant, *a.* Not ruminating.

Non-sane', *a.* In an unsound condition; imperfect.

Non'sense, *n.* Words or language which have no meaning, or which convey no just ideas; absurdity. — Trifles; things of no importance.

Nonsensical, (*-sens'i-kal,*) *a.* Unmeaning; absurd; foolish.

Nonsens'ically, *adv.* Absurdly; without meaning.

Nonsens'icalness, *n.* Jargon; absurdity.

Non-sen'sitive, *a.* Without sense or perception.

Non-sequitur, (*-sek'wi-tur.*) [Lat.] It does not follow.

(*Logic.*) An inference not deducible from the premises.

Non-sex'ual, *a.* Neuter; without distinguishing sex; hermaphrodite.

Non-slave'holding, *a.* Not holding or possessing slaves.

Non-solu'tion, *n.* Failure of solution.

Non-solv'ency, *n.* Inability to pay debts.

Non-solv'ent, *a.* Unable to pay debts; insolvent; bankrupt.

—*n.* An insolvent; a bankrupt.

Non-spar'ing, *a.* Merciless; all destroying.

Non-submis'sion, *n.* Want of submission.

Non-submis'sive, *a.* Not submissive.

Non-subscrib'ing, *n.* Failure or refusal to subscribe.

Non'such, *n.* See NONESUCH.

Non'suit, *n.* (*Law.*) The name of a judgment given against the plaintiff when he is unable to prove his case, or when he refuses or neglects to proceed to the trial of a case after it has been put at issue, without determining such issue.

—*v. a.* To stop or quash in legal process.

Non'-term, *n.* (*Law.*) A vacation between two terms of a court.

Non'tronite, *n.* [So called from being found in the arrondissement of *Nontron*, France.] (*Min.*) A hydrated tersilicate of iron, occurring in France, at Noutron, in small kidney-shaped masses, varying in color from green to yellow, and with a dull lustre.

Non-uniform'ist, *n.* One who believes that the causes which formerly produced changes in the earth are not now operating in the same manner.

Non-usance, (*non-yuz'ans,*) *n.* Disusage; neglect of using.

Non-user, (*non-yuz'er,*) *n.* Failure or incapacity to use.

Non-vernac'ular, *a.* Not vernacular; as, a *non-vernacular* phrase.

Noo'dle, *n.* A fool; a simpleton. (Vulgar.)

Nook, *n.* [Scot. *neuk*; Gael. *niuc.*] A narrow place formed by an angle in bodies, or between bodies; a corner; a recess; a covert retreat.

Nookahee'va, NOUKAHIVA, or NUKAHIVA, the largest of the Marquesas Islands in the S. Pacific Ocean; Lat. 8° 53′ N., Lon. 139° 49° W. Length 18 m. The surface is mountainous. *Pop.* 18,000.

Nook'-shotten, *a.* Full of nooks; as, *nook-shotten* islands.

Noölog'ical, *a.* Pertaining to noölogy.

Noöl'ogist, *n.* One versed in noölogy.

Noöl'ogy, *n.* [Gr. *nóos*, the mind, and *logos*, discourse.] The science of intellectual phenomena.

Noon, *n.* [A. S. *non*, the ninth hour of the day; O. Fr. *none*, from Lat. *nona hora*, the ninth hour.] The middle of the day; the time when the sun is in the meridian; twelve o'clock. — The zenith or period of greatest lustre.

"This dead of midnight is the *noon* of thought."—*Barbauld.*

—*a.* Meridional; having reference to mid-day.

Noon'day, *n.* Mid-day; twelve o'clock in the day.

—*a.* Pertaining to mid-day; meridional.

Noon'ing, *n.* Repose at noon; a repast at noon.

Noonivak, or NOUNIVACK, or NUNIVACK, in *Alaska*, an island in Behring Sea, off Cape Vancouver; Lat. 60° N., Lon. 166° W. *Area*, abt. 2,100 sq. m.

Noon'-shun, *n.* Same as NUNCHEON, *q. v.*

Noon'-tide, *n.* The time of noon; mid-day.

—*a.* Pertaining to noon; meridional.

"*Noon tide* repast, or afternoon's repose."—*Milton.*

Noose, (*nōōz,*) *n.* [Ir. *nas*, a band, tie, *nasgaim*, I bind; Gael. *nasg.*.] A running knot which binds the closer the more it is drawn.

—*v. a.* To tie in a noose; to catch in a noose; to entrap; to ensnare.

Noot'ka Sound, an inlet of the Pacific Ocean on the W. coast of Vancouver Island, British N. America; Lat. 49° 35′ N., Lon. 126° 34′ W.

No'pal, *n.* [Mexic. *nopelli.*] (*Bot.*) See OPUNTIA.

No'palry, *n.* A thicket of nopal for rearing the cochineal insect.

Nope, *n.* (*Zoöl.*) An English provincialism for the bullfinch.

Nor, *conj.* A word that denies or renders negative the second or subsequent part of a proposition, or a proposition following another negative proposition; — correlative to *neither* or *not.*

No'ra, in *Illinois*, a post-village and township of Jo Daviess co., abt. 30 m. E. of Galena; *pop.* of twp. abt. 2,000.

No'ra Springs, in *Iowa*, a post-village of Floyd co.

Nor'cia, a town of Central Italy, prov. of Perugia, 17½ m. E.N.E. of Spoleto; *pop.* 4,000.

Nord, a dept. in the N. of France, between Lat. 50° and 51° N., Lon. 2° and 4° E., having N. the North Sea, E. Belgium, S. the dept. of Aisne, and W. Pas-de-Calais; *area*, 2,278 sq. m. The surface is generally level, and the soil fertile and well cultivated. *Rivers.* Aa, Yser, Lys, Scheldt, and Sambre. *Prod.* Wheat, flax, hemp, tobacco, fruits, and vegetables. *Min.* Iron and coal. *Manuf.* Important; principally, lace, linen, carpets, cordage, arms, cutlery, glass, paper, beet-root sugar, &c. *Chief towns* Lille (the cap.), Avesnes, Cambrai, Douay, Dunkerque, Hazebrouke, and Valenciennes. *Pop.* 1, 392,041.

Nor'den, a town of Prussia, prov. of Hanover, 14 m. N.W. of Aurich; *pop.* 6,000.

Nord'hausen, a town of Prussian Saxony, district of Erfurt, on the Zorge, 49 m. W. of Halle, and 38 m. N.W. of Erfurt. *Manuf.* Woollen cloth, sealing-wax, vitriol, soap, and cream of tartar: also numerous oil-mills, marble-works, and a considerable trade in corn. *Pop.* 17,686.

Nord'hausen Acid, *n.* (*Chem.*) A peculiar sulphuric acid, intermediate between the anhydrous and monohydrated acid, so called from the place where it was formerly manufactured. It is generally in the form of a brown fuming liquid. It is a good solvent of indigo.

Nord'heim, or **Nort'heim,** a town of Prussia, prov. of Hanover, on the Ruhme, 12 m. N. of Göttingen. *Manuf.* Tobacco. *Pop.* 5,000.

Nord'land, or **Norr'land,** a division of Norway, bordering on the Atlantic, between Lat. 65° and 70° N., Lon. 12° and 22° E.; *area*, including Lofoden Islands, 14,337 sq. m. *Pop.* 85,512.

Nord'lingen, a town of Bavaria, dist. of Middle Franconia, on the Eger, 48 m. S.W. of Nuremberg. *Manuf.* Woollens, linens, carpets, gloves, and hosiery. Here, 1634, the Swedes and their allies, under Bernhard, Duke of Weimar, were defeated by the Austrians and Bavarians under the Archduke Ferdinand; and, 1796, the Austrians were defeated by the French. *Pop.* 7,000.

Nord'koping, a seaport-town of Sweden, district of Linköpen, on the Molata, at its mouth in the Baltic, 85 m. S.W. of Stockholm. *Manuf.* Brass and hardware goods, linen, cotton, and woollen fabrics, gloves, paper, leather, and starch. *Pop.* 21,679.

Nord'strand, an island of Denmark, off the W. coast of Schleswig, 15 m. N.E. of the mouth of the Eder; *area*, 20 sq. m.; *pop.* 3,000.

Nore, a sand-bank in the estuary of the Thames, in England, 4 m. N.E. of Sheerness. Lat. 51° 29′ N., Lon. 0° 48′ W. It has a floating light called the Nore Light.

Norfolk, (*nor'fok,*) an ancient English house, descended from the royal family of Plantagenet, through Thomas Plantagenet of Brotherton, Earl of Norfolk, second son of Edward I., and Earl Marshal of England. The heiress of the Norfolk family, Margaret, eldest daughter of Thomas de Mowbray, Duke of Norfolk, having espoused, at the commencement of the 15th century, Robert Howard, the title of Duke of Norfolk passed to the latter, and was transmitted by him to his descendants. The living head of this family takes precedence as premier duke and Earl-Marshal of England, and follows immediately after the princes of the blood-royal.

Norfolk, (*nor'fok,*) a maritime co. of the E. of England, having N. and E. the German Ocean, S. Suffolk, and W. Cambridge; *area*, 2,024 sq. m. The surface is generally level, and the soil moderately fertile, except on the S. and S.E. which is marshy. *Rivers* Great and Little Ouse, Nen, Waveney, Yare, and Wensum. *Prod.* Wheat, barley, oats, rye, and vegetables. *Manuf.* Woollens, silks, shawls, crapes, and hosiery. *Chief towns.* Norwich, (the cap.) Yarmouth, and King's Lynn. *Pop.* 434,798.

Norfolk, in prov. of Ontario, a S.W. co., bordering on Lake Erie; *area*, about 600 sq. m. *Cap.* Simcoe. *Pop.* 39,500.

—A fort and township in the above co.

Norfolk, in *Connecticut*, a post-town and township of Litchfield co. *Pop.* (1897) 1,620.

Norfolk, in *Massachusetts*, an E. co., bordering on Massachusetts Bay on the E., and adjoining Rhode Island on the S.; *area*, about 494 sq. m. *Rivers.* Charles and Neponset rivers, with several smaller streams. *Surface*, diversified; *soil*, fertile, being the chief source of fruit and vegetables for supplying Boston. *Min.* Granite of a superior quality. *Cap.* Dedham. *Pop.* (1895) 134,781.

Norfolk, in *New York*, a post-township of St. Lawrence co. *Pop.* (1897) 2,140.

Norfolk, in *Virginia*, a S.E. co., adjoining N. Carolina; *area*, about 476 sq. m. *Rivers.* James river (Hampton Roads), Deep creek and Elizabeth river. Dismal Swamp and Lake Drummond occupy the S.W. angle of the co. *Surface*, level; *soil*, not very fertile. *Cap.* Portsmouth. *Pop.* (1890) 77,018.

—A city, port of entry, former cap. of the above co., on the Elizabeth river, 8 m. S. of Hampton Roads and 106 m. S.E. of Richmond; Lat. 36° 51′ N., Lon. 76° 19′ W. It is situated opposite Portsmouth, and with that city formed, before being destroyed at the outbreak of the Civil War, the most important naval station in the U.S. In point of population, *N.* is next to Richmond. The harbor is excellent, being capacious, safe, easy of access, and the entrance defended by two strong forts. The city is located upon a level plain, and though irregularly laid out, is for the most well built, and contains many fine public and private edifices. Among the former are the City Hall, the Norfolk Military Academy, Masonic Temple, the Cotton Exchange, and U. S. Custom House. There is a government navy yard at Portsmouth. By means of railroads, canals, and steamers, *N.* is connected with all the important cities and towns of the N., W., and S. It was laid out in 1705, and in 1776 was burnt by the British. A large export is done in early fruits and vegetables, besides an immense trade in cotton, tobacco, naval stores, &c. *Pop.* (1897) 41,250.

Norfolk Island, in the S. Pacific Ocean, 1,100 m. E.N.E. of Sydney, in Australia. Lat. 29° 10′ S., Lon. 167° 58′ E. *Ext.* 5 m. long and 2 broad.

Norfolk, (New,) a district of Tasmania, having N.E. Clyde and Richmond, and S. Hobart-Town; *area*, 1,500 sq. m. The chief river is the Derwent. The principal settlements are Hamilton, and New Norfolk.

Norfolk Sound, in *Alaska*, an inlet of the Pacific Ocean, on the W. side of King George's III. Archipelago. Sitka, or New Archangel, is situated on it.

No'ria, *n.* [Sp.] (*Mach.*) An hydraulic apparatus for drawing water.

Nori'cum. (*Anc. Geog.*) A prov. of the Roman empire in S.E Germany, which comprised the whole of the modern prov. of Upper Austria, almost the whole of Lower Austria, Styria, and Corinthia, parts of Carniola, Saltzburg, and Bavaria.

Nor'imon, *n.*; *pl.* NORIMONS. In Japan, a palanquin or litter.

Norm, *n.* A type; a model; a fixed standard for imitation.

Nor'ma, *n.* A square for measuring right angles, used by masons, carpenters, and other artificers, to make their work rectangular.

Nor'ma, in *Missouri*, a village of Webster co., abt. 32 m. E. by S. of Springfield.

Nor'mal, *a.* [Fr.; Lat. *normalis*, from *norma*, a rule, a square to measure right angles.] According to an established law, rule, or principle; relating to rudiments or elements; teaching rudiments or first principles; instructing in the art of teaching; as, a *normal* school.

(*Geom.*) According to a square or rule; perpendicular; forming a right angle.

—*n.* (*Geom.*) A perpendicular to a curve at some particular point, at which point the normal is also perpendicular to a tangent.

Nor'mal, in *Illinois*, a city and township of M'Lean co., about 2 m. N. of Bloomington. It is the seat of the Illinois State Normal University. *Pop.* (1897) 4,250.

Nor'malcy, *n.* State or occurrence of being normal. (R.)

Normaliza'tion, *n.* Reduction to a normal state or standard.

Nor'mal School, *n.* A school for the education of teachers. It is not a little surprising, that for the important duty of educating the young, it is only recently that any special training schools have come to be regarded as necessary. They originated in Germany, and were for a long period confined to that country. The first was organized at Stettin, in Prussia, in 1735; the next by Frederick the Great, at Berlin, in 1748; another was opened in Hanover in 1757; and others followed in various parts of Germany. Since the beginning of the present century they have rapidly increased in number, and been greatly improved in their internal organization. The course of instruction generally extends to three or four years, and in some of the States the great majority of the teachers are graduates of the *N. S.* The first seminary for teachers in France was established in 1810; the first in Holland in 1816; and, in England, in 1830. The first in the U. States was opened at Lexington, July 3, 1839; and now most of the principal cities have their normal schools.

Nor'man Architec'ture, *n.* A style of architecture which flourished originally and principally in Normandy, as its name denotes. It afterwards became prevalent in other places wherever the Normans obtained influence and dominion — among others, in England, where we shall treat of it. The Norman style is allied to the debased Roman examples of the Eastern and Western empires, and may be with them included in the general title of *Romanesque*. It cannot, however, be ranked as of equal importance with the Byzantine or Lombardic divisions, of both of which it is a modification. It is not decided at what period the Norman style was first introduced into England. Some persons are of opinion that it was introduced by William the Conqueror: others, by Edward the Confessor; while a third party maintain that it was merely a development of the Saxon, or the style immediately preceding. It would seem, however, that the Saxon and Norman were distinct styles, emanating from the same grand type, and consequently to a certain extent modifications of each other. They are both derived from the Roman, and both developments of the Romanesque; but here they separate, and in the two styles may be traced such a similarity as might be expected in descendants from a common source. While the Saxon style was reared on an uncultivated soil, and by rude hands, the Norman was developed amid more advanced civilization. The Norman style may be said to have been fully developed in England soon after the Conquest, flourishing from the middle of the 11th century, and prevailing to the latter part of the 12th, or the close of the reign of Henry II. In general, it is styled as the architecture of the 12th century, and dates from 1066 to 1170. According to the monkish chronicles, soon after the arrival in England of William the Conqueror and his followers, who were great builders, churches began to spring up in every village, and monasteries were erected in all the towns and cities, designed in a novel style of architecture. In the larger Norman churches, the plans are generally cruciform. At the intersection between the nave, choir and transepts, there is a low, massive tower; and the choir is usually terminated with a semicircular apse. In many cases, the aisles of the nave are continued at the sides of the choir, and the high altar is situated between the easternmost piers, with a screen behind, stretching between the piers. A space was thus left clear at the back of the altar, which was called the retro-altar, and thus allowed processions to perambulate entirely round the church. The choir, in some cases, was surrounded by chapels, having also apsidal terminations. The width of the aisles was very small, in some cases being not more than four to six feet. In most cases, the western façades are flanked by turrets or buttresses, but occasionally by towers, (Fig. 1963). The parish churches were usually small, consisting of a nave, often without either porch or aisles, with a chancel and tower. Small churches, however, often consisted of a nave and chancel, only without any tower or other appendage. In the buildings of this period, the *walls* were of great thickness, but the masonry was not solid, being composed of two external walls of ashlar-work, having the space between filled up with rubble, gravel, flints, &c. Sometimes, however, the walls were made up of solid rubble-work, with quoins of ashlar. The former kind were not durable; but the introduction of buttresses at a later period led to a great improvement in the construction of walls. The *arches* of the Norman style are invariably of the semicircular form, (Fig. 1964), but occasionally stilted: and the only variety in the proportions of arcades depends upon the height of the piers, the height of the opening usually averaging about twice its width. Chancel arches are sometimes deeply recessed and ornamented with a number of rich mouldings. The *piers* which support the principal arches of construction are very massive, (Fig. 177), and frequently of stunted proportions. The *capitals* are very varied in character, some bearing a more or less close resemblance to the Corinthian and other classic styles. In general, however, they are merely rude and unskilful imitations, and when contrasted with the originals, have a heavy appearance. The foliage is crowded and without regularity; and the capital, on account of its squattiness, inelegant. Many, however, are not elaborately carved, several of them being quite plain. The most common of these is the cushion capital, which is of cubical form, being rounded at the lower end to meet the shaft. In the Norman and Lombardic styles, mural arcades are a common feature. They sometimes cover the greater portion of both external and internal walls, but are most common on the exterior, especially on the façades, the clere-stories, and the upper stories of towers. The *doorways* in this style are to be found in very great variety, from the most simple to the most elaborate. *Windows* were subordinate members of an edifice, and in the earlier examples are nothing more than mere slits, or narrow oblong apertures, often not exceeding a few inches in breadth, and finished with a plain semicircular head. Larger windows are to be found in cathedrals, and in the larger churches. After a time, windows began to be decorated with a slight degree of enrichment, and the zigzag and other mouldings were added round the arch. In the upper stories of towers a more advanced window is sometimes to be found. It consists of semicircular lights, with 2 heads, separated by a central shaft, and having a jamb-shaft on either side. The two lights are enclosed under another large semicircular arch, which is surrounded by a hood-mould (Fig. 1965). The *mouldings* in the Norman style are of great variety, and in some instances are very elaborately carved. One of the most favorite and characteristic is the *zigzag*, which is composed of a series of salient and reëntrant angles, recessed or otherwise carved on the surface of the stone, sometimes in a single line, but more frequently in two, three, or more lines running parallel to each other. Other kinds are the *indented* or *trowel-point*, the *beak-head*, *bird's-head*, and *cat's-head* mouldings, the *nail-head*, the *billet*-moulding, the *embattled*, *star*, *medallion*, and *lozenge* mouldings, &c. No less than 15 of the 22 English cathedrals retain considerable portions which are undoubtedly of Norman workmanship, and of which the dates are ascertained. The nave and choir of Norwich Cathedral, with the exception of pointed windows of later English character inserted in the upper part of the choir, are almost entirely Norman. There are very few examples, however, of the exterior Norman style. Many of the churches belonging to the greater abbeys were constructed in the Norman period; but few have escaped the general demolition which took place at the Reformation. As the Normans knew that they could not live in security without building strong places of defence, military structures were therefore established or built on every lordship. The leading feature in a Norman fortress was a lofty mound of earth, thrown up in the centre of other works from the excavations necessary in forming the ditch, fosse, or moat. A square or circular tower, of several stories, rose from the upper ballium, or a low circular story of considerable diameter, which was generally approached on the outside by a very steep stone staircase. The gateway, or tower of entrance, was built at the foot of the artificial mount, from which was a sally-port with stone stairs leading to the keep. It contained the portcullis and drawbridge fixed to the archway, and several spacious chambers. The gateway, and the barbican, or watch-tower, had both of them a communication with the keep. (See CASTLE.) From the year 1155, the Norman architecture began to be mixed with new forms and additions, and was at length superseded by the more elegant and lofty style of building, usually called the Gothic.

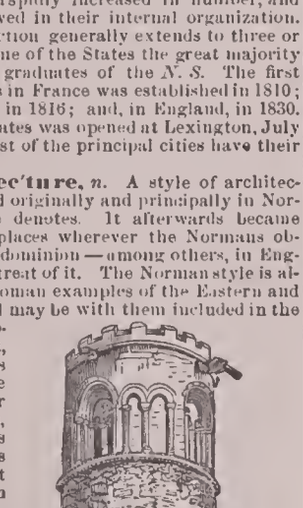

Fig. 1963.
TOWER OF LITTLE SAXHAM CHURCH, SUFFOLK, (England.)
(A. D. 1160.)

Fig. 1964. — PORCH OF GREAT ADDINGTON, (England.)
(A. D. 1180.)

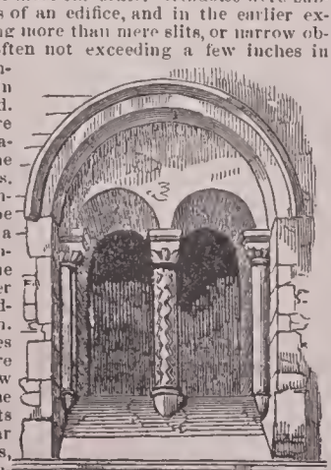

Fig. 1965. — CHURCH OF BUCKNELL, OXON, (England.)
(A. D. 1160.)

Nor'man, *n.* A Northman. (See NORTHMEN).— An inhabitant of the French prov. of Normandy.

(*Naut.*) A kind of capstan-bar, used on shipboard.

—*a.* Pertaining to Normandy or to the Normans; as, the *Norman* Conquest.

Nor'man, or NORMAN'S ISLAND, one of the Virgin group, W. Indies, lying N.E. of St. John; Lat. 18° 19′ N., Lon. 64° 32′ W. *Area*, abt. 2 sq. m. Man-of-war Bay is on its W. side.

Nor'man, in *Illinois*, a township of Grundy county.

Nor'manda, or NORMANDY, in *Indiana*, a post-village of Tipton co., abt. 40 m. N. of Indianapolis.

Nor'mandy, an anc. prov. of France, bordering on the English Channel, now divided into the depts. of Seine Inférieure, Eure, Orne, Calvados, and Manche. *N.* anciently comprised a portion of the kingdom of Neustria, and was ceded to Rollo, Rolf, or Rouul, by Charles III., in 911. William I. Duke of *N.* invaded England in 1066, and established a Norman dynasty, thereby uniting *N.* with the latter country. Philip Augustus conquered it in 1204, the French holding it until 1417, when it was recovered by the English, who held it till 1450, when it was finally wrested from them by Charles VII.

Nor'mandy, in *Missouri*, a post-village of St. Louis co., 10 m. N.W. of St. Louis.

Nor'mandy, in *Tennessee*, a post-village of Bedford co., abt. 62 m. S.S.E. of Nashville.

Norman's Kill, in *New York*, a small stream flowing into the Hudson River from Albany co.

Norns, Nor'nas, *n. pl.* (*Scandinavian Myth.*) The three irrevocable Fates, — past, present, and future.

Nor'ridgewock, in *Maine*, a post-town and township, former cap. of Somerset co., about 28 m. N. of Augusta. *Pop.* (1897) 1,702.

Nor'ris, in *Illinois*, a post-village of Fulton co., about 33 m. S. E. of Galesburg.

Nor'ristown, in *Arkansas*, a village of Pope co., about 65 m. N.W. by W. of Little Rock.

Nor'ristown, in *Ohio*, a post-village of Carroll co., about 130 m. E. N. E. of Columbus.

Nor'ristown, in *Pennsylvania*, a post-borough, cap. of Montgomery co., about 16 m. N.W. of Philadelphia. It is finely situated in a rich farming district; is regularly laid out, and neatly and handsomely built. The Court-house is one of the finest of its class. Cotton and woollen factories have been established, also rolling mills, foundries, iron furnaces, glass works, &c. It is connected with Philadelphia by the Reading and Penna. R. Rs. The State Asylum for the Insane is 1 m. from the town. *Pop.* (1897) 23,450.

Nor'risville, in *Alabama*, a village of Wilcox co.

Nor'riton, in *Pennsylvania*, a township of Montgomery co.

Nor'ritonville, in *Pennsylvania*, a post-village of Montgomery co., abt. 3 m. N. of Norristown.

Nor'roy, *n.* [Fr. *nord*, north, and *roy*, *roi*, king.] (*Her.*) See HERALD'S COLLEGE.

Norse, *a.* Pertaining or having reference to ancient Scandinavia, or to the language spoken by its peoples.

—*n.* [From Icel. *Norvegr*, Norway.] The language of ancient Scandinavia.

Norse'man, *n.*; *pl.* NORSEMEN. A Northman; a native of ancient Scandinavia.

North, *n.* [A. S. *north*; Du. *noord*; Dan. and Ger. *nord*, *norden*; Fr. *nord*.] One of the cardinal points,

being that point of the horizon which is directly opposite to the sun in the meridian.—A name loosely given to any country or region situated nearer the north point than another.—The north wind.

—*a.* Being in the north; as, the *north* polar star.

North, in *Indiana*, a township of Lake co.

—A township of Marshall co.

North, in *Ohio*, a thriving township of Harrison co.

North Ab'ington, in *Massachusetts*, a post-village of Plymouth co., about 18 m. S.S.E. of Boston.

North Ac'ton, in *Maine*, a village of York co., about 38 m. W. of Portland.

North Ad'ams, in *Massachusetts*, a post-town and township of Berkshire co, about 20 m. N. by E. of Pittsfield, on the Bost. & Albany and Fitchburg R.Rs.; has very extensive manuf. of shoes, cotton and woollen goods, &c. *Pop.* of township (1895) 19,145.

North Al'mond, in *New York*, a village of Allegany co., 20 m. N.E. of Belmont. Post-office is ALMOND.

Northal'lerton, a town of England, co. of York, 13½ m. S.S.E. of Darlington, and 31 m. N.W. of York. Here was fought, 1138, the "Battle of the Standard," in which the Scots were defeated by the English. *Pop.* 5,300.

Northamp'ton, a central co. of England, having N. the co. of Lincoln, E. and S.E. Cambridge, Huntingdon, Bedford, and Buckingham, S. Oxford, W. and N.W. Warwick, Leicester, and Rutland. *Area*, 1,016 sq. m. The surface is diversified, the soil generally fertile, and the climate mild and healthy. *Rivers.* Neu, Onse, and Welland. *Prod.* The usual cereals. Horses and cattle are extensively reared. *Manuf.* Boots and shoes, lace, and woollen stuffs. *Chief towns.* Northampton, the cap., Peterborough, and Wellingborough.

NORTHAMPTON, capital of the above co., on the Nen, 29 m. S.S.E. of Leicester, and 59 m. N.W. of London. The principal edifices are the Town Hall, Corn Exchange, the churches of St. Sepulchre, and the Norman church of St. Peter. *Manuf.* Boots and shoes, leather, lace, and hosiery; there are, also, brass and iron foundries. *Pop.* (1897) 64,330.

Northamp'ton, in *Massachusetts*, a thriving city of Hampshire co., about 17 m. N. of Springfield. The State Lunatic Asylum and Institution for Mutes are located here; also a fine building called Memorial Hall, used as a public library, and containing a tablet with the names of those who fell in the Civil War. *Manuf.* Woollen, cotton, and silk goods, iron, cutlery, sewing machines, paper, sewing silk, baskets, &c. *Pop.* (1895) 16,738.

Northampton, in *North Carolina*, a N.E. co., adjoining Virginia; *area*, about 568 sq. m. *Rivers.* Roanoke and Meherrin. *Surface*, diversified; *soil*, fertile. *Cap.* Jackson. *Pop.* (1890) 21,242.

Northampton, in *New Jersey*, a township of Burlington co.

Northampton, in *New York*, a post-town of Fulton co. *Pop.* (1897) 2,100.

Northampton, in *Ohio*, a township of Summit co.

Northampton, in *Pennsylvania*, an E. co., adjoining New Jersey; *area*, about 380 sq. m. *Rivers.* Delaware river, and Martin's, Monocacy, Sancon, and Bushkill creeks. *Surface*, much diversified and mountainous in the N.W. and S.E.; *soil*, generally very fertile. *Min.* Iron, zinc, slate, and limestone. *Cap.* Easton. *Pop.* (1890) 84,220.—A twp. of Bucks co.—A town of Lehigh co. (See ALLENTOWN.)—A township of Somerset co.

Northampton, in *Virginia*, an E. co., washed on the E. by the Atlantic Ocean, and on the W. and S. by the Chesapeake bay; *area*, about 290 sq. m. The coasts are indented with numerous bays and inlets. *Surface*, level; *soil*, not fertile. *Cap.* Eastville. *Pop.* (1890) 10,313.

North An'dover, in *Massachusetts*, a post-town of Essex co., about 3 m. N. of Boston.

North An'na, in *Virginia*, a river rising in Orange co., and flowing S.E. joins the South Anna in Hanover co. to form the Pamunkey. On this river, at a point about 20 m. above Hanover Court House, an engagement occurred (May 24, 1864) between the National and Confederate troops, under Generals Warren and Brown respectively, in which the latter were defeated, losing their leader and 1,000 men. The Union loss was 350 men.

North Ann'ville, in *Pennsylvania*, a township of Lebanon co.

North An'son, in *Maine*, a post-village of Somerset co. *Pop.* (1897) 770.

North Ap'ple Creek, in *Illinois*, a former township of Greene co.

North Argyle (*ar-ghil'*), in *New York*, a post-village of Washington co., about 50 m. N.N.E. of Albany.

North Ash'ford, in *Connecticut*, a post-village of Wyndham co., about 17 m. N.N.W. of Brooklyn.

North At'tleborough, in *Massachusetts*, a post-town of Bristol co., about 30 m. S.W. of Boston; has extensive manuf. of jewelry, &c. *Pop.* (1895) 6,576.

North Au'burn, in *Maine*, a post-village of Androscoggin co., about 5 m. N.N.W. of Auburn.

North Au'gusta, in *Iowa*, a village of Des Moines co., about 70 m. S. by E. of Iowa City.

North Bea'ver, in *Pennsylvania*, a township of Lawrence co.

North Beck'et, in *Massachusetts*, a village of Berkshire co., about 70 m. W. of Boston.

North Bel'grade, in *Maine*, a post-village of Kennebec co., about 15 m. N. of Augusta.

North Belleville (*bel'vil*), in *Indiana*, a village of Hendricks co., about 19 m. W. by S. of Indianapolis.

North Bel'lingham, in *Massachusetts*, a post-village of Norfolk co., about 25 m. S.W. of Boston.

North Bend, in *Indiana*, a village and township of Stark co., about 35 m. N.N.W. of Logansport.

North Bend, in *Nebraska*, a post-village of Dodge co., on the K. C., B. & S. Fé R.R.

North Bend, in *Utah*, a village of San Pete co., about 22 m. N.N.E. of Manti.

North Bend, in *Wisconsin*, a post-village of Jackson co., abt. 22 m. N. by E. of La Crosse.

North Ben'nington, in *Vermont*, a post-village and township of Bennington co., abt. 4 m. N.W. of Bennington Centre.

North Ben'tonsport, in *Iowa*, a village of Van Buren co., abt. 75 m. S. by W. of Iowa City.

North Ber'gen, in *New Jersey*, a township of Hudson co.

North Bergen, in *New York*, a post-village of Genesee co., abt. 240 m. W. by N. of Albany.

North Berwick, (*ber'rik,*) a seaport-town and bathing-place of Scotland, co. of Haddington, at the mouth of the Frith of Forth, 19 m. E.S.E. of Edinburgh; *pop.* 1,800.

North Ber'wick, in *Maine*, a post-township of York co.

North Biller'ica, in *Massachusetts*, a post-village of Middlesex co., abt. 21 m. N. by W. of Boston.

North Black'stone, in *Massachusetts*, a post-village of Worcester co., abt. 40 m. S.W. of Boston.

North Bland'ford, in *Massachusetts*, a post-village of Hampden co., abt. 120 m. W. of Boston.

North Bleu'heim, in *New York*, a post-village of Schoharie co., abt. 40 m. W.S.W. of Albany.

North Bloom'field, in *California*, a post-village of Nevada co., abt. 12 m. N.E. of Nevada.

North Bloomfield, in *New York*, a post-village of Ontario co., abt. 210 m. W. of Albany.

North Bloomfield, in *Ohio*, a township of Morrow co.

North Booth'bay, in *Maine*, a post-village of Lincoln co., abt. 65 m. S.E. of Augusta.

North'borough, in *Massachusetts*, a post-township of Worcester co.

North Bosque Creek, (*bosk,*) in *Texas*, enters the Brazos River from McLennan co.

North Branch, in *Michigan*, a post-township of Lapeer co.

North Branch, or BAILIES, in *New Jersey*, a post-village of Somerset co., abt. 5 m. N.W. of Somerville.

North Bran'ford, in *Connecticut*, a post-township of New Haven co.

North'bridge, in *Massachusetts*, a post-township of Worcester co.

Northbridge Centre, in *Massachusetts*, a post-village of Worcester co., abt. 38 m. S. by W. of Boston.

North Bridge'ton, in *Maine*, a post-village of Cumberland co., abt. 44 m. N.W. of Portland.

North Bridge'water, in *Massachusetts*, a post-village and township of Plymouth co., abt. 21 m. S. of Boston; now BROCKTON.

North Brook'field, in *Massachusetts*, a post-township of Worcester co.

North Bruns'wick, in *New Jersey*, a township of Middlesex co.

North Bucks'port, in *Maine*, a post-village of Hancock co., abt. 8 m. S. of Bangor.

North Buf'falo, in *Pennsylvania*, a township of Armstrong co.

North Can'ton, in *Connecticut*, a post-village of Hartford co., abt. 18 m. N.W. of Hartford.

North Car'mel, in *Maine*, a post-village of Penobscot co., abt. 14 m. W. by N. of Bangor.

North Caroli'na, one of the 13 original States of the American Union, lies between 33° 53′ and 36° 33′ N. Lat., and 75° 25′ and 84° 30′ W. Lon., presenting an extreme length, E. to W., of 420 m., with a maximum breadth of 180 m. N. to S. It is bounded on the N. by Virginia, S. by South Carolina, S.E. by the Atlantic, S.W. by a small segment of Georgia, and W. by Tennessee. *Area*, 50,704 sq. m., or 32,450,500 acres. — *Gen. Desc.* For a distance extending from the seaboard 60 to 80 m. into the interior, and including the turpentine region, the surface of the State is level, and dotted with many series of oozy swamps and morasses; the streams intersecting it are sluggish and slimy, and the lands, for the most part, arenose and poor, except along the river-bottoms, where it is highly productive, yielding abundant crops of cotton, maize, tobacco, and rice. N. of Albemarle Sound, the "Great Dismal Swamp," covering an area of 150,000 acres, extends into Virginia, while its sister swamp, the "Little Dismal, or Alligator," with a superficies nearly as large as the former, is located between Pamlico and Albemarle Sounds. Other considerable-sized swamps lie further S., interspersed with number of small lakes. Parts of the Little Dismal Swamp have been sufficiently reclaimed to bear valuable rice and cereal crops. It is estimated that the whole area of swamp-lands throughout the State spreads over not less than 3,000,000 acres. As the interior becomes further penetrated, the characteristic configuration of the country undergoes a change. The surface is found to acquire a hilly, or, rather, undulating aspect, consisting of alternate ridges and valleys, and forming what is called the *Pitch-pine region.* Here the soil is of decided fertility, producing the principal agricultural staples, while towards the W. extremity of the State, beyond the Yadkin and Catawba rivers, a large plateau of considerable altitude — being from 1,000 to 2,000 feet above sea-level — forms, as it were, the W. base of the Alleghany range traversing the State from N.E to S.W., and culminating in summits of superior elevation. Many of the peaks of this chain, lying within the limits of this State, are the loftiest east of the Mississippi River; such as Mounts Clingman, Mitchell, Buckley, and Guyot, the highest of which rises to between 6,500 and nearly 7,000 feet above tide-water. The coast-line of *N. C.* is long and deeply indented. Commencing at Little River Inlet on the S. Carolinian frontier, it takes a course nearly E. to Cape Fear, thence N.E. to Cape Lookout and Cape Hatteras, and terminates at the Virginia line, forming a distance of over 400 m. Three large, shallow sounds, Albemarle, Currituck, and Pamlico, cut far into the land, and have *antennæ* in the shape of numerous small bays or inlets on either hand. A concatenation of narrow, shoaly lagoons, charged with ever-shifting sand-bars, skirts the coast S. of Cape Lookout, and, hence, the navigation of the whole seaboard is exceedingly intricate and hazardous. The principal rivers are those of Cape Fear, flowing E. by S. for about 250 m., and navigable for small craft 120 m. from its outlet in the Atlantic; the Roanoke, rising in Va., and discharging into Albemarle Sound; the Neuse, Tar, Chowan, Yadkin, and Catawba. — *Geol. and Min.* The State is geologically divided into three parallel zones, the first or E. comprising the level sandy coast-region, extends to the midland belt, bounded W. by the skirting-line of the outlying spurs of the Blue Ridge Mountains. The third zone embraces the W. and mountainous sections of the State. The prevailing systems of rocks are the recent and tertiary, cretaceous, new red-sandstone, permian, igneous, and metamorphic. The rocks of the last-named formation, associated with granite, occupy the middle cos., in part, and the extreme W. confines, and contain the most important repositories of ores. The rocks of the lower belt are tertiary or cretaceous, and contain no metals, excepting the earthy ores of manganese and iron. The most important minerals found in the State are iron and coal, which are extensively deposited on the Deep and Dan rivers. The iron lodes comprise the hematites and the magnetic and specular ores; but they are comparatively little mined. Bituminous and semi-bituminous coal-measures exist somewhat extensively, and in various localities are rich in coal. Excellent coal has been profitably mined in the vicinity of Deep river, and similar material is found abundantly near the Dan river. Among the other minerals may be named gold, silver, copper, porphyry, and steatite. Since mining for the precious metals began there have been produced over $12,000,000 in gold and silver. In 1838 a branch U. S. mint was established at Charlotte, which since 1883 has been continued as an assay office. Silver is found in association with lead in Clay and Davidson cos., and zinc in the latter county. Copper and plumbago are found in many counties of the State. Among other minerals of value may be named corundum and monazite, while mica of commercial value exists widely in the west. In addition to the minerals named, *N. C.* is rich in gems, of which numerous varieties have been found, among them the rich "hiddenite," or lithia-emerald, which has been found in no other locality. In some localities are large beds of granite and marble, while in the eastern section beds of phosphate rock of much value exist.—*Clim.* The meteorological characteristics of *N. C.* are varied. In the low region the atmosphere is hot and moist, while in the mountainous country it is cool and dry. In the interior it unites both peculiarities according to localization. The mean temperature is estimated at 60°.— *Nat. Prod., &c.* The upland tracts are well timbered with ash, oak, walnut, hickory, lime, and other trees; the low country produces pine in great perfection; and the swamp-lands luxuriate in dense collections of cedar, cypress, maple, oak, and poplar, undergrown with vines and other creepers. The fruits assimilate with those of the neighboring States.—*Agric.* Up to a recent period Indian corn has been the leading agricultural product of the State, though tobacco is also a valuable product. But within late years cotton has become a rival in the annual value of its crop. The other agricultural products of importance include wheat, oats, hay, sweet potatoes, and groundnuts, the American culture of the last-named being largely confined to this State. The product of corn in 1880 was 27,959,894 bushels; in 1895 it was 36,378,412. Cotton advanced from 389,598 to 465,000 bales, and wheat and oats made a similar progress. The tobacco crop, 26,986,448 lbs. in 1880, was 42,043,620 lbs. in 1895, surpassing the yield of any State except Kentucky. In the culture of rice there has been considerable progress. The census of 1890 reported for *N. C.* 178,359 farms, of 22,651,896 acres, of which 7,828,569 were improved. The valuation of land and improvements was $183,977,010; of live stock, $25,547,280; and of farm products, $50,070,530.— *Manuf. and Ind.* Next to agriculture, the distillation of turpentine and tar forms the leading industrial feature of the State. The turpentine lands are valued at from $2 to $20 per acre, with from 500 to 1,000 pine-trees growing upon an acre, containing on an average 2,000 boxes, (or pockets cut in the stem above the ground) and producing, on an average, from 12 to 16 barrels of turpentine, or 2 barrels of spirits and 8 of rosin. This business is regarded as favorable to health and longevity, and is generally found very profitable to the proprietors. Reliable statistics of the produce of the turpentine forests are not obtainable, but De Bow, in his

Fig. 1966. — SEAL OF THE STATE.

Resources of the South, estimates the annual produce of the State at 800,000 barrels, at an approximate value to the makers of from $1,700,000 to $2,000,000. The cutting and exportation of lumber forms another considerable commercial item.—*Cotton Manuf.* In 1869 *N. C.* had but 21,743 spindles in operation; in 1880, they had increased to 102,767 spindles, using 27,508 bales of cotton. Since that date there has been a large increase in the number of looms and spindles for the manufacture of cotton and woollen fabrics, the production of which has grown into an industry of large importance. There are also many iron works, distilleries, and tobacco works pursuing a profitable business, there having been a considerable enlargement of the tobacco industry of late years. The first silk factory in the South was established in *N. C.* in 1848. In the coast region the fisheries form a profitable business, employing from 6,000 to 7,000 men, their annual yield being valued at over $1,000,000. The manufactures in 1890 yielded products valued at $40,375,450, an aggregate which has since then been considerably increased.—*Pol. Div.* The State is divided into 96 counties, viz.:

Alamance,	Cumberland,	Johnson,	Randolph,
Alexander,	Currituck,	Jones,	Richmond,
Alleghany,	Dare,	Lenoir,	Robeson,
Anson,	Davidson,	Lincoln,	Rockingham,
Ashe,	Davie,	Macon,	Rowan,
Beaufort,	Duplin,	Madison,	Rutherford,
Bertie,	Durham,	Martin,	Sampson,
Bladen,	Edgecombe,	McDowell,	Stanly,
Brunswick,	Forsyth,	Mecklenburgh,	Stokes,
Buncombe,	Franklin,	Mitchell,	Surrey,
Burke,	Gaston,	Montgomery,	Swain,
Cabarrus,	Gates,	Moore,	Transylvania,
Caldwell,	Graham,	Nash,	Tyrrell,
Camden,	Granville,	New Hanover,	Union,
Carteret,	Greene,	Northampton,	Vance,
Caswell,	Guilford,	Onslow,	Wake,
Catawba,	Halifax,	Orange,	Warren,
Chatham,	Harnett,	Pamlico,	Washington,
Cherokee,	Haywood,	Pasquotank,	Watauga,
Chowan,	Henderson,	Pender,	Wayne,
Clay,	Hertford,	Perquimans,	Wilkes,
Cleveland,	Hyde,	Person,	Wilson,
Columbus,	Iredell,	Pitt,	Yadkin,
Craven,	Jackson,	Polk,	Yancey.

Cities and Towns. The principal centers of trade and population are Raleigh (State cap.), Wilmington, Newbern, Edenton, Beaufort, Fayetteville, Salisbury, Charlotte, and Elizabeth.—*Govt.* The Constitution of the State was established in Dec., 1776, and modified in 1835 and 1857. The 15th amendment to the National Constitution was added in 1869. Until amended in 1875, it provided that every male citizen, 21 years of age, resident one year in the county, and who shall have paid a tax, shall be a qualified voter. The franchise for the senatorial vote formerly required proprietorship of 50 acres of land, in addition to the foregoing qualifications. The executive vested in a governor chosen by popular vote for a term of 2 years, an advisory council of 7 members, secretary of state, treasurer, comptroller, and a superintendent of common schools, all elected by the legislature. The governor's age must not be under 35, and he must possess a property qualification of $5,000, and have been a resident of the State for 5 years. His emoluments consist of a furnished dwelling-house, and a salary of $3,000 per annum. The legislature consisted of a Senate of 50 members elected for 2 years, and a House of Commons of 120 members for a similar term. In former times, senators were compelled to own 300 acres of land in the co. from which they were elected, and members of the House of Commons 100 acres. The legislature meets biennially at Raleigh on the second Monday in Nov., and an apportionment of representatives is made once in 20 years—that of the Commons being based on federal population, that of the Senate on taxation. The judiciary comprises a Supreme Court consisting of a chief justice and 2 associate judges, holding 3 courts each year; and superior or circuit courts, 7 in number, with judges accordingly, who hold court biennially in each county. Under the old Constitution, the judges were all chosen by joint ballot of the legislature, also the attorney-general; the former during good behavior, and the latter functionary for 4 years. The Supreme Court possesses merely an appellate jurisdiction, while the judges of the superior court have complete equity of jurisdiction. The salary of the judges of the Supreme Court is $2,500 per annum, and of the superior court, $1,950, and $90 for each court (over 12) held on a circuit. No clergyman engaged in his calling was permitted to be a member of the legislature or of the governor's advisory council.—*Finances.* The debt of *N. C.*, stated at over $27,000,000 in 1880, was given as $7,703,100 in 1890, the total debt, State, county, and municipal, being $11,117,445. The assessed valuation of real and personal property for the same year was $235,370,674, forming a per capita valuation of $245.11.—*Educ.* The Constitution of 1868 provided for free public schools four months in the year, to be maintained by taxation and by the proceeds of a fund for which an appropriation of resources is made, for the free use of the State University, for a superintendent of public instruction, and for a State board of education. The State University (1795) is located at Chapel Hill, near Raleigh, and there is a State Agricultural College at Raleigh, founded in 1889. There are colleges in several localities. In some parts of the State, good schools are lacking; but the principal towns possess graded schools of excellent character. Other institutions comprise asylums for the Insane at Goldsboro, Raleigh, and Morgantown (the first being for negroes only), and schools for the blind, and for deaf mutes, both white and black. The penitentiary is conducted on the contract system, the convicts being hired out to contractors.—*Hist. N. C.* was first partially colonized by a party of Englishmen sent out by Sir Walter Raleigh in 1585, but no permanent settlement was established until 1663, when Charles II. made a grant of the territory which now forms the State to 8 English noblemen. The celebrated philosopher John Locke drew up its original scheme of government, which, however, did not continue in operation longer than 25 years. In 1674, the population was about 4,000, and the annual product of tobacco 8,000,000 lbs. In 1705 an internecine conflict took place among the colonists with reference to the claims of two rival governors. From 1711 to 1713 a war was waged with the Tuscaroras and other Indian tribes, who were ultimately reduced to subjection. In 1769 the colony declared against the right of the home government to levy taxation. *N. C.* sent representatives to the first Continental Congress in 1774, who joined in the declaration of colonial rights. In April, 1776, *N. C.* united with the other colonies in the Declaration of Independence. A partisan warfare next ensued between the patriots and the loyalists, which latter were in strong force throughout the State. On March 15, 1781, the American Gen. Greene, with a force of 4,500 men, was defeated at Guilford Court-House by a body of British troops, 2,000 strong, commanded by Lord Cornwallis. The National Constitution, formed in 1787, was finally adopted in 1789. The State joined the Confederacy at the outbreak of the Civil War, and furnished some of the very best troops in the Confederate army, and some exceptionally able commanders. The present Constitution, as amended in 1875, provides for the election by the people, for four years, of a governor, lieutenant-governor, secretary of state, auditor, treasurer, superintendent of public instruction, and attorney-general. Judges of the Supreme and superior courts are elected for eight years; property qualification is abolished, as well as most of the peculiar enactments under the old Constitution alluded to in first column. Presidents Jackson, Polk, and Johnson were natives of the "Old North State." *Pop.* (1890) 1,617,947; (1900) 1,893,810.

North Cas'tine, in *Maine*, a post-village of Hancock county.

North Cas'tle, in *New York*, a post-town of Westchester co.

North Cen'ter Hall, in *Pennsylvania*, a village of Center co.

North Charles'ton, in *New Hampshire*, a post-village of Sullivan co.

North Chat'ham, in *Massachusetts*, a post-village of Barnstable co.—In *New York*, a post-village of Columbia co.

North Chelms'ford, in *Massachusetts*, a post-village of Middlesex co.

North Chel'sea, in *Massachusetts*, a village of Suffolk county.

North Chich'ester, in *New Hampshire*, a post-village of Merrimack co.

North, Chris'topher. See WILSON, JOHN.

North Clar'endon, in *Vermont*, a post-village of Rutland co.

North Clay'ton, in *Ohio*, a post-village of Miami co.

North Dako'ta. See SECTION II.

North Dor'set, in *Vermont*, a post-village of Bennington co., abt. 22 m. S. of Rutland.

North Dumbar'ton, in *New Hampshire*, a post-village of Merrimack co., abt. 8 m. S.S.W. of Concord.

North-east', *n.* The point between the north and east, at an equal distance from each.

—*a.* Pertaining to the north-east, or proceeding from that quarter.

North-East, in *Illinois*, a thriving township of Adams co.

North-East, in *Indiana*, a township of Orange county.

North-East, in *Maryland*, a post-village of Cecil co., abt. 45 m. N.E. of Baltimore.

North-East, in *New York*, a post-village and township of Dutchess co., about 95 m. N.N.E. of New York City.

North-East, in *Pennsylvania*, a post-borough and township of Erie county, about 16 miles north-east of Erie.

North-East'erly, *a.* Toward, or from the north-east.

North-east'ern, *a.* Belonging or having reference to, or being in, the north-east, or in a direction to the north-east.

North-East Pass, or BALIZE, in *Louisiana*, a village of Plaquemine parish, on a pass of its own name, at the mouth of the Mississippi River.

North-East Pass'age. See NORTH-WEST PASSAGE.

North-East River, in *Maryland*, enters Chesapeake Bay from Cecil co.

North Eau Claire, in *Wisconsin*, a township of Eau Claire co.

North Eg'remont, in *Massachusetts*, a post-village of Berkshire co., abt. 170 m. W. by S. of Boston.

North El'ba, in *New York*, a post-township of Essex co.

North Ells'worth, in *Maine*, a post-village of Hancock co., abt. 75 m. E.N.E. of Augusta.

North'er, *n.* [Sp. *norte.*] A heavy gale of wind blowing from the north.

North'erliness, *n.* State of being northerly; inclination toward the north.

North'erly, *a.* Northern; being toward the north. —From the north.

—*adv.* Toward the north.—In a northern direction.—Issuing from a northern point.

North'ern, *a.* [A. S. *nordhem.*] Being in the north, or nearer to that point than to the east or west.—In a direction toward the north, or a point in its vicinity; as to steer a *northern* course.

Northern Di'ver, *n.* (*Zoöl.*). See COLUMBIDAE.

Northern lights. See AURORA BOREALIS.

Northern Circars, (*sir-kars'*,) a prov. of British India, on the W. side of the Bay of Bengal, between Lat. 15° and 20° N. *Area*, 17,000 sq. m. *Pop.* 2,995,500.

North'erner, *n.* A native or inhabitant of the North. —In the U. States, a native or inhabitant of the Northern States of the Union;—correlative to *Southerner.*

Northern Lib'erties, in *Pennsylvania*, a former district of Philadelphia co., now included within the limits of the city of Philadelphia.

North'ernmost, *a.* Fixed or situated at the point furthest north.

North Fair'field, in *Maine*, a post-village of Somerset co., abt. 18 m. N. of Augusta.

North Fairha'ven, in *Massachusetts*, a village of Bristol co., abt. 55 m. S. of Boston.

North Fal'mouth, in *Massachusetts*, a post-village of Barnstable co., abt. 62 m. S.S.E. of Boston.

North Farm'ington, in *Michigan*, a post-village of Oakland co., about 21 m. N.W. of Detroit.

North Fayette', in *Pennsylvania*, a former township of Allegheny co.

North Fer'risburg, in *Vermont*, a post-village of Addison co., abt. 15 m. S. of Burlington.

North'field, or NOR'FIELD, in *Connecticut*, a village of Fairfield co., about 28 m. W.S.W. of New Haven.—A post-village of Litchfield co., about 27 m. W. by S. of Hartford.

North'field, in *Illinois*, a post-village and township of Cook county, about 20 miles north north-west of Chicago.

North'field, in *Indiana*, a post-village of Boone co., abt. 19 miles N. by W. of Indianapolis.

North'field, in *Maine*, a township of Washington co.

North'field, in *Massachusetts*, a post-village and township of Franklin county, about 100 miles W. by N. of Boston.

North'field, in *Michigan*, a township of Washtenaw county.

North'field, in *Minnesota*, a city and township of Rice co., on C., M. & St. P. and Minn. & St. L. R. Rs., 39 m. S. of St. Paul. *Pop.* (1895) 3,456.

North'field, in *New Hampshire*, a township of Merrimack co.

North'field, in *New Jersey*, a village of Essex co.

North'field, in *New York*, a township of Richmond co.

North'field, in *Ohio*, a post-township of Summit co.

North'field, in *Vermont*, a post-village and township of Washington county, about 10 miles S. by W. of Montpelier.

North'field, in *Wisconsin*, a township of Jackson co.

North'field Farms, in *Massachusetts*, a post-village of Franklin co., abt. 82 m. W.N.W. of Boston.

North'ford, in *Connecticut*, a post-village of New Haven co., abt. 12 m. N.E. of New Haven.

North Fork, in *Arkansas*, a township of Izard county.

North Fork, in *California*, a post-village of Trinity co., abt. 13 m. W. of Weaverville.

North Fork, in *Illinois*, a village of Vermilion co., abt. 125 m. E. by N. of Springfield.

North Fork, in *Iowa*, a township of Delaware county.

North Fork, in *N. Carolina*, a post-village of Ashe co., abt. 214 m. W. by N. of Raleigh.

North Frank'fort, in *Maine*, a village of Waldo co., abt. 62 m. E.N.E of Augusta.

North Frank'lin, in *New York*, a post-village of Delaware co., abt. 78 m. W.S.W. of Albany.

North Gal'veston, in *Indiana*, a post-village of Kosciusko co., abt. 8 m. N.W. of Warsaw.

North Gar'den, in *Virginia*, a post-village of Albemarle co., abt. 11 m. S. by W. of Charlottesville.

North Go'shen, in *Connecticut*, a village of Litchfield co., abt. 35 m. W. by N. of Hartford.

North Gran'by, in *Connecticut*, a post-village of Hartford co., abt. 20 m. N.N.W. of Hartford.

North Gran'ville, in *New York*, a post-village of Washington co., abt. 65 m. N.N.E. of Albany.

North Green'bush, in *New York*, a post-township of Rensselaer co.

North Greenwich, (*gren'ij.*) in *Connecticut*, a village of Fairfield co., abt. 45 m. W.S.W. of New Haven.

North Guilford, (*ghil'ford,*) in *Connecticut*, a post-village of New Haven co., abt. 12 m. E. by N. of New Haven.

North Guilford, in *New York*, a post-village of Chenango co., abt. 50 m. S. by W. of Utica.

North Had'ley, in *Massachusetts*, a post-village of Hampshire co., abt. 90 m. W. of Boston.

North Hamp'ton, in *Illinois*, a post-village of Peoria co., abt. 18 m. N. of Peoria.

North Hamp'ton, in *New Hampshire*, a post-township of Rockingham co.

North Hamp'ton, in *Ohio*, a post-village of Clarke co., abt. 53 m. W. of Columbus.

North Har'persfield, in *New York*, a post-village of Delaware co., abt. 20 m. N.N.E. of Delhi.

North Hart'land, in *Vermont*, a post-village of Windsor co., abt. 9 m. N. of Windsor.

North Ha'ven, in *Connecticut*, a post-town and township of New Haven co., about 5 m. N. of New Haven. *Pop.* (1897) 1,940.

NORTH CAROLINA

SCALE OF MILES

0 10 20 30 40 50 60 70

State Capital ⊛ County Seats ⊙

Places of 20,000 and over ____ CHARLOTTE

" " 10,000 to 20,000 ____ Asheville

" " 5,000 to 10,000 ____ Durham

" " 1,000 to 5,000 ____ Beaufort

WESTERN PART OF NORTH CAROLINA
Same Scale as Main Map

Hammond's 8 x 11 Map of North Carolina

Copyright 1904, by C.S. Hammond & Co., N.Y.

NO. CAROLINA

Land surface, Sq. m. 48,580
Water surface, Sq. m. 3,670
Pop. 1900..1,893,810
White...1,263,603
African ..624,469
Indian.....5,687
Chinese.....51
Native-born, 1,889,318
Foreign-born, 4,492
Males 938,677
Females..955,133

COUNTIES.

Alamance .....F 1
Alexander.....B 2
Alleghany ....B 1
Anson .....D 4
Ashe.... .....A 1
Beaufort.....L 3
Bertie..... K 1
Bladen.....G 4
Brunswick ...H 5
Buncombe,....D 6
Burke.....A 2
Cabarrus.....C 3
Caldwell .....A 2
Camden.....M 1
Carteret.....L 4
Caswell.....F 1
Catawba .....B 2
Chatham.....F 2
Cherokee.....A 7
Chowan.....L 1
Clay.....B 7
Cleveland.....A 3
Columbus.....G 5
Craven .... ..K 3
Cumberland..F 3
Currituck. ...M 1
Dare .....N 2
Davidson.....D 2
Davie.....C 2
Duplin.....J 4
Durham.....G 1
Edgecombe....J 2
Forsyth..... D 1
Franklin.....H 1
Gaston .....B 3
Gates..... .. .L 1
Graham .....B 7
Grauville.....G 1
Greene .....J 3
Guilford... ..E 1
Halifax.....J 1
Harnett.....G 3
Haywood .....D 6
Henderson....E 7
Hertford.....L 1
Hyde.....M 2
Iredell.....C 2
Jackson... ....C 7
Johnston .....H 2
Jones.....K 3
Lenoir.....J 3
Lincoln .....B 3
McDowell.....E 6
Macon.....C 7
Madison.....D 6
Martin .....K 2
Mecklenburg. C 3
Mitchell.. ... E 6
Montgomery..E 3
Moore.....F 3
Nash.....J 1
New Hanover..J 5
Northamptou K 1
Onslow. .....K 4
Orange.....F 1
Pamlico.....L 3
Pasquotank..M 1
Pender..... ...J 4
Perquimans..M 1
Person .....G 1
Pitt.....K 2
Polk .....E 7
Randolph..... E 2
Richmoud ...E 3
Robeson.....F 4
Rockingham..E 1
Rowan .....D 2
Rutherford....A 3
Sampson. ....H 3
Scotland .... .F 4
Stanly..... D 3
Stokes.....D 1
Surry.....C 1
Swain . .....B 6
Transylvania..D 7
Tyrrell.....M 2
Union.....C 4
Vance .....H 1
Wake.....G 2
Warren.....H 1
Washingtou...L 2
Watauga.....A 1
Wayne.....H 3
Wilkes..... ....B 2
Wilson .....J 2
Yadkin.....C 1
Yancey.....E 6

CITIES-TOWNS

Pop. Thousands.

20 WilmingtonJ 5
18 Charlotte...C 3
14 Asheville...D 6
13 Raleigh....G 2
10 GreensboroE 1
10 Winston....D 1
9 Newhern ...K 3
7 Concord.....C 3
6 Durham.....G 1
6 ElizabethCy M 1
6 Salisbury ...D 2
5 Goldsboro.. H 3
4 WashingtonK 2
4 Fayetteville G 3
4 Gastonia....B 3
4 Highpoint...E 1
4 Kinston.....J 3
3 Heuderson..H 1
3 Burlington..F 1
3 Salem .....D 1
3 Wilson.....J 2
3 Reidsville...E 1
3 Statesville...C 2
3 Edenton.....L 1
2 Rockymount J 2
2 Mountairy ..C 1
2 Greenville..K 2
2 Hickory.....B 2
2 Tarboro..... J 2
2 Monroe.....D 4
2 Beaufort... L 4
2 Randleman..E 2
2 Kings Mtn...B 3
2 Oxford.....G 1
2 Graham.....F 1
1 Morganton..A 2
1 Hendersonville E 7
1 Shelby .....A 3
1 Caroleen.....A 3
1 Newton.....B 2
1 Wadesboro..D 4
1 Mooresville..C 2
1 RockinghamE 4
1 Weldon.....J 1
1 Hertford ...M 1
1 Albemarle ..D 3
1 Morehead ...L 4
1 Scotland Neck K 1
1 Southport ..H 6
1 Laurinburg.F 4
1 Waynesville D 7
1 Lenoir. .... A 2
1 Heurietta...A 3
1 Lexington ..D 2
1 Louisburg..H 1
1 McAdenville B 3
1 Marion.....E 6
1 Bessemer City B 3
1 Chaplehill ..F 1
1 Forest Cy ...A 3
1 Dunn.....G 3
1 Sanford .....F 3
1 Roxboro ....G 1
1 Webster.....C 7
1 Plymouth...L 2
1 Roauoke Rapids J 1
1 Cherryville.B 3

Pop. Hundreds.

9 Ashboro ... E 2
9 Clinton.....H 4
9 Maxton .....F 4
9 N.Wilkesboro B 2
9 WilliamstonK 2
9 Davidson....C 3
9 Mayodan ...E 1
8 Chinagrove.D 2
8 Hope Mills..G 4
8 Troy.....E 3
8 Elkin.....C 1
8 Red Sprs....F 4
8 Lagrange....J 3
8 Lumberton..G 4
8 Warrenton .H 1
8 Lincolnton..B 3
8 Wake Forest G 2
8 Selma.....H 2
8 Madison ....E 1
7 Ramseur....E 2
7 Smithfield . H 2
7 FranklintonH 1
7 Clayton.....H 2
7 Waxhaw ....C 4
7 Thomasville D 2
7 Mocksville ..C 2
7 Pilotmountain C 1
7 Hillshoro....F 1
6 Leaks.....E 1
6 Winton.....L 1
6 Springhopo H 2
6 Norwood....D 3
6 Murfreesboro L 1
6 KernersvilleD 1
6 N. Durham . G 1
6 Jonesboro ...F 3
6 Hamlet.....E 4
6 Elon College F 1
6 Wilkesboro. B 2
6 Whiteville ..G 5
6 Mt. Holly....B 3
6 Mt. Olive....H 3
6 Malden.....B 2
6 Rockymount Mills J 1
6 Carthage....F 3
6 Boardman ..G 5
6 Murphy.....A 7
5 Windsor ....K 1
5 Pineville ....C 3
5 Brevard.....D 7
5 Warsaw.....H 4
5 Elm City.....J 2
5 Aberdeen....F 3
5 Ayden.....K 3
5 Farrar.....J 2
5 Princeville..J 2
5 HuntersvillC 3
5 Gibsonville..E 1
5 Southern Pines F 3
5 Goldhill.....D 2
5 Dallas.....B 3
5 Bakersville. E 5
5 Sparta.....B 1
4 Elklark.....E 5
4 Hamilton...K 2
4 Milton.....F 1
4 Nashville ....J 1
4 Worthville..E 2
4 Bethel.....K 2
4 Magnolia....J 4
4 Mowan.....D 4
4 Hot Springs D 6
4 East Bend...C 1
4 Mt. Pleasant D 3
4 Stanley.....B 3
4 SwepsonvilleF 2
4 Jackson.....K 1
4 Siler.....F 2
4 Fremont.... J 2
4 Pittsboro....F 2
4 Bryson City.B 7
4 Conover.....B 2
4 Taylorsville.B 2
4 Snow Hill....J 3
3 Mt. Gilead ..E 3
3 Burgaw..... J 4
3 Benson.....H 3
3 Belhaven....L 2
3 Columbia...M 2
3 Mathews ....C 3
3 Rowland.... F 4
3 Cumberland F 3
3 Aulandcr....K 1
3 Trenton.....K 3
3 Marshall.....D 6
3 Parmele ....K 2
3 Walnutcove. D 1
3 Franklin ....C 7
3 Columbus...E 7
3 Cary.....G 2
3 Blowing Pk..A 1
3 Weaverville D 6
3 Newport.... L 4
3 Dodson.....C 1
3 Tyron.....E 7
3 Aurora.....L 3
3 Manteo.....N 2
3 JacksonvilleK 4
3 Faison.....H 3
3 Halifax.....J 1
3 Liberty.. ...E 2
3 Oriental.... L 3
2 New LondonD 3
2 Yadkinville.C 1
2 Bayboro.....L 3
2 Vanceboro..K 3
2 Lowell.....B 3
2 Seaboard ...K 1
2 Grunesland K 2
2 Granite Falls B2
2 Polkton.... D 3
2 Robertsonville K 2
2 Trinity.....E 2
2 Advance ....D 2
2 Kenansville J 4
2 Carysburg..K 1
2 Swansboro..K 4
2 Farmville...J 2
2 Kenly.....H 2
2 Tillery .....K 1
2 Oldfort.....E 6
2 Pantego ....L 2
2 Clyde.....D 6
2 Winterville K 2
2 Chadbourn..G 5
2 Woodland.. K 1
2 Lucama .... H 2
2 Rich Square K 1
2 Jefferson....A 1
2 Canton.....D 6
2 Battleboro...J 1
2 Rexobel.....K 1
2 HollyspringsG 2
2 Montezuma. F 5
2 Wallace.....J 4
2 Mebane.....F 1
2 Lilesville... E 4
2 W. Hickory B 2
2 Saluda .....E 7
2 Star..... E 3
2 Yadkin College C 1
2 Burusville...E 6

North Ha'ven, in *Maine*, a post-township of Knox co.

North Hav'erhill, in *New Hampshire*, a post-village of Grafton co., abt. 45 m. W. by N. of Concord.

North He'bron, in *New York*, a post-village of Washington co., abt. 55 m. N.N.E. of Albany.

North Hec'tor, in *New York*, a post-village of Schuyler co., abt. 22 m. W.N.W. of Ithaca.

North Heidelberg, (*hi'del-berg,*) in *Pennsylvania*, a post-township of Berks co.

North Hemp'stead, in *New York*, a village and township, the former cap. of Queen's co., about 20 m. E. of New York city.

North Hen'derson, in *Illinois*, a post-village and township of Mercer co., abt. 135 m. N.W of Springfield.

North He'ro, in *Vermont*, a post-village and township, cap. of Grand Isle co., on an island of its own name, abt. 60 m. N.W. of Montpelier.

North Hoo'sic, in *New York*, a post-village of Rensselaer co., abt. 27 m. N. of Troy.

North Hud'son, in *New York*, a post-village of Essex co., abt. 105 m. N. of Albany.

North Hunt'ingdon, in *Pennsylvania*, a township of Westmoreland co.

North Hyde Park, in *Vermont*, a post-village of Lamoille co., abt. 30 m. N. of Montpelier.

North In'dustry, in *Ohio*, a post-village of Stark co., abt. 4 m. S. of Canton.

North'ing, *n.* (*Nav.*) Distance northward from a point of departure, measnred on a meridian.

(*Astron.*) North declination of any heavenly body.

North'ington, in *N. Carolana*, a village of Cumberland co., abt. 50 m. S. of Raleigh. — A village of Harnett co., abt. 33 m. S.W. of Raleigh.

North Jay, in *Maine*, a post-village of Franklin co., abt. 12 m. S.S.W. of Farmington.

North Ken'nebunk Port, in *Maine*, a post-village of York co., abt. 80 m. S.S.W. of Augusta.

North Kil'lingly, in *Connecticut*, a village of Windham co., abt 48 m. E. by N. of Hartford.

North Kings'ton, in *Rhode Island*, a township of Washington co.

North Lan'sing, in *New York*, a post-village of Tompkins co., abt. 14 m. N. of Ithaca.

North Law'renee, in *New York*, a post-village of St. Lawrence co., abt. 35 m. E. of Ogdensburg.

North Leb'anon, in *Pennsylvania*, a village and township of Lebanon co., abt. 25 m. E. by N. of Harrisburg.

North Leominster, (*lemp'ster,*) in *Massachusetts*, a post-village of Worcester co., abt. 42 m. W.N.W. of Boston.

North Les'lie, in *Michigan*, a village of Ingham co., abt. 20 m. S.S.E. of Lansing.

North Lev'erett, in *Massachusetts*, a post-village of Franklin co., abt. 82 m. W. by N. of Boston.

North Lew'isburg, in *Ohio*, a post-village of Champaign co., abt. 15 m. N.E. of Urbanna.

North Lib'erty, in *Indiana*, a post-village of St. Joseph co., abt. 15 m. S.W. of South Bend.

North Lib'erty, in *Iowa*, a post-village of Johnson co., abt 9 m. N.W. of Iowa City.

North Lib'erty, in *Ohio*, a village of Adams co., abt. 87 m. S.S.W. of Columbus.

—A post-village of Knox co., abt. 50 m. N.E. of Columbus.

North Lim'ington, in *Maine*, a post-village of York co., nbt. 3 m. N. of Limington.

North Liv'ermore, in *Maine*, a post-village of Androscoggin co., abt. 25 m. W. by N. of Augusta.

North Lon'donderry, in *New Hampshire*, a post-village of Rockingham co., abt. 25 m. S.E. of Concord.

North Lyme, in *Connecticut*, a post-village of New London co., abt. 35 m. E by N. of New Haven.

North Mad'ison, in *Connecticut*, a post-village of New Haven co., abt. 17 m. E. by N. of New Haven.

North Mad'ison, in *Indiana*, a post-village of Jefferson co., abt. 2 m. N. of Madison City.

North Maho'ning, in *Pennsylvania*, a township of Indiana co.

North'man, *n.* One of the NORTHMEN, *q. v.*

North Man'chester, in *Indiana*, a post-village of Wabash co., abt. 105 m. N. by E. of Indianapolis.

North Manheim, (*man'hime,*) in *Pennsylvania*, a township of Schuylkill co.

North Marsh'field, in *Massachusetts*, a post-village of Plymouth co., abt. 21 m. S.E. of Boston.

North'men, or **Nor'mans,** *n. pl.* (*Hist*) A name applied to the ancient inhabitants of Scandinavia, or Norway, Sweden, and Denmark, but more generally restricted to those sea-rovers called Danes by the Saxons, who sailed on piratical expeditions to all parts of the European seas, made their first appearance on the coast of England in 787, and from the year 832 repeated their invasion almost every year, till they became masters of all the country under their king Canute (*q. v.*), and reigned in England during the next fifty years, down to 1042, when the Saxon dynasty was restored in the person of Edward the Confessor. A Danish invasion penetrated to the Meuse in 515, but was repelled. The victories of Charlemagne over the Saxons led to a league being formed between that people and the Danes; and Gottfried, king of Jutland, with his piratical bands, ravaged the French and Spanish coasts, even as far as the Straits of Gibraltar. Their great invasion of France, however, did not take place till 841, after which the whole coast of W. Europe, from the Elbe to the Guadalquivir, fell a prey to the Northmen. In 837, they had sacked Utrecht and Antwerp, and fortified themselves on the island of Walcheren, spreading themselves on the mainland. Flanders was obstinately defended; but Friesland, Lower Lorraine, and Neustria fell without resistance. Roland devastated Holland, and appeared upon the Seine, while Gottfried ravaged the valleys of the Meuse and Scheldt. Hastings, at the head of a band of Northmen, sacked Bordeaux, Lisbon, and Seville, defeated the Moorish conquerors of Spain at Cordova, overrun Italy and Sicily, and crossed the straits into Morocco. In 885, they laid siege to Paris, but were at length bought off by Charles the Fat. Rollo, one of the most renowned of the Norman chieftains, after ravaging Friesland and the countries watered by the Scheldt, accepted the hand of a daughter of Charles the Simple, and received with her, under the tie of vassalage, possession of all the land in the valley of the Seine, from the Epte and Eure to the sea, which then went by the name of Normandy. They rapidly adopted the more civilized form of life that prevailed in the Frankish kingdom — its religion, language, and manners — but inspired everything they borrowed with their own vitality. Their conquest of England, in 1066, gave that country an energetic race of kings and nobles, on the whole well fit to rule a brave, sturdy, but somewhat torpid people like the Anglo-Saxons. But though the Normans had acquired comparatively settled habits in France, the old passion for adventure was still strong in their blood; and in the course of the 11th century, many nobles, with their followers, betook themselves to S. Italy, where the strifes of the native princes, Greeks, and Arabs, opened up a fine prospect for ambitious designs. In 1059, Robert Guiscard, one of the ten sons of the Norman count, Tancred de Hanteville, all of whom had gone thither, was recognized by Pope Nicholas II. as duke of Apulia and Calabria, and in 1071 as lord of all Lower Italy. His brother and liegeman Roger conquered Sicily, 1060–1089. Roger II. of Sicily united the two dominions in 1127: but in the person of his grandson, William II., the Norman dynasty became extinct, and the kingdom passed into the hands of the Hohenstauffen family.

Fig. 1967. — NORTHMEN'S GALLEY.

North Men'don, in *New York*, a village of Monroe co.

North Mid'dleborough, in *Massachusetts*, a post-village of Plymouth co., abt. 35 m. S. by E. of Trenton.

North Mid'dleton, in *Pennsylvania*, a township of Cumberland co.

North Mid'dletown, in *Kentucky*, a post-village of Bourbon co., about 10 m. E. of Paris.

North Mon'mouth, in *Maine*, a post-village of Kennebec co, abt. 15 m. W. by S. of Augusta.

North Montpe'lier, in *Vermont*, a post-village of Washington co., abt. 6 m. N. of Montpelier.

North'most, *a.* Northernmost; situated at the point furthest north.

North Moun'tain, in *Pennsylvania*, an eminence in Columbia and Lycoming cos.—This name is also applied to the most N. ridge of the Alleghanies in Pennsylvania, as contradistinguished from *South* Mountain.

North Moun'tain, in *W. Virginia*, a post-village of Berkeley co., abt. 25 m. N.W. of Harper's Ferry.

North Mount Pleas'ant, in *Mississippi*, a post-village of Marshall co., abt. 15 m. N.W. of Holly Springs.

North Mud'dy, in *Illinois*, a township of Jasper co.

North'ness, *n.* An inclination in the end of a magnetic needle to point to the north.

North New Port'land, in *Maine*, a post-village of Somerset co., abt. 50 m. N.W. of Augusta.

North New Sa'lem, in *Massachusetts*, a post-village of Franklin co., abt. 75 m. W. by N. of Boston.

North Nor'wich, (*nor'ij,*) in *New York*, a post-village and twp. of Chenango co., abt. 45 m. S.S.W. of Utica.

North Og'den, in *Utah*, a post-village of Weber co., about 7 m. N. by E. of Ogden City.

North Or'ange, in *Massachusetts*, a post-village of Franklin co.

North Or'well, in *Pennsylvania*, a post-village of Bradford co.

North Ox'ford, in *Massachusetts*, a post-village of Worcester co.

North Par'is, in *Maine*, a post-village of Oxford co., about 55 m. N. by W. of Portland.

North Park, in *Colorado*. See COLORADO.

North Par'sonfield, in *Maine*, a post-village of York co., about 80 m. S.W. of Augusta.

North Penn, in *Pennsylvania*, a former township of Philadelphia co., now included within the chartered limits of Philadelphia, about 3½ m. N. of the City Hall.

North Pitts'ton, in *Maine*, a post-village of Kennebec co., nbout 8 m. S.S.E. of Augusta.

North Plains, in *Michigan*, a township of Iona co.

North Plymp'ton, in *Massachusetts*, a village of Plymouth co.

North Point, in *Maryland*, a promontory having on it two light-houses, on the N. side of the entrance to Patapsco river.

North Pole. See ARCTIC; ARCTIC EXPLORATIONS; ARCTIC OCEAN; ARCTIC SEA; FRANKLIN, SIR JOHN; JACKSON-HARMSWORTH EXPEDITION; NANSEN; N. W. AND N. E. PASSAGE; NORDENSKJOLD; PEARY, &c.

North Port, a village of Prince Edward co., prov. of Ontario.

North'port, in *Alabama*, a post-village of Tuscaloosa county.

North'port, in *Indiana*, a post-village of Noble co.

North'port, in *Maine*, a post-town and township of Waldo co. *Pop.* (1897) 724.

Northport, in *Michigan*, a post-village, former cap. of Leelanaw co., about 28 m. N. of Grand Traverse City.

Northport, in *New York*, a post-village of Suffolk co., abt. 40 m. E. by N. of New York city. *Pop.* (1890) 1,800.

Northport, in *Wisconsin*, a post-village of Waupaca co., about 60 m. N.W. of Oshkosh.

North Pots'dam, in *New York*. See RACKETVILLE.

North Prairie (*pra'ree*), in *Illinois*, a village of Knox co., about 56 m. N. W. by W. of Peoria.

North Prairie, in *Wisconsin*, a post-village of Waukesha co., about 31 m. S.W. of Milwaukee.

North Pres'cott, in *Massachusetts*, a post-village of Hampshire co., abt. 75 m. W. by N. of Boston.

North Prov'idence, in *Rhode Island*, a township of Providence co.

North Read'ing, in *Massachusetts*, a post-village and township of Middlesex county, about 17 miles N. of Boston.

North Reho'both, in *Massachusetts*, a post-village of Bristol co., abt. 38 m. S. by W. of Boston.

North Riv'er, rises in Windham co., Vermont, and flowing generally S. into Massachusetts, enters the Deerfield River in Franklin co.

North River, in *Alabama*, enters the Black Warrior River in Tuscaloosa co.

North River, or UPPER THREE, in *Iowa*, enters Des Moines River in Polk co.

North River, in *Massachusetts*, enters the Atlantic Ocean from Plymouth co.

North River, in *New York*, a name sometimes applied to the Hudson River, *q. v.*

North River, in *Virginia*. See CALF PASTURE RIVER. —A name sometimes applied to the upper part of the Rappahannock River, *q. v.*

North River, in *W. Virginia*, enters the Cacapon River in Hampshire co.

North River Mills, in *W. Virginia*, a post-village of Hampshire co., abt. 14 m. E. of Romney.

North Roch'ester, in *Massachusetts*, a post-village of Plymouth co., abt. 46 m. S by E. of Boston.

North Sa'lem, in *Indiana*, a post-village of Hendricks co., abt. 30 m. W.N.W. of Indianapolis.

North Salem, in *Missouri*, a post-twp. of Linn co.

North Salem, in *New York* a post-town and township of Westchester co., about 110 m. S. by E. of Albany. *Pop.* (1897) 1,920.

North Salem, in *Oregon*, a precinct of Marion county.

North Sand'wich, in *Massachusetts*, a post-village of Barnstable co., abt. 58 m. S.S.E. of Boston.

North San Ju'an, in *California*, a post-village of Nevada county, about 12 miles North-west of Nevada City.

North Scituate, (*sit'u-at,*) in *Massachusetts*, a post-village of Plymouth co., abt. 20 m. S.E. of Boston.

North Seituate, in *Rhode Island*, a post-village of Providence co., abt. 10 m. W. of Providence.

North Sea, or GERMAN OCEAN, that portion of the Atlantic Ocean extending from the Straits of Dover to the Shetland Islands, having E. Norway and Denmark, S. Hanover, the Netherlands, Belgium, and France, and W. the British Islands. *Ext.* 700 m. long, and 420 broad. It communicates with the Atlantic by the Straits of Dover and Pentland Frith, and with the Baltic by the Skager-rack, the Cattegat, the Sound, and the Great and Little Belts. It receives the waters of the Elbe, Rhine, Weser, and Scheldt, on the E., and the Thames, Ouse, Humber, Tyne, Tweed, Forth, and Tay on the W. Navigation is very difficult and dangerous, owing to the sand-banks along the English coasts, and extending N.E. from the Frith of Forth, and one N.W. from the mouth of the Elbe, besides the variety of currents, which generally show a tendency towards the N.E., owing to the prevalence of the S.W. winds. The influence of tidal currents of the Atlantic is felt in the *N. S.* so as to cause a rise of 20 feet in the estuary of the Humber. The fisheries of the *N. S.* are important, and employ many thousands of people. Lights both stationary and floating are placed along the difficult parts of the coasts for the convenience of traffic, which of late years is enormous.

North Sears'mont, in *Maine*, a post-village of Waldo co., abt. 11 m. W. of Belfast.

North Sears'port, in *Maine*, a post-village of Waldo co., abt. 8 m. N. by E. of Belfast.

North Sedg'wick, in *Maine*, a post-village of Hancock co., abt. 20 m. S.S.W. of Ellsworth.

North Sew'ickley, in *Pennsylvania*, a post-township of Beaver co.

North Shade, in *Michigan*, a post-township of Gratiot co.

North Shenan'go, in *Pennsylvania*, a post-township of Crawford co.

North Sid'ney, in *Maine*, a post-village of Kennebec co., abt. 14 m. N.N.E. of Augusta.

North Som'ers, in *Connecticut*, a village of Tolland co., abt 24 m. N.N.E. of Hartford.

North Spen'cer, in *Massachusetts*, a post-village of Worcester co., abt. 53 m. W. by S. of Boston.

North Stam'ford, in *Connecticut*, a post-village of Fairfield co., abt. 40 m. S.E. by E. of New Haven.

North Star, in *Michigan*, a post-township of Gratiot co.

North Stock'holm, in *New York*, a post-village of St. Lawrence co., abt. 8 m. N.E. of Potsdam.

North Sto'nington, in *Connecticut*, a post-township of New London co.

North Strabane, (*stra-ban',*) in *Pennsylvania*, a township of Washington co.

North Stuke'ly, a village of Shefford co., prov. of Quebec, abt. 24 m. W. of Sherbrooke.

North Sudbury, (*sud'ber-e.*) in *Massachusetts*, a post-village of Middlesex co., abt. 25 m. W. by N. of Boston.

North Swan'sea, in *Massachusetts*, a post-village of Bristol co., abt. 46 m. S. by W. of Boston.

North Tewkes'bury, in *Massachusetts*, a village of Middlesex co., abt. 25 m. N.N.W. of Boston.

North Towan'da, in *Pennsylvania*, a post-township of Bradford co.

North Tru'ro, in *Massachusetts*, a post-village of Barnstable co., abt. 60 m. S.E. of Boston.

North Two River, in *Missouri*, enters the Mississippi River from Marion co.

Northum'berland, (Dukes of.) See DUDLEY and PERCY.

Northum'berland, a marit. co. of the N.E. of England, bordering on the German Ocean, having N. a small detached portion of Durham, which separates it from Scotland; S. Durham, and W. Cumberland. *Area*, 1,871 sq. m. The surface is diversified, and the soil generally fertile. *Rivers.* Tyne, Coquet, Aine, Blyth, Wansbeck, and Till. *Prod.* Wheat, oats, barley, rye, and vegetables. Cattle are extensively reared. *Min.* Iron, lead, and coal. *Chief towns.* Newcastle-on-Tyne, Tynemouth, North Shields, and Morpeth. *Pop.* 343,025.

Northum'berland, a S. co. of prov. of Ontario, bordering on Lake Ontario; *area*, abt. 730 sq. m. *Rivers.* Trent river, and several smaller streams. *Cap.* Cobourg. *Pop.* (1897) 38,100.

Northumberland, in Canada, a co. of New Brunswick, bordering on the Gulf of St. Lawrence. *Cap.* Newcastle. *Pop.* (1891) 25,713.

Northumberland, in *New Hampshire*, a post-town and township of Coos co., about 110 m. N. of Concord. *Pop.* (1897) 1,410.

Northumberland, in *New York*, a post-township of Saratoga co. *Pop.* (1897) 1,590.

Northumberland, in *Pennsylvania*, an E. central co.; *area*, about 463 sq. m. *Rivers.* North and West Branches of the Susquehanna river, and Shamokin, Mahanoy, and Mahantango creeks. *Surface*, hilly and mountainous; *soil*, in the valleys very fertile. *Min.* Iron, limestone, and coal. *Cap.* Sunbury. *Pop.* 74,698.
—A post-borough of the above co., about 56 m. N. of Harrisburg, on the Susquehanna river. *Pop.* (1897) 3,150.

Northumberland, in *Virginia*, an E. co., bordering on Chesapeake bay; *area*, about 180 sq. m. *Rivers.* Potomac river, and some smaller streams. *Surface*, nearly level; *soil*, moderately fertile. *Cap.* Heathsville. *Pop.* (1890) 7,885.

Northumberland, a marit. co. of E. Australia, in New South Wales, having N. the river Hunter, S. the Hawkesbury, and E. the S. Pacific Ocean; *area*, 2,342 sq. m. *Surface*, mountainous. Coal is the principal product. *Chief towns.* Newcastle, Maitland, Singleton, and Morpeth. *Pop.* 14,000.

Northumberland Cape, in S. Australia; Lat. 38° 3′ S., Lon. 140° 37′ E.

Northum'berland In'let, a bay of British N. America, between Cumberland Island and Frobisher Strait; Lat. 65° N., Lon. 65° W.

Northumberland Islands, near the N.E. coast of Australia: Lat. 21° 32′ and 22° S., Lon. 149° 47′ to 150° 37′ E.

Northum'berland Strait, separates Prince Edward Island from New Brunswick and Nova Scotia, British N. America.

Northum'bria, one of the kingdoms of the English heptarchy, comprehending the cos. of Northumberland, York, Westmoreland, and the S.E. part of Scotland. It was conquered in 867 by the Danes, who were compelled to acknowledge the supreme power of Edward the Elder in 922.

Northum'brian, *n.* (*Geog.*) A native or inhabitant of the English county of Northumberland.
—*a.* Belonging or having reference to Northumberland, England, or to its inhabitants.

North U'nion, in *Pennsylvania*, a township of Fayette co.

North U'nity, in *Michigan*, a post-village of Leelenaw co., abt. 19 m. N.W. of Grand Traverse City.

North Vas salborough, in *Maine*, a post-village of Kennebec co., abt. 16 m. N.N.E. of Augusta.

North Ver'non, in *Indiana*, a city of Jennings co., on 3 R. Rs., 21 m. S.E. of Columbus.

North'ville, in *Connecticut*, a post-village of Litchfield co., abt. 18 m. N. by E. of Danbury.

Northville, in *Illinois*, a post-village and township of La Salle county, about 65 miles South south-west of Chicago.

Northville, in *Iowa*, a post-village of Greene co., abt. 12 m. N.W. of Jefferson.

Northville, in *Michigan*, a post-village of Wayne co., abt. 27 m. W.N.W. of Detroit.

Northville, in *New York*, a village of Cayuga co., abt. 20 m. S. by W. of Auburn.
—A post-village of Fulton co., abt. 55 m. N.W. of Albany.

North Wal'doborough, in *Maine*, a post-village of Lincoln co., abt. 25 m. E.S.E. of Augusta.

North'ward, *a.* Being towards or in the direction of the north.

North'ward, North'wards, *adv.* Towards the north.

North'wardly, *a.* Having a direction toward the north.
—*adv.* In a northern direction.

North Wash'ington, in *Pennsylvania*, a village of Butler co., abt. 14 m. N.E. by E. of Butler.
—A post-village of Westmoreland co., abt. 25 m. E. by N. of Pittsburg.

North Water'ford, in *Maine*, a post-village of Oxford co., abt. 15 m. W. by S. of Paris.

North Wayne, in *Maine*, a post-village of Kennebec co., abt. 10 m. W.N.W. of Augusta.

North'-west, *n.* The point in the horizon between the north and west, and equi-distant from each.
—*a.* Pertaining to the point between the north and west; being in the north-west; as, the *north-west* passage.
—Proceeding from the north-west; as, a *nort -west* wind.

North-West, in *Indiana*, a township of Orange county.

North-West, in *Ohio*, a post-township of Williams co.

North-West and North-East Pas'sages. (*Geog.*) The report of the fabulous wealth of the regions discovered by the Portuguese and Spaniards in the southern latitudes of Asia, excited the attention of the other maritime nations of Europe, and prompted them to send out expeditions to the East Indies for the purpose of obtaining a share in the lucrative traffic of which Spain had hitherto possessed the monopoly. But the latter nation having at that time the complete command of the Atlantic and Indian oceans, attempts were made to find a *North-East passage* by coasting along the N. of Europe and Asia, or a *North-West passage* by sailing N.W. across the Atlantic.—The first expedition to discover a route to Eastern Asia by coasting along the north of Europe and Asia, was dispatched from England under Sir Hugh Willoughby in 1553, and, which, after discovering Nova Zembla (*q. v.*), was laid up in winter-quarters on the coast of Lapland, where the crew were frozen to death. Other expeditions were conducted by Barroughs in 1556, and by Petty and Jackman in 1580. William Barentz made three voyages for this purpose on behalf of the Dutch government, between 1594 and 1596; and Henry Hudson, in 1608, resumed the attempt for the English. In 1609 he conducted a Dutch expedition, and in 1670 a voyage was undertaken for the same nation by Wood. Behring made an abortive attempt in 1741, and several sledge expeditions sent out by the Russian government (1820–1823) established the impossibility of opening the passage in consequence of the alternations of open sea with fields of ice.—The idea that a shorter track to India might be discovered than that around the Cape of Good Hope, was first broached by John Cabot about 1496, and in 1500 the Portuguese dispatched the first expedition sent out for the express purpose of discovering the passage, under the command of Gaspar de Cortereal. But the first success was achieved by Capt. John Davis who discovered the strait which bears his name, 1585–1588. Henry Hudson, who had previously been unsuccessful in discovering an E. passage, followed in 1610, and discovered Hudson's Strait and Bay. Baffin, a skillful navigator, who accompanied Captain Bylot on his second voyage in 1616, discovered the bay which bears his name. Elated by these discoveries, and encouraged by the reward of $100,000 promised by the English Parliament to the fortunate discoverer, in 1743 new expeditions were set on foot. In 1818 the English Admiralty took up the search, and an expedition was dispatched under Capt. Ross, when, he being unsuccessful, another sailed in the following year under Lieut. Parry, who succeeded in reaching Lon. 110° W. in Melville Sound. In 1829, Capt. Sir John Ross, after a difficult voyage, reached a point 200 m. from Point Turnagain (Lon. 103° W.) in the course of which voyage he discovered the Magnetic Pole. Other expeditions met with but indifferent success until the ill-fated expedition of Sir John Franklin in 1845. The interest created throughout Europe and the U. States by the loss of this navigator, caused the equipment of seven different expeditions in 1850, as well to clear up the mystery attending his fate, as to further the cause of science. Among the most celebrated of these were that under Capt. McClure, and the American expedition under Lieut. DeHaven, and Dr. Kane. The former sailed from Plymouth, England, in Jan. 1850, and reached Behring's Strait in August, the same year. Sailing E. the following spring, they became fixed in the ice 60 m. W. of Barrow's Strait, whence they were rescued by Sir Edward Belcher, who had been sent to their assistance in 1852. Belcher, who had reached Melville Sound by the E. passage through Lancaster Sound and Barrow's Strait, returned by the same route, and thus McClure had the honor of being the first who had penetrated the Western passage. In 1860, Dr Hayes followed the same route, and rendered valuable service to the cause of Arctic Discovery. In the meanwhile, various expeditions were sent out by the Swedes, the Germans, and the Austrians, some of them following the route between Spitzbergen and Nova Zembla, and others trying a course between the island of Spitzbergen and the E. shore of Greenland. Of these the most important was that of Nordenskjold (1872–78), who in the last-named year reached Bering Strait from Norway, and accomplished the Northeast Passage.

North-west'erly, *a.* Toward or from the north-west.

North-western Provinces, one of the grand political divisions of British India, comprising the provinces of Delhi, Agra, Allahabad, Benares, Meerut, and Rohilcund (*q. v.*); Lat. between 21° 17′ and 31° 6′ N., Lon. 73° 2′ and 84° 40′ E.; *area*, 72,000 sq. m. *Pop.* 31,000,000.

North-west'ern, *a.* Pertaining to or being in the north-west, or in a direction thereto; as the London and *North-Western* Railway.

North Wey'mouth, in *Massachusetts*, a post-village of Norfolk co., abt. 18 m. S. by W. of Boston.

North White Creek, in *New York*, a village of Washington co., abt. 36 m. N.E. of Albany.

North White'hall, in *Pennsylvania*, a post-township of Lehigh co.

North Wil'na, in *New York*, a post-village of Jefferson co., abt. 20 m. E.N.E. of Watertown.

North'-wind, *n.* The norther; the wind that blows from the north; figuratively, Boreas.

North Wind ham, in *Connecticut*, a post-village of Windham co., abt. 30 m. E. by S. of Hartford.

North Windham, in *Maine*, a post-village of Cumberland co., abt. 17 m. N.W. of Portland.

North'wood, in *Iowa*, a post-township of Worth co.

Northwood, in *New Hampshire*, a township of Rockingham co.

Northwood, in *Ohio*, a village of Logan co., abt. 64 m. N.W. of Columbus.

North Wood'stock, in *Connecticut*, a post-village of Windham co., abt. 46 m. E.N.E. of Hartford.

North Wrenth'am, in *Massachusetts*, a post-village of Norfolk co., abt. 23 m. S.W. of Boston.

North Yam Hill, in *Oregon*, a post-village of Yam Hill co., abt. 7 m. N.W. of La Fayette.

North Yar'mouth, in *Maine*, a post-township of Cumberland co.

Nor'ton, CAROLINE ELIZABETH SARAH, an English poetess, and grand-daughter of the Right Hon. R. Brinsley Sheridan (*q. v.*), was b. in 1808. From a very early age she manifested the literary talents hereditary in her family by the production of the *Dandies' Rout*, a witty brochure, with illustrations from her own designs. The *Sorrows of Rosalie* appeared shortly after her marriage in 1829, with the Hon. G. C. Norton, a union productive of unhappiness. Of her numerous subsequent works, the *Child of the Islands*, a poem (1846); the *Undying One*, a poem based on the legend of the "Wandering Jew," (1853); *Bingen on the Rhine*, and the *Lady of La Garaye* (1861), are the most important. D. (Lady Stirling Maxwell) 1877.

Nor'ton, in *Illinois*, a township of Kankakee co.—A township of Tazewell co.

Nor'ton, in *Massachusetts*, a post-vill. and twp. of Bristol co., abt. 27 m. S.W. of Boston.

Nor'ton, in *Michigan*, a township of Muskegon county.

Nor'ton, in *Ohio*, a post-village of Delaware county, about 34 miles N. of Columbus.—A township of Summit county.

Nor'ton Centre, in *Ohio*, a post-village of Summit co., abt. 120 m. N.E. of Columbus.

Nor'ton Sound, in *Alaska*, an extensive inlet of Behring Sea, between Lat. 62° and 65° N., Lon. 161° and 167° W. It has Cape Rodney on the N., Cape Romanoff on the S., and is 200 m. wide at its mouth; extending inland abt. 200 m. Discovered by Captain Cook in 1778.

Nor'tonsville, in *Virginia*, a village of Albemarle co., abt. 30 m. E. of Staunton.

Nor'tonville, in *Michigan*, a village of Ottawa co., abt. 96 m. N.W. of Lansing.

Nor'val, a village of Halton co., prov. of Ontario, abt. 27 m. W. of Toronto.

Nor'vell, in *Michigan*, a post-village of Jackson co., abt. 22 m. N.N.W. of Adrian.

Norwalk, (*nor'wok.*) in *Connecticut*, a small river flowing into Long Island Sound from Fairfield co.
—A post-town and township of Fairfield co., about 32 m. W.S.W. of New Haven. *Pop.* (1897) 18,200.

Nor'walk, in *Iowa*, a post-village of Warren co., about 12 m. S. of Des Moines.

Nor'walk, in *Ohio*, a city and township, cap. of Huron co., about 100 m. N. by E. of Columbus. *Pop.* (1897) 8,870.

Nor'way. [Norw. *Norge*; Ger. *Norwegen.*] A kingdom of N. Europe, forming the W. portion of the Great Scandinavian peninsula, and since 1905 united to the crown of Sweden. It extends, including Norwegian Lapland, between Lat. 58° and 71° N., and Lon. 5° 31′ E.; having Russian Lapland and Sweden E.; the Skager-rack S., separating it from Denmark; and the North Sea and Atlantic and Arctic oceans W. and N. Its entire length, from the Naze, its most S. promontory, to the North Cape, is upwards of 1,100 m. Its breadth varies greatly. In Norrland, near its N. extremity, it may average abt. 50 m.; but towards the S. it is as much as 250 m. The coast is extensive, and deeply indented with openings, called fiords or firths. *Area*, 124,807 sq. m. *Desc. N.* is divided into 18 provs., and presents a very uneven surface, comprising a succession of mountains and valleys; the former in general barren and uninhabited; the latter not deficient in the products of a high latitude. The line of separation between *N.* and Sweden is very clearly marked by a chain of mountains, extending above 1,000 m. from N. to S., and composed of several ridges. These form the watershed of the peninsula, and, on the side of *N.*, descend abruptly, and throw off ranges to the N. and W. The S. part of this range is called the *Norrska Fiellen*, the N. part being known as the Kiölen Mountains, and the centre as the *Dovre-Fjeld*. The highest summits are those of Skagstols Tind and Snechœtta, both above 8,000 feet.—*Rivers.* Numerous, and of difficult navigation, being either mountain torrents, or interrupted in their passage by rapids and falls. The principal are the Glommen and the Tana.—*Lakes.* Extremely numerous. The most remarkable are those of Miosen, Fœmund, and Sperdillen.—*Clim.* Not severe throughout. In the mountains the cold of winter is intense. On the sea-coast the atmosphere is softened by the W. breeze, and is often less cold, in the depth of winter, than in the interior of Germany. There is no spring, however, and the summer is both very hot and dry.—*Prod.* Flax and hemp are raised in many parts of the country, and in others barley and oats. The

pastures are pretty good, and cattle are reared and exported in numbers; but the main article of export is timber. The mountains are covered with forests of pine, ash, but in particular of fir, which grows over almost all the country. The horses are small but hardy: goats are more plentiful than sheep; swine are not abundant. —*Min.* Iron and copper of a very superior quality, besides lead, nickel, and some silver. Stone for building, and slate, are in great abundance; and the loadstone, or natural magnet, is also frequently found and exported. — *Zoöl.* In Norwegian Lapland, the reindeer forms the sole wealth, and almost the only source of the subsistence of the inhabitants. In the mountains and forests are numbers of beasts of prey, such as bears, wolves, lynxes, and foxes. Water-fowl, especially the eider-duck, are very plentiful. During the hot season, musquitoes are almost as troublesome as they are in tropical countries. — *Manuf.* The only works of industry possessed by *N.* are forges, foundries, glass-houses, potash-refineries, and saw-mills. The inhabitants of the towns import the various articles they are in want of. The fisheries are extensive, and may be considered, after timber and iron, the chief support of the export trade. The herring and cod fisheries are the principal branches. — *Inhabitants.* The Norwegians are a hardy, sober,

Fig. 1968. — NORWEGIAN COSTUMES.

honest, and hospitable people, of Teutonic origin, extremely simple in their habits, and so wedded to the customs of their forefathers, that the costume in vogue in the 16th and 17th centuries is still to be found in use in many of the remote parishes at the present day, (Fig. 1968:) at the same time, the dress of every district is different, so that the locality of a man's residence is known by the color or peculiarity of the dress he wears. With the exception of about 4,000 persons, all the Norwegians belong to the Lutheran Church. — *Principal towns.* Christiania, the cap. and Bergen.—*Govt.* Though *N.* was until 1905 united with Sweden, it differed greatly from that country in the form of its government. The constitution, proclaimed Nov. 4, 1814, is one of the most democratic in Europe. According to its terms, the whole legislative and part of the executive power of the realm is in the *Storthing* (from *stor*, great, and *thing*, court) of the realm, the representative of the sovereign people. The king has the nominal command of the land and sea forces, but can make few appointments, and, with the exception of the governor-general, is not allowed to nominate any but Norwegians to public offices under the crown. He can only remit punishment of death, and not grant a complete pardon to criminals condemned by Norwegian courts of law. The king possesses the right of veto over laws passed by the "Storthing," but only for a limited period. The royal veto may be exercised twice; but if the same bill pass three successive times, it becomes the law of the land without the assent of the sovereign. The king is forbidden to grant any titles, dignities and prerogatives, or to create an hereditary nobility. While the Norwegians had a warm affection for King Oscar, the commercial system of the joint kingdoms was disadvantageous to *N.*, and about 1890 an agitation arose in favor of a separate consular service and Minister of Foreign Affairs. As the king would not grant these, the Storthing finally passed a law creating a separate consular service, and the refusal of King Oscar to sanction this led that body on June 7, 1905, to decree a dissolution of the Union. This, after a vigorous opposition in Sweden, was consummated on October 16, by a convention of delegates from both kingdoms. A popular vote was subsequently taken in Norway on the question of establishing a kingdom or a republic, the former being carried by a large majority. Prince Charles of Denmark was offered the throne, and on his acceptance was elected Nov. 18, 1905, he taking the title of Haakon VII. and being crowned, with due ceremony, on June 22, 1906. *Army and Navy.* The total military force of the nation may be estimated at 154,000. The navy consists of 7 battleships, 5 coast-defense ships, 13 cruisers, 31 gunboats, and 39 torpedo boats, manned by about 4500 men. The naval dock yards are at Horten on the west side of Christiania-Fjord. *Pop.* 2,240,032.

Nor'way, in *Iowa*, a twp. of Winnebago co.

Nor'way, in *Maine*, a post-village and township of Oxford co., abt. 45 m. W. by S. of Augusta. *Manuf.* carriages, clothing, flour, and lumber.

Nor'way, in *Minnesota*, a township of Fillmore co.—A post-village of Goodhue co., about 16 miles E. of Faribault.

Nor'way, in *New York*, a post-village and township of Herkimer county, about 20 miles North-east of Utica.

Nor'way, in *Wisconsin*, a post-village of Racine co., abt. 80 m. E.S.E. of Madison.

Norwe'gian, *a.* (*Geog.*) Pertaining or having reference to Norway.

—*n.* (*Geog.*) A native or inhabitant of Norway.

Norwe'gian Language and Literature. The ancient Norwegian tongue was formerly the common language, with only trifling variations of dialect, of Denmark, Norway, and Sweden. With the advent of Christianity, however, about the 10th century, this language was by degrees supplanted by the modern Danish, and only found a permanent abiding-place in Iceland, where it is still spoken in its purity; and hence it is now commonly known as the *Icelandic*. Norway, in consequence of her remote situation, retains the old tongue longer than either of her sister kingdoms. The few mediæval Norwegian documents that still exist, do not exhibit any important grammatical changes until about the time of the annexation of Norway to Denmark, towards the close of the 14th century. But from this time the influence of the governing nation was such that a rapid transformation took place, and soon after the beginning of the 16th century the written language and speech of the higher classes became identical with those of Denmark. At present, the Danish is the language of the people generally; but among the peasantry, and in the more remote districts, the old Norse language is still spoken in various dialects, diverging more or less in their structure from the ancient tongue. The different Norwegian dialects have been classed in three divisions, corresponding to the natural divisions of the country: the *Nordenfjeldsk* group, comprising those spoken in the province of Drontheim and the extreme northern provinces; the *Vestenfjeldsk* group, or those spoken west of the mountains, in Bergen and the western portion of Christiansand; and the *Sondenfjeldsk* group, including those spoken in southern Norway, or to the east of the mountains. Of these three divisions, the second approaches nearest to the Icelandic, while the last-named, lying nearer to Christiania, has been most largely influenced by the Danish. All of them possess some peculiarities in common which distinguish them from the written speech. The earliest literature of the northern countries is of an antiquity vastly remote; consisting of those accounts of their gods and heroes which had been handed down from age to age by a class of poets and oral historians, educated for the purpose, and styled *Scalds* and *Sagamen*. This system of oral tradition continued till the introduction of letters with Christianity. But the Christianity which was introduced displayed so great an antipathy to the original literature, or traditional lore of the country, as being inseparably mixed with the paganism of the people, that almost every trace of it was rooted out. Fortunately, some of the grand and curious literary monuments of this period were preserved by such of the Scandinavians as had fled to Iceland from the oppression of some of their conquering monarchs, and who there maintained a greater independence of the Romish Church. There the ancient order and arts of the Scalds were preserved. Sämund Sigfusson, surnamed "Frodé," or the "Learned," who flourished in the latter half of the 11th century, wrote down all that remained of the great mythologic and heroic poems of the ancient Scalds, under the name of the *Elder, or Rhythmical Edda*. After him followed Ari Hinn Frodé, who began the chronicles of Iceland in the *Landnama Bok*; and Snarro Sturleson, the author of the *Second or Prose Edda* and the *Heimskringla*, or chronicles of the kings of Norway. These, with a great number of romantic and popular sagas, constitute the mass of the ancient Norse literature, which, escaping the annihilating hands of the Roman priests in that remote island, which remained an independent republic till 1261, astonished the learned world of Denmark and Sweden by their discovery in the middle of the 17th century. (See *Howitt's History of Northern Literature.*) During her political connection with Denmark, and as using the language of that country, Norway, though she produced a number of writers, cannot be said to have had any distinct literature of her own. The writings of her historians, poets, and men of science, properly form a part of Danish literature. Her political union with Sweden, a country possessing a different language, and the establishment of an independent government in 1814, gave an impulse to the national spirit, and with the establishment of the university of Christiania (founded in 1811), led to the development of an independent literature. For the first few years, however, as was to be expected in the case of a country which, for more than four centuries, had not possessed a government of its own, attention was chiefly directed to the discussion of subjects connected with political economy and jurisprudence, and the literature consisted chiefly of political essays, legal tracts, treatises on agriculture and manufactures, and text-books for popular instruction. As noted publicists and economical writers, are C. M. Falsen, Sverdrup, Rœder, Maribœ, Petersen, Plahan, Daa, Blom, and F. Monrad, the last of whom has recently given to the public a large work on the history of political science. Keyser and Munch have critically and philologically edited the ancient Norwegian code of laws. Schwelgaard has written commentaries upon the present jurisprudence; and among other judicial writers of eminence, are Aubert, Rœder, P. C. Lassen, Smidt, Bull, and Brandt. Besides numerous valuable statistical tables issued annually by the government, J. E. Kraft has published an able topographical and statistical description of the kingdom (6 vols. 1820–35); Tvethe issued his *Norges Statistik* in 1848; and in the department of social statistics, the treatises of Edert Sundt are well known. In physics, several Norwegians have achieved a European reputation: as Christopher Hansteen (astronomy and terrestrial magnetism); B. M. Keilhau (geology); Theodor Kjerulf (geology); Jens Esmark (geology, and the structure and formation of glaciers), J. C. Harbge (the erosion of mountains). The leading botanists have been Christen Smitt Summerfeldt, and Blytt. In zoölogy, the splendid work of Michael Sars, a Norwegian *Fauna Litoralis*, is widely known; and Halvar Rasch has also written some able treatises on the same subject. In mathematics are the names of N. H. Abel, B. Holmboe, and O. J. Broch. In medical science, Danielssen and Boeck have laid before the world important investigations on elephantiasis, and more recently (1860), Bidenkop has published a valuable treatise on the same subject. Boeck was the first to advocate inoculation in syphilitic diseases; F. Holst has by his writings contributed to the improvement of hospitals and prisons; Skjelderup has published some volumes of interest. Metaphysics have been but little cultivated, the only names of note being M. J. Monrad and C. Heiberg; but in theology there have been a number of distinguished writers: as W. A. Wexel, S. J. Stenersen, and K. P. Caspari. The history, philology, and antiquities of Norway have been studied with unflagging industry. Jacob Hall has translated the voluminous chronicles of Snarro Sturleson, and also left interesting memoirs of his own time. A. Faye has published a history of Norway; Rudolph Kayser, an account of the religion of the ancient Northmen, and a history of the Norwegian Church during the Catholic period; C. A. Lange and C. R. Unger are editing *Diplomatarium Norvegicum*; and Nicolaysen and others have illustrated the ancient remains scattered through the country. P. A. Munch is bringing out a most important national historical work, entitled "*Det Norske Folks Historie*," of which four volumes have already appeared, and come down to the end of the 14th century. The publication in 1847 of the elder Edda, by Munch, with a grammar and chrestomachy of the old language, led to the formation of the Norwegian school of philology, whose national zeal has led to many warm disputes among the Scandinavian philologists. The dialects of the Laplanders, who live under the Norwegian government, have been industriously studied by Stockfeth and Friis; and C. A. Holmböe has done good service in the cause of comparative philology, by the publication of his *Comparative Lexicon of several of the Indo-European Tongues* (Vienna, 1852), and other works. The most popular poet was Andreas Munch (1811–84), a cousin of the historian, who has produced a number of poetical and dramatic works. H. A. Wergeland (1808–45) was long the favorite poet of the Norwegians, and a complete edition of his works in 9 volumes has recently been published. The poems and dramas of H. A. Bjerregaard (1792–1842) are national in spirit, but lack originality and brilliancy. J. S. Welhaven (b. 1807) has published a great number of lyrics, and several historical dramas, founded chiefly on national subjects; and M. C. Hansen (1794–1842) produced a number of poems and romances. Among the younger poets, the best known are J. Moe, Kjerulf, Schiwe, Bentsen, Schwach, and Sivertson: and the dramatic writers, C. P. Riis, H. Ibsen, and R. Olsen. M. B. Landstad and Sophus Bugge have each edited collections of old popular ballads, and P. C. Asbjörnsen and J. Moe have collected the popular tales, which have been orally preserved by the peasantry for many generations. A literal reprint of the well-known *Fluteyjarbok* (*Codex Flatonensis*), containing all sorts of historical legends, in prose and verse, is in course of publication, with the assistance of the government. Two novelists have during the later period attracted special attention; namely, Bjornson, whose *Synnöve Solbakken*, a tale of Norwegian peasant life, met with great success; and Mrs. Amelia Collet, whose novel, *Autumndens D'ure* (1854–5), passed through several editions. In addition to the work named, Bjornson has produced a number of novels of great power and effectiveness, while Ibsen has become famous through his historical and social-satirical plays.

Norwich, (*nor'ij,*) a city of England, cap. of the co. of Norfolk, on the river Wensum, 56 m. N.E. of Cambridge, and 96 m. N.N.E. of London. It is 5 m. in circumference, and is skirted on the N. and E. by the river. Prominent among the public buildings are the castle, built about the 10th century, the cathedral in the Norman style, the Corn-Exchange, Town-hall, and St. Andrew's Hall. There is also a public library of 20 000 vols., and the library of the Norwich Literary Institution of 15,000 vols. *Manuf.* Important, principally, bandanas, bombazines, shawls, crapes, ganzes, damasks, camelets, muslins, silk, and cotton fabrics, and shoes; also iron and brass foundries, oil, corn and mustard mills, &c.

Nor'wich, in *Connecticut*, a city, semi-cap. of New London co., on the Thames River, abt. 13 m. N. of New

London; Lat. 42° 33′ N., Lon. 72° 7′ W. It is finely located, and for the most part neat and handsomely built. It is noted for the number and variety of its manufactures. Lines of railroad and steamboats connect it with the important places in the Middle and other New England States, and its trade is flourishing. *Manuf.* Cotton and woollen goods, paper, machinery, rolling mills, fire-arms, &c.

Nor'wich, in *New York*, a post-village and township, cap. of Chenango county, about 50 miles S. S.W. of Utica. *Manuf.* Iron works, carriages, &c.

Norwich, in *Ohio*, a township of Franklin county.—A township of Huron county.—A post-village of Muskingum county, about 74 miles East of Columbus.

Norwich, in *Pennsylvania*, a post-village and township of McKean county, about 190 miles North-west of Harrisburg.

Norwich, in *Vermont*, a post-village and township of Windsor county, about 43 miles S.S.E. of Montpelier. *Manuf.* Leather, carriages, &c.

Norwich Town, in *Connecticut*, a post-village of New London co., abt 2 m. N W. of Norwich.

Nor'wichville, a village of Oxford co, Upper Canada, abt 95 m. S W. of Toronto.

Nor'wood, a village of Peterborough co., Upper Canada, abt. 30 m. N N E. of Peterborough.

Norwood, in *N. Carolina*, a post-village of Stanley co., abt. 90 m. W.S.W. of Raleigh.

Norwood, in *Ohio*, a village of Putnam co., abt. 10 m. N. by W. of Kalida.

Nose, (nōz.) *n.* [A. S. *nose, næse*; D. *neus*; Ger. *nase*; It. *naso*; Sp. *nariz*; Fr. *nez*; Lat. *nasus*; Sansk. *nāsā, nāsikā*, the nose.] (*Physiol.*) The fleshy protuberance which contains the external cartilages serving to receive the sensation of smell. It is so termed in the higher vertebrate animals. The nose, anatomically considered, consists of two large cavities, called nostrils (*nares*), a right and a left, formed by the bones of the face, and separated from each other by a perpendicular flat partition called the *septum narium*. There are 14 bones which enter into the composition of the cavities of the nose; the principal of which are the nasal bones, which bound the nasal cavities in front, and are attached to the frontal bone above and to the superior maxillary on the sides. The other bones of the nose are the frontal, ethmoid, and sphenoid, which are common to the head and face; and all the bones of the face, excepting the two malar and inferior maxillary: being the two superior maxillary, two lachrymal, two inferior spongy, the vomer, and the two palatal bones. The septum of the nose is formed by the vomer, nasal lamella of the ethmoid bone, and an extensive cartilage. The nasal cavities are bounded anteriorly by the nasal bones, superiorly by the frontal bone and the cribriform plate of the ethmoid bone, and posteriorly by the body of the sphenoid. The floor is formed by the superior maxillary and palatal bones, and the outer wall by the ethmoid, the internal pterygoid plates of the sphenoid bone, the lachrymal bone, inferior spongy bone, palatal bone, and superior maxillary. Each nostril is divided by the spongy bone into chambers, termed the *superior, middle*, and *inferior meatus*. The openings into these, in addition to the anterior and posterior common openings, are as follows: In the inferior meatus, the opening from the nasal duct, concealed by a fold of mucous membrane; in the middle meatus, one from the maxillary sinus, one from the frontal sinus, and anterior ethmoidal cells; in the superior meatus, the opening from the posterior ethmoidal cells and sphenoidal sinuses, and the spheno-palatine foramen. The Eustachian tube might also be said to enter the nostrils, for its anterior aperture corresponds with the posterior part of the inferior spongy bone. The upper wall of the nose is pierced by numerous foramina, through which enter the filaments of the olfactory, or nerve of smell. The mucous membrane lining the nose is called the *Schneiderian*, or *pituitary*, and is continuous with the common integument anteriorly and with the mucous membrane of the pharynx posteriorly. It is, for the most part, well supplied with vessels, especially veins, and presents also numerous glandular follicles, whose secretion is well known. It receives the filaments of the nerves of smell and of common sensation. The nerves of smell arise from the anterior lobes of the cerebral hemispheres, and their bulbs rest on the cribriform plate of the ethmoid bone, which the branches pierce, to the number of 15 or 20, on each side, and then, running under the mucous membrane, are distributed principally to the septum and outer wall of the nose, communicating with filaments from the sympathetic cerebral ganglia. Besides smell, the nose has ordinary sensation, like other parts of the face, depending on filaments of the trifacial or fifth pair of cerebral nerves. That these two sensations are distinct is evident from those who have lost the sense of smell still retaining unimpaired susceptibility to the action of snuff and other irritants. The openings of the nose are provided with stiff curved hairs, which prevent the entrance of many particles floating in the air. The external prominent part of the nose, which gives character to the feature, is composed of several cartilages connected to the bones and to each other by strong fibrous tissue, sufficiently firm to preserve the shape of the organ, and so elastic and flexible as to permit the expansion and contraction of the nostrils in respiration. The varying expression given to the face by the movements of the nose depends on the action of its muscles attached to the cartilages, skin, and upper lip; and most of the expressions arising from these movements are disagreeable; indicating contempt, anger, fear, or pain. The motor nerves of the nasal muscles are branches of the facial or seventh pair of cerebral nerves. The arteries are derived from the ophthalmic, internal maxillary, and facial branches of the carotids. The nose is not only the organ of smelling, but serves also as the chief passage of the air into the lungs, and has a considerable influence upon the voice. The nose forms one of the characteristic features of the human face, and has been regarded by physiognomists as a faithful index of character. The nose has always been regarded as a principal element in conferring beauty on the face; but different races have differed greatly as to what form of this organ is to be regarded as the most beautiful. The ancients seem to have had an aversion to small noses; and the Romans esteemed above all the aquiline nose, which Pliny termed, by way of distinction, "royal." According to Plutarch, Cyrus had this form of nose, which thus came to be regarded as beautiful among the Persians. But the aquiline nose was only regarded as beautiful when the curve was gentle and almost imperceptible. The Greeks indeed seem, generally speaking, to have held a straight, or almost straight, line from the forehead to be the *beau ideal* with respect to this feature; and, accordingly, we find it so represented in all their best statues. The short nose is never to be found in Roman sculpture earlier than the times of Caracalla, when the art had evidently declined. In Tartary, the greatest beauties are those who have the smallest noses; and the wife of Genghis Khan is said to have been regarded as an extraordinary beauty, because she had only two holes for a nose.

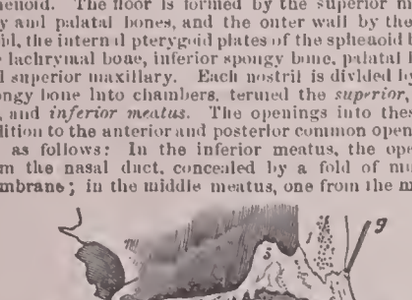

Fig. 1969. — A LONGITUDINAL SECTION OF THE NASAL FOSSÆ OF THE LEFT SIDE, THE CENTRAL SEPTUM BEING REMOVED.

1, The frontal bone; 2, the nasal bone; 3, part of the ethmoid bone; 4, the sphenoidal sinus. *a*, The superior turbinated bone; *b*, the superior meatus; *c*, middle turbinated bone; *d d*, the middle meatus; *e*, the inferior turbinated bone; *ff*, the inferior meatus; *gg*, a probe passed into the nasal duct.

—The faculty of smelling; — hence, scent; olfactory sagacity.

"We are not offended with a dog for a better *nose* than his master." — *Collier.*

—The end of anything, as of a spout or tube; a nozzle; a snout.

"The aspera arteria is the *nose* of the bellows." — *Holder.*

Nose of wax, an English colloquialism for anything pliant or ductile; — hence, a person over-accommodating or compliant.

To have one's nose on the grindstone, to be browbeaten or oppressed; to be in abject subjection to another. — *To lead by the nose*, to cause to follow blindly or obsequiously; to make abjectly docile and compliant. — *To make a bridge of one's nose*, to slight or overlook one in offering a service or civility, &c. — *To measure noses*, to meet, and make comparisons. — *To pay through the nose*, to give for a thing more than it is worth, to pay an unjust or extravagant sum for anything. — *To put one's nose out of joint*, to supplant one in the affections of another. — *To take pepper in the nose*, to grow choleric, to take offence. — *To thrust one's nose into*, to meddle officiously in; to interfere with in a meddlesome manner. — *To wipe one's nose of*, to take from; to rob.

Nose, *v. a.* To scent; to smell; hence, to look after or trace out.

"*Nose* him as you go up the stairs." — *Shaks.*

—To face; to oppose; to affront.

"A sort of national convention . . . *nosed* Parliament in the very seat of its authority." — *Burke.*

—To utter with a nasal twang; to pronounce through the nose; as, to *nose* a prayer.

—*v. n.* To carry the nose high; to carry a blustering, pompous, self-sufficient manner. — To pry into, or meddle officiously with that which does not concern one.

Nose'-bag, *n.* A bag to be suspended to a horse's nose, containing provender.

Nose'-band, *n.* That part of the head-stall of a bridle which comes over a horse's nose.

Nose'bleed, *n.* A bleeding at the nose; a nasal hemorrhage.

(*Bot.*) The Yarrow. See ACHILLEA.

Nosed, (nōzd.) *a.* Having a nose: — principally used in composition; as, pug-*nosed*, crooked-*nosed*, long-*nosed*, &c.

Nose'gay, *n.* [*nose* and *gay*.] A bunch of sweet flowers used to regale the sense of smelling: a bouquet; a posy.

Nos'el, *v. a.* To foster; to nurse; — hence, to lead or instruct; also, to nuzzle.

Nose'less, *a.* Wanting a nose; deprived of a nose.

Nose'-piece, *n.* The nozzle of a hose, tube, or pipe.

Nos'ing, *n.* (*Arch.*) The prominent edge of a moulding or drip; also the projecting moulding on the head of a step.

Nosing of steps. (*Arch.*) The projecting parts of the tread-board or cover, which stand before the riser. They are generally rounded, so as to have a semi-circular section; and, in good stair-cases, a hollow is placed under them.

Nosle, (nōz'l.) *n.* Same as NOZZLE, *q. v.*

Noso-com'ial, *a.* [Lat. *nosocomium*, from Gr. *nosos*, disease, and *komein*, to look after, to take care of.] Having reference to a hospital.

Nosog'raphy, *n.* [Gr. *nosos*, disease, and *graphein*, to describe.] The science of the description of diseases.

Nosolog'ical, *a.* [Fr. *nosologique*.] Having reference to nosology, or a systematic classification of diseases.

Nosol'ogist, *n.* One skilled in nosology; one who classifies diseases, arranges them in order, and gives them suitable names.

Nosol'ogy, *n.* A treatise concerning diseases: a medical nomenclature, in which diseases are arranged according to their classes, orders, and specialties. Many scientific systems of *N.* have been at different times framed by men of ability, in different countries. All of these systems have rested on some theory which time eventually proved faulty and objectionable. That arrangement by which all the diseases affecting the same part or structure are classed together seems the one which is the least artificial and the most practical, as by such a system the pupil has, at least, the advantage of being able to compare and contrast one disease with another.

Nostal'gia, Nostal'gy, *n.* [Fr. *nostalgie*, from Gr. *nostalgein*, to be homesick.] Home-sickness; melancholy occasioned by separation from home and friends.

(*Med.*) A disease, or, more properly, an affection which consists in an unconquerable desire which seizes on men of nervous temperament to return to their native homes, tempting them to brave every danger, and sacrifice all moral obligations, to gratify their longing to revisit their native land. The Swiss are remarkably subject to this infatuation, which is attended with melancholy, loss of appetite, and want of sleep.

Nostal'gic, *a.* Pertaining, or having reference to nostalgia.

Nostal'gy, *n.* Same as NOSTALGIA.

Nos'toc, *n.* (*Bot.*) A genus of *Algales* or sea-weeds. *N. edule* is eaten in China and Japan. *N. artium* is a valuable article of food in the Arctic regions. Other species are edible.

Nostrada'mus, MICHEL, a celebrated French astrologer and empiric of the 16th century, b. 1503, at St. Remy, in Provence. After graduating in medicine at Montpelier, in 1529, he acquired the reputation of a skilful physician by successfully arresting the progress of a pestilential disease. But he aimed at the character of an astrologer and adept in the occult sciences, and published a volume of obscure metrical rhapsodies in 1555, under the title of *Prophetical Centuries*. Though some persons regarded these with contempt, and the author as an impostor, there were not wanting persons of distinction who had faith in these prognostics; one of which bore so remarkable an allusion to the death of Henry II., that *N.* received many presents, and was appointed first physician to Charles IX., who came himself in person to Salon, where *N.* then resided, for the purpose of visiting him. D. 1556.

Nos'tril, *n.* [A. S. *nosethyrel, nosterel* — *nose*, and *thyrel, thyrl*, a hole, aperture.] (*Anat.*) One of the two elliptical passages in the nose through which air is inhaled and exhaled in respiration. See NOSE.

Nos'trum, *n.* [Lat., from *noster*, ours.] A medicine, the ingredients of which are kept secret for the object of restricting the profits arising from its sale to the inventor or proprietor; a patent medicine; hence, any quack or empirical medicine.

Not, *adv.* [A. S. *nate*: Ger. *nicht*.] A word that expresses negation, denial, or refusal.

"The question is, May I do it, or may I *not* do it?" — *Sanderson.*

Notabil'ity, *n.* State or quality of being notable; notableness.

—*a.* A notable person or thing; a person of mark or eminence.

Not'able, *a.* [Fr.; Lat. *notabilis*, from *nota*, a mark, sign, note; root *gno*, whence *noscere*, to know.] Noteworthy; remarkable; worthy of notice; memorable; distinguished or noted. — Conspicuous; evident; observable; noticeable; plain; susceptible of remark.

—*n.* A person, or thing, of note or distinction.

Not'ables, (Assem'bly of.) (*Fr. Hist.*) One of the stipulations obtained by the nobles from Louis XI. of France, by the treaty of St. Maur (Oct. 29, 1465), was, that he should call an assembly of notables, to consist of 12 prelates, 12 knights and squires, and 12 lawyers. The Guises summoned an assembly of notables at Fontainebleau, Aug. 20, 1560. L'Hôpital caused one to be assembled at Moulins in Jan. 1566. Richelieu assembled one in Paris in 1626. An assembly of notables was summoned by the advice of Calonne, to consider how the financial difficulties of the country were to be met, Jan. 29, 1787. It met Feb. 22, and was dismissed May 25. They were again convoked by the King, with the concurrence of Necker, Nov. 6.; but their resistance to innovations compelled the court to half-measures, which helped to prepare the way for the revolution.

Not'ableness, *n.* State or quality of being notable; eminence; conspicuousness; remarkableness; importance.

Not'ably, *adv.* Memorably; remarkably; eminently with show of consequence or importance.

—With bustling activity; smartly; industriously.

No'tal, *a.* [Gr. *nōtos,* the back.] Pertaining to the back; dorsal.

Notan'dum, *n.*; *pl.* NOTANDA. [Lat., from *notare,* to take notice of.] Anything to be noticed or observed; — generally used in the plural.

Nota'rial, *a.* [Fr.] Pertaining or having reference to a notary; as, *notarial* attestation. — Done, taken, or performed by a notary.

Nota'rially, *adv.* After the manner of a notary.

No'tary, *n.* [Fr. *notaire;* Lat. *notarius,* from *nota,* a mark or sign in writing, a note; *notæ,* secret characters, occult penmanship, cipher.] Among the Romans, a person employed to take notes of public law proceedings.

(*Law.*) A public functionary authorized to protest notes, &c., and attest contracts or writings of any kind, to give them the evidence of authenticity; a notary public.

No'tary-pub'lic, *n.* (*Law.*) Same as NOTARY, *q. v.*

Notate', *a.* [From Lat *notare,* to note.] (*Bot.*) Characterized by colored lines or spots.

Notation, (*-ta'shan,*) *n.* [Lat. *notatio* — *noto, notatus,* to mark, to note, from *nota,* a mark, a noter.] Act, art, or practice of taking record of anything by marks, figures, characters, symbols, &c. — Any particular system of signs and symbols.

(*Math.*) The art or method of representing abstract numerical magnitudes by means of symbols; and it comprises *scales* dependent on the symbols or figures employed. In the usually adopted scale, every number can be expressed by the ten characters — 1, 2, 3, 4, 5, 6, 7, 8, 9, 0 — of which the nine first denote the different numbers of units, ascending in value from right to left, while the figure 0 is the *radix* or scale of the series, and fixes the different values of which the various figures taken might be equal. Thus, for instance, if we take the number 12,345, it is equivalent to $5+(4\times10)+(3\times100)+(2\times1{,}000)+(1\times10{,}000)$. Adding all these, we get

	5
	40
	300
	2000
	10000
Total.....	12345

which exemplifies the rule. The Romans possessed a decimal numerical system, but not a decimal scale of notation. They first adopted the unit I as the commencement of their system, and they brought five of them together with the sign V. They then added two of these V's — equivalent to X. Five tens then made 50, or L. 100 was expressed by the letter C, the initial of the word *centum;* 500 by the letter D; and 1,000 by the letter M. It must be observed that the position of one of these signs before another one takes that amount from it, as can be seen in the number IX (9), which is 10 less the unit I. The Greeks used the letters of their alphabet as the symbols of notation, thus, $\alpha=1$, $\beta=2$, $\gamma=3$, and so on to the end, — only that they stopped with the figure 9; and the next letter, ι, was 10, $\kappa=20$, $\lambda=30$, up to 90, when the hundreds ran on. The thousands were expressed by α, β, γ, &c., only with the stroke, as α, underneath. In mathematics, occasionally other scales of notation are adopted, which differ from the usual one in consequence of the *radix* being altered, as the *binary, ternary,* &c., up to the *duodecimal* scale, which latter is of much use in calculating *artificers' work.* In conclusion, it may be stated that in respect to the advantages and disadvantages of the various scales of notation which originate by ascribing different values to the radix, it would be desirable, in point of practical convenience, to elect one wherein the number of figures expressing any numerical magnitude might be confined within limits not too widely extended, as this would tend to prevent extensive prolixity in the execution of arithmetical operations.

(*Mus.*) The method which, by means of certain characters called notes, represents the pitch, or tone and duration of the various sounds. The notation of the ancients did not at all resemble that at present in use. The Greeks employed the letters of their alphabet placed in various positions, and mutilated and compounded in various ways, producing in all over a thousand signs, thus rendering years of study necessary to obtain anything like a perfect knowledge of it. This system was rejected by the Romans, who employed 15 letters of their own alphabet to express the sounds of the disdiapason. This was afterwards improved by St. Gregory, who reduced the number of letters to 7, thus bringing it nearer the modern system. About the beginning of the 11th century, points placed upon parallel lines were introduced. These points, however, have been in their turn superseded by other characters, which not only mark the pitch, but the time of the notes. Of these, the 6 principal ones are the semibreve, the minim, the crotchet, the quaver, the semiquaver, and the demisemiquaver, each of which is differently formed; thus:

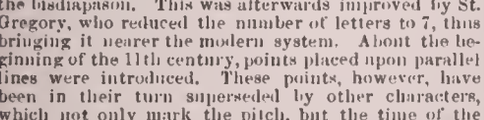

Fig. 1970.

To these may be added the half-demisemiquaver, much used, and often unnecessarily, by modern musicians. The use of varying the forms of the notes is to mark the various degrees of time. The longest is the semibreve; the next in duration is the minim, which is ½ its length; the crotchet is ¼; the quaver ⅛; the semiquaver 1-16; the demisemiquaver 1-32; and the half-demisemiquaver 1-64.

Notch, *n.* [O Eng. *nock;* Belg. *nocke,* an incision; Ger. *knicken,* to crack, break; same as *nick, niche,* q. v.] An incision; a nick; an indentation; a hollow cut in anything.

"He . . . on the stick ten equal *notches* makes."— *Swift.*

—A deep, narrow pass or defile cleft between two hills or mountains.

—*v. a.* To cut an indentation into; to cut in small hollows. — To place in a notch; to adapt to the string, as an arrow.

Notch'-board, *n.* (*Carp.*) A board notched or grooved out, to receive and support the ends of the steps of a staircase.

Notch'ing, *n.* The cutting of an excavation through the whole breadth of a surface. By this means timbers are fastened together, or their surfaces, when joined at angles, are made to coincide. — The hollow or excavation so cut.

Note, *n.* [Fr.; Lat. *nota,* from *notum,* supine of *nosco,* to know, from *gno,* root of *know,* q. v.] A mark, sign, or token; a visible symbol or indication; something by which a thing may be known. — A mark made in a book, indicating something worthy of particular notice; a short annotation or comment; a passage or explanation recorded in the margin of a book; — generally in the plural. — A minute memorandum, or short writing, intended to assist the memory.

"When found, make a *note* of."— *Dickens.*

—A billet: a short letter; a brief written communication; also, a diplomatic missive; an official paper sent from a minister of state to an envoy, or *vice versa.* — A written or printed paper, acknowledgment, or debt or money obligation, and promising payment; as, a promissory *note,* a *note* of hand, a bank-*note,* &c.

"His *note* will go further than my bond."— *Arbuthnot.*

—Notice: heed; observation; remark.

"We take no *note* of time but from its loss."— *Young.*

—Reputation; consequence; eminence; distinction; as, a person of *note.*

"The spirit of a youth that means to be of *note* begins betimes." *Shaks.*

(*Mus.*) A sound in music, or the mark or character which represents it; tune; voice. — See NOTATION.

—*pl.* Minutes or heads of a discourse or argument, or of a discourse fully written; as, to lecture from *notes.*

—*v. a.* [Lat. *noto,* from *nota.*] To carefully observe; to notice with attention; to heed; to remark; to attend to. — To set down in writing; to record; as, to *note* a protest. — To denote; to designate; to stand for or represent. (R.) — To annotate; to supply with notes, memoranda, or data.

To note a bill, draft, or other negotiable monetary paper. To write on the back thereof a retusal of acceptance, forming the basis of a protest.

Note'-book, *n.* A book in which data or memoranda are entered. — A book in which notes of hand are registered.

Not'ed, *a.* Remarkable; much known by reputation or report; eminent; illustrious; renowned; celebrated; distinguished; conspicuous; famous; notorious; as, a *noted* author, a *noted* coquette, a *noted* humbug.

Not'edly, *adv.* With notice, remark, or observation.

Not'edness, *n.* Remarkableness; conspicuousness; celebrity.

Note'less, *a.* Not attracting notice or remark; not conspicuous.

"*Noteless* as the race from which he sprung." — *Sir W. Scott.*

Note'lessness, *n.* State or condition of being obscure or noteless.

Note'let, *n.* A short note; a billet. (R.)

Not'er, *n.* One who observes, or takes notice; as, a *noter* of other people's peccadilloes. — A commentator; an annotator.

Note'worthy, *a.* Deserving observation, remark, or notice; as, a *noteworthy* example.

Not guilty, *n.* (*Law.*) A plea by way of traverse, occurring in actions *ex delicto,* and amounting to a denial only of the breach of duty, or wrongful act, alleged to have been committed by the defendant. In criminal proceedings, the plea of not guilty is proper wherever a prisoner means either to deny or to justify the charge in the indictment: as, for instance, on an indictment for murder, a man cannot plead that it was done in self-defence, but must plead not guilty, and give this special matter in evidence. By the plea of not guilty, the prisoner puts himself upon the trial by jury.

Nothing, (*nŭth'ing,*) *n.* No thing; not any thing; — correlative to *something* and *anything.*

"*Nothing* is but what is not." — *Shaks.*

—Negation of being or existence; nonentity; nihility; nothingness; state of annihilation

"We do not create the world from *nothing,* and by *nothing.*" *Bentley.*

—Not any particular thing, deed, or event; no other thing; no part, portion, quantity, or degree; something of no value, importance, relevance, or significance; a thing of no merit or consideration: a bagatelle; a trifle.

"Narcissus is the glory of his race;
For who does *nothing* with a better grace?" — *Young.*

—A symbol or character denoting nothing; a cipher, thus, 0.

To make nothing of, to consider as trifling, unimportant, or insignificant; to make no difficulty or trouble.

"We *make nothing of* suffering our souls to be slaves to our lusts." *Ray.*

—*adv.* In no manner or degree; not at all; in no wise.

Noth'ingism, *n.* Nothingness; nonentity; nihility. (R.)

Noth'ingness, *n.* Non-existence; nothingism; nihility.

—Nothing; a thing of no value or consequence.

"t. a *nothingness* in deed and name." — *Hudibras.*

Notice, (*nō'tis,*) *n.* [Fr.; Lat. *notitia,* from *nosco, notus.* See NOTE.] Observation by the eye, or the other senses; observation by the mind or intellectual power; cognizance; remark; note; heed; as, a woman is always first to take *notice* of another woman's appearance. — Information given or received; intelligence, by whatever means communicated; something said on a particular subject; intimation; premonition; as, he gave him *notice* to leave.

—A paper communicating official, authentic, or customary information; as, a written *notice.* — Attention; civility; courtesy; respectful or friendly treatment; as, he was taken much *notice* of.

(*Law.*) That notice by which a party is supposed to communicate, or to receive, the presumed or real knowledge which is necessary to affect the receiver with legal liabilities. For instance, when a party purchases or takes a transfer of a debt, he must give notice to the debtor that he has done so, and until such notice is given his title is not complete, for the debtor, if he has no notice of the transaction, may pay his debt to the original creditor, and will be discharged by his receipt. Notices which pass between landlord and tenant are familiar in practice. Of these the most important is *notice to quit,* which must be given by either party, in the ordinary case of a tenancy from year to year, six months before the termination of the current year of the tenancy. Three months is the common time under statutory regulations; and when the letting is for a shorter period, the length of notice is regulated by the time of letting.

—*v. a.* To mark; to observe by the senses: to see; to heed; to pay attention or regard to; to take note of. — To remark upon; to mention; to take public note or observations; as, another change was *noticed* in his behavior. — To treat with respectful attentions or civilities; as, to *notice* visitors.

Noticeable, (*nō'tis-a-bl,*) *a.* That may be noticed or observed: worthy of observation.

No'ticeably, *adv.* In a noticeable manner.

No'ticer, *n.* One who remarks or takes notice.

Notifica'tion, *n.* [Late Lat. *notificatio.*] Act of notifying, or giving notice; act of making known; particularly, the act of giving official information to the public, or to individuals or public bodies, by speech or proclamation, or by other means. — Notice given verbally, orally, or by signs. — The writing which conveys or imparts information; an advertisement, announcement, citation, &c.

No'tify, *v. a.* [Fr. *notifier;* Lat. *notus,* known, and *facio,* to make; It. *notificare.*] To make known; to announce; to publish; to declare; — frequently before *to;* as, he *notified* the state of the case *to* me. — To make known, as a fact; to give information or declaration of; as, we were *notified* to be at the appointed place at noon.

Notion, (*nō'shun.*) *n.* [Fr.; Lat. *notio,* from *nosco, notus,* to know.] A becoming or making one's self acquainted with a thing; conception; idea; mental apprehension of whatever may be known or imagined. — Sentiment; opinion; judgment; thought.

—Intention; idea; inclination; purpose; — used colloquially, as, he has a *notion* to do something wonderful.

—*pl.* Small wares, haberdashery; knick-knacks; toys; any small articles of dry goods, &c.; as, Yankee *notions.* (An Americanism.)

No'tional, *a.* [It. *nozionale.*] Partaking of the nature of a notion; imaginary; ideal; fanciful; fantastical; visionary; existing in idea only. — Containing or expressing notions; dealing in abstract conceptions. — Apt to indulge in romantic, absurd, or visionary anticipations; capricious; whimsical; fanciful; as, a *notional* individual.

No'tionally, *adv.* Ideally; by mental apprehension; in conception; not in reality; as, a faculty *notionally* distinct.

No'tionate, *a.* Notional. (R.)

No'tionist, *n.* One who maintains an indefensible opinion.

Notipes'kago (or MARQUETTE) **River,** in *Michigan,* rises in Newaygo co., and flowing N.W. enters Lake Michigan from Mason co.

No'to, a town of S. Italy, cap. of the prov. of Syracuse, near the river Noto, 16 m. S.W. of Syracuse; *pop.* 12,529.

Noto'ma, in *California,* a township of Sacramento co.; *pop* abt. 654.

No'to, (Val di,) an old prov. of S. Italy, in Sicily, now comprising the provinces of Catania, Caltanisetta, and Syracuse.

Notori'ety, *n.* [Fr. *notoriété.*] State of being notorious; exposure to the public notice or knowledge; as, the *notoriety* of a criminal. — The state of being generally known; publicity; public knowledge; as, to achieve *notoriety.*

Noto'rious, *a.* [L. Lat. *notorius,* from *noto, notatus,* to mark, to indicate, from *nota,* a mark. See NOTE.] Publicly known; manifest to the world; evident; conspicuous; noted; remarkable; usually, known to disadvantage; — hence, almost always employed in an ill sense; as, a *notorious* scoundrel, a *notorious* liar, a *notorious* swindle, a *notorious* crime, &c.

"The inhabitants of Naples have always been *notorious* for leading a life of laziness and pleasure."— *Addison.*

Noto'riously, *adv.* Publicly; openly; ardently; in a manner to be known or manifest; beyond doubt or denial.

Noto'riousness, *n.* Notoriety; state or condition of being notorious.

Notre Dâme Bay, (*nōt'r dām,*) an inlet of the Atlantic Ocean, on the N.E. coast of Newfoundland, between Lat. 49° 30′ and 50° N., Lon. 55° and 56° W.

Not'self, *n.* The negative of self. (R.)

Nottawasaga, (*not-ta-wa-scw'ga,*) a river of prov. of Ontario, rises in the co. of Wellington, and flowing a general N. course, enters the S.E. extremity of Georgian Bay, generally known as Nottawasaga Bay.

Not'tawa, in *Michigan,* a post-township of St. Joseph co. *Pop.* (1897) 2,015.

Not'taway Creek, in *Michigan,* enters the St. Joseph River in St. Joseph co.

Not'tingham, a central co. of England, having N. the cos. of York and Lincoln; E. Lincoln and Leicester; S. Leicester; W. Derby; *area,* 822 sq. m. The surface is undulating, the soil generally fertile, and the climate dry and healthy. *Rivers.* Trent, Idle, Mann, and Erewash. *Prod.* Wheat, barley, oats, and vegetables. Numerous cattle are reared. *Min.* Coal, limestone, and gypsum. *Manuf.* Lace, silk and cotton stockings, thread, and sailcloth. *Chief towns.* Nottingham (the cap.), Newark, and East Retford.

NOTTINGHAM, cap. of the above co., on the Leen, near its junction with the Trent, 14 m. S.E. of Derby, and 128 m. N.N.W. of London. The principal public buildings are the castle, the county-hall, the corn-exchange, the town-hall, St Mary's and St. Barnabas churches. *Manuf.* Lace, bobbin-net, and hosiery, also, flax-mills, dye-works, wire-works, breweries, &c. *Pop.* (1897) 235,450.

Not'tingham, in *Kansas,* a former post-village of Marshall co., about 16 m. S. of Marysville.

Nottingham, in *Indiana,* a post-township of Wells co.

Nottingham, in *Maryland,* a post-village of Prince George co., abt. 23 m. S.E. of Washington, D.C.

Nottingham, in *New Hampshire,* a post-township of Rockingham co.

Nottingham, in *Ohio,* a township of Harrison county.

Nottingham, in *Pennsylvania,* a township of Washington co.

Nottingham Square, in *New Jersey,* a village of Mercer co., abt. 6 m. E. of Trenton.

Not'ting-hill, a district of London, co. of Middlesex, Eng., 5 m. from St. Paul's Cathedral.

Not'toway, in *Virginia,* a S. by E. central co.; *area,* abt. 330 sq. m. *Rivers.* Nottoway River, and several less important streams. *Surface,* diversified; *soil,* moderately fertile. *Cap.* Nottoway Court-House.

Nottoway Court-House, in *Virginia,* a post-vill., cap. of Nottoway county about 60 miles South-west of Richmond.

Nottoway River, rises in Nottoway co., Virginia, and flowing an E. and S.E. course into N. Carolina, joins the Meherrin River in Gates co., to form the Chowan River; *length,* abt. 110 m.

Notts'ville, in *Kentucky,* a village of Daviess co., abt. 13 m. E. of Owensborough.

Nottur'no, *n.* [It. *notturnal.*] (*Mus.*) A term originally synonymous with *serenade;* but applied at present to a piece of music in which the emotions, chiefly of love and tenderness, are developed. The *N.* is a favorite movement with modern pianoforte composers.

Nottu'roë, an island of Norway, in Christiania Fiord, immediately S. of Tonsberg; *ext.,* 7 m. long, and 3 m. broad; *pop* 3,500.

No tus, *n.* [Lat.: Gr *Notos.*] The south wind.

Not'wheat, *n.* Unbearded wheat.

Notwithstand'ing, *conj.* [*Not,* and *withstand.*] Not opposed to; not obstructing: however; nevertheless.

"He hath . . . a hand open as day for melting charity;
Yet, *notwithstanding,* being incens'd, he 's flint."—*Shaks.*

—*prep.* Without prevention or impediment from; in spite of; for all that.

Nougat, (*nōō'ga,*) *n.* A French cake made of almonds and honey.

Nought, *n.* Same as NAUGHT, *q. v.*

Non'menon, *n.* [Gr.] (*Metaph.*) A word opposed to *phenomenon,* and applied by Kant to an object taken in itself, without relation to us.

Noun, *n.* [Norm *nom,* from Lat. *nomen,* a name] (*Gram.*) The name of one of the parts of speech into which grammarians have distributed the words of a language. A noun is the name of a thing, or, more accurately, the name of a notion or conception, whether general or particular. As we may have conceptions of substance or of attribute, nouns are either *substantive* or *adjective.* Again, as we have particular conceptions, or conceptions of individuals, and general conceptions, or conceptions of classes of individuals, nouns are either *proper* or *common.* In order to express unity or plurality of conception (number), the terminations of nouns undergo certain modifications of form; as *book, books, liber, libri.* In most languages there are two numbers, the singular and the plural, the former expressing one, the latter more than one; but in some languages, as in Greek, there is an intermediate number, — the *dual,* used to express the conception of two objects. To express the relations of conceptions to each other, most languages make use of an inflection of the primitive form of the noun, called *case;* but the English language makes use of prepositions or juxtaposition. The number of cases of nouns varies in different languages, but it is rarely more than six.

Nou'reddin, MALEK-AL-ADEL NOUR-ED-DEEN MAHMOUD, sultan of Syria and Egypt, son of Emadeldin, sultan of Aleppo, b. 1118. He succeeded his father in 1145, and continued the war with the Christians; his success in which, and especially his complete conquest of Edessa, gave occasion to the second crusade, preached by St. Bernard, and led by Louis VII. and the Emperor Conrad III. *N.* compelled the crusaders to raise the siege of Damascus. Their own want of discipline was fatal to success, and in 1149 they retired. The sultan immediately attacked and defeated Raimond, prince of Antioch, who fell in the battle. The next year he unsuccessfully besieged Tell-basher, a dependency of Edessa held by Josceline de Courtenay; but he soon after captured Josceline, and made himself master of Edessa. In 1154 he added Damascus to his dominions, and made the city his capital. The war continued, and in 1159, *N.* was defeated by the Christians near the lake of Genuesareth, and was menaced by the Greek Emperor Manuel Comnenus. By giving up to Manuel all the Christian captives, 6,000 in number, he induced him to relinquish his enterprise. And soon after one of his generals detented and made prisoner the famous Renaud de Chatillon, who was kept in captivity at Antioch for sixteen years. *N.* being called in to support one of the rival claimants to the caliphate of Egypt, effected the conquest of it, and made it his own. The great Saladin was governor, but was ambitious of being an independent sovereign, and refused to obey the orders of *N.* The latter was preparing to pass into Egypt, when he was attacked with the quinsy, and D. 1173. Friends and foes have agreed in the praises of this great ruler. Among the Moslems he is revered as hero and saint.

Nourish, (*nŭr'ish,*) *v. a.* [Fr. *nourrir,* from Lat *nutrio,* to suckle, nourish. See NUTRITION.] To suckle, feed, foster, or rear; to feed and cause to grow; to supply with nutriment; to support; to maintain by feeding. — To furnish the means of support and increase to; to encourage.

"We *nourish* 'gainst our senate the cockle of rebellion."—*Shaks.*

—To cherish; to nurture; to comfort. — To train: to educate; to instruct; to promote the growth of, by care and preservation.

—*v. n.* To foster or promote growth. — To derive or obtain nourishment. (R.)

Nourishable, (*nŭr'ish-a-bl,*) *a.* Susceptible of nourishment.

Nour'isher, *n.* The person who, or thing which, nourishes.

Nour'ishing, *p. a.* Nutritive; nutritious; fostering growth: as, a *nourishing* diet.

Nour'ishingly, *adv.* Nutritively; fosteringly.

Nourishment, (*nŭr'ish-ment,*) *n.* Nutrition; act of nourishing, or the state of being nourished; sustentation. — That which nourishes, or serves to promote the growth of animals or plants, or to repair the waste of animal matter; food; sustenance; nutriment; — also, instruction; encouragement, or that which supports growth in attainments, especially in a spiritual sense; as, "the *nourishment* of souls." — *Hooker.*

Nourjehan, or NOUR-DJIHAN, (*noor-ji-han',*) the wife of JEHANGHIR, *q. v.*

Nous, (*nows.*) *n.* Wit; shrewdness; smartness; gumption; — used in a humorous or vulgar sense. (Colloq.)

Novac'ulite, *n.* [From Lat. *novacula,* a sharp, cutting instrument] (*Min.*) A stone of which hones are made for sharpening razors. It is of a slaty structure, and owes its quality of giving an edge to the metal to the fine silicious particles which it contains.

Novalis, the pseudonym of Frederick von Hardenberg, a celebrated German writer, b. at Mansfield, 1772. He was the son of Baron von Hardenberg, and was sent in 1790 to the university of Jena; after which he passed to that of Leipsic, in 1792. About the year 1797 he published his *Hymns to Night;* and between that time and the year 1801, when his premature death took place, he produced a number of works displaying a boundless imagination and a love of the mystical and supernatural such as is not to be equalled in any other writer. In 1800 he gave to the world his wild and grotesque romance entitled *Heinrich von Ofterdingen.* A complete collection of his writings was made by his friends Tieck and Frederick Schlegel.

Nova'ra, a city of N. Italy, prov. of Novara, 52 m. N.E. of Turin, and 27 S.W. of Milan. *Manuf.* Silks linens, hats, and leather. In 1849 the Sardinians were defeated by the Austrians near *N. Pop.* 14,395.

No'va Scotia, (*sko'she-a,*) a British prov. of N. America, forming actually a part of the dominion of Canada. It consists of an oblong-shaped peninsula, between Lat 43° and 46° N., Lon. 61° and 67° W.; connected with New Brunswick by a low sandy isthmus, only 14 m. across, and separated from Cape Breton by the narrow strait called the Gut of Canso. It is about 370 m. in length, and 110 m. in width. *Area,* 18,660 sq. m., about 1-5th part of which consists of lakes, rivers, and salt water inlets. The coast-line is extremely irregular, forming numerous capes and bays. Capes George and Canso are the chief promontories on the N.E. side, and at the S. extremity is Cape Sable. The basin of Minas is a deep inlet on the N.W. side of the peninsula, forming a part of the Bay of Fundy, which separates Nova Scotia from New Brunswick. St. Mary's and Argyle Bays are on its S.W. side; Picton, Antigonish, and Chedabucto Bays form the chief irregularities on the N. coast; and the E. coast, from Cape Canso to Cape Sable, is indented with almost innumerable small bays, harbors, and rivers. Rocks and islands fringe its shores, and the aspect of the entire Atlantic coast is exceedingly picturesque. Deep water is found almost without exception, close to the rocks and islands; and the peninsula presents towards the Bay of Fundy bold and almost precipitous cliffs. The interior is intersected in almost every direction by streams, rivers, and lakes; but with the exception of Annapolis River and Lake Rossignol, connected with the sea by the Liverpool R. most of them are of very inferior size. The peninsula has no elevations deserving the name of mountains; its highest range is the Cobequids on the northern side of the peninsula, not rising more than 1190 ft. above the sea. The north and south mountains enclose the Annapolis Valley. The climate is temperate and salubrious, though changeable. The summer is hot, and the winter long and very severe. The soil along the coast is rocky and barren, but in the interior fertile. *Prod.* Wheat, rye, oats, potatoes and turnips. Numerous cattle and hogs are reared. *Min.* Coal, iron, gypsum, and stones suitable for grindstone, known as "Nova Scotia blue grits." *Manuf.* Coarse woollen cloth, carpets, and ropes; also, numerous mills, tanneries, distilleries, and breweries. *Exp.* Fish and fish-oil, timber, lumber, and coal. *Imp.* Corn, flour, British manufactures, and colonial produce. A considerable trade is carried on between the United States and *N. S.* In coal, fish, tobacco, and various manufactured goods. This country was discovered by Cabot, in the year 1497, and under the name of *Acadia* was subsequently settled by the French. In 1758 it finally came into the possession of the British. *Chief towns.* Halifax, Yarmouth, Picton, Sydney, Liverpool, and Lunenburg. *Pop.,* according to the last census (1891), 450,492.

No'va Sco'tia, in *Michigan,* a village of Ingham co., abt 20 m. S. of Lansing.

Nova'tianism, *n.* The doctrinal theory held by the Novatians.

Novatians, *n.* (*Eccl. Hist.*) The followers of Novatianus, a presbyter of Rome, who founded a sect in the third century, which continued to flourish to the end of the fifth. Novatian denied readmission into the church to all who, in time of persecution, or on other accounts, had once lapsed from the faith. In this extreme severity he was opposed by the greater number of the clergy of Rome, and especially by Cornelius, upon whose election to the see Novatian, who was a disappointed candidate, withdrew from his communion, and established a society of which he became himself the first bishop. This sect was also known by the title of *Cathari,* or Puritans, which they assumed to express their high sense of the excellence necessary to Christians.

Nova'tion, *n.* [Fr., from Lat. *novare,* to make new.] (*Law*) A new debt substituted in lieu of an old one.

Novator, *n.* [Lat.] Same as INNOVATOR, *q. v.*

No'va Zem'bla, a group of islands in the Arctic Ocean, belonging to Russia, govt. of Archangel, from which they are separated by the Straits of Waigatz; Lat between 70° 30′ and 76° 30′ N., Lon 52° and 56° E. Length of group 470 m.; average breadth 56 m. They take their name from the most S.: the principal of the others are Mathew's Land and Lütke's Land. They are barren and uninhabited except occasionally by fishermen and hunters.

Novel, *a.* [Lat. *novellus,* dim of *novus,* new, young; Gr. *neos.*] New; of recent origin or introduction: not ancient; — hence, unusual; strange; of a kind calculated to attract attention or to excite wonder.

"The Presbyterians are exactors of submission to their *novel* injunctions."—*King Charles I.*

—*n.* That which is new or strange; a novelty. (R.)

—A fictitious tale or narrative in prose, intended to depict the operation of the passions; a word-picture of human actions; as, the Waverley *Novels.*

(*Lit.*) A species of fictitious narrative somewhat different from a romance: yet it would be difficult to assign the exact distinction, and, in the French language, the same name (roman) is used for both; while it differs from a tale merely in the circumstance that a certain degree of length is necessary to constitute a novel. Although, in fact, the terms *novel* and *romance* are often used indifferently, yet they have often been treated as distinct classes of composition in English literature. It may perhaps be said, that the proper object of a novel is the delineation of social manners, or the development of a story founded on the incidents of ordinary life, or both together. On this hypothesis, we must exclude from the class of novels, on the one hand, tales of which the incidents are not merely improbable (for this may be the case in a novel), but occurring out of the common course of life, and such as are founded on imaginary times and imaginary manners, tales of supernatural incidents, chivalrous romances, &c.; and, on the other hand, fictitious narratives, in which the author's principal object is neither the story nor the costume, but which are obviously written with an ulterior view. Thus, political, philosophical, and satirical fictions are clearly not to be ranked as novels. But it is obvious that no definition can be drawn which shall, on this subject, entirely satisfy the caprices of popular language.

Novel'da, a town of Spain, prov. of Alicante, 13 m. W. of Alicante. *Manuf* Lace. *Pop* 9,000.

Novelette', *n.* [Fr.] A small novel; a short sketch or tale.

Novelist, *n.* [Fr. *nouvelliste.*] A writer of a novel or novels; a fictionist.

Novelize, *v. a.* To represent in the form of novels or prose fiction.

"The desperate attempt to *novelize* history."—*Sir J. Herschel.*

Novels, *n. pl.* [Lat. *novellæ.*] (*Roman Law.*) The name given to those constitutions of the civil law which were made after the completion of the 2d edition of the Justinian code (*Code repetitæ prælectionis*), for the purpose of supplying what was deficient in that work. See JUSTINIAN I.

(*Law*) A supplementary constitution to an established code.

Novelty, *n.* [Fr. *nouveauté.*] Newness; recentness of origin or introduction; state or quality of being novel. — A new, strange, or novel thing; something fresh or uncommon.

Novem'ber, *n.* [Lat., from *novem,* the ninth month,

according to the ancient Roman year.] The eleventh month of the year, containing thirty days.

Nov'enary, *a.* [Fr. *novenuire :* Lat. *novenarius*, from *novem*, nine.] Belonging or relating to the number nine. —*n.* The number nine; nine collectively.

"Climacterical years; that is, septenaries and *novenaries*." *Browne.*

Novene', *a.* [L. Lat. *novenus*, from *novem*, nine.] Novenary; pertaining or having reference to the number nine.

Noven'nial, *a.* [Lat. *novennis*, from *novem*, nine, and *annus*, year.] Happening every ninth year; done every ninth year.

Noven'siles, *n. pl.* [Lat., from *novem*, nine, or *novus*, new.] (*Myth.*) The name of certain Latin gods, who, according to the double etymology, have been taken for the nine Muses, or, with more reason, for gods newly introduced (as after the conquest of a place), in contrast with the *di indigetes*, or old gods of the country.

Nover'cal, *a.* [Lat. *novercalis*, from *noverca*, a stepmother.] Pertaining or having reference to a stepmother; in the manner of a stepmother; befitting a stepmother.

Nov'gorod, a govt. of European Russia, between Lat. 57° and 61° N., Lon. 30° and 40° E., having N. Petersburg and Olonetz, E. Vologda, S. Jaroslav, Tver, and Pskof, and W. Pskof and Petersburg; *area*, 47,033 sq. m. The surface is low and level, except towards the S.W., which is elevated. The soil is moderately fertile, but the climate is severe. *Rivers.* Volkhof, Msta, Chexna, Mologda, and Lovat. *Lakes.* Bielo-Osero, Voje, and Ilmen. *Prod.* Rye, oats, barley, hemp, and flax. *Manuf.* Glass, leather, woollen cloth, &c *Chief towns.* Novgorod (the cap.), Tikhvine, and Vaibki. *Pop.* 1,006,293.

NOVGOROD, (called *Veliki*, or "the Great,") cap. of the above govt., and formerly the most important of the empire, on the Volkhof, 100 m. S.S.E. of St. Petersburg, and 305 N.W. of Moscow. It was formerly so populous and flourishing as to become a proverb, but rapidly decayed after the building of St. Petersburg. *Pop.* 18,768.

Nov'gorod-Severskoie, or **Nov'gorod-Sieverskoi,** (*-su-ver-sko'ya,*) a town of Russia, govt of Tchernigov, on the Desna, 109 m. E.N.E. of Tchernigov; *pop.* 8,000.

No'vi, a town of N. Italy, in Piedmont, prov. of Genoa, 14 m. S.E. of Alessandria; Lat. 43° 47′ N., Lon. 8° 40′ E. *Manuf.* Silks. It is an entrepôt for goods passing between Italy and Germany. *N.* was the scene of a sanguinary battle, 1799, between the Russians and Austrians under Suwarrow, and the French under Joubert, in which the latter was killed, and the French were terribly beaten

No'vi, in *Michigan*, a post-village and township of Oakland co., about 25 m. N.W. of Detroit, on the Flint and Père Marquette R. R.

No'vi-Bazar', a town of European Turkey, in Bosnia, on the Bachka, 130 m. S.E. of Bosna-Serai; *pop.* 8,000.

Novice, (*nŏv'is,*) *n.* [Fr.: Lat. *novitius*, from *novus*, new.] One who is new in any business; one unacquainted or unskilled; one in the rudiments; a freshman; a beginner: a tyro.—One newly planted in the Church, or one newly converted to the Christian faith.

(*Eccl.*) A person of either sex who is living in a monastery, in a state of probation, previous to becoming a professed member of an order. The time of probation is called the *noritiate*, and must be at least one year; after which, if their behavior is approved, they are professed: that is, admitted into the order, and allowed to make the vows, &c. During their novitiate, the candidates are bound to conform to the discipline of the house; but they are under no permanent vows, and may leave if they find that the monastic life does not suit them. They are under the direction of a master or mistress of novices, whose duty it is to examine their characters and fitness for the religious state, and to try their strength, by exposing them to the most serious obstacles to perseverance which they are likely to encounter in the order.

Nov'iceship, n. State or condition of being a novice; novitiate.

Novilu'nar, *a.* [Lat. *novus*, new, and *luna*, moon.] Belonging or having reference to the moon.

Novita, (*no-vee'ta,*) a town of the United States of Colombia, abt. 130 m. S.W. of Antioquia: *pop.* 2,500.

Novitiate, (*no-vish'i-ŭt.*) *n* [Fr. *noviciat*; L. Lat. *noritiatus.*] State or time of being a novice, or of learning rudiments; a year or other time of probation for the trial of a novice —A novice; one who is going through a period of probation.

Novo-Tcherkask, (*-cher-gask',*) a town of Russia, cap. of the country of the Don Cossacks, on the Don, 24 m. E S E. of Yekaterinoslav; *pop.* 17,800.

Now, *adv.* [O Sax., A. S., Belg., Swed., Dan., and Goth. *nu*; O Ger. *nuwa*; Lat. *nunc*; Ger. *nūn*; Gr. *nuni*, now; Heb *na*, with imperatives of entreaty, now, I pray thee] At the present time; at this time or moment; at the time contemporaneous with something mentioned or contemplated.

"*Now* 's the day, and *now* 's the hour." — *Burns.*

—*conj.* Things being so; under present circumstances; — used inferentially.

"*Now* glowed the firmament with living sapphires." — *Milton.*

Now and now, again and again; by repetition; often; frequent. — *Now and then*, occasionally; at one time and another; at intervals.

"He will have opportunities every *now and then* to exercise his forgiving temper." — *Atterbury.*

Now . . . now, rendered alternatively; at one time . . . at another time.

"*Now* high, *now* low; *now* master up, *now* miss." — *Pope.*

—*n.* The present time or moment.

Now'adays, *adv.* In these days; in this age; at the present period of time.

Nowagurh', a rajahship of Hindostan, between Lat. 20° 20′ N., Lon. 82° E. *Area*, 1,512 sq. m. *Pop.* 70,000.

No'wanng'ger, a town of Hindostan, prov. of Guzerat, 310 m. from Bombay. It has an active trade.

No'way, No'ways, *adv.* [*No* and *way.*] Nowise; in no manner or degree; not at all.

Nowed, (*nōo'ed,*) *a.* [Fr. *noué*, from Lat. *nodare* — *nodus*, knot.] (*Her.*) Knotted.

Now'el, n. (*Metall.*) The core of a mould for casting large cylinders.

Nowhere, (*nō'hwār,*) *adv.* [*No* and *where.*] Not in any place or state; not anywhere.

No'whither, *adv.* [*No* and *whither.*] Not anywhither; nowhere.

"Thy servant went *nowhither*." — 2 *Kings* v. 25.

No'wise, *adv.* Noways; not in any manner or degree.

Now'y, *a.* (*Her.*) Applied to a line of partition. See Fig. 1591.

Noxious, (*nŏk'shus,*) *a.* [Lat. *noxius*, from *noxa*, hurt, harm, injury, from *nocco*, to hurt, harm, or injure. See NOISOME.] Hurtful; harmful: injurious; pernicious; baneful: destructive; unwholesome; insalubrious; corrupting to morals.

"Kill *noxious* creatures, where 'tis sin to save." — *Dryden.*

—Guilty: criminal; as "*noxious* in the eye of the law." — *Bramhall.*

Noxiously, (*nok'shus-ly,*) *adv.* Hurtfully; injuriously; perniciously.

Noxiousness, (*nŏk'shus-nes,*) *n.* State, condition, or quality of being noxious; hurtfulness; the quality which causes harm, injury, or destruction; insalubrity; the quality that corrupts or perverts.

Noxubee', in *Mississippi*, an E. co., adjoining Alabama: *area*, abt. 720 sq. m. *Rivers.* Noxubee River, and some smaller streams. *Surface*, mostly level; *soil*, very fertile. *Cap.* Macon.

Noxubee River, rises in Choctaw co., Mississippi, and flowing S.E into Alabama, enters the Tombigbee River from Sumter co. It is also called RUNAWAY CREEK.

Noyades, (*nwä'a-dēēz,*) *n. pl.* (*Fr. Hist.*) The name given to a peculiar punishment resorted to by the infamous Carrier in the first French revolution. The *noyades* were effected by drawing out a plug inserted in the bottom of a boat in which the wretched victims were launched. See CARRIER.

Noyau, Noyeau, (*nou'yo.*) [Fr., from Lat. *nux*, *nucis*, nut.] (*Drinks.*) A delicate and aromatic French liqueur made with white brandy, the kernels of peaches, and sweet and bitter almonds, and then sweetened with lump-sugar. The finest noyeau, both in strength and flavor, is made in the island of Martinique. This agreeable cordial forms a good vehicle for many unpleasant medicines, and is very useful to sweeten and flavor draughts and mixtures; and for culinary purposes, to give flavor to farinaceous foods, custards, &c.; and for the invalid, it is invaluable. It is, however, unsafe to take it in any quantity as a mere cordial, from the amount of prussic acid contained in the kernels used in its manufacture.

Noyls, *n. pl.* Short filaments of woollen yarn.

Noyon', a town of France, dept. of Oise, on the Vorse, 42 m. E.N.E. of Beauvais; Lat. 29° 35′ N., Lon. 31° 0′ E. *Pop.* 6,348.

No'yo River, in *California*, flows N.W. into the Pacific Ocean from Mendocino co.— A village of Mendocino co., ab. 50 m. N.W of Ukiah.

Noz'zle, Noz'le, Nos'le, *n.* [From *nose.*] The projecting extremity of anything; the nose; the snout; as, the *nozzle* of a hose-pipe.

—*pl.* (*Mach.*) Those portions of a steam-engine in which are placed the valves that open and close the communication between the cylinder and the boiler and condenser, in low-pressure or condensive engines; and between the cylinder and boiler and atmosphere, in high-pressure or non-condensing engines.

N. S. Abbreviation of *new style.*

Nub, *v. a.* To beckon: — used as an English localism. —*n.* A knob; a boss; a protuberance: —used colloquially

Nub'bin, n. An Americanism for a half-grown ear of Indian corn.

Nubec'ula, n.; *pl.* NUBECULÆ, [dim. of Lat. *nubes*, cloud.] (*Astron.*) A nebula. —*pl.* Specifically, the Magellanic clouds.

(*Med.*) A speck on the cornea; also, a cloudy or ropy appearance in urine.

(*Physiol.*) A granule from which all mineral and vegetable bodies are presumed to be formed; — called *mesoblast* by Professor Agassiz.

Nu'elform, *a.* [Lat. *nux*, *nucis*, nut, and *forma*, form.] Having the form or shape of a nut; resembling a nut.

Nu'cleal, Nu'clear, *a.* Belonging to a nucleus.

Nu'cleate, *a.* Possessing a nucleus.

—*v. a.* [Lat. *nucleare.*] To collect, as about a nucleus, focus, or centre.

Nucle'iform, *a.* [Lat. *nucleus*, and *forma*, form.] Kernel-shaped.

Nu'cleolated, *a.* Having a nucleolus.

Nu'cleole, Nu'cleolus, *n.* [Dimin. of *nucleus.*] (*Physiol.*) A cell containing a single granule; — called also *entoblast.*

Nu'cleus, *n.*; Eng. *pl.* NUCLEUSES: Lat. *pl.* NUCLEI. [Lat., from *nux*, *nucis*, a nut, a kernel. See NUT.] The kernel of a nut. (See below, § *Bot.*) — Hence, the central part of any body, or that about which matter is collected; the central portion which attracts accretion; the material portion of anything; — employed both in a literal and figurative sense.

(*Bot.*) The central fleshy pulpy mass of an ovule; or that part of a seed which is contained within the testa, and consists of either the embryo and albumen, or of the embryo only. In lichens, this word is applied to the disc of the shield which contains the spornles and their cases.

(*Crystallog.*) The solid centre about which the particles of a crystal are aggregated.

(*Astron.*) The solid part or body of a comet, as distinguished from its nebulosity.

Nu'bia, an extensive tract of E. Africa, having N. Egypt, E. the Red Sea, S. Abyssinia, and W. the desert of Libya; Lat. between 13° and 24° N., Lon. 33° and 36° E.; *area*, estimated at 360,000 sq m. It is divided into Lower Nubia, or Nubia Proper, and Upper Nubia. *Desc.* The surface of Lower *N.* is generally a sandy and rocky desert, except along the valley of the Nile, which is rendered productive by artificial irrigation, effected by *sakkeas*, or Persian water-wheels. In Upper *N.* the country is more elevated, and watered by several streams. *Rivers* The Nile (Blue and White). *Climate.* Though intensely hot, it is not unhealthy: the higher districts are subject to violent tropical rains, and the deserts on the E. and W. of the Nile to violent storms of winds. (*Zoöl.*) Lions, tigers, crocodiles, and the hippopotamus are frequently seen, and wild dogs and foxes are numerous The giraffe, and antelopes of three kinds frequent the mountains and the banks of the White Nile. But the scourge of the country is the locusts, which, at times, settle in clouds upon the land, and destroy all vegetation. *Inhab.* They are generally well made, strong and muscular, and their character and disposition are more susceptible of improvement than most of the African tribes. The women are generally well formed, modest, and reserved in their manners, and remarkable for conjugal fidelity. (*see* Fig 46.) As girls they wear nothing but a little apron of leathern thongs called a *râbat.* This apron is about 9 inches or a foot in width, and perhaps 6 or 7 in. depth, and in general appearance resembles that of the Kaffir girl. When the girls marry, they retain the apron, but wear over it a loose garment, which passes over one shoulder, and hangs as low as the knee. The hair is dressed in a way that recalls the ancient Egyptian woman to the traveller. It is jetty black, and tolerably long, and is twisted with hundreds of small and straight tresses, generally finished off at the tips with little knobs of yellow clay, which look at a distance as if they were lumps of gold. Amulets of different kinds are woven into the locks, and the whole is so saturated with castor-oil that an experienced traveller who wishes to talk to a Nubian woman takes care to secure the windward side, and not to approach nearer than is absolutely needful. As a rule, the Nubian women are not so dark as the men, but approach nearly to a copper tint. "Two beautiful young Nubian women," says Lady Duff Gordon, (*Letters from Egypt.*) "visited me in my boat, with hair in the little plaits finished off with lumps of yellow clay, burnished like golden tags, soft deep bronze skins, and lips and eyes fit for Iris and Athor. Their very dress and ornaments were the same as those represented in the tombs, and I felt inclined to ask them how many thousand years old they were." The Nubians usually speak the Arabic language; and the learned castes among them cultivate most branches of Mohammedan literature. *Prod.* Barley, a grain called "dhonrra," tobacco, indigo, coffee, dates, senna, and vegetables. Cattle, sheep, and goats are reared. There is a considerable trade in gold, silver, senna, ostrich-feathers, and dhonrra. The traffic of slaves is extensively carried on, upwards of 5,000 being annually imported from the interior of Africa. *Govt. N* is divided into 13 states, each governed by its melak, or chief, formerly independent, but now subordinate to the pasha of Egypt. Ten of these states are in Lower *N.*, and 3 in Upper *N. Hist. N.*, formerly comprising part of anc. Ethiopia, formed a treaty with the emperor Diocletian from 284 to 305. It was converted to Christianity at an early period, continuing in that faith until the 13th cent. The caliph Omar I exacted from it an annual tribute of 360 slaves, about the year 637, which was maintained until 1150. Contests were carried on continually between the people of Nubia and the Sultan of Egypt during the 14th cent., which ended in the extinction of Christianity, and the breaking up of the kingdom into a number of petty Mohammedan states. An expedition under Mehemet Ali brought them into subjection, more nominal than effective, to the Pasha of Egypt in 1820. *Chief towns.* Shendy, Semnaar, Snakim, New Dongola, Ipsamboul, Halfay, and Berber. *Pop.* Estimated at 500,000.

Fig. 1971.
NUBIAN GIRL.

Nubil'ity, *n.* [Fr. *nubilité.*] State of being marriageable; puberty.

Nu'bilose, Nu'bilous, *a.* [Lat. *nubilosus*, from *nubes*, cloud.] Cloudy; hazy; nebulous. (R.)

Nuble, (*noo'bla.*) a river of Chili, rises on the W. slope of the Andes near the volcano of Chillan, and flowing W. by S. joins the Chillan River to form the Itata River.

Nucamentaceous, (*-ta'shus.*) *a.* [From Lat. *nux*, *nucis*, nut.] (*Bot.*) Pertaining to a nut or nuts.

Nu'cleus. (*Phys.*) See SECTION II.

Nu'cule, *n.* [Lat. *nucula*, a small nut.] (*Bot.*) Either

that fruit which is otherwise called a gland or acorn, or any small, hard, one-seeded pericarp.

Nuda'tion, *n.* [From Lat. *nudare*, from *nudus*, naked.] The act of stripping bare, or making nude.

Nud'dea, a dist. of British India, presidency of Bengal, in the delta of the Ganges, between Lat. 23° and 24° N., Lon. 88° and 89° E. *area*, 3,105 sq. m. *Cap.* Nuddea. *Pop.* Estimated at 1,187,000.

Nud'dle, *v. n.* To walk rapidly with the head bending forward; — followed by *along*. (R.)

Nude, *a.* [Lat. *nudus;* akin to Hind. *nungta*, *nigut*, naked. See NAKED.] Naked; bare; without covering; as, a *nude* figure.

(*Law.*) Divested of force or efficacy; null; void; as, a *nude* agreement (*ex nudo pacto non oritur actio*).

Nudge, (*nŭj.*) *v. a.* [Perhaps from Prov. Ger. *knütschen*, to pinch.] To push or touch gently, as with the elbow, in order to attract attention.

—*n.* A gentle push or touch, as with the elbow.

Nudibranchia'ta, Nudibranchiaus, *n. pl.* [Lat. *nudus*, naked, *branchiæ*, gills.] (*Zoöl.*) An order of hermaphrodite gasteropodous Molluscs, which have the branchiæ exposed on some part of the body. The genus *Doris* (Fig. 853) is an example.

Nudibran'chiate, *a.* (*Zool.*) Belonging to one of the *Nudibranchiata*.

Nudifica'tion, *n.* [Lat. *nudus*, nude, and *facere*, to make.] The act of rendering nude, or making naked.

Nu'dity, *n.* [Fr. *nudité;* Lat. *nuditas* — *nudus*, naked.] State, quality, or condition of being nude; nakedness.

—*pl.* (*Fine Arts.*) Figures either wholly or in part divested of drapery.

Nu'dum pac'tum. [Lat., naked contract.] (*Law.*) See NUDE.

Nueces, (*nwa'ces,*) in *Texas*, a river rising by several branches in Maverick co., and flowing a tortuous S.E. course of abt. 350 m., enters the Gulf of Mexico by a bay of its own name, bet. San Patricio and Nueces cos.

—A S. by E. co., bordering on the Gulf of Mexico; *area*, about 2,430 sq. m. *Rivers.* Nueces and San Fernandez rivers, besides several smaller streams. *Surface*, nearly level; *soil*, not very fertile, but affording pasture for vast herds. *Cap.* Corpus Christi. *Pop.* (1890) 8,093.

Nue'va (or NEW) **Helve'tia,** in *California*. See SACRAMENTO CITY.

Nue'va (or NEW) **Le'on,** a state of Mexico, between Lat. 24° and 27° 30′ N., Lon. 99° and 100° W.; *area*, about 23,592 sq. m. *Rivers.* Salinas and Salinas. *Surface*, mostly mountainous; *soil*, fertile. *Min.* Gold, silver, lead, and salt. *Cap* Monterey. *Pop.* (1897) 314,400.

Nue'va (or NEW) **Sego'via,** a small town of Nicaragua, Central America, abt. 110 m. N.N.E. of Leon.

Nuevi'tas, or NUEVITAS DEL PRINCIPE, a town on the N.E. coast of the island of Cuba, W. Indies, forming the port, and abt. 44 m. E. by N. of, Puerto Principe. *Pop.* abt 820.

Nue'vo (or NEW) **Santan'der,** a town of Mexico, abt 120 m. N.W. of Tampico.

Nu'gatory, *a.* [Lat. *nugatorius*, from *nugæ*, trifles, trumpery, bagatelles.] Trifling; vain; futile; worthless; insignificant.

—Inoperative: inconsequential; ineffectual; of no force.

Nu gent's Grove, in *Iowa*, a post-village of Linn co., abt. 50 m. W.S.W. of Dubuque.

Nug get, *n.* (*Mining.*) The name given to the larger lumps of gold occasionally found in gold alluvium. Smaller lumps are called *pepitas*, and the finest particles *granos* or gold grains. Nuggets have been found of extraordinary dimensions and weight; but, as may be supposed, they are comparatively rare. They are always water-worn.

Nu'gify, *v. a.* [Lat. *nugæ*, trifles, and *facere*, to make.] To stultify; to make futile.

Nuisance, (*nū'sans.*) *n.* [O. Fr., from Low Lat. *nocentia*, guilt, transgression, from Lat. *nocens* — *noceo*, to hurt.] That which hurts, harms, or injures; that which annoys or gives trouble and vexation; that which is offensive or noxious.

"A dun is an infernal *nuisance*." — *Hook.*

(*Law.*) Anything that works hurt, inconvenience, or damage. Nuisances are of two kinds — *public* or common nuisances, and *private* nuisances. The former are those which affect the public, and are an annoyance to all the community, for which reason they are referred to the class of public wrongs or crimes. The offence consists in an encroachment on the common rights of the whole society; as where one obstructs the common highway, or sets up an offensive trade in the midst of a town. Private *N.* may be defined as anything done to the hurt or annoyance of the lands, tenements, or hereditament of another, and not amounting to a trespass; as where one projects the eaves of his house over those of his neighbor, or stops or obstructs a right of way. It is a *N.* if a neighbor sets up and exercises any offensive trade, or keeps pigs or other noisome animals near the house of another; and, also, if a man by carelessness in excavating his own ground causes the fall of a house erected on land adjoining. It is no *N.* to set up any trade, or a school, in neighborhood or rivalship with another. *N.*, whether private or public, is rather a tortious than a criminal act. The injury from it arises rather from a misuse of one's own than from abuse of or aggression on another's right; and it is, therefore, indirect or remote, as distinguished from actual invasion of another's property. It is not committed with force, either actual or implied. The remedy at law for the injury of *N.* is by action of trespass on the cause, in which the party injured may recover a satisfaction in damages for the injury sustained. The party aggrieved has also the right to abate the *N.* by his own act; that is, he may take away or remove it, provided he commits no riot in so doing, nor occasions (in cases of private *N.*) any damage beyond what the removal of the inconvenience necessarily requires. "The reason," says Blackstone, "why the law allows this private and summary method of doing oneself justice is, because injuries of this kind, which obstruct or annoy such things as are of daily convenience and use, require an immediate remedy, and cannot wait for the slow progress of the ordinary forms of justice."

Nuisance'er, *n.* (*Law.*) One who causes or upholds a nuisance.

Nul, *a.* [From Lat. *nullus*, none.] (*Law.*) No; not any; as, *nul* tort.

Nulhe'gan River, in *Vermont*, enters the Connecticut River from Essex co.

Null, *v. a.* Same as ANNUL (*q. v.*), of which it is an abbreviation.

Null, *a.* [Lat. *nullus*, none, not any — *ne*, not, and *ullus*, any one; contracted from *unulus*, dimin. of *unus*, one.] Of no value or force; void; invalid; of no efficacy, or legal or binding force or vitality.

—*n.* Something that has no power, force, or meaning. — Anything valueless; a cipher.

Nul'lah, *n.* [Hind.] In India, a stream, canal, or watercourse; also, an inlet of the sea.

Nullifica'tion, *n.* [L. Lat. *nullificatio.*] Act of nullifying, or state of being nullified; a rendering void and of no effect, or of no legal efficacy.

Right of nullification. (*U. S. Pol.*) The right formerly claimed on behalf of a State to nullify or make void, by its sovereign act or decree, an enactment of the general government which it deems unconstitutional.

Nul'lifier, *n.* One who nullifies or makes void.

—In the U. States, a person who advocates the political principle of nullification.

Nul'lify, *v. a.* [Lat. *nullus*, and *facio*, to make.] To annul; to render null; to make void or invalid; to deprive of legal force or efficacy.

Nullip'ora, *n.* [Lat., from *nullus*, and *porus*, pore.] (*Bot.*) A gen. of marine plants, order *Ceramiaceæ*, consisting of rigid, branching, inasculate, calcareous species, formerly supposed to be polypi.

Nul'lity, *n.* [Fr. *nullité*, from Lat. *nullus.*] Nonentity; nothingness; want of existence; lack of legal force or efficacy.

—That which acks force or efficacy; that which is null, void, or invalid.

Nu'ma, in *Indiana*, a post-village of Parke co., abt. 11 m. N. of Terre Haute.

Numa, in *Iowa*, a post-village of Appanoose co., abt. 40 m. S.W. of Ottumwa.

Numan'tia. (*Anc. Geog.*) A city of Spain, cap. of the Arevaci, which offered a brave resistance to the Roman arms for 20 years. It was reduced B. C. 133, after a siege of 15 months, by Scipio Africanus, who brought against it an army of 60,000 men. The conqueror received the surname of Numantius. The place of this battle is supposed to be marked by the ruins of Puente de don Guarray, on the Douro, 3 m. of Soria, Old Castile.

Nu'ma Poupil'ius, second mythical king of Rome, a Sabine by birth, and elected, according to the legends, after the death of Romulus. Wise, devout, and peaceloving, he reigned about 40 years, and inspired by the nymph Egeria, he gave the Romans all the institutions of their religion. About B. C. 180 a pretended discovery was made of the sacred books of Numa.

Numb, (*nŭm,*) *a.* [A. S. *numen*, taken, *pp.* of *nimen;* and *benioman*, pp *bnumen*, to benumb, to stupefy.] Benumbed; deprived or destitute of the power of sensation and motion; torpid; paralyzed; chill; motionless.

"Like a stony statue, cold and *numb*." — *Shaks.*

—*v. a.* To benumb; to deprive of the power of sensation or motion; to deaden; to stupefy; to make torpid; to render motionless or paralyzed.

"Like dull narcotics, *numbing* pain." — *Tennyson.*

Num'ber, *n.* [Fr. *nombre;* Lat. *numerus.*] A unit considered in reference to other units, or in reckoning, counting, enumerating: an assemblage of two or more units; an aggregate made up of distinct things expressible by figures.

"There is divinity in odd *numbers*." — *Shaks.*

—More than one; many; a multitude; a collection of many persons. — Comparative multitude; numerousness. — Quality of being numerable or countable; quantity considered as made up by an aggregate of separate things. — The order and quantity of syllables constituting feet, which render verse musical to the ear; hence, verse; poetry; — chiefly employed in the plural.

"I lisp'd in *numbers*, for the *numbers* came." — *Pope.*

(*Gram.*) The difference of termination or form of a word, to express unity or plurality. The termination which denotes one, or an individual, is in the *singular number;* the termination that denotes two or more individuals or units constitutes the *plural number.* Hence, we say a noun, an adjective, a pronoun, or a verb, is in the *singular* or the *plural number.*

(*Math.*) Numbers are units considered in reference to other units: as in counting, or performing the mathematical operations of addition, multiplication, &c. According to Sir Isaac Newton, a *number* is the abstract ratio of one quantity to another quantity of the same species; and, consequently, there are three different sorts: as, *integers*, or *whole numbers; fractions of uneven numbers;* and *suras*, or *irrational quantities. Cardinal* numbers are such as consider the number of units, — as, 1, 2, 3; while *ordinals* consider their position, — as, 1st, 2d, and 3d. A *compound* number is such as can be divided by some other number besides unity. A *rational* number is one which can be measured by unity; as an *irrational* one is the reverse. *Prime* numbers are such as are only divisible by unity, as 3, 5, 7, 11, &c. *Perfect* numbers are those, the sum of whose aliquot parts added together forms the whole number. A *square* number is one which is multiplied into itself, as 9, which is the square of 3; while a *cubic* number is one which is multiplied twice into itself, as 27 is the cube of 3, which equals 3×3×3. As the *theory of numbers* is usually contained in most elementary treatises on algebra, it need not be entered into the present article; suffice it to say, that it owes its perfection to Diophantus, who lived in the 3d century; to Vista, Bachet, and Fermat, of the 16th; and to the essays of Euler, Legendre, and Newton, of a later æra.

—*v. a.* [Lat. *numero*, from *numerus*, number.] To count; to reckon; to enumerate; to calculate; to ascertain, as the units of any sum, collection, or multitude.

"I will *number* you to the sword." — *Isa.* lxv. 12.

—To reckon as one of a collection or multitude.

"He was *numbered* with the transgressors, and bore the sin of many." — *Isa.* liii. 12.

—To give the number of; to assign or specify the place of in a numbered series; as, to *number* the folios in a book. — To contain; to include; to consist of; to amount to; to give as the result of enumeration; as, the malcontents *number* strongly.

Num'berer, *n.* One who numbers or enumerates.

Num'berless, *a.* That cannot be enumerated; countless; innumerable.

Num'bers, (Book of.) (*Script.*) The fourth book of the Old Testament, being a translation of the Greek name given to it in the Septuagint, *Arithmoi*, because it contains an account of the numbering of the people. In Hebrew it is called, after the usual practice, by the word with which it begins, signifying "and he spake;" also by the fifth word in the first verse, signifying "in the wilderness," because it narrates the transactions of the Israelites in the wilderness. It is the history of a period of 38 years in the wilderness, opening with the second month of the second year after the deliverance from the land of Egypt, to the eleventh month of the fortieth year of the same epoch; but it is chiefly confined to the first and last of these years. It may be divided into three parts: — (1) the numbering of the people, as also additions to the laws given in Exodus and Leviticus (i.–x. 10); (2) the further events in the wilderness, beginning with the departure of the people from Sinai down to the commencement of the fortieth year, with the laws promulgated during that time (xii.–xix.); (3) the occurrences and prescriptions in the first ten months of the fortieth year (xx.–xxxvi.) The greatest part of the book is occupied in enumerating the several laws and ordinances not mentioned in the preceding books: such as the office and number of the Levites; the trial by the waters of jealousy; the rites to be observed by the Nazarites; the making of fringes on the borders of their garments; the law of inheritance; of vows; of the cities of refuge, &c. Among the more remarkable events which it records, are the sedition of Aaron and Miriam; the rebellion of Korah and his companions; the murmurings of the whole body of the people; Balaam's prophecy; and the miraculous budding of Aaron's rod. It likewise gives a distinct account of the several stages of journeyings through the wilderness. The authenticity of this book has frequently been called in question; and some critics, while admitting its genuineness, are disposed to give a mythical character to many of its parts; but its minute and straightforward narratives, and other internal marks, are strong objections to such an hypothesis, and it is received literally by the great majority of biblical students.

Numb-fish, (*nŭm'-*) *n.* (*Zoöl.*) The TORPEDO, *q. v.*

Num'bles, *n. pl.* The entrails of a deer.

Numbness, (*nŭm'nes,*) *n.* State or quality of being numb.

(*Med.*) A loss of power, and partially of feeling, which may occur in any part of the body, or affect an entire side. When the effect of long exposure to cold, or a cramped position, a warm bath and friction will soon, by restoring the circulation, relieve the torpidity experienced; when, however, the numbness is caused by disease, it must be treated in accordance with the disease that has produced it; friction, however, and exercise, are the standard local remedies.

Nu'merable, *a.* [Lat. *numerabilis.*] That may be numbered, reckoned, or counted.

Nu'meral, *a.* [Fr. *numéral;* Lat. *numeralis*, from *numerus*, number.] Pertaining to, or consisting of, number. — Expressing or representing number; standing as a substitute for figures; numerical; as, *numeral* letters, thus, X for ten.

—*n.* (*Arith.*) A figure or symbol by means of which numbers are expressed; the distinctive name of *Arabic numerals* being given to the nine figures or digits and the zero, that are now in almost universal use among civilized nations for this purpose. Both the origin of these figures, and the period at which they became known in Europe, have been made subjects of laborious investigation; and it seems to be now proved beyond a doubt that they are of Indian, not Arabic origin, and were invented by the Brahmins some time B. C. But the more important inquiry as to the time of their introduction into Europe has hitherto baffled all research. For *Roman* and Greek numerals, see NOTATION.

(*Geom.*) A word expressive of number.

Nu'merally, *adv.* In number; according to number.

Nu'merary, *a.* Pertaining or having reference to a certain number.

Nu'merate, *v. a.* [Lat. *numero, numeratus*, from *numerus*, a number.] (*Arith.*) To count: to reckon; to enumerate; to divide and read off numbers or figures according to the rules of numeration.

Numera'tion, *n.* [Fr., from Lat. *numeratio.*] (*Arith.*) The art of classing numbers together and expressing them properly according to the general principles of notation.

Nu'merator, *n.* One who numbers; — a term applied in mathematical science.

(*Arith.*) That part of a fraction which expresses into how many parts the unit is divided. In the fraction ⅝, for example, the figure 5 is the *numerator*, as it shows that the denominator has been divided into eight parts, of which only five are taken to constitute the fraction. See FRACTIONS.

Numerianus, MARCUS AURELIUS, (*nu-me-ri-ai'nus,*) a Roman emperor, who succeeded to the throne on the death of Carus, his father, A. D. 282; but was murdered by his father-in-law, after a reign of 8 months. He displayed considerable talent both as a writer and an orator.

Numer'ic, Numer'ical, *a.* [Fr. *numerique*, from Lat. *numerus.*] Belonging to, denoting, or consisting in numbers: expressed by numbers, and not letters; as, a *numerical* equation. — The same in number; hence, identical; one and the same. — *Numerical*, as contradistinguished from *algebraical*, is employed to express a value independent of its sign; thus, —7 is numerically greater than —5, though algebraically less.

Numer'ically, *adv.* In numbers; in a numerical manner; with regard to number, or sameness in number: as, a thing is *numerically* different.

Nu'mero, *n.* [It., from Lat. *numerus*, number.] Number: — frequently contracted to *No.*

Nu'merous, *a.* [Lat. *numerosus.*] Being many; consisting of a great number of persons; as, a *numerous* army. — Consisting of regular numbers; rhythmical; poetic: musical; melodious.

Nu'merously, *adv.* In great numbers; as, the levee was *numerously* attended.

Nu'merousness, *n.* State, condition, or quality of being many or numerous; characteristic of consisting of a great number of individuals. — Quality of consisting of poetic number or rhythmical harmonies; musicalness. (R.)

"That which will distinguish his style, is the *numerousness* of his verse." *Dryden.*

Nu'mida, *n.* (*Zoöl.*) A Linnæan genus of birds, family *Phasianidæ*, including the Guinea fowl and the Crested Pintado.

Numid'ia. (*Anc. Geog.*) A former inland country of N. Africa, bounded on the N. by the Mediterranean Sea, S. by Getulia or Libya, E. by Jusca, and W. by Mulucha, separating it from Mauritania; it had a length of nearly 600 m., and an indefinite width, though probably not exceeding 50 or 60 m. In the time of the Carthaginians, Numidia contained two powerful nations, the *Massyli* and the *Massæsili*; and by the Romans was divided into *Numidia proper*, including the first-named people, and the *Mauritania Cæsariensis*, or the country of the Massæsili, the capital being Cirta. The Romans became acquainted with this country B. C. 264, during the first Punic war, when the Carthaginians employed the people as light cavalry. They transferred their services to the Romans B. C. 256, and aided them throughout the second Punic war, B. C. 218–201. Massinissa, the king, who was rewarded with a large accession of territory, died B. C. 149; his son Micipsa, at his death, left the kingdom to Adherbal and Hiempsal, his sons, and his nephew Jugurtha, B. C. 118. Jugurtha having murdered his cousins, the Romans declared war against him B. C. 111; and he was captured and put to death B. C. 104. (See JUGURTHINE WAR.) The country was made a Roman province by Julius Cæsar for having taken part in the civil war against him, and Sallust the historian was appointed governor B. C. 46. Caligula changed the government of the province in 39. It was wrested from the Romans by the Vandals, under Genseric, in 429. They were subdued by Belisarius, general of the Emperor Justinian I., in 533. The Mohammedans, commanded by Akbar, seized Numidia in 667. A large part of Numidia is now incorporated with French Algeria, and the modern city of Constantine (Fig. 668) stands on the ruins of the ancient Cirta.

Numid'ia, in *Pennsylvania*, a village of Montour co., abt 17 m. S.E of Danville.

Numismat'ic, Numismat'ical, *a.* [Fr. *numismatique*, from late Gr. *numismatikos*, belonging to coin.] Pertaining or having reference to money, coin, or medals; relating to the science of numismatics.

Numismatics, (*nu-miz-mat'iks,*) *n. pl.* [Gr. *nomisma*; Lat. *nummus*, a coin or medal.] That science which has for its object the study of ancient and modern coins and medals. *Coins* are pieces of metal on which different marks have been impressed by public authority, to indicate their weight and value, in order to make them a convenient medium of exchange; *medals* are pieces of metal similar to coins, not intended as a medium of exchange, but merely struck to commemorate some important event. The science of numismatics has the same divisions as history. Ancient numismatics extend to the fall of the Western empire; the numismatics of the Middle Ages commence with Charlemagne; and modern numismatics with the revival of learning. The pieces of metal originally used as money were rude and shapeless; and some ancient writers mention money of leather among the Carthaginians, Spartans, and Romans. Wooden money was also used by the Romans, and shells, which are still employed by some tribes in Africa. Gold, silver, and copper, however, are, and have been, the ordinary materials of money. See MINT, MONEY. — The ancient coins which have been preserved are much more numerous than those handed down from the Middle Ages. The principal stores have been found in tombs, or in places where they have been concealed, either through fear, avarice, or superstition. Till the 3d century the faces on medals were represented in profile. In the coins of the lower empire, however, there are Gothic front faces filling up the whole field of medals. Both methods are employed by the moderns; but the ancients gave more relief to the figure. The coins of the kings of Macedon are the most ancient of any yet discovered bearing portraits; and Alexander I., who commenced his reign about 500 years B. C., is the earliest monarch whose medals have yet been found. The medals of the sovereigns who ruled in Sicily, Caria, Cyprus, Heraclea, and Pontus, then succeed. Afterward comes the series of kings of Egypt, Syria, Thrace, Parthia, Damascus, Cappadocia, Galatia, Sparta, Epirus, Illyricum, Gaul, and the Alps. This series comprises a period of 330 years, and extends from the time of Alexander the Great to the Christian æra. A perfect and distinct series of ancient medals is formed by the Roman emperors from Julius Cæsar to the overthrow of the empire by the Goths, and, indeed, still later. In a cabinet, the Grecian coins claim the chief place, not only on account of their antiquity, but also for their workmanship, the finest examples being those which were struck before the subjection of Greece to the Roman empire. The Roman coins are divided into two classes — the *consular* and the *imperial*. The latter term is specifically applied to those struck after the conclusion of the republican æra of Rome down to the fall of the Roman empire. Caius Julius Cæsar was the first Roman who gained permission to put his figure upon medals. The coins of the Middle Ages embrace the *bracteates*, &c., which, after the dissolution of the Roman empire, were circulated in the newly-formed European states. As a science, numismatics appear to have been entirely unknown to the ancients. The first treatise on the subject was published by a Spaniard, Antonio Agostino, in 1577. As the researches into the different branches of the subject became more extensive, more attention was paid to this matter, and the works of Vaillant, Spanheim, J. J. Gessner, and Pellerin, display immense stores of learning, and are worthy of perusal, although they are not altogether to be relied on. For an elaborate work on *N.*, see *Boutkowski's Dic. Numismatique.*

Numismat'ist, *n.* One learned in coins and medals.

Numismatog'raphy, Numismatol'ogy, *n.* [Gr. *nomisma, nomismatos*, current coin, *graphein*, to write, and *logos*, treatise.] That branch of historical science which pertains to, or treats of, coins and medals; numismatics.

Numismatol'ogist, *n.* Same as NUMISMATIST, *q. v.*

Num'mary, Num'mular, Num'mulary, *a.* [From Lat. *nummulus*, dim. of *nummus*, a coin; Fr. *nummulaire.*] Pertaining or having reference to coin or money; pecuniary; monetary.

Num'mulites, *n. pl.* [Lat. *nummus*, a coin, and Gr. *lithos*, a stone.] (*Pal.* and *Geol.*) A genus of the family *Foraminifera*, the shells of which, in various parts of the world, are found in immense numbers, and which receive their name from their external resemblance to battered coins. They are orbicular, (Fig. 1972,) convolute, and show no trace of spire externally; whorls contiguous, and not apparent; cells numerous and small;

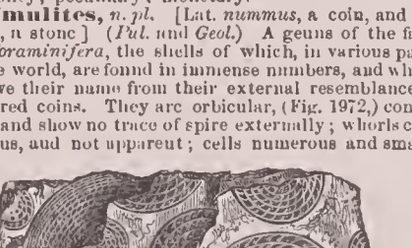

Fig. 1972. — NUMMULITE LIMESTONE.
(From Peyrehorade, Pyrenees.)

partitions transverse, and not perforated. Some are very minute, and scarcely any are more than an inch in diameter. The beds of the Middle Eocene period are chiefly composed of *N.* They cover portions of the Pyrenees and Alps at a height of 10,000 feet above the sea-level, and the southern slopes of the Himalayas at a height of 16,500 feet. The pyramids of Egypt are built of stone composed of the *Nummulina discoidalis*, and perhaps other species.

Nummulit'ic, *a.* Containing, or composed of, nummulites.

Num'skull, *n.* A blockhead; an ignoramus; a dolt; a dunce; a stupid, heavy-witted fellow. (Used colloq.)

Num'skulled, (*-skŭld.*) *a.* Doltish; stupid; thick-headed; dull in understanding.

Nun, *n.* [A. S. *nunne*; Fr. and Ger. *nonne*; L. Lat. *nonna*, a pious widow, or from L. Lat. *nonnus*, a monk; probably corrupted from Gr. *monos*, alone, solitary; Sp. *monja*, a nun.] (*Eccl. Hist.*) A woman who devotes herself in a cloister or nunnery, to a religious life. The name is probably from a Coptic or Egyptian root, signifying a virgin; and at a very early period in the Church there were women who made public profession of virginity, and were enrolled in the canon or matricula of the Church, but they did not dwell in religious houses. They do not seem to have been absolutely forbidden to marry; but as celibacy and the monastic life rose in the esteem of the Church, the censures against marriage became more stringent. The virgins were of great esteem in the Church, and had some particular honors paid to them. Their persons were sacred, and severe laws were enacted against any that should presume to offer the least violence to them. The consecration was usually performed publicly in the church by the bishop. The virgin made a public profession of her resolution, and then the bishop put upon her the accustomed habit, part of which was a veil, called the *sacrum velamen*; hence the modern phrase, "to take the veil." They seem also to have worn a kind of mitre or coronet, and in some places the head was shaved, a practice condemned by the council of Gangra. Certain canons required virgins to be forty years old before they were veiled; and the imperial laws decreed that if any virgin were veiled before that age, either by the violence or hatred of her parents, she was at liberty to marry. The first nunnery is said to have been founded by one St. Syncletica, a contemporary of St Anthony, in the 3d cent., and they soon spread throughout Europe. (See MONACHISM.) There are various orders of nuns, some devoting themselves entirely to private religious exercises, while others engage in the more active duties of Christian charity. In the Roman Catholic Church, when a young woman is to be professed, or made a nun, the habit, veil, and ring of the candidate are carried to the altar, and she herself, accompanied by her nearest relatives, is conducted by the bishop. Two ancient venerable matrons attend upon her as brideswomen. When the bishop has said mass, the arch-priest chants an anthem, the subject of which is that she ought to have her lamp lighted, because the bridegroom is coming to meet her. Then the bishop calls her in a kind of recitative, to which she answers in the same manner. Being come before the prelate, and on her knees, she attends to the exhortation he makes to her with regard to a religious life, and in the meantime the choir chants the litanies. Then the bishop, having the crosier in his left hand, pronounces the benediction. She then rises up, and the bishop consecrates the new habit, sprinkling it with holy water. When the candidate has put on her religious habit, she again presents herself before the bishop, and sings on her knees *Ancilla Christi sum*, &c. ("I am the servant of Christ"). Then she receives the veil, and afterwards the ring, by which she is married to Jesus Christ; and, lastly, the crown of virginity. When she is crowned, an anathema is denounced against all who shall attempt to break her vows. After the communion, the prelate gives her up to the conduct of the abbess, saying to her, "Take care to preserve pure and spotless this young woman, whom God has consecrated," &c.

(*Zoöl.*) A kind of pigeon, *Columba vestalis*, which has a white hood.

Nun-buoy, (*-boi,*) *n.* (*Naut.*) A buoy rotund in the middle, and tapering to each end. See BUOY.

Nunc dimit'tis. [Lat., now lettest thou depart.] (*Eccl.*) The name given to the canticle of Simeon (*Luke* ii. 29–32), which forms part of the compline office of the Roman breviary, and is retained in the evening service of the Anglican Church when it follows the second lesson.

Nuncheon, (*nŭn'shun.*) *n.* A luncheon; a portion of food taken between meals.

"Laying by their swords and truncheons,
They took their breakfasts or their *nunchions*." — *Hudibras.*

— A quantity of food sufficient for a luncheon. (Used as an English provincialism.)

Nuncio, (*nŭn'shi-o,*) *n.* [It. *nunzio*; Fr. *nonce*; Lat. *nuncius — novus*, new, and *cieo*, to set in motion.] Properly, one who bears news; a messenger; but it is usually applied to a person sent by the Pope to represent his Holiness at a foreign court. A nuncio is, in fact, the Pope's ambassador, as an internuncio is his envoy-extraordinary. Strictly speaking, he represents the Pope only as a temporal sovereign: but he is often commissioned to treat of spiritual affairs, and to report on the condition of churches, and the character of church dignitaries, especially of candidates for the mitre. The nuncio in France is forbidden by law to exercise ecclesiastical jurisdiction, being recognized only as the papal ambassador.

Nuncu'pative, Nuncu'patory, *a.* [Fr. *nuncupatif*, from Lat. *nuncupo, nuncupatus*, to call by name — *nomen*, a name, and *capio*, to take.] Publicly or solemnly; declaratory. — Oral; verbally pronounced; not written, as a will. — Nominal; existing only in name.

Nuncupative will or *testament.* (*Law.*) A will or testament made orally, though afterwards put into writing.

Nun'da, in *Illinois*, a post-village and township of McHenry co. *Pop.* of township (1897) 2,140.

Nun'da, in *Minnesota*, a township of Freeborn co. *Pop.* (1897) 864.

Nun'da, in *New York*, a post-village and township of Livingston co., about 67 m. E.S.E. of Buffalo. *Pop.* (1897) 2,650.

Nun'dinal, *n.* A nundinal letter.

Nun'dinal, Nun'dinary. *a.* [Lat. *nundinalis, nundinarius*, from *nundinus*, relating to nine days — *novem*, nine, and *dies*, day.] Pertaining or having reference to a market- or fair-day; belonging or relating to a fair.

Nuneaton, a town of England, co. of Warwick, 14 m. N.W. of Rugby. *Manuf.* Ribbons. *Pop.* 5,000

Nu'nez, or KAKUNDY, a river of W. Africa, in Senegambia, which, after a W. course, enters the Atlantic Ocean, Lat. 10° 40′ N., Lon. 14° 40′ W.

Nu'nez, ALVARADO, (CABEÇA DE VACA,) one of the earliest explorers of the N. American continent, and an associate of Pamfilo de Narvaez, first governor of Florida appointed by the Spanish Crown. Landing in that country in April, 1528, Narvaez with his followers penetrated into the interior in quest of gold. After a fruitless search, they returned to the coast, to find the vessels of their fleet having left for Havana. They thereupon built 5 boats, and, after many dangers and difficulties, reached

in October, the mouth of a river, which is assumed to have been the Mississippi. Becoming separated in a storm, *N.* left his boats, and proceeded westward overland, until he reached a country answering to the description of the present New Mexico. There he found the natives suffering from an epidemic, which, possessing some knowledge of medicine, *N.* relieved, and thereby acquired considerable influence over the tribes. After a protracted sojourn, *N.* proceeded on his course W. by S., and, in 1536, eight years after leaving Florida, *N.*, with the three other survivors of the expedition, arrived at the Spanish settlement of Caliacan, on the Pacific coast. The events of his after-life are not known.

Nuug, *n.* A bale of cloves.

Nuugeeuah', a town of Hindostan, in the N W. provinces; Lat. 29° 27′ N., Lon. 78° 30′ E. *Manuf.* Firearms. *Pop.* 30,000.

Nun'tica, in *Michigan*, a post-village of Ottawa co., abt. 22 m. W N W. of Grand Rapids.

Nunna'tiou, *n.* [Lat. *nunnatio.*] In the Arabic grammar, the pronunciation of the terminal *n* in words.

Nun'nery, *n.* A religious house, serving as the abode of nuns; a cloister devoted to females.

Nun'nish, *a.* Pertaining to, or resembling, or having reference to a nun or nuns.

Nuo'ro, a town of Italy, island of Sardinia, 78 m. N.N.E. of Cagliari; *pop.* 5,162.

Nu'phar, *n.* [Ar. *naufar.*] (*Bot.*) A genus of aquatic plants, order *Nymphæaceæ*. The Yellow Pond-lily, *N. advena*, common in the U. States in sluggish streams and muddy lakes, is a well-looking and very curious plant, but from its filthy habits it has been called, with some justice, the *frog-lily*. The rhizoma is large, creeping extensively. Leaves large, dark-green, shining above, and, when floating, pale and slimy beneath. Petioles half round. Flowers rather large and globular in form, erect, on a thick, rigid stalk. Three outer sepals yellow inside, and the three inner entirely yellow, as well as the petals and stamens.

Nup'tial, (*-shi-al,*) *a.* [Fr.; Lat. *nuptialis*, from *nuptiæ*, marriage — *nubo, nuptum*, to marry, said of a woman, properly, to veil.] Belonging or having reference to marriage; done at, or characterizing a wedding. — Constituting marriage.

"Confirm that amity with *nuptial* knot." — *Shaks.*

—*n. pl.* Nuptial ceremony; marriage; wedding; matrimonial union.

Nur, *n.* A hard, knobby piece of wood used by boys in the game of hockey. — An English provincialism for the head.

Nu'remberg, [Ger. *Nürnberg.*] a city of Bavaria, cap. of circ. Middle Franconia, on the Pegnitz, 93 m. N.N.W. of Munich. It is surrounded by walls and turrets, with arched gates and four massive cylindrical towers, more however for ornament than use. The anc. *N.* is one of the most remarkable and interesting cities of Germany, on account of the numerous remains of mediæval architecture which it presents in its picturesque streets, with their gabled houses, stone balconies, and quaint carvings. Among the most remarkable of its numerous public buildings are the churches of St. Sebald and St. Lawrence, the *Rathhaus*, or town-hall, adorned with paintings by Albert Durer, and the Reichsveste, or imperial castle, the residence of the German emperors in the Middle Ages. In the great market-place is the *Schöner Brunnen*, or "beautiful fountain," and a Gothic obelisk. There are numerous institutions of learning, and a number of public libraries, among which the city library contains 40,000 printed vols., and 800 MSS.

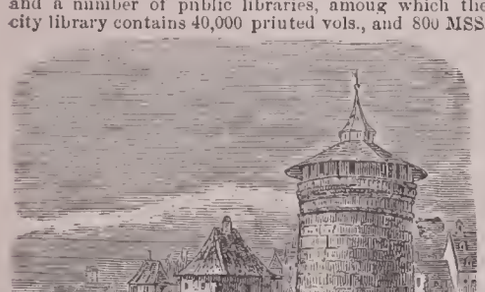

Fig. 1973. — NUREMBERG.

Manuf. Jewelry, metallic goods, mathematical and musical instruments, mirrors, ivory and alabaster articles, paper, woollen yarn, and the celebrated children's toys and dolls, which are extensively exported to all parts of Europe and America. *N.*, supposed to have been founded in the 9th century, became the seat of the first Germanic diet in 938, and was made a free city in 1219. It early embraced the cause of the Reformation, and diets were held in 1523 and 1524; and the first religious peace, called the Peace of Nuremberg, was concluded in 1532, by which full toleration was granted to those professing the new doctrines. *N.* retained its independence till 1803, when Napoleon I. bestowed it upon the King of Bavaria.

Nurse, *n.* [Fr. *nourrice*, from Lat. *nutrix* — *nutrire*, to nourish, feed, support. See NUTRITION.] A woman who suckles infants; a female that has the care of infants, or a woman employed to tend the children of others; as, a wet-*nurse*. — A person who has the care of a sick person; specifically, a female attendant upon another woman during her lying-in; a "Sairey Gamp." A person who breeds, educates, fosters, or protects; that which breeds, trains, or causes to grow. — An old woman, — used in a contemptuous sense.

To put to nurse, or *to put out to nurse*, to cause to be attended by a nurse; to send away to be placed under a nurse's care.

Wet-nurse, a woman hired to suckle another woman's infant.

—*v. a.* To suckle; to nourish at the breast; to tend, as infants. — To attend and take care of in childhood or in sickness; to wait upon, as an invalid. — To feed; to foster; to maintain; to cherish; to bring up; to train; to encourage; to promote growth in.

"To *nurse* the saplings tall." — *Milton.*

—To manage with care and economy, with a view to accumulation.

"*Nursing* her wrath to keep it warm." — *Burns.*

Nurse'-child, *n.* A nursling; a child placed at nurse.

Nurse'-maid, *n.* A girl or female domestic who has charge of children.

Nur'ser, *n.* One who, or that which, fosters or promotes growth.

Nurse'-pond, *n.* A pond for the propagation of fish.

Nur'sery, *n.* The place or apartment in which children are nursed and taken care of. — A plantation of young trees; a growing coppice of shrubs for transplanting. — The place where anything is nourished and encouraged, and the growth and development promoted.

"A luxurious court is the *nursery* of disorders." — *L'Estrange.*

—That which forms, trains, or educates.

"My paper is a kind of *nursery* for another." — *Addison.*

—That which is the object of a nurse's care.

Nur'seryman, *n.*; *pl.* NURSERYMEN. One who keeps, cultivates, or takes charge of a nursery of young trees and shrubs.

Nurs'ling, *n.* One who or that which is nursed; an infant; a child at nurse; a fondling; a foster-child.

"She was made the *nursling* of nobility." — *Spenser.*

Nurture, (*ner'tūr,*) *n.* [Fr. *nourriture.*] That which nourishes; food; diet; nutriment. — Act of nourishing, nursing, or fostering; education; training; instruction.

—*v. a.* To nourish; to feed. — To bring or train up; to instruct; to educate.

"He was *nurtured* where he had been born." — *Wotton.*

Nus'co, a town of S. Italy, prov. of Principato Ulteriore, 46 m. N.E. of Naples. *Pop.* 4,000.

Nut, *n.* [A.S. *hnut, hnutu*; D. *noot*; Ger. *nuss*; Fr. *noix*; Lat. *nux, nucis*.] The name popularly given to the roundish fruit of certain trees and shrubs, consisting of a hard shell inclosing a kernel; as, a walnut, a cocoa-*nut*, a hazel-*nut*, &c. In this country, as in England, the name *nut*, without distinctive prefix, is commonly given to the hazel-nut, but in France to the walnut.

(*Bot.*) The term nut (*nux*) is used to designate a one-celled fruit, with a hardened pericarp containing, when mature, only one seed. The *Achenium* (q. v.) was by the older botanists generally included in this term. Some of the fruits to which it is popularly applied scarcely receive it as their popular designation. The hazel-nut is an excellent example of the true nut of botanists.

(*Mech.*) A short internal screw, which acts in the head of an external screw, and is employed to fasten anything that may come between it and a flange on the bottom of the external screw or bolt. A piece of metal with a cylindrical grooved hole, screwed upon the end of a screw-bolt.

(*Naut.*) A projecting nozzle on each side of the shank of an anchor, to hold the stock firmly in its place.

—*v. n.* To gather nuts; as, to go *nutting*.

Nu'taut, *a.* Nodding; having the head inclined downward, as certain plants.

Nutation, *n.* [Fr.; Lat. *nutatio.*] The act of nodding. (n.)

(*Astron.*) A slight oscillatory movement of the earth's axis, which disturbs the otherwise circular path described by the pole of the earth round that of the ecliptic, known as the "precession of the equinoxes." It is produced by the same causes, viz., the attraction of the sun, moon, and planets (the attraction of the last-mentioned being so small as to be quite imperceptible), upon the bulging zone about the earth's equator, though in this case it is the moon alone that is the effective agent. It also, for reasons which need not be given here, depends, for the most part, not upon the position of the moon in her orbit, but of the moon's node. The effect of nutation, when referred to the equator and ecliptic, is to produce a periodical change in the obliquity of the ecliptic, and in the velocity of retrogradation of the equinoctial points. It thus gives rise to the distinction of "apparent" from "mean" right ascension and declination, the former involving, and the latter being freed from the fluctuations arising from nutation. This motion is common to all the planets.

(*Bot.*) The action of a flower in following the apparent movement of the sun, from the east in the morning to the west in the evening.

Nut'-breaker, *n.* (*Zoöl.*) Same as NUT-HATCH, *q. v.*

Nut'-brown, *a.* Brown as a nut long kept and dried; hazel-colored; as, *nut-brown* ale.

Nut-cracker, (*krak'r,*) *n.* An instrument for cracking the shells of nuts by pressure.

(*Zoöl.*) A genus of European birds (*nucifraga* or *caryocatactes*) of the family *Corvidæ*, with a straight conical bill, both mandibles terminating in an obtuse point, and tail nearly square at the end. The form and characters are nearly similar to those of crows, but the habits are rather those of jays, and in some respects indicate an approach to woodpeckers.

Nut'-gall, *n.* See GALL-NUT.

Nut'-hatch, Nut'-breaker, Nut-jobber, *n.* (*Zoöl.*) A genus of Insessores birds, *Sitta*, family *Certhyadæ*, having a straight conical or prismatic bill, short legs, the hind-toe very strong. The female lays her eggs, which are white with a few pale-brown spots, in holes of trees, frequently in those which have been deserted by the woodpecker; and when driven from her nest, on being disturbed, hisses like a snake. The *N.*, like the woodpecker, runs with facility upon and about the trunks and branches of trees; but the tail, which is short and rounded, is of no assistance to the bird in its progress. Unlike the woodpecker, however, the *N.* runs with the head downwards as well as upwards, and indeed the former position of the head appears to be the favorite one; it generally alights on a branch with the head in a downward position, and sleeps in that posture. The *N.* feeds on caterpillars, beetles, and various kinds of insects: it also eats nuts, of which it lays up considerable hoards in the holes of trees. Its mode of fastening the nut in a chink, perforating the shell, and extracting the kernel, is as ingenious as it is amusing to witness; when disturbed at its work, it very readily removes the nut, and flies away with it. These birds are found in all cold and temperate climates. The White bellied *N.* of N. America (*Sitta Carolinensis*, Fig. 1974) is 6 inches long, and the wings about 4 inches; its color is ashy blue above, the under parts white, top of the head and neck black.

Fig. 1974.
WHITE-BELLIED NUT-HATCH,
(*Sitta Carolinensis.*)

Nut'-hook, *n.* A long pole or staff with a hook at one extremity, serving to pull down boughs when gathering nuts. — A thief who steals by means of a hook; also a tipstaff, or constable who hooks, or seizes, offenders.

Nut'-jobber, *n.* (*Zoöl.*) See NUT-HATCH.

Nut'meg, *n.* [Fr. *noix muscade*; It. *noce muscata*, nut-musk.] (*Bot.*) See MYRISTICA.

Nu'tria, *n.* (*Com.*) The fur of the COYPU, *q. v.*

Nu'trient, *a.* Encouraging or fostering growth or development; nutritious; nourishing.

—*n.* Any nutritious substance or aliment which promotes growth.

Nu'triment, *n.* [Lat. *nutrimentum*, from *nutrire*, to nourish.] That which nourishes or encourages growth; that which replenishes the natural waste of animal or vegetable matter; aliment; food; diet. — That which tends to promote and diffuse increase and improvement.

"Virtue 's the *nutriment* that feeds the mind."—*Swift.*

Nutriment'al, *n.* Alimental; possessing dietetic characteristics, or the qualities of nutriment.

Nutrition, (*-trish'un,*) *n.* [Fr.; Lat. *nutritio*, from *nutrio, nutritum*, to suckle, nourish. Etymol. doubtful.] (*Physiol.*) The complicated process by which a perpetual course of reproduction is going on in every part of the system, — the component particles of the various tissues, — bone, muscle, nerve, &c., which are disintegrated and removed by the vital acts of the organism, being constantly replaced by new matter capable of continuing the functions necessary to life. In order to this, a due supply of proper food is necessary, which, after being digested, its nutritious particles are absorbed, converted into healthy blood, and circulated over the system. The effete matter is removed by the organs of excretion, or modified by the purifying action of the lungs. Of the modes in which the substitution of new tissue takes place, and in which the effete particles are removed in the interior of the system, our knowledge is as yet very imperfect. Each tissue seems to possess an elective affinity for certain constituents of the blood, which it appropriates to its own use in the process of conversion into organized material. See BLOOD, CHYLE, DEGLUTITION, DIGESTION, PHYSIOLOGY.

Nutritious, (*-trish'us.*) *a.* [Lat., from *nutrix*, nurse.] Nourishing; accelerating or promoting the growth, or replenishing the waste of animal or vegetable matter; as, *nutritious* food.

Nutri'tiously, *adv.* In a nutritious or feeding manner.

Nutri'tiousness, *n.* Quality of being nutritious.

Nu'tritive, *a.* [Fr. *nutritif.*] Nutrimental; alimental; having the quality of affording nutriment; as, the *nutritive* juices.

Nu'tritively, *adv.* In a nutritive manner; so as to nourish; nutritiously.

Nu'tritiveness, *n.* Nutritiousness; quality of being nutritive; alimentariness.

Nut'-shell, *n.* The hard shell of a nut; the external covering of the kernel. — A thing proverbially of little compass or of little value.

"A thousand pounds to a *nut-shell*."—*L'Estrange.*

To lie in a nut-shell, to admit of very brief and concise definition, arrangement, or statement; as, the question *lies in a nut-shell*.

Nut'talite, *n.* [From Thomas *Nuttall.*] (*Min.*) The common scapolite; an anhydrous silicate of alumina and lime, occurring in prismatic bluish-gray crystals at Bolton, Mass.

Nut'ting, *n.* The act of gathering nuts.

Nut'-tree, *n.* The HAZEL, *q. v.*

Nut'ty, *a.* Abounding in nuts; resembling or possessing the flavor of a nut; as, *nutty* sherry, *nutty* ale, a *nutty* tree. — In England, a cant term for fine, pleasant, agreeable.

Nux Vom'ica, *n.* [Lat. *nux*, nut, and *vomicus*, from *vomere*, to vomit.] See STRYCHNOS.

Nuzzle, (*nŭz'zl,*) *v. a.* [Corrupted from *nestle.*] To nestle; to house, as in a nest; to ensnare, as in a noose or trap.

—*v. n.* To nestle; to hide the head, as a child in the mother's bosom.

Nuz'zle, *v. n.* [From *nose.*] To work or root with the nose, like a hog in the mire.

"Lawyers *nuzzling* like an eel in the mud."—*L'Estrange.*

—To go with the nose throughout and down, like swine — To idle; to loiter; to hang about; to dilly-dally. (Used as an English provincialism.)

Ny'ack, in *New York*, a post-village of Rockland co., abt. 29 m. N. of New York City.

Ny'as, *n.* Same as NIAS (*q. v.*).

Nyas'sa Lake. (*Geog.*) The most southerly of the great equatorial lakes of East Africa, about 400 m. from the east coast. Long and narrow, it is about 340 m. from north to south, and from 15 to 34 m. wide. Its waters are 1,575 feet above the sea, very deep in the middle, but shallow toward its northern end. The river Shiré issues from the southern extremity and flows south into the Zambesi. Its waters are sweet and abound in edible fishes. Livingstone was the first to fix, in 1859, its exact situation and to navigate it, although the lake, under the name of Maravi, was known to the Portuguese early in the 17th century. Young circumnavigated it in 1875. Mountains rise about the lake to the height of from 10,000 to 12,000 feet, and Livingstone found dwelling among them a numerous population, raising maize, cassava, tobacco, and English pease. The Germans and British have divided between them the coasts of the lake, on which ply German and British steamers.

Nyas'saland, *n.* (*Geog.*) The name given by the British to the region west and south of Lake Nyassa (*q. v.*), over which they proclaimed a protectorate in 1891. The country has for some years been under the influence of British missionaries and of the African Lakes Company.

Nyctagina'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Chenopodales*. DIAG. A tubular, often colored calyx, which separates from its base, the latter becoming a hard spurious pericarp. — They are herbs, shrubs, or trees, with stems usually turned at the joints. Leaves generally opposite. Flowers with an involucre. Stamens 1 or many, hypogynous. Ovary superior, 1-celled, with a single ovule; style 1; stigma 1. Fruit an utricle inclosed by the hardened persistent base of the calyx. Seed solitary; embryo coiled round mealy albumen with foliaceous cotyledons and inferior radicle. There are 17 genera and about 100 species, natives exclusively of warm regions. Some are cultivated as garden-flowers. See MIRABILIS.

Nyctalo'pia, *n.* [Lat.; from Gr. *nyktalopia.*] (*Med.*) The faculty of seeing best at night. A person suffering from this defect of vision sees little or nothing during the day, but in evening and night has his vision tolerably unobscured. It is the total opposite of NIGHT-BLINDNESS. *q. v.*

Nyctanthes, (*nik-tăn'theez,*) *n. pl.* [Gr. *nux*, night; *anthos*, flower.] (*Bot.*) A gen. of the nat. ord. *Jasminaceæ*, remarkable for the flowers expanding and smelling only in the night. *N. arbor tristis* is often grown in English hot-houses; in India its flowers are used for dyeing yellow.

Nycthem'eron, *n.* [Gr. *nyx*, *nyktos*, night, and *emer*, a day.] The natural space or period of twenty-four hours, constituting day and night.

Nye, *n.* A brood of pheasants.

Nye's Corner, in *Maine*, a village of Somerset co., abt. 8 m. N. of Waterville.

Nyireghyhaza, (*ny-ir'e-dy-a-sar,*) a town of Hungary, co. of Szabolcz, 20 m. N. of Debreczin. It has soda and salt works. *Pop.* 15,740.

Nykoping, or **Nykjoping,** (*nu'cho-ping,*) a læn or dist. of E. Sweden, having N. the lakes Mælar and Hielmar, and S.E. the Gulf of Bothnia; *area*, 2,516 sq. m.; *pop.* 132,000.

NYKOPING, cap. of the above district, on an inlet of the Baltic, 58 m. S.W. of Stockholm. *Manuf.* Brass-wares, woollen and cotton stuffs, hosiery, tobacco, paper, &c.; also ship-building, and a brisk export trade. *Pop.* 4,000.

Nyl'ghau, Nyl'gau, *n.* [Hind. *nilgâw*, blue cow.] (*Zoöl.*) The White-footed Antelope, *A. portax* or *picta.* This animal, which inhabits various parts of India, is one of the largest and finest antelopes known. Its face is long and narrow; its horns are black, round, pointed, and slightly curved forwards, though only about seven inches long; the ears broad and fringed with white hairs; the neck deep and compressed: along the top of the neck runs a slight mane of black hair, which is continued to some distance down the back; and on the breast is a long hanging tuft of a similar color. The general color of the Nylghau is a fine dark-gray or slaty blue on the upper parts, and white underneath. The female resembles the male in general appearance, but is considerably smaller, of a pale-brown color, and has no horns. There is a large white spot on the throat, and a smaller one on each cheek; and the pastern joints are marked in front with one, and behind with two white spots or bars. The native haunts of this powerful animal are the dense forests of India.

Fig. 1975. — NYLGHAU. (*Antelope portax or picta.*)

Nymph, (*nĭmf,*) *n.* [Fr. *nymphe;* It. and Sp. *nimfa;* Lat. *nympha*, pl. *nymphæ*; Gr. *nimphê.*] (*Myth.*) A kind of female deities, divided into aquatic and terrestrial divinities, or land and sea-nymphs. The nymphs of the land held supremacy, some over woods and valleys, others over hills, and rocks, and plains; and others, again, over certain trees, or special objects of vegetation; among the latter were the Wood-nymphs, the *Dryades*, and the *Hamadryades*, or oak-tree nymphs, and the mountain genii, the *Oreades.* Of the Sea-, or more properly speaking, Water-nymphs, the number is almost legion, and embraces divinities, presiding, not only over ocean and sea, but over river, lake, rivulet, stream, and fountain; receiving the name of Oceanides, Nereides, Naiades, Potamides, etc. Nymphs were represented as young and beautiful virgins, by some authors endowed with eternal life, by others, with unfailing youth and beauty, for 3,000 years; and only usually represented in a light azure skirt, extending from the hips to the feet in flowing folds, while all above was undraped; a vase or urn of water was sometimes placed in the hands of the water-nymphs, from which they seemed to be pouring.

—A poetical name for a handsome young maiden; a damsel; a frolicsome lass.

"The *nymph.* I dare not, need not name." — *Waller.*

Nymph, Nym'pha, *n.* [Lat. *nympha.*] (*Zoöl.*) An insect in a pupa state; a chrysalis. See INSECT.

Nymphæa, (*nim-fê'ah,*) *n.* [Lat. *nympha.*] (*Bot.*) The typical genus of the order NYMPHÆACEÆ, *q. v.*

Nymphæa'ceæ, *n. pl.* (*Bot.*) The Water-lily family, an ord. of plants, alliance Nymphales. DIAG. A many-celled fruit and dissepimental placentæ. — They are aquatic herbs with floating leaves. Thalamus large, forming a disc-like expansion more or less surrounding the ovary. Carpels united so as to form a compound, many-celled pistil; stigmas radiating on the top and alternate with the dissepiments; ovules numerous, attached all over the dissepiments. Embryo minute, on the outside of farinaceous albumen, inclosed in a vitellus. The plants of this order are chiefly found in quiet waters, throughout the whole of the N. hemisphere; they are, generally speaking, rare in the S. hemisphere. They have bitter and astringent properties. Many contain a large quantity of starch, both in their rhizomes and seeds; hence these parts are often employed as food. They are remarkable for their large showy flowers. The Egyptian water-lily, *Nymphæa lotus* (Fig. 1976), described under LOTUS, *q. v.*, was the favorite flower of ancient Egypt. See also VICTORIA.

Fig. 1976. — THE EGYPTIAN WATER-LILY. (*Nymphæa lotus.*)

Nymphal, (*nĭmf'al,*) *a.* Nymphean; pertaining or having reference to a nymph; nymphish.

Nymph'ales, *n. pl.* (*Bot.*) An alliance of plants, sub-class *Hypogynous Exogens.* DIAG. Dichlamydeous flowers, axile or sutural placentæ, stamens indefinite, and an embryo on the outside of a large quantity of albumen; or, if exalbuminous, the seeds have a very large plumule. The alliance is divided into 3 orders, viz.: NYMPHÆACEÆ, CABOMBACEÆ, and NELUMBIACEÆ, *q. v.*

Nymphal'idæ, *n. pl.* (*Zoöl.*) A numerous family of *Lepidoptera*, (see Figs. 767 and 1757,) distinguished by the rudimental structure of the fore-legs, which are thickly covered with hair; the labial palpi are proportionably longer; the wings more robust; the posterior grooved to receive the abdomen; and the discoidal cell either open or closed by a slender nerve. The caterpillars are variable in form; and the chrysalis is simply suspended by the tail.

Nymph'et, *n.* A young nymph; — used in poetry only.

"The *nymphets* sporting there." — *Drayton.*

Nymphical, (*nĭmf'ik-al,*) *a.* [Gr. *nymphikos.*] Belonging to nymphs.

Nymphip'arous, *a.* [Lat. *nympha*, and *parere*, to produce.] Bringing forth nymphs.

Nymphish, (*nĭmf'ish,*) *a.* Relating to nymphs; nymphal; lady-like.

"Tending all to *nymphish* war." — *Drayton.*

Nymph'like, Nymph'ly, *a.* Resembling, characteristic of, or befitting nymphs; as, *nymphlike* grace.

Nymph'olepsy, *n.* [Gr. *nymphê*, and *lambanein*, to seize.] A kind of weird possession coming upon one after an accidental meeting with the nymphs. (R)

"The *nympholepsy* of some fond despair." — *Byron.*

Nymphoma'nia, Nymph'omany, *n.* [Gr. *nymphê*, and *mania*, madness.] (*Med.*) Morbid and irrepressible concupiscent desire in women. It is a true and proper disease, and no more under the control of the will than hysteria or tetanus. The unfortunate patient, instead of being regarded as a stain on morality, should be commiserated for her physical misfortune.

Nyon, (*ne'on,*) a town of Switzerland, in the canton of Vaud, on the Lake of Geneva, 21 m. from Lausanne; *pop.* 2,500.

Nyons, (*nee-ong',*) a town of France, dept. of Drôme, on the Aigues, 33 m. N.E. of Avignon. *Manuf.* Silks, leather, and earthenware. *Pop.* 4,000.

Nys'sa, *n.* (*Bot.*) A gen. of plants, order *Alangiaceæ*, including the Black-gum, or TUPELO-TREE, *q. v.*

Ny'stad, a seaport-town of European Russia, in Finland, dist. of Abo, on the Gulf of Bothnia, 38 m. N.W. of Abo; *pop.* 2,600.

Nystag'mus, *n.* [Gr. *nystagmos.*] Nictation; drowsy winking of the eye.

N.—SECTION II.

Na'glee, HENRY M., U. S. A., was born in Philadelphia, in 1815; graduated from West Point (1835); became a brigadier-general in the Federal army early in 1862, and commanded a brigade at the battle of Fair Oaks, May 30 of that year. Died March 5, 1886.

Nail'bourne, *n.* In England an intermittent spring or stream flowing only at intervals, sometimes of several years.

Nama'qualand, Great, or **Nama'land.** The southern and least desirable part of the German possessions in Southwest Africa. It fronts the Atlantic Ocean, and is separated on the south from Cape Colony by the Orange river. It is principally inhabited by the remnant of the uncivilized portion of the Hottentots, who call themselves Namas or Namaquas, now reduced to less than 10,000.

Nam'aycush, *n.* [N. A. Ind.] (*Ichth.*) The great lake-trout (*Salvelinus namaycush*) of the Great Lakes and other lakes along the northern border of the U. S. It becomes 3 ft. long, is dark gray to black in color, marked everywhere with rounded paler, sometimes reddish, spots. It is a gamy fish and excellent eating. Called also Mackinaw trout, bear trout, longe, and (in Maine) togue.

Nance, in *Nebraska*, an E. central co.; *area*, 436 sq. m.; traversed by the Loup river. *Surface* consists of picturesque table-lands and valleys; *soil*, highly productive; a great live-stock country and good agricultural region. *Cap.* Fullerton. *Pop.* (1890) 5,773.

Nan'cy, *n.* A womanish or effeminate young man; usually Miss *Nancy*.

Nan'nie, Nan'ny, *n.* The familiar or pet term for Ann, Anna, Anne, or Nancy.—*Nanny-goat*, a female goat.

Nan'sen, FRIDTJOF, Ph.D., scientist and explorer, son of a well-known Norwegian advocate, was born at Froen, near Christiania, Oct. 10, 1861. He entered the University of Christiania in 1880, where he devoted himself to the study of zoölogy. He was appointed curator of the Natural History Museum at Bergen, Norway, in 1882, having in the same year made a voyage to the Jan Mayen and Spitzbergen seas, and the sea between Iceland and Greenland, in a sailing vessel, for the purpose of studying animal life in high latitudes. He then first became acquainted with Greenland, and acquired that intimate knowledge of the Eskimo which he displayed in his later commeuts. In 1888, he made his famous journey across Greenland from east to west on snowshoes, which feat won for him his reputation as a scientist and an explorer. This journey was described in his book, *The First Crossing of Greenland*. He took his degree of Ph.D. at the university that year, and in 1889 was appointed curator of the Museum of Comparative Anatomy at the University of Christiania. It was in 1884 that he first thought of his Polar journey, and his plans were slowly matured, based on that theory of Polar currents which has since received such remarkable confirmation. On June 24, 1893, he sailed from Christiania at the head of an Arctic expedition, intending to drift from the Siberian coast straight across the North Pole to the coast of Greenland. His vessel, the *Fram*, was designed by him specially to resist ice-pressure. The crowning event of the year 1896 was the return, after an absence of more than three years, of Nansen, quickly followed by that of the *Fram*. On Aug. 13 Dr. Nansen arrived at Vardo, on board the Jackson-Harmsworth steamer *Windward*. The unexpected meeting of Dr. Nansen with Mr. Jackson, on June 17, on an ice-floe S.E. of Cape Flora, was an event of dramatic interest, as the English and the Norwegian explorers had unwittingly wintered only a few miles apart. (See JACKSON-HARMSWORTH EXPEDITION.) Dr. *N.* has published (1897) a complete account of his expedition in his book *Farthest North*. Briefly, the details are as follows: After leaving Yugor Strait on Aug. 3, 1893, the *Fram* sailed for the mouth of the Olenek, which was reached on Sept. 15. Three days later the New Siberia Islands were passed, and on the 22d the ship was made fast to a floe in latitude 78° 50′ north, and longitude 133° 37′ east, and allowed to be closed in by the ice, to drift with the current. It was carried slowly to the N.W., for more than a year experiencing all the vicissitudes incident to changing seasons, but with no accident to ship or crew, nor any illness or unusual hardship. On Christmas Eve, 1894, the highest latitude previously reached (83° 24′, by Lockwood and Brainard in the Greeley Expedition) was passed; and on March 3, 1895, 84° 4′ was attained. Dr. Nansen, now feeling satisfied that the vessel would be carried forward in the direction that he had anticipated, determined to leave it and explore northward. Lieut. Johansen accompanied him, and the *Fram* was left in charge of Capt. Sverdrup, at 83° 59′ north, and 102° 27′ east longitude. Nansen and Johansen started on March 4, 1895, taking with them 28 dogs, 2 sledges, 2 kyacks for possible open water, and provisions for 100 days for the men, and dog food for 30 days. At first they made fair progress; but the ice becoming more broken, advance was very slow, and supplies falling short, some of the dogs were killed to feed the others. By April 7, 1895, they had reached latitude 86° 14′, but seeing nothing to the northward but a rough sea of frozen breakers, it was deemed best to turn southward. They had gone 200 miles nearer the Pole than had been attained by any previous expedition. They now directed their course toward Franz Josef Land, experiencing on their journey great hardships (in a temperature varying from —49° to —20°), as they were only woollen clothing, having left their fur clothing on the ship, to save weight in travelling. They floated with the ice, continuing their journey as best they could across the floes toward land, which they reached on Aug. 6, at 81° 38′ north, and about 63° east. This land proved to be unknown ice-capped islands. They continued their journey in the kyacks in open water along these islands until a suitable spot was found (81° 13′ north and 56° east) for wintering, as it was too late to expect

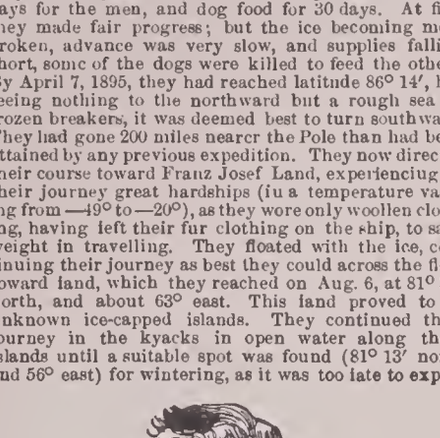

Fig. 3004.—FRIDTJOF NANSEN.

to make the journey across to Spitzbergen. They built a hut, shot bears and walruses, and lived in perfect health and reasonable comfort until spring. In March, 1896, they set out to cross the ice at Spitzbergen, and after two unsuccessful attempts occurred the happy meeting with Jackson and his party. Jackson offered Nansen and Johansen a passage home in the *Windward*, which had been sent out to him with supplies. The offer was accepted, and a speedy voyage brought them to Vardo, though Nansen very reluctantly abandoned his project of crossing to Spitzbergen. When Nansen left the *Fram*, in 83° 59′ north latitude, 102° 27′ east longitude, it had been drifted, entirely by the current, nearly half the distance between New Siberia Islands and Spitzbergen. It subsequently drifted farther north, the highest point reached being 85° 57′. After making, for a time, good progress, the vessel became stationary about the end of February, 1896, and there continued till the middle of July, when it was found possible to force a passage through the ice, and open water north of Spitzbergen was reached on Aug. 12. The lowest temperature recorded was —62° Fahr., and the highest 37½° Fahr. No land was seen, and the depth of the sea was from 1,800 to 2,200 fathoms. The scientific results of the expedition are highly important; for, besides proving in a very remarkable degree the correctness of Nansen's theory with regard to the direction of the Arctic currents, it has been shown that the Polar Sea, instead of being, as was formerly supposed, a shallow basin, is, on the contrary, of great depth, 1,600 to 1,900 fathoms having been sounded immediately north of the 79th parallel, up to which the depth was about 90 fathoms. Below the surface a warmer and salter stratum of water was found, due to the Gulf Stream, with a temperature of 31° to 33° Fahr. No land was seen, and in the higher latitudes no open sea—only narrow cracks in the ice. Dr. Nansen believes that this sea extends quite to the Pole, and that on this side, at least, there is no important Polar land. Special geographical discoveries include an island north of the Kara Sea, and several islands off the Siberian coast. Many important observations have been made relating to meteorology and magnetism, and numerous photographs taken. Nansen himself calls the expedition successful, and scientists generally agree in the opinion. That the mathematical pole was not reached matters little; the task of bringing to light a part of the Arctic region hitherto wholly unknown was fully performed.

Naph'a-water, *n.* A fragrant perfume distilled from orange blossoms.

Naph'tha (*năf'thă*), *n.* [Lat. *naphtha*, to throw out, to boil, to be angry.] Any one of several highly volatile, colorless, inflammable oils, especially that obtained from petroleum. Naphtha is the most volatile product of petroleum, and constitutes about 15 per cent. of the total flow of a well. The distillate is divided into grades A, B, C, D, according to gravity, the average specific gravity being about .885. Gasoline and benzine are distilled from crude naphtha. Naphtha is widely used in the trades and arts, taking the place of turpentine in many cases. It is used extensively as fuel for vapor-stoves and for street-lamps, the readiness with which it vaporizes making it easy to burn as a gas. Manufacturers of paints, varnishes, rubber goods, floor-cloths, &c., make large use of it, and it is also useful for cleaning clothes and gloves. Wood naphtha is the volatile liquid obtained when distilling wood for the production of pyroligneous acid, and it is from this that methylic alcohol is refined. The volatile liquid obtained in the dry distillation of crude India-rubber is called caoutchouc-naphtha. Other naphthas are named from their source, as coal naphtha, coal-tar naphtha, and shale naphtha.

Nar'colepsy, *n.* [Gr. *narkōsis*, and *lēpsis*, a seizing.] (*Pathol.*) A nervous disorder characterized by frequent, sudden, short attacks of irresistible drowsiness.

Narco'ma, *n.* [Gr. *narkē*, numbness.] (*Pathol.*) Stupor from use of narcotics; narcosis.

Nar'row-gauge, *a.* (*Railway Engin.*) Noting a width of track less than the standard or usual gauge. —*n.* A gauge of less than 56½ inches in width between the rails, which is the standard gauge both in the U. S. and in England. A few roads have been constructed on the narrow-gauge system—2 feet being the narrowest—but the advantage of uniformity is so great that the standard gauge is now almost universally adopted.

Nas-, Nasi-, Naso-. A prefix derived from the Lat. *nasus*, the nose.

Nasard (*năz'-ard*) *n.* An organ-stop, of 2 to 2½ feet tone, in that part of a large concert organ called the echo-organ.

Nas'by, PETROLEUM V. See LOCKE, D. R.

Nash, RICHARD, noted leader of fashion, was born at Swansea, Wales, on October 18, 1674, and died on February 3, 1761. He was popularly called "Beau Nash," and sometimes the "King of Bath" (from the watering-place of that name, where he was master of ceremonies). His *Life* was written by Goldsmith, in 1762.

Nash'ville, in *Arkansas*, a post-village of Howard co., 142 m. S.W. of Little Rock. *Pop.* (1897) 940.

Nashville, in *Michigan*, a post-village of Barry co., 44 m. S.E. of Grand Rapids; has furniture and other factories. *Pop.* (1894) 1,232.

Nashville, University of. (*Educ.*) In 1785, when what is now the State of Tennessee was part of the State of North Carolina, there was organized at Nashville the Davidson Academy. Its name was changed in 1806 to Cumberland College, which became, in 1826, the University of Nashville. It is a co-educational, non-sectarian institution, with 78 instructors, 1,439 students, and a library of 12,000 volumes, in 1897. Its income in that year was about $76,000.

Na'smyth, ALEXANDER, portrait painter, was born in Edinburgh, Sept. 9, 1758; died April 10, 1840. Among his best portraits is that of Burns, in the Scottish National Gallery.

Na'smyth, JAMES, engineer, inventor, and astronomer, son of Alexander *N.*, was born in Edinburgh, Aug. 19, 1808, and died May 7, 1890. He was the inventor of the steam-hammer, which he designed in 1839, and patented a few years later.

Nasmyth, PATRICK, landscape painter, son of Alexander *N.*, was born at Edinburgh, Jan. 7, 1787, and died Aug. 13, 1831.

Nast, THOMAS, caricaturist, was born at Landau, Bavaria, Sept. 27, 1840; came to the U. S. in early childhood; went to England as a special artist for an illustrated paper in 1860. He began war sketches for *Harpers' Weekly* in 1862; and later became noted for political caricatures, directed chiefly against the "Tweed Ring" and the Democratic party. In 1894 he went to London to take a professional position in connection with the *Pall Mall Gazette*. Died Dec. 7, 1902.

Na'talie, Queen of Milan I., of Servia, was born on May 2, 1859. She is the daughter of Pierre Ivanovitch Kechko, and married Milan (then Prince of Servia), October 17, 1875. Her husband secured a divorce in 1888, which has been pronounced illegal because granted without the required consultation with the Holy Synod. King Milan abdicated in favor of his son Alexander, in 1889, in consequence of these troubles with Queen *N.* and his resulting unpopularity.

Natato'rium, *n.* [Lat. *natatorius.*] A place or a school for swimming.

Na'tional Airs, Hymns, &c. Popular patriotic or religious tunes, hymns, or songs, characteristic of particular nations; especially such tunes as have come to be expected on all important public occasions in the countries to which they belong. The most widely known, and probably the oldest national hymn, is the English *God, Save the King* [or Queen]; there is some uncertainty as to its origin, for when it was printed in the *Harmonia Anglica* in 1842, varying only slightly from the present version, it was without the name of author or composer; it was afterward attributed to Henry Carey, who was writing popular songs and music about 1740; but later investigation seems to prove that the music has been taken from an "Ayre" by Dr. John Bull, but throws no light upon the authorship of the words. The hymn became widely known during the great Scottish rebellion of 1745, when it was sung every night in the London theaters. In 1790 the words were translated into German and sung with a new air in honor of the King of Denmark; and a hymn based upon these words has been used since that time as the Prussian national hymn, *Heil dir im Siegerkranz.* Haydn was inspired by it to write the *Emperor's Hymn*, the national hymn of Austria. The Danish national hymn is *Kong Christian;* the Swedish, *King Karl, the Young Hero,* by Esaias Tegner; the Norwegian, either *Sönner af Norge,* or *Ja, bi elsker dette Landet* (Yes, we love this land); the Hungarians have two hymns, the *Szózat* (Appeal) and the *Madyar Hymnusz.* Besides its two national hymns, Hungary has also the Rákóczy March, which has played a part in Hungary and Transylvania similar to that of the Marseillaise, in France. It is by an unknown composer, its name being in honor of Francis Rákóczy II., Prince of Transylvania and leader of the Hungarian revolutionists in 1703. The Russians have a grand *national* anthem, which was written and composed in 1830 by Gen. Alexis Lwoff; the Belgians, instead of a hymn, have a revolutionary song, *La Brabançonne;* the widely known French *Marseillaise,* written by Claude Joseph Rouget de Lisle, in 1792, and sung by the revolutionary volunteers from Marseilles, is also more accurately a song than a hymn; and so is *The March of the Men of Harlech,* the old Welsh battle song, which is said to have originated during the siege of the castle of the town of Harlech (the ancient capital of Merionethshire), which was captured by the Lancastrians from the Yorkists in 1468. In America there are many patriotic songs, among which *Hail, Columbia!* and *Yankee Doodle* come nearest to falling under the term *national. Dixie,* the air always associated with the Southern States and the time of the Confederacy, was and still is to the South what no song or hymn has ever been to the entire U. S., although in foreign judgment *Dixie* and *Yankee Doodle* are classed together, the one for the South, the other for the North. The air of *Yankee Doodle* is probably of English origin, and the words are attributed to Dr. Shuckburgh, an army surgeon, in 1755; it became popular during the American Revolution. *Dixie* was first sung in a New York theater, but was adopted by the South.

National City, in *California,* a post-village of San Diego co., on San Diego bay adjoining San Diego; has railroad shops, mills, creosote works, riveted pipe works, and reduction works. *Pop.* (1897) 1,450.

National Guard. (*Milit.*) It seems to have become the settled policy of the United States that, in addition to the regular army, each State shall organize and hold available for service a force of militia, now commonly known as National Guard; this militia force is enrolled for discipline, and not for military service except in time of insurrection, invasion, and occasionally of riot; under the national Constitution it is held liable, at the call of the President, for enrollment in the service of the United States, but at other times it is exclusively subject to State control, and is provided for and governed by the State statutes, although by act of Congress the national government furnishes certain financial aid and encouragement, tending to the greater efficiency of the force. The organization of the National Guard in the different States is modelled upon that of the regular army to secure a certain uniformity; and yet it is not entirely uniform in organization or in efficiency, from the fact that State militia laws are often based upon almost obsolete provisions, independently adopted at different times in the history of the different States. Although Congress is empowered to provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States, the power of appointing officers and the authority of training the militia according to the discipline prescribed by Congress is reserved to the several States, and until the militia has been actually called into United States service, the State government may legislate as to its organization and control, subject to the paramount right of Congress. When, however, the militia has actually been called forth, and has entered the United States service, the authority of Congress over it is exclusive. Either the State or Federal government has the right of requiring militia service from citizens, or of suppressing unauthorized military organizations, while an authorized organization must comply with all the requirements of the statute under which it is to be provided with funds or stores before such funds or stores may be issued. Discipline in the militia service is usually maintained by means of fines, which are imposed by officers or courts-martial, and collected through the machinery of the sheriff's office.

State camps of instruction for the National Guard are now held by 33 States, and detachments of the regular troops take part in the drill of these camps, with profit both to regulars, who get a better opinion of the soldierly qualities of the militia, and to the militia, who learn attention to details from the regulars. Instruction of portions of the militia of the seaboard States in the use of modern heavy ordnance is one of the projects for military education and coast defence which the Federal and State authorities must soon undertake; for with the fortification of the principal seaports, the regular army will not be able to furnish full garrisons for all the fortified ports. The issue of field-guns and ordnance-supplies to militia is now carried on as far as appropriations permit, but does not meet the increasing requests of the States. The strength of the National Guard is steadily gaining. In 1894 the government reports showed an increase of 5,000 guardsmen since 1893, the total organized militia force in 1894 amounting to 117,533, including officers and men; from 1894 to 1897 the increase has been only a little more than 1,000 men. In 1897 the total number of men in active militia service in the U. S. was 118,976; the total number liable to military duty was 10,149,598. During the Revolutionary War the Federal armies were made up of State troops adopted by Congress, and there was no other system of maintaining an army until the present Constitution of the United States was ratified. The real Continental militia ("train bands"), *i. e.,* those not adopted by Congress, played a less part than might have been expected in the Revolution, being available only for brief periods and lacking in training, in spite of the experiences of the French and Indian Wars. In 1795 the present militia system was inaugurated; it has received no general revision since, and is deficient in many particulars; in some States there is no general enrollment, and, although encouraged by the government, the organization of such forces as the National Guard is due to public spirit rather than government activity. The efficiency of the system was first tested in the War of 1812–15, when the value of the service rendered by the militia was lessened by the attitude of some of the States, which claimed a right either to consent or to refuse to furnish the forces asked by the President, and which objected to having their troops sent out of the State boundaries, or placed under any superior command except the personal command of the President; these difficulties were raised on account of the unpopularity of the war in certain States, but they have never been met by statute, and the same question between State and Federal control of the State volunteers arose again in the Civil War. In both wars the uselessness of undrilled militia was demonstrated; this fact has given impetus to the formation and drilling of the companies of the National Guard, as known to-day, in which the term of first enlistment gives each member a thorough understanding of elementary military tactics. In most of the States medals are given for marksmanship and regular attendance at drill, and in New York they are also given for long terms of service.

The NAVAL MILITIA, commonly termed NAVAL RESERVES, come under the cognizance of the Assistant Secretary of the Navy, but are under the immediate supervision of the governments of the several States in which such organizations exist. The duty of the Naval Reserves, in case of war, is to man the coast and harbor defence vessels and operate in boat squadrons against attacking forces, leaving the regulars free to carry on offensive operations at sea. In 1897 such corps existed in 15 States, viz.: California, Connecticut, Georgia, Illinois, Louisiana, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, and South Carolina. The total number of enlisted men, including petty officers, was about 3,500. The various battalions in seaboard States are quartered in old government vessels (as the New Jersey battalion on the monitor *Ajax,* at Camden), and each year a practice cruise of ten days gives the young tars a taste of the realities of a "bluejacket's" life. In the several States the Naval Militia is enumerated with the National Guard as a part thereof.

Na'tional Li'brary. See LIBRARY OF CONGRESS, under LIBRARIES OF THE UNITED STATES.

National Parks. Several extensive tracts of territory have been, within the last few decades, set aside by the U. S. government as national parks, to be kept forever for the enjoyment or benefit of the people. The two most notable of these, the Yosemite and the Yellowstone National Parks, owe their origin to the marvels of nature which they embrace—for an account of which see these titles. The "Big Tree" reservation in California is a national park of the same description. In Canada a similar park has been set aside at Banff, in Alberta, and also Roger's Park, 135 miles to the west, the attraction of both being their magnificent mountain scenery. New York State and Canada have set aside similar parks at Niagara, and New York has a State park in the picturesque Adirondack region. A series of national parks of different character consist of the principal battlefields of the Civil War, including Gettysburg, Chickamauga, and others. Large tracts of the forest lands of the West have similarly been set aside, not, however, as parks, but as reservations to preserve the rapidly diminishing forests. See FORESTRY; PARKS AND FOREST PRESERVES.

Na'tionalism, *n.* The quality or state of being national; devotion to the interests of the nation as a whole rather than to a part of it, in opposition to sectionalism; nationality; a national trait or characteristic.—As a form of civil polity, in the U. S., as advocated especially by the followers of Edward Bellamy, *N.* demands the extension of the functions of government to include the control of all economic operations, and all personal services now rendered for profit or hire. It calls for the nationalization of the postal service, telegraphs, telephones, railroads, and coal mines; the municipalization of light and water supply, local transit, and other public functions; and the equalization of educational opportunities. The growth of nationalistic ideas has been rapid, and most of them have been adopted by the People's Party, and thus brought into general politics. See PEOPLE'S PARTY; POPULISM.—In Ireland *N.* signifies a desire for national independence, and manifests itself in the platform and principles of the advocates of Home Rule.

Na'tionalist, *n.* An advocate of nationalism in any of its phases.

Natro'na, in *Wyoming,* an E. central co.; *area,* 5,475 sq. m.; intersected by the North Platte river. *Surface,* broken with large level valleys; *soil,* white clay loam, with a little sand. *Products.* Oil, coal, soda, iron, asbestos, silver, and building stone; mountains are heavily timbered. *Cap.* Casper. *Pop.* (1897) 1,500.

Nattes (*nāts*), *n.* [Fr. *natte,* mat.] (*Arch.*) A kind of surface decoration, so called from the resemblance of its interlacement to that of matting.

Natu'na Islands lie N.W. of Borneo, in the China Sea, and belong to the Dutch. They are densely wooded and mountainous, Ranay, or Great Natuna, rising to a height of 3,500 feet. The largest of the islands is about 600 sq. m. *Pop.* 2,000.

Nat'ural Gas. See GAS, NATURAL.

Natural Selec'tion. (*Biol.*) The cardinal principle of the theory of evolution in nature as advanced by Charles Darwin, and expressed in the phrase, "survival of the fittest." The term is, in form and idea, the opposite of "artificial selection," or the practice, common among breeders of domestic animals, of selecting parents having certain characteristics, with the view of obtaining progeny having the same characteristics. It is by this course of selective pairing, constantly tending to reproduce parental characteristics and to intensify them, that races, breeds, or strains of various useful and ornamental domesticated animals have been produced, perfected to arbitrary standards, and maintained. In a similar manner, horticulturists have produced and perpetuated the countless varieties in garden-plants. The origin in each case was some accidental variation, considered useful or ornamental, and perpetuated by selective breeding, as above outlined. Assuming the undoubted (though unexplained) existence of variations in all living things, plants and animals, Mr. Darwin supposed that when it happened that a union of male and female accidentally possessed of similar peculiarities took place these characteristics would tend to become more prominent in the progeny, just as happened when the parents were arbitrarily married under human control. He described the constant action and reaction upon one another of animals or plants living in competition by the picturesque phrase, "a struggle for existence"; and pointed out that those individuals and species would be the winners in this struggle that were best fitted to cope with the difficulties they encountered; or, in other words, were best adapted to their environment. The weakest, least competent, most unadapted, would die off, while the superior species and individuals would live. This process he called a "survival of the fittest"; and it followed that only the best in each case would, as a rule, produce young, and perpetuate their kind. Now, assuming the variability of all creatures within certain limits, it is plain that any variation from the type must in many, if not all cases, be either to the advantage or disadvantage of its possessor; and should it be perpetuated and intensified in the progeny by fortuitous mating, it would increase in that generation the weakness or strength of the individual or race. A tendency toward weakness, or unfitness, would soon lead to extinction in the fierce struggle for existence; but were the tendency toward strength, greater fitness or adaptability to its circumstances would assist in making its possessor a winner, and consequently be likely to be continually handed on to succeeding generations, always strengthening in some one, if not more, respects its possessors, and contributing to their continued survival. Meanwhile, some other line of variation, or many other lines, might be taken by other branches of the original stock (the beginning of this

process going back to the most primitive and simply organized beings), which would ever result in the submergence or extinction of disadvantageous variations, and the emergence and perpetuation of advantageous variations. The result would be a divergence of forms which would, in the course of time, amount to the vast and highly diverse groups and species of plants and animals now known. Natural selection, then, is the fortuitous selection by nature of parents breeding toward the advantage of their race in the struggle for existence, as men arbitrarily select parents to breed toward some artificial standard of form. One phase of it is distinguished as SEXUAL SELECTION (*q. v.*). See NEO-DARWINISM. The works of Darwin, Wallace, Herbert Spencer, Asa Gray, Joseph Hooker, G. Romanes, Mivart, and others, should be read. See DARWINISM; EVOLUTION; DEGENERATION, &c.

Naturaliza'tion, *n.* (*Law.*) The act of receiving an alien into the condition and investing him with the rights and privileges of a natural-born subject or citizen. The Constitution of the United States vests in Congress the exclusive power to establish a uniform rule of naturalization. Persons of age may be naturalized, with their resident minor children, upon taking an oath to support the Constitution of the United States, and renouncing all allegiance to a foreign prince or state, provided they belong to one of the following classes: 1. Those who have resided in the United States at least five years continuously, and have legally declared their intention to be naturalized, and to renounce foreign allegiance, more than two years before applying for naturalization. 2. Those who have resided here for a continuous period of five years, of which three were during minority. 3. Those who have resided here one year, and have served in and been honorably discharged from the military forces of the United States. 4. Those who have served three years on a merchant vessel of the United States, after legal declaration of intention. Citizens of countries at war with the United States are excepted. Widows and children of those who have made legal declaration before death are deemed citizens. So much trouble has been caused heretofore, especially in the city of New York, by crowds of persons applying for naturalization just before an election that the amended Constitution of 1894 of the State of New York now provides that a naturalized citizen cannot vote in that State until 90 days after he has been naturalized. In Great Britain the power to naturalize is vested in the principal Secretaries of State, any one of whom, on receiving a petition from an alien intending to reside in the United Kingdom and desirous of being naturalized, may issue a certificate, to be enrolled for preservation in Chancery, granting to the petitioner, on condition of his taking within 60 days a prescribed oath, all the privileges of a natural-born British subject, except that of becoming a member of the Privy Council or of either House of Parliament.

Naturel', *n.* [Fr.] A state of nature without bias or perversion.

Nau-. A prefix derived from the Gr. *naus*, a ship.

Nau'binway, in *Michigan*, a post-village of Mackinac co. *Pop.* (1894) 529.

Naucra'tis, *n.* (*Anc. Geog.*) An ancient Egyptian city in the delta of the Nile, about half way between Cairo and Alexandria; its site was discovered in 1884 by Petrie, near the modern village of Nebireh, and excavation has revealed ruins of the Hellenium (a famous temple, the common property of the Greeks), and of other temples known to history.

Nau'mann, EMIL, musical composer and writer, was born at Berlin, on Sept. 8, 1827, and died at Dresden, on June 23, 1888. His chief work is an illustrated *History of Music.*

Naumann, JOHANN FRIEDRICH, ornithologist, was born at Ziebigk, near Kötbeu, Germany, Feb. 14, 1780, and died Aug. 15, 1857. He wrote *Natural History of Birds of Germany.*

Naumann, JOHANN GOTTLIEB, or AMADEUS, musical composer, was born at Blasewitz, near Dresden, April 17, 1741, and died Oct. 23, 1801. His chief operas are *Amphion, Cora, Gustav Wasa,* and *Orpheus.*

Naumann, KARL FRIEDRICH, mineralogist and geologist, son of J. G. *N.*, was born at Dresden, May 30, 1797, and died Nov. 26, 1873. He was professor of Mineralogy and Geology at Leipsic from 1842 to 1871. He wrote *Manual of Geognosy,* &c.

Naumann, MORITZ ERNEST ADOLPH, physician, son J. G. *N.*, was born at Dresden, Oct. 7, 1798, and died Oct. 19, 1871. He was a professor at Bonn from 1828. His works include a *Handbook of Medical Clinics.*

Nauropom'eter, *n.* [Gr. *naus*, ship; *rhohê*, an inclination, and *metron*, measure.] An instrument for measuring the amount of a ship's heeling, or inclination at sea.

Na'vajos, *n. pl.* (*Ethnol.*) A tribe of American Indians of Athapascan stock, of warlike and roving habits, formerly dwelling mainly in the San Juan Valley of New Mexico and raiding extensively. They now occupy a reservation at the northwestern corner of New Mexico, and are sedentary and peaceful, owning immense herds of cattle, donkeys, sheep, and goats, cultivating farms, and weaving fine blankets. The *Navajo blankets* are the most famous of all Indian blankets, having a superior finish and greater artistic variety in their patterns. They are less frequently and more carelessly woven now than formerly, and the cheap, fading, aniline dyes are often used instead of the fast colors made by the Indians themselves from various plants. As a consequence, the older and finer specimens now bring large prices. The modern blankets are woven on just such primitive looms as those first seen by white men, and the patterns of the blankets are still the same. All Navajo blankets are single-ply, and the designs, no matter how complex, are the same on both sides. The colors most in use are red and black, sometimes relieved by yellow and green, which vary the numberless arrangements of bars, diagonals, diamonds, zigzag lines to symbolize lightning, crosses for stars, and terraced pyramids for rain clouds.

Navarre', in *Ohio*, a post-village of Stark co., 6 m. S. of Massillon. *Pop.* (1897) 1,260.

Navarre'te, MARTIN FERNANDEZ DE, naval officer and historian, was born at Avalos, Logroña, Spain, on Nov. 8, 1765, and died Oct. 8, 1844; became a captain in the Spanish navy in 1796, and subsequently held high offices in the department of marine. He planned and collected the first four volumes of the great collection of documents relating to Spanish history. During his later years he was a peer and senator.

Navaso'ta, in *Texas*, a city of Grimes co., 141 m. E. of Austin; has a cottonseed-oil mill and gins. *Pop.* (1897) 3,650.

Navas'sa, *n.* (*Geog.*) A West Indian island under the control of the United States. It contains guano deposits, and is owned and occupied by a company engaged in mining and shipping fertilizing material.

Na'val Reserve'. See NATIONAL GUARD.

Na'vy of the United States. (*History.*) The American colonies fitted out many armed vessels for defensive and offensive warfare before the Revolution. In 1690 Massachusetts sent out armed vessels for defence against the French privateers of Acadia, and fitted out an expedition against Quebec. Quite a navy was extemporized during the French and Indian wars, and in 1741–63 there were said to be 400 colonial privateers. The line between privateering and piracy was not always clear; and after peace was declared in 1763 these were mainly dismantled. On the outbreak of the Revolution, in 1775, Massachusetts fitted out some privateers, and in October, 1775, the Continental Congress began to organize a navy, and by December had authorized 20 cruisers. John Paul Jones hoisted the first ensign from a regular American man-of-war, on the *Alfred*, then lying in the Delaware. The *Alfred*, with seven other vessels, under command of Ezekiel Hopkins, sailed Feb. 17, 1776, against British vessels then ravaging the coast of Virginia. They were unsuccessful, and Hopkins was dismissed. Paul Jones was promoted to command, and captured 16 prizes. In 1776–77, after the Declaration of Independence, Congress authorized the building of 7 frigates, 2 cutters, 2 sloops-of-war, and 3 seventy-four gun ships, and organized the force of naval officers. During the War of Independence the Continental vessels lost by capture, wreck, &c., numbered 24, carrying in the aggregate 470 guns. The loss of the British was 102 vessels, carrying 622 guns. About 800 vessels of all sorts were captured from the English by cruisers, privateers, &c. After the peace of 1783 the cruisers remaining were sold. In 1794, difficulties breaking out with the Barbary states, Congress ordered the building of 6 frigates, among which were the famous *United States* and *Constitution*. In 1798 a naval war broke out with France. During this strife 84 armed French vessels, nearly all privateers, carrying a total of over 500 guns, were captured, but almost all by American privateers. The only vessel of the American navy captured by the French was the *Retaliation*. The *Constellation* captured the French frigate *L'Insurgent*, an event of importance, as it was a victory over an equal adversary. In 1801 peace with France was declared, and the government sold the most of its ships. The hostility of Tripoli called for naval activity in 1801–5, and in the War of 1812 the *Constitution* captured the British frigate *Guerrière*, the *Wasp*, the *Frolic*, and the *United States* the *Macedonian*. This war was marked also by the naval victories of Lake Erie and Lake Champlain.

The navy played a minor part in the war with Mexico, but was actively engaged in the civil war on the Interior waters and in the coast blockade. Of its achievements may be named the battle between the *Monitor* and *Merrimac*, the first combat of ironclads; the sinking of the *Alabama* by the *Kearsarge*, and the victories on the Mississippi and in Mobile harbor. A naval event of importance was Commodore Perry's expedition to Japan (1852-53), by which that country was opened to commerce. In the war with Spain (1898) the navy played the leading part, winning signal victories at Manila and Santiago, in each of which the Spanish fleet was totally destroyed, while in the two engagements the U. S. had only one man killed and a few wounded, and its ships almost uninjured.

PRESENT EFFECTIVE STRENGTH.—Of the vessels built during the Civil War few remain in use. A number of the old monitors were kept until 1905 with the idea that they might be of avail for harbor defense, but, attacked by rust and decay, the few remaining at that date have been disposed of. The other old ships of the navy are of no value for present day warfare, their only service being as receiving ships, training ships, and Naval-Reserve rendezvous. The venerable *Constitution*, which became so famous from its exploits in the war of 1812–15, is retained as a cherished relic.

On January 1, 1902, the new navy of the U. S. embraced the following numbers and classes of ships, in commission or building, viz.: 9 battleships of the first class, 1 of the second class, and 6 turret ships and monitors; 2 armored cruisers, 15 protected and 3 unprotected cruisers; 17 gunboats; 1 dynamito cruiser; 1 harbor defense ram; 1 submarine boat; 22 torpedo-boats; 1 dispatch boat. Besides these may be named the fleet steamers *St. Paul, St. Louis,* &c., of the American Line, which are reckoned as auxiliary cruisers, subject to duty on demand of the government in case of necessity. On January 1, 1906, there were vessels in commission, building, or authorized sufficient to more than double the numbers and strength of the navy as above given. These included 27 battleships, 14 armored cruisers, 10 effective monitors, 22 protected cruisers, 32 torpedo boats, 20 torpedo boat destroyers and 12 submarine boats. Those building are, as a rule, considerably larger and more powerful than those now in commission, rivalling the heaviest ships of their class abroad. While the larger of our older battleships are of less than 12,000 tons displacement, the *Georgia, New Jersey* and *Nebraska* of the new fleet are of 15,000, and the *Connecticut* and its sister ships of 16,000 tons each, while their horse-power greatly exceeds that of the older ships. Latest under order for construction is the 20,000 ton battleship, to cost approximately $10,000,000, intended to surpass in size and power the great British ship *Dreadnought*. Of the armored cruisers now in commission, the *Brooklyn* is of 9,215 and the *New York* of 8,200 tons; while the newer ships of this class range from 13,600 to 14,500 tons, with 23,000 horse-power. The relative strength in numbers of ships, built and building, of the several principal nations is given below, estimated for January 1, 1907.

Nations	*Battleships*	*Coast Defense*	*Armored Cruisers*
Great Britain	69	7	37
France	41	8	19
United States	29	22	12
Germany	20	6	12
Japan	26	13	13
Italy	20	4	7
Russia	19	12	5
Austria	16	7	3
Turkey	12	1	
Netherlands	8	15	
Sweden	8		2

In the case of Russia and Japan the naval strength changed largely during 1904–05, the former losing much the greater part of its navy in battle, while the latter added largely to its naval strength by the capture of Russian ships. The true naval strength of the nations cannot be judged from the numbers of ships. Thus many of the battleships of Great Britain have been rendered practically obsolete through the great improvements in naval architecture. Those of Turkey are in great measure useless, and the other nations have many old ships. The United States and Germany began to build later and have few ineffective ships. The American navy contains splendid examples of naval architecture, and when its new and still more powerful vessels are set afloat, it will be able to hold its own upon the sea with any nation of the old world. The flag officers of the navy in 1906 consisted of Admiral George Dewey and 20 rear-admirals, with a large number of rear-admirals and commodores on the retired list. The grade of commodore on the active list has recently been abolished. The regular sea stations of the navy are the North Atlantic Station; Asiatic Station, with headquarters in China or Japan; European Station, headquarters in the Mediterranean; Pacific Station, headquarters at San Francisco; and South Atlantic Station. There are 19 shore stations, including the 8 navy yards. There are naval stations at Newport, R. I., where is a marine barracks, the training-ship *Constellation*, a naval war college, and a torpedo station; New London, Conn.; Indian Head, Md., where is an ordnance proving ground; Port Royal, S. C.; Key West, Fla.; Puget Sound, Wash.; Sitka, Alaska, where is a marine barracks; and Yokohama, Japan, where is a naval hospital.

NAVY YARDS.—At one time the navy yards built, equipped, and repaired almost all the vessels of the navy, and were fitted with large ship-houses and dry docks, as well as foundries and machine-shops for the forging of cannon and anchors. The six wooden steam frigates built before the War of the Rebellion were built in the yards, and were the finest war vessels constructed up to that time. Of these, the *Niagara* was used in laying the first Atlantic telegraph cable, and the *Merrimac* was seized by the Confederates and cut down into the ironclad that fought the *Monitor* in Hampton Roads. The new steel warships have been chiefly built by contract by private builders, and the Secretary of the Navy has reported that the main service of the navy yards was for repairs. The eight navy yards are as follows:

Portsmouth, N. H. (Kittery, Me.); extent, 164 acres; 1 dry dock, 3 ship-houses, a marine barracks.

Boston (Charlestown, Mass.); extent, 83⅛ acres; 1 dry dock, 3 ship-houses, 3 slips, a naval hospital.

New York (Brooklyn, N. Y.); extent, 193¼ acres; a marine barracks, a naval hospital.

League Island (Philadelphia, Pa.); extent, 923 acres; 4 dry docks, 2 ship-houses, a naval home.

Washington, D. C.; extent, 42 acres; a marine barracks, a naval hospital.

Norfolk (Portsmouth, Va.); extent, 109 acres; 1 dry dock, 4 slips, a marine barracks, a naval hospital.

Pensacola, Fla.; extent, 83¼ acres; a marine barracks, a naval hospital.

Mare Island, Cal.; extent, 900 acres, a marine barracks, a naval hospital.

NAVAL ACADEMY.—During the War of 1812, boys of 14 years were sent to sea as midshipmen under care of naval captains; and in 1813 Congress authorized

schoolmasters for each ship which had 12 midshipmen. There were 25 such teachers, of whom 14 were at sea, and 11 at Boston, Norfolk, and Philadelphia. In the latter city was a sort of headquarters at the Naval Asylum, where a board of examiners, formed from the teachers, examined midshipmen for promotion. In 1836 a meeting of naval officers, held on the U. S. S. *Constitution*, passed resolutions in recommendation of a naval school, and these were presented to the Senate April 23, 1836; but action was not taken till 1845, when the Hon. George Bancroft was secretary of the navy, and under his influence Fort Severn, at the mouth of the Severn river, on what was known as Windmill Point, at the eastern end of the city of Annapolis, Md., was transferred from the War Department to the Navy Department, and its buildings and grounds were appropriated to a naval school. There were collected those midshipmen who were on shore, and the school was regularly opened October 10, 1845. In January, 1846, there were 56 midshipmen, of whom 36 had been appointed in 1840, 13 in 1841, and 7 in 1845, and 8 instructors. They were instructed in "mathematics, nautical astronomy, theory of morals, international law, gunnery, the use of steam, the Spanish and French languages, and other branches." In December, 1847, the number had risen to 90. Congress appropriated in 1846, $28,200 for the school, and in 1847 a like sum. In 1849 the school was re-organized, by a board of naval officers, after the example of the military academy at West Point, and in November, 1851, the course of study was fixed at four years. The sloop-of-war *Preble* was assigned to the school for practice, and three and a half months assigned for summer cruising. The name was changed from the Naval School to the United States Naval Academy, and it was placed under the chief of the Bureau of Orduance and Hydrography. In 1861 Captain George S. Blake, superintendent of the academy, was warned of an attack, and planned embarking the cadets on the *Constitution* for Philadelphia; but by orders of April 27 he removed them to Newport, R. I., where part of the school was quartered in a hotel, leased for the purpose, and the rest on the practice-ships which were brought from Annapolis with them. They remained at Newport till 1865, carrying on actively the school work during the Civil War, and each year graduating a class for active service. Valuable and convenient buildings had been erected at Annapolis before the war, and afterward the site was enlarged from the original 50 acres by the purchase of the executive mansion of the governor of Maryland and 109 acres of ground; and on the return of peace, in 1865, the academy returned from Newport to its original home. In 1867 it was placed under the direct supervision of the Navy Department. In 1868 a new chapel was built, the old one being converted into a hall for trophies and models. In 1865 two classes were added of cadet-engineers, containing 50 in the aggregate. In 1873 the course was lengthened to six years, four being spent in the academy and two subsequently in practical instruction at sea. In 1896 there were 68 cadets at sea completing the last two years, having finished their course in the academy. There were in the first class, line division, 33; engineer division, 12; second class, 46; third class, 67; fourth class, 79. Cadets are appointed by Representatives in Congress, one each in six years; while 11 are appointed by the President.

NAVAL OBSERVATORY.—The observatory was established at Washington, D.C., in 1842, as a "Dépot for Naval Charts and Instruments." It has for many years compiled the *Nautical Almanac*, a publication of the greatest importance to navigators, and has gradually grown to be a very important astronomical observatory. In 1873 it was fitted with a new telescope with a 26-inch object glass, made by Alvan G. Clark, of Cambridge, Mass., which, except one of the same size made at the same time for the University of Virginia, was at that time the largest telescope in use. A new observatory building was erected in 1892, and is fitted, besides the great equatorial telescope, with all other usual apparatus of observation. Prof. Matthew F. Maury, in the early days of the observatory, and, more recently, Prof. Simon Newcomb have attracted special attention to it. The observatory is under the Bureau of Navigation, and is controlled by a superintendent, who is commonly a commodore of the navy, with 12 scientific and naval assistants, who include a lieutenant-commander, 3 lieutenants, and 4 professors of mathematics.

MARINE CORPS.—The United States Marine Corps was established in 1775, by act of Congress authorizing the formation of 2 battalions. Its duties are those of a naval police, and a certain number of marines are assigned to ships and naval stations, as needed. They are subject to the laws and regulations of the navy, except when detached to serve with the army, to which they are liable, and then they fall under the Articles of War. There are marine barracks at Newport, R. I., and Sitka, Alaska, as well as in connection with the navy yards at Portsmouth, New York, Washington, Norfolk, Pensacola, and Mare Island. During the Civil War the force was expanded to 3,074 enlisted men, and the officer in command of the corps was a brigadier-general; but since 1874 the commandant has been a colonel, and in 1875 the force was reduced to 1,500 men. These are now commanded by 1 colonel-commandant, 5 general staff officers, 2 lieutenant-colonels, 4 majors, 20 captains, 30 first lieutenants, and 12 second lieutenants. There are 26 retired officers of marines.

Naz'arites, *n. pl.* (*Eccles.*) The name of a Christian sect which flourishes in Russia and Hungary, especially in the latter. Originally they were known only in the Bannat and in the neighborhood of Szegedin, but more recently they have spread over the greater part of Hungary. Between the Danube and the Theiss they now number more than 80,000. The most of their adherents are in the Magyar districts. They are Spiritualists; reject the sacraments, approve the civil marriage only, and refuse to pay taxes or do military service. In order to escape from the latter, the parents of the young men or, in case of inability, the parishes buy substitutes for them.

Ne-, Ne'o-. A prefix, derived from the Gr. *neos*, new.

Ne Plus Ul'tra. [Lat., no more beyond.] The utmost limit; perfection.

Neal, JOSEPH CLAY, humorist, was born at Greenland, N. H., Feb. 3, 1807, and died July 18, 1847. He edited the *Pennsylvanian* (1831–44); his works were collected in *Charcoal Sketches* (1837 and 1849), and *Peter Ploddy and Other Oddities* (1844).

Neale, JOHN MASON, hymnologist and ecclesiastical historian, was born in London, Jan. 24, 1818; educated at Trinity College, Cambridge; he belonged to the extreme High Church party; was inhibited by his bishop for fourteen years, and burned in effigy in 1857. He founded the Sisterhood of St. Margaret in 1856. His contributions to hymnology are notable. He translated the mediæval hymn, *De contemptu mundi*, by Bernard of Cluny, in several parts, commencing "Brief life is here our portion," "Jerusalem, the golden," &c. He also wrote *History of the Holy Eastern Church; Hymns of the Eastern Church; Essays on Liturgiology*, &c.

Neal'ogy, *n.* [Gr. *neaïēs*, young; *logos*, discourse.] The study or description of an animal in its early adolescent stages.

Nean'derthal Man. (*Anthrop.*) The fossil remains of a man which were found in a limestone cave in Neanderthal, a valley between Düsseldorf and Elberfeld in Rhenish Prussia; it is believed to be the oldest specimen of prehistoric man yet discovered; its skull is peculiarly formed, being less human and more Simian than any other human skull, and it has led some archæologists to consider it the type of a distinct race of ancient cave-dwellers, but, as its characteristics have sometimes been repeated in modern instances, the better authorities are inclined to think them the result of special causes during the life of the man.

Nebras'ka, Univer'sity of. (*Educ.*) A coeducational, non-sectarian institution, situated at Lincoln, founded by an Act of the Legislature, in 1869; maintained and controlled by the State. The university is governed by a board of 6 regents, elected by popular vote, and holding office for 6 years. Tuition is free except in the law department, in which the fees are $45 a year. In 1896 there were 133 instructors and 1,506 students, with a library of 32,000 volumes. By Act of the Legislature, a tax of $\frac{3}{8}$ of a mill is provided for the support of the university. Besides, it has revenues from land leases and sales under a Congressional grant of 1862, and from the Morrill Fund Act for Agricultural Stations of 1890. The income from all sources in 1895 was $272,250.

Neb'ule, *n.* (*Arch.*) An ornament of the zigzag form, but without angles; it is chiefly found in the remains of Saxon architecture, in the archivolts of doors and windows.

Nece'dah, in *Wisconsin*, a post-village and township of Juneau co., abt. 20 m. N. of Manston. *Pop.* of village (1895) 1,680.

Neck'-wear, *n.* Clothing for the neck or throat.

Nec'to-. A prefix derived from the Gr. *nēktos*, swimming.

Née (*nā*), *a.* [Fr.] Literally, born; used to show the family or maiden name of a married woman; as, Mrs. Swallow, *née* Robins.

Need'le-beam, *n.* (*Civil Engin.*) A transverse floor-beam of a bridge, resting on the chord or girders, according to the construction of the bridge.

(*Car-building.*) The cross-frame tie-timber bolted to the lengthwise sills and floor-timbers, between the bolsters, to which may be attached the king-posts, queen-posts, or truss-blocks.

Nef, *n.* [Fr.] The nave of a church.

(*Obs.*) A piece of decorative table-plate, in the shape of a ship or boat.

(*Archæol.*) A commercial or trading vessel.

Neg'ley, JAMES SCOTT, soldier, was born in Pennsylvania in Dec., 1826. He served as a private in the Mexican War. In 1861 he raised a brigade in eight days, and was made brigadier-general; served in Alabama and Tennessee with the Army of the Ohio, commanding the Federal force at the battle of Lavergne, Tenn., and defeating the Confederates under Anderson and Forrest. For gallantry at Stone River he was made major-general of volunteers. Gen. *N.* resigned shortly after the battle of Chickamanga, owing to some misunderstanding with other officers, but his course was finally approved by the authorities. He has of late years resided at Plainfield, N. J.

Neil'son, ADELAIDE (stage name of ELIZABETH ANN BROWN), actress, was born at Leeds, Yorkshire, England, March 3, 1848. At 17 she made her *début* as *Juliet;* and in 1878 she won first place among English actresses by her acting of *Amy Robsart.* She made four successful visits to America, the last in 1880. Died August 14, 1880.

Ne'ligh, in *Nebraska*, a city, cap of Antelope co., 36 m. W. by N. of Norfolk, on F., E. & M.V. R. R. Seat of Gates College (Congregational). *Pop.* (1897) 1,800.

Nel'liston, in *New York*, a post-village of Montgomery co., 11 m. S.W. of Fonda. *Pop.* (1897) 740.

Nel'son, in *North Dakota*, a N.E. co.; *area*, 1,008 sq. m.; intersected by Cheyenne river, and also drained by numerous small streams and lakes. *Surface*, undulating; *soil*, a very fertile black loam, with clay subsoil. *Cap.* Lakota. *Pop.* (1897) 5,500.

Nem-, Nema-, Nemat-, Nemato-. A prefix derived from the Greek *nēma*, thread.

Nemeo'bius, *n.* (*Entom.*) A genus of diurnal *Lepidoptera*, fam. *Lycænidæ*, of which the best-known species is *N. lucina*, or Duke of Burgundy Butterfly.

Fig. 3005.
NEMEOBIUS LUCINA.

Nemours (*ne-moor'*), LOUIS CHARLES PHILIPPE RAPHAEL D'ORLEANS, DUC DE, second son of Louis Philippe, King of France, was born in Paris, October 25, 1814; educated at the College of Henry IV., and was appointed a colonel by Charles X. while only a child. At the age of 16 he rode into Paris at the head of his regiment. A few years later he served gallantly in Algeria, and was promoted lieutenant-general in 1837. In 1831 he was elected King of the Belgians, but his father declined on his behalf this offer of the National Congress, as he also did a similar offer of the throne of Greece. Married (1840) the Princess Victoria of Saxe-Coburg. In 1841 he was again with the army in Africa. On the death of the Duc d'Orleans, Louis Philippe submitted a bill appointing the Duc *de N.* regent in case the throne devolved upon his brother's infant heir, and this was carried against the opposition of the Liberals, who opposed his clerical and absolutist leanings. Owing to this law the Duchesse d'Orleans, whom the Liberals favored, could not be appointed regent in 1848, and to this extent the Duc *de N.* was contributory to the revolution of February. He joined the other members of the exiled family at Claremont. He was the first of the Orleanist princes to recognize the Comte de Chambord as the rightful King of France. In 1857 he was left a widower, with two sons and two daughters. His eldest son, Comte d'Eu, married the daughter of Dom Pedro, late Emperor of Brazil; his younger son is the Duc d'Alençon. The Duc *de N.* returned to France in 1870, and afterward lived quietly in Paris and Versailles, taking no part in politics. In 1886, when pretenders were banished, his name was stricken from the army list. Died June 25, 1896.

Ne'o-Cath'olic, *a.* (*Ch. Hist.*) Pertaining to a new school in the Church of England, different from the older Catholic party, represented by Pusey and Keble, in that it openly avows sympathy with the Roman rather than the Anglican Communion, in both ritual and doctrine. In France, pertaining to a school of liberal Catholicism, opposed to ultramontanism.

Neodesha', in *Kansas*, a city of Wilson co., 14 m. N. of Independence; has a pottery, flour mills, grain elevators, and railroad machine shops. *Pop.* (1895) 1,783.

Neo'la, in *Iowa*, a post-village of Pottawattamie co., 20 m. N. E. of Council Bluffs; has a shipping trade in grain, live stock, and farm produce. *Pop.* (1895) 841.

Ne'o-Lamarck'ism, *n.* (*Biol.*) The views at present entertained, largely by American scientists, concerning the Lamarckian theory of evolution. The views enunciated by Lamarck (*q. v.*) were briefly as follows: Species of animals are not unalterable, as had been maintained by preceding naturalists, with the exception of Buffon, but are subject to gradual variations, which, in course of time, may amount to radical changes. His system, explanatory of this hypothesis, embraced four laws: "(1) Life, by its proper forces, tends continually to increase the volume of every body possessing it, and to enlarge its parts, up to a limit which it brings about. (2) The production of a new organ in an animal body results from the supervention of a new want continuing to make itself felt, and a new movement which this want gives birth to and encourages. (3) The development of organs and their force of action are constantly in ratio to the employment of these organs. (4) All which has been acquired, laid down, or changed in the organization of individuals in the course of their life is conserved by generation and transmitted to the new individuals which proceed from those which have undergone these changes." The second of these laws is the one that is principally associated with Lamarck's name. In illustration of it he suggests that the constant stretching of the giraffe's neck to reach the foliage on which it fed may have led to its gradual elongation, while he imagines that the kangaroo, through a habit of sitting upright to support the young in its pouch, may have had its fore-limbs dwarfed by disuse, and its hind-legs and tail largely developed through their use in leaping. He does not teach that the desires of the animal directly affect its form, but that new wants lead to new habits, and these lead to the development of new organs, and the growth, modification, or dwindling of old ones. This hypothesis failed to gain many adherents among scientists in general, and the older idea of the persistence of species was generally held until Darwin's theory suggested a new principle of development, and quickly gained a host of adherents. Both Lamarck and Darwin held that the more complex forms descended from simpler ancestors. This they both held to have been accomplished by the action of a variety of modifying influences. But Lamarck believed that the most important of these influences was the effect of new wants or desires in giving rise to new habits, and stimulating new growth. Darwin gave similar leading importance to the appearance of accidental variations and their

preservation through the advantage which they gave in the struggle for existence. The general acceptance of Darwin's theory, as compared with that of Lamarck, was not alone due to its more satisfactory character, but, in a measure, to the fact of the great advance in biological science, and the growiug doubt of the immutabllity of species. In other words, scieuce was ready for tbe Darwinian theory, while it had been far from ready for the Lamarckian. The keeu criticism to which the Darwinian thcory has beeu eubjected has led to a donbt, among many scientists, of its complete sufficiency. There are phenomena for which it scems iucapable of accounnting, and which seem to need some supplementary explanation, and the views of Lamarck have been revived by such leading American scientists as Cope, Hyatt, and others as an aid in the solution of these problems. These new views, in which Lamarckism is not adapted as a whole, but simply as a necessary supplement to Darwinism, have received the name of Neo-Lamarckism, they belng a modification of the original doctrines of Lamarck; while it is held that to the preservation of variations through natural selection, as maintained by Darwin, must be added the doctrine of use and effort of Lamarck to form a complete theory of the modification and development of specics. Neo-Lamarckism maiutains that the variations on which development depends are not eolely fortuitous, but that they are, iu a considerable measure, influenced by use and effort on the part of the animal, followed by the increase in size of limbs, organs, muscles, &c., which is known to attend use, or in case of disuse by decreass in size and gradual atrophy. The action of such an influence would be actively directive in development. While fortuitous variations would still take place in every direction, backward and lateral as well as forward, these sclf-directed variations would be all forward, or in the direction of progressive development. Their preservation would be due to transmission to offspriug and natural selection, but their effect would be to direct the bulk of changes into the course of progressive development, and thus greatly aid the rapidity of developmental progress. In this system, the variations are not left to the blind effect of chance, but cousciousness and mental action come in as agencies. Effort may be ln a measnre nnconscious or instinctive, but must be in a large measnre conscious, being made with a mental purpose to produce some desirable result. Thus thought, or mental activlty, plays an important part in the variation of epecies, giving rise to that specially directed use of limbs or organs from which their advantageous growth or modificatlon arises. It is evident, if such a hypothesis be accepted, that the course of developmcnt would be due to a double series of influences: those of variations due to ante-natal causes, and those of variations arising through life and due to the particular use of some organ or some consciously directed effort. Such a hypothesis points to an lncrease of directed development as mental action becomes more potent. The development of plant life would be nearly or completely a result of fortuitous variation. The same may be affirmed of animal life in its lowest stages, though in both these cases it must be taken into account that the chance variations are not solely ante-natal, but that many of them arise during life through the action of external influences. With the development of the nervous system, and the growth of consciousness and mentality, the agency of internal influences begins, effort to perform certain actious manifests itself, growth or modification takes place in consequence, and an important new agency in evolution comes into belng. As the developmeut of the mental powers goes on the activity of this agency increases, so that it becomes a steadily more important agent in the developmental changes of animals, ite lnfluence, for instance, being mnch greater lu the vertebrates than in the invertebrates, and greatest of all in the mammals. Neo-Lamarckism, however, does not mean a pnrpose to produce some motlon, but a purpose to produce some effect, or the use of some organ in a new way or a greater degree without any conscious purpose. Thus, in the development of the horse, the gradual evoiution of the hoof and atrophy of all the fingers but one may have been due to the slow passage from a habitat of soft to one of harder soil, ending in acceptauce of hard-surfaced plains as the habitat, and a steady iucrease ln speed of motion perhaps due to flight from enemies. To the sharp downthrust of the foot and the resistance of the soil the evolution of the single hoof seems due, while the double hoof of the ox and other tribes is in conformity with the softer soil of their habltat and the need of a wider basis of support. A theory has of late years been advanced by August Weismann that, if sustained, would render the Neo-Lamarckian effect impossible. This is that no changes produced during the life of the individual are hereditarily transmissible, and that all the transmitted variations are ante-natal ln origin. This hypothesis has won many strenuous adherents, bnt has also been met by as determined a body of opponents, and is at present passing tbrough the crucible of criticism. The arguments in its favor, it may be said here, are almost wholly negative, consisting in the denial of hereditary transmission of such ohanges. The arguments against lt are mainly positive, consisting ln the statement of examples of such transmission. These the Weismannians seek to dispose of hy supplementary hypothesis. As the case stands now, Neo-Lamarckianism is in question, though it may be said that the leading American biologists are prononnced opponents of the views of Welsmann, and advocates of the hereditary transmission of variations due to use and effort or other lnfluences acting during life.

Neolith'ic, *a.* [Gr. *neos*, and *lithos*, stone.] (*Geol.*) Pertaining to the later stone age, which was characterized by polished stone implements, witb remains of recent or extinct animals, and a trace of gold or brouze ornaments.

Neolithic Age and Implements. See STONE AGE.

Ne'o-Pla'tonism, *n.* (*Philos.*) An eclectic philosophy whlch sought to harmonize or, at the least, to reconcile the teachings of the various ancient schools of philosophy. It was a method of philosophizing which, claimlng Plato as its leader, incorporated wlth his views other, especially Oriental, conceptions. The Neo-Platonists were remarkabie for the novelty, audacity, and ingenuity of their reasonings. They aimed at constructing a religion on a basis of dialectics. They strove to attain a knowledge of the highest, and tbe way in which they endeavored to accomplish this was by assuming a capacity in man for passing beyond the limits of his personality and acquiring an intuitive knowlcdge of the absolute, the true—that which is beyond and above the fluctuations and dubieties of "opinion." This impersonal faculty is called ecstasy. By means of lt, man —ceasing, however, it should be observed, to be individual man; that ls, nimself—can identify himself with the absolute (or infiuite). Plotinus, in fact, set out from the belief that "philosophy"—that is, absolute truth—is possible only through the identity of the thinker, or rather of the subjective thought, with the thing thought of, or the objective thought. This Intuitive grasp or "vision" of the absolute is not constant; we can neither forde nor retain it by an effort of will; it springs from a divine inspiration and enthusiasm, higher and purer than that of poet or propbet, and is the choicest "gift of God." Such unification with God is attainable by asceticism and profouud contemplatiou. This conception of a mystic blending of the diviue with the human gives to Neo-Platonism its peculiar character. Neo-Platonism claimed to be not merely the absolute philosophy, the keystone of all prevlous systems, but also the absolute religion, re-invigorating and transforming ali previous religions. It contemplated a restoration of all the religions of antiquity, by aliowing each to retain its traditional forms, and at the same time making each a vehicle for the religious attitude and the religious truth embraced in Neo-Platonism; while every form of ritual was to become a stepping-stone to a high morality worthy of mankind. In sbort, Neo-Platonism seizes on the aspirations of the human eoul after a higher lifs, and treats this psychological fact as the key to the interpretation of the universe. Hence, the existing religlons, after being refined and spiritualized, were made the basis of philosophy. The earliest Christian philosophers, particularly Justin Martyr and Athenagoras, prepared the way for the speculation of the Neo-Piatonists—partly by their attempts to connect Christianity with Stoicism and Platonism, partly by their ambition to exalt Christianity as "hyperplatonic." The Neo-Platonic school originated in Alexandria, where lts founder was Ammonius Saccas, who died abont 245 A. D. He left no written works behind him. He had distinguished disciples, amoug whom were Origen, wbo ranks with the best of the Christian Fathers and the holiest men of the Church, and Plotinus. The work of Plotinus entitled the *Enneads*, so called because its treatises are arranged in 6 divisions, each containing 9 books, is the primary and classical documeut of Neo-Platonism. With Plotinus the restoration of the worship of the old gods was far from being the chief object. His pupil, Porphyry, however, made Neo-Platonism completely subservient to polytheism, and sought before everything else to protect the Greek and Oriental religions from tbe assaults of Christianity. The hopes of the Neo-Platonists rose high when their disciple, the enthusiastic, noble-minded, but mentally ill-balanced Julian, became emperor (361–363). He lived long enough, however, to see that his policy of restoration would leave no results. In the chief cities of the empire Neo-Platonic schools flourished till tiie beginning of the 5th century; during that period, indeed, they were the training schools of Christian theologians. In one of these schools at Alexandria the noble and beautiful Hypatia taught. Her murder by a mob led by priests was the death of philosophy iu Alexandria. In the ancient world there was only one Western theologian who came directly under tbe iufluence of Neo-Platonism; but that one is Augustine, the most important of all. In the 7th book of his *Confessions* he has recorded how much he owed to the perusal of Neo-Platonic works. In regard to the cardinal doctrines—God, matter, the relation of God to the world, freedom, and evil—Augustine retained the impress of Neo-Platonism; at the same time he is the theologian of antiquity who most clearly perceived and most fully stated wherein the Neo-Platonic philosophy and Christianity differ. In fact, the lnfluence of Neo-Platonism has lasted to our time. That man shall not live by bread alone the world had learned before Neo-Platonism; but Neo-Platonism has enforced the deeper truth—a truth whlch the older philosophy had missed—that man shall not llve by knowledge alone. It ls to this day the nnrsery of that whole type of devotion whlch affects renunciation of the world, which strives after an ideal, without the strengtb to rise above esthetic impressions, and is never able to form a clear conception of ths object of its own aspirations.

Neo-trop'ical, *a.* (*Zoöl.*) Designating that part of the New World which includes tropical and South America, and the islands adjacent.

Neo-volcan'ic, *a.* Pertalning to the rocks formed since the Cretaceous period.

Neph'alism, *n.* [Gr. *nephalismos*, soberness.] A name given by Prof. James Miller, of Edinburgh, to the principles or practice of total abstinence.

Neph'alist, *n.* A total abstaiuer.

Nephel'oscope, *n.* An early meteorological device, designed by Espy, for illustrating the formation of clouds from vapor. He used a glass vessel with a condensing pump and pressure gauge. By compressing moist air, and then allowing it to escape suddenly, the cooling, consequent on expansiou, produced a cloud.

Neph'oscope, *n.* An instrument for observing the motion, and judging of the velocity of the clouds. It consists of a mirror set in a circular frame, and having radiating degree-marks drawn on the frame, or sometimes on the mirror itself. Above is an arrangement of wiree bearing a ring, hole or the like, to serve as a fixed poiut of view. The degree marked zero is intended to be eet toward one of the cardinal points. An observer watchlng the clouds can then calculate their angular velocity by means of the concentric degrce-marks, and if he have also means of ascertalning the height of the clouds, he can determine the linear velocity.

Nephr-, Nephro-. A prefix, dsrived from the Greek *nephros*, a kidney.

Neph'rite. See JADE.

Nep'igon, or **Nip'igon,** *n.* (*Geog.*) A large, deep, island-studded lake, about 40 m. N. of Lake Superior; also its outlet, a swift, clear, rocky river, emptying into Nepigon Bay. These waters are known for their game-fish, particularly white-fish and very large trout, and are the resort of parties of anglers, who ascend the river in canocs and camp along its shores. The Canadian Pacific R. R. crosses the mouth of the river, and has a station of the same name, but formerly known as RED ROCK.

Neptune, in *Wisconsin*, a post-village of Richland co.

Neptu'nian, *a.* Belonging to the ocean.

N. Theory. (*Geol.*) The name given to the theory of Werner, a German geologist, who, towards the end of the last century, assumed that the globe had been at first invested by an universal chaotic ocean, holding the materials of all rocks in solution. From the waters of this ocean, granite, gneiss, and other crystalline formations, were first precipitated; and afterwards, when the waters were purged of these ingrediente, and more nearly resembled those of our actual seas, the transition strata were deposited. These were of a mixed character, not purely chemlcal, because the waves and currente had already begun to wear down solid land, and to give rise to pebbles, sand, and mud; nor entirely without fossils, because a few of the first marins animals had begun to exist. After this period, the secondary formations were accumulated in waters resembling those of the present ocean, except at certain intervals, when, from canses wholiy unexplained, a partial recurrence of the "chaotic fluid" took place, during which various trap-rocks, some highly crystalline, were formed. This arbitrary hypothesis rejected all interveution of igneous agency, volcanoes being regarded as partial and superficial accidents, of trifling account among the great causes which have modified the external structure of the globe. This theory, after enjoying many years of popularity, was superseded by the Vulcanian or PLUTONIAN THEORY, *q. v.*

Neptu'nian, Neptu'nist, *n.* Ons who, in geology, adheres to the Neptunian theory.

Nerbud'dah, ("the bestower of pleasure,") a river of Hindostau, in the N. of the Deccan, rising in the tableland of Gnndwana, Lat. 22° 40′ N., Lon. 81° 45′ E., and after a W. course of 700 m., falling into the Guif of Cambay, 28 m. W. of Baroach; Lat. 21° 36′ N., Lon. 72° 50′ E. It is navigable for small craft for about 100 m. from the sea.

Ne'reid, *n.*; *pl.* NEREIDS, or NEREIDES. (*Myth.*) Nymphs of the sea, daughters of Nereus and Doris. They were fifty, according to the greater nnmber of the mythologists. They had altars chiefly on the coasts of the sea, where milk, oil, honey, and often the flesh of goats, were offered up. Their duty was to attend upon the more powerful deitiee of the sea, and to be subservient to the will of Neptune. They are represented as young and handsome virgins, sitting on dolphins, and holding Neptune's trident in their hand, or, sometimes, garlands of flowers.

Ne'reid, *n.*; **Nere'idæ,** *n. pl.* (*Zoöl.*) The Sea-centipeds, a genus and family of marine *Annelidæ*, which have an even number of tentacula attached to the sidee of the base of the head, two other biarticulated ones a little more forward, and between these two simple ones. Their branchiæ consist of iittle laminæ, trayersed by a network of vessels; each foot is furnished with two tubercles, two bundles of bristles, and a cirrhus ahove and beneath.

Ne'ri, (St. Philip de,) founder of the congregation of the Oratory in Italy, was B. in 1515, of a noble family, at Florence, and D. at Rome in 1595. His order obtained its name from the place of its original establisbment, which was an oratory of St. Jerome's Church, at Rome.

Ne'riad, a town of Hindostan, presidency of Bombay, 28 m. N.E. of Cambay; *pop.* 40,000.

Ne'rita, *n.* (*Zoöl.*) A genus of marine Mollusca, inhabiting the Eastern and American seas, the West Indies, Moluccas, &c. The shell is thick, smooth, or ribbed, semiglobose; epire short, consisting of few volutions; aperture large, semicircnlar; inner lip flattened, and frequently toothed, as well as the outer, the operculum horny, covered with shelly laminæ. One species (*Nerita peloronta*) is called the Bleeding Tooth, from the red appearance of the teeth on the inner lip. The head of the animal is furnished with two pointed tentacula

having eyes at the base; foot large. There are about thirty species recent, and ten fossil.

Nerve-cen'ter, *n.* A collection of nerve cells that are believed to be connected with some special function of the body.

Nescientist (*nesh'-en-tist*), *n.* An advocate of nescience, or the doctrine of the incompotence of the finite intelligence to comprehend the supersensuous.

Nesquehon'ing, in *Pennsylvania*, a post-village of Carbon co. *Pop.* (1897) 1,885.

Ness, in *Kansas*, a W. central co., *area*, 1,080 sq. m. It is intersected by Walnut creek and the Pawnee Fork of Arkansas river. *Surface*, rolliug prairie; timber only on streams; *soil*, fertile. *Products*, wheat, broom corn, sorghum, but principally live stock. *Cap.* Ness City. *Pop.* (1895) 3,785.

Neur-, Neuri-, Neuro-. A prefix, from the Greek *neuron* (plural, *neura*), nerve.

Neurasthenī'a (*-nī'a*, or *nē'a*), *n.* [Gr. *neuron*, nerve; *astheneia*, weakness.] (*Pathol.*) Debility or inactivity of the nerves; nervous prostration or exhaustion.

Neu'ron, *n.* [Gr. nerve.] A nerve-cell with its fiber, considered as a structural unit.—The brain and spinal cord taken together.

Neu'ropath, *n.* A physician who bases his treatment of disease on nervous influences.—A sufferer from some nervous affection.

Neurop'athy, *n.* [Gr. *neuron*, nerve; *pathos*, suffering.] Disease of any particular nerve, or nervous disease in general.

Neuro'sis, *n.; pl*, Neuroses. [Gr. *neuron.*] (*Pathol.*) Nervous disease or affection, especially without lesion of parts.—A change in the nerves, or physical basis of consciousness, as distinguished by Huxley from psychosis, a change in consciousness itself.

Nev'in, John Williamson, theologian, was born in Franklin co., Pennsylvania, 1803. In 1841 he entered upon the presidency of the Mercersburg Theological Seminary, and has since published *The Mystical Presence* (1846) and *Anti-Christ, or the Spirit of Sect and Schism* (1848). Died in 1886.

New'chwang, or **Ninchuang,** the treaty port for Manchuria, is situated on Liao River, 20 miles above its mouth. The foreign settlements and trading port are at Ying-tse, near the river's mouth, which is also known as Newchwang. It extends for three miles along the right bank of the river, and is 183 miles north of Port Arthur by railway. The Northern Chinese railway from Peking and Tien-tsin has its terminus here, and also a westward branch of the Manchurian Railway. Opened to foreign trade in 1858, *N.* enjoys a considerable commerce. It was captured by the Japanese in 1895, and fell under Russian control in 1900, a large Russian settlement being afterward built there. It was fortified at the opening of the war of 1904, but was abandoned on the advance of the Japanese, and occupied by them without resistence. *Pop.* 60,000.

New Burn'side, in *Illinois*, a post-village of Johnson co., 16 m. from Vienna. *Pop.* (1897) 660.

New Ca'naan, in *Connecticut*, a post-town of Fairfield co., 44 m. N. E. of New York; has manufactures of shoes, clothing, and wire sieves. *Pop.* (1897) 2,790.

New Can'ton, in *Illinois*, a post-town of Pike co., 20 m. W. of Pittsfield. *Pop.* (1897) 520.

New Church. See Swedenborgianism.

New Colum'bia. See Wrangel Island.

New Deca'tur, in *Alabama*, a post-town of Morgan co., 1 m. S. of Decatur. *Pop.* (1897) 3,690.

New Doug'las, in *Illinois*, a post-village of Madison co., 19 m. from Edwardsville. *Pop.* (1897) 620.

New Flor'ence, in *Missouri*, a post-village of Montgomery co., 77 m. W.N.W. of St. Louis. *Pop.* (1897) 540.

New Ha'ven, in *Michigan*, a post-village of Macomb co., 30 m. N.E. of Detroit. *Pop.* (1894), 458.

New Haven, in *West Virginia*, a post-village of Mason co. *Pop.* (1897) 660.

New Lew'isville, in *Arkansas*, a post-town, cap. of Lafayette co., 148 m. S.W. of Little Rock. *Pop.* (1897) 580.

New Mad'ison, in *Ohio*, a post-village of Darke co., 10 m. from Greenville. *Pop.* (1897) 550.

New Ox'ford, in *Pennsylvania*, a post-borough of Adams co., 10 m. E. of Gettysburg; has manufactures of carriages and cigars. *Pop.* (1897) 670.

New Prague, in *Minnesota*, a post-village of Scott co. *Pop.* (1895) 1,042.

New Rich'mond, in *Wisconsin*, a city of St. Croix co.; has water power. Pine lumber is largely manufactured here. *Pop.* (1895) 1,680.

New River Depot, in *Virginia*, a post-village of Pulaski co. *Pop.* (1897) 750.

New Shar'on, in *Iowa*, a post-town of Mahaska co., 12 m. N. of Oskaloosa; has coal mines and live stock interests. *Pop.* (1895) 1,263.

New Sibe'ria Islands. (*Geog.*) A group of small islands N. of Asia and N.E. of the mouth of the Lena delta; also called Liakov. Not far from the mainland and frequently joined to it by the ice, these islands contain many animals, such as white bears and foxes, reindeer and birds; also the remains of extinct animals, particularly those of the mammoth. The islands are rich in fossil woods, New Siberia containing a range of hills partly composed of carbonized wood, belonging, probably, to the Jurassic period. See *The Voyage of the Jeannette* (De Long), and *The Voyage of the Vega* (Nordenskjöld).

New South Wales. (*Geog.*) [See Australia.] Its population has increased more rapidly than formerly, and on June 30, 1895, was estimated at 1,268,150. The aborigines have nearly all disappeared from the colony. The production of gold is at present decreasing. The construction of railways—very important to the colony, because it is ill supplied with navigable rivers—has been vigorously pushed. On June 30, 1895, the lines opened for traffic were 2,531 miles owned by the government and 85 miles of private railways, besides 419 miles of tramway belonging to the government. The staple export of the colony is wool, about half of the total in value. The main exports to the U. S. are specie, coal, and wool. About 10 per cent. of the total exports go to the U. S., and 5 per cent. of the imports are from that country. The tariffs in force in 1890 were less in this colony than in the other Australasian colonies, were on few articles, and were specific. In 1891 the tariffs were changed in the direction of higher duties and more of them. The chief revenue from duties is derived from stimulants and narcotics. During a very severe financial crisis in 1893 eight of the banks of the colony failed, but reopened afterward on a reconstructed basis.

New Straits'ville, in *Ohio*, a post-village of Perry co. *Pop.* (1897) 3,100.

New Wash'ington, in *Ohio*, a post-village of Crawford co., 24 m. N. W. of Mansfield. *Pop.* (1897) 810.

New'berg, in *Oregon*, a post-town of Yam Hill co., 26 m. S.W. of Portland; has several saw mills, tile factories and a tannery. *Pop.* (1897) 850.

New'bern, in *Tennessee*, a post-town of Dyer co., 10 m. N. E. of Dyersburg; has flour and lumber mills. *Pop.* (1897) 1,330.

New'berry, in *Michigan*, a post-village, cap. of Luce co., 55 m. N. of St. Ignace. Pig iron and chemical products are manufactured. Celery is largely raised. A lumber shipping point. *Pop.* (1894) 1,136.

New'burg, in *West Virginia*, a post-town of Preston co. *Pop.* (1897) 850.

New'comb, Simon, mathematician and astronomer, was born at Wallace, Nova Scotia, March 12, 1835; removed to the U. S. in early life, and for some years taught school in Maryland; appointed a computer on the U. S. *Nautical Almanac* (1857) and professor of Mathematics in the U. S. Navy (1861), being stationed at the Naval Observatory, where he supervised the installation of the great equatorial telescope. In this position he was closely associated with numerous astronomical expeditions. He was given charge of the *Nautical Almanac* in 1877, and remained at the Naval Observatory until 1897. Prof. *N.* is one of the greatest mathematicians of the age, and has received many medals and other honors, including membership in the leading scientific societies of two continents. Among his published works is *Popular Astronomy* (1877). In 1897 he was one of the special contributors to The American Educator.

New'gate, *n.* [Originally called "Westgate"; afterward "Chancellor's gate"; finally, in the reign of Henry I., rebuilt and called Newgate.] The western gate of London by which the Watling Street passed out of the city and at the extreme end of Newgate Street, opposite Old Bailey. Long famous for the prison built in the great portal about 1218. When first rebuilt it was utilized for detaining prisoners from Middlesex, that county having been given to the people of London about this time. In 1666 it was destroyed by the fire which swept over the city, and the present building was erected in 1780, when the new buildings were much damaged by the Gordon riots, and 300 prisoners were set at liberty to menace the public. Dickens, in *Barnaby Rudge*, has described this scene, while Newgate and the *Newgate Calendar*, which regularly published the reports of the prison, with the history of noted criminals, have been famous in English fiction. After the passing of the Prisons Bill in 1877, Newgate was less used, until it is now practically closed. It is only opened for executions by hanging, since they have ceased to be carried out at Tyburn. Newgate is famed for its ill repute, all efforts at reform in the locality having met with almost hopeless opposition.—*Newgate Fringe.* Beard worn under the chin, and supposed to resemble the hangman's rope.—*Newgate Fashion.* To march two by two, as prisoners were at one time marched into Newgate.

> *Falstaff:* Must we all march?
> *Bardolph:* Yea, two and two, Newgate fashion.
> —*Shakespeare* (*Henry IV.*).

—*Connecticut Newgate.* A rude stone structure on the summit of Copper Hill, Conn. Previous to 1760, extensive copper mines had been dug into this hill, and the old shafts and tunnels were utilized as a grim prison by the State until 1827.

New'kirk, in *Oklahoma*, a post-village, cap. of Kay co. *Pop.* (1897) 2,450.

New'man, John Henry, theologian and Roman Catholic prelate, was born in London, Eng., Feb. 21, 1801. He was educated at Trinity College, Oxford, and was elected fellow of Oriel College in 1822, where he formed a friendship with John Keble and Dr. Whately; ordained a priest in 1824, became vice-president of Alban Hall in 1825, and tutor in Oriel College in 1826. In 1828 he became vicar of St. Mary's, Oxford, and of Littlemore. In 1833, Newman, Keble, and Pusey initiated the "Oxford movement" in favor of High-Church doctrines, which they advocated in a series of *Tracts for the Times.* He manifested a growing tendency to Roman Catholicism, and, in 1845, became a member of that church, and was principal of the Oratory of St. Philip Neri, at Birmingham, from 1848 to 1852. Through many years following he wrote and published many papers embodying theological arguments, and especially defended his own change of faith in a work entitled *Apologia pro Vita sua* (1864). He was made a cardinal-deacon in 1879, and is widely known in the evangelical world by his poems and hymns; among the latter the familiar *Lead, Kindly Light.* Died Aug. 11, 1890.

New'man, in *California*, a post-town of Stanislaus co., 23 m. from Modesto. *Pop.* (1897) 780.

Newman, in *Illinois*, a post-village of Douglas co., 52 m. E. of Decatur. *Pop.* (1897) 1,090.

New'market, *n.* A game at cards played by any number of persons, duplicates of certain cards being laid upon the table, and the corresponding cards to be played.—A woman's close-fitting outer garment.

Newn'ham Col'lege. See Women's Colleges.

New'port, in *Arkansas*, a post-town, cap. of Jackson co., 83 m. N.E. of Little Rock; has saw, shingle and planing mills; stair, oil, and stove works, foundries and machine shops. *Pop.* (1897) 2,750.

News'-a'gency, *n.* An association or bureau for supplying telegraphic information to newspapers.—An agency for the sale and distribution of newspapers, magazines, &c., to dealers.

News'-agent, *n.* A person who deals in newspapers and periodicals.

News'y, *a.* Full of news, gossipy.

New'ton, Hubert Anson, mathematician, was born in Sherburne, New York, March 19, 1830; the son of William *N.*, who built the Buffalo section of the Erie Canal. He graduated from Yale College in 1850, winning the first mathematical prize. In 1853 he became tutor, and in 1855, full professor of Mathematics at Yale, which position he filled until his death. His scientific work includes the whole field of mathematics and astronomy, but he is chiefly notable for his discoveries and researches regarding the laws of meteoroids and comets and their connection. In this field he is regarded as the highest authority of the present generation, and to him, directly, and through his inspiration to others, is due the development of science in this special direction. More than half of his scientific papers refer to these subjects. He also wrote the articles on meteors in *Encyclopædia Britannica*, and the definitions in astronomy and mathematics in the *International Dictionary*, and was one of the editors of the *American Journal of Science.* He was active in founding the National Academy of Science, of which he was a member for life; and was for a time president of the Connecticut Academy of Arts and Sciences, and the American Association for the Advancement of Science. He was a progressive spirit at Yale, and influential in forwarding the improvements in the college quadrangle. He also took deep interest in the civic affairs of New Haven. Died Aug. 30, 1896.

Newton, John, U. S. A., C. E., was born at Norfolk, Va., Aug. 24, 1823; graduated at West Point (1842); served throughout the Civil War, attaining the rank of major-general of volunteers (1863); was made brigadier-general and chief of engineers in the regular army (1884); was placed on the retired list (1886), and appointed commissioner of public works at New York (1887), a position which he resigned to become the president of the Panama R. R. Co. His most notable engineering work was the blasting of Hallett's Reef and Flood Rock, Hell Gate (*q. v.*). Died May 1, 1895.

Newton, in *Kansas*, a city, cap. of Harvey co., 27 m. N. of Wichita; has large carriage factory, and flour mills, planing mills; a gas-machine factory. Good building stone is quarried and coal mined in the vicinity. *Pop.* (1895) 5,148.

Nexus, *n.* [Lat.] A connecting link; a tie.

Ney'va, or **Nelva,** a town of the Republic of Colombia, cap. of a province of its own name, on the Magdalena river, about 132 m. S.W. of Bogota.

Nez-Percés (*Pierced Nose*). North American Indians belonging to the family of Sahaptins, who dwell upon the Columbia river and its tributaries, between 45° and 47° parallel. It was formerly the custom of a branch of these Sahaptin tribes to slit their nose to receive a shell, hence their name. They are among the most interesting of the tribes of the Pacific coast, alike fierce and yet kind. Their reservation is in N.W. Idaho, containing about 1,200 sq. m., with a population variously estimated, together with those who do not live on the reservation, from 1,400 to 8,000 souls. They live in part by agriculture and stock raising. Until 1877 they remained at peace with the whites, and often proved themselves valuable allies, and yet their treatment by the U. S. government has been very unjust, disregarding the treaties made with them, which culminated in war. In July, 1877, General Howard had a severe encounter with them on the Clear Water, losing 14 men in killed and over 20 wounded; some 60 of the Nez-Percés were reported killed and wounded, the remainder made good their escape. On August 9, a party of 182 U. S. troops, under General John Gibbon, overtook the Nez-Percés at Big Hole Mountain, Montana, under their chief, Joseph; a severe encounter took place. Gibbon had 24 men killed and over 40 wounded. Over 40 of the Indians were left dead upon the field; the rest escaped. On the 13th they were overtaken by General Sturgis's command, consisting of U. S. troops and some Crow Indian allies. Several hundred of their horses were captured. The Nez-Percés continued their flight across the Missouri river, toward Canada. On the 30th September they were overtaken by General Nelson A. Miles, at Bear Paw Mountain, near the head of Snake river, a tributary of the Missouri, Montana. A severe fight took place which lasted for four days, resulting in the surrender of the Nez-Percés on October 5th. They displayed great bravery and ability, and were armed with the most approved weapons. General Miles lost 22 killed and

45 wounded. The Indians lost 31 killed, 46 wounded. They numbered 350 in all, of which 160 were warriors. In their long flight they had travelled in all over 1,500 miles.

Niag'ara Falls Pow'er-Plant. (*Engin.*) The utilization of a portion of the power going to waste over Niagara Falls was the subject of numerous schemes prior to 1889, when successful work in that direction was inaugurated. Judge Augustus Porter, in 1847, outlined a plan for constructing a system of canals and wheel-pits from which power might be taken, but no capital could be obtained for the project. Thomas Evershed, an engineer of Rochester, N. Y., devised a plan and interested some local capital in 1886, and a charter was obtained for the Niagara Falls Power Company. In 1889 the Cataract Construction Company was organized with capital in New York city, and con-

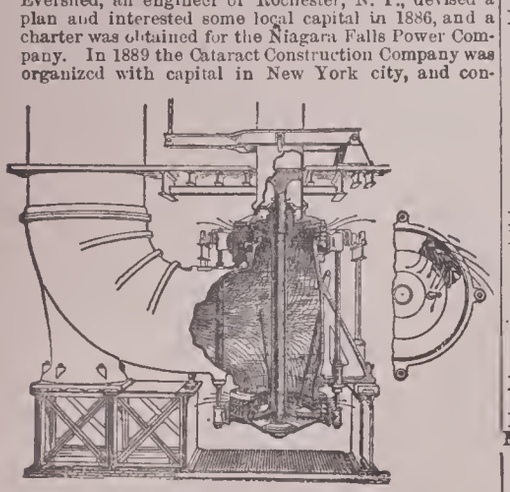

Fig. 3006.—NIAGARA POWER PLANT.
Sectional view of one of the great turbines.

tracted with the original company to erect a plant of 100,000 horse-power. Other companies, as the Niagara Development Company and the Niagara Junction Company, were formed to acquire title to a tract of land comprising 2½ square miles, and to construct railway approaches, &c., for manufacturers. A commission of most eminent engineers, known as the International Niagara Commission, was called together to consult as to the best methods of utilizing the vast power at command. The members were Lord Kelvin, of England; Prof. Cawthorne Unwin, of London; Prof. E. Mascart, of Paris; and Dr. Coleman Sellers, of Philadelphia. They met in London, and considered the utilization of compressed air and of electricity for conveying the power from the falls, and decided in favor of the latter. The plan of construction accepted by them involved the cutting of a canal, which was dug about a mile and a half above the American fall. This canal is a mile or more in length, and 188 feet wide at the river end, tapering to 116 feet. It carries 12 to 16 feet of water. Wheel-pits are cut into the side of the canal, and arrangements made so that the number of them can be increased when necessary. These pits are 178 feet in depth, 140 long, and 20 wide. At the bottom of the pits are placed turbine-wheels, each fed with water falling down a great pipe, with a useful head of 136 feet. In order that the weight of the water added to the turbine (40 tons), and its upright shaft (36 tons), and the dynamo above (40 tons) might not be too great on the bearings, causing undue friction, the water descending the pipe is admitted to the under side of the turbine, exerting its force upward as well as rotatively,

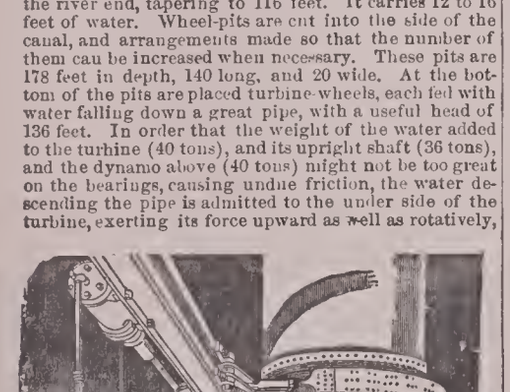

Fig. 3007.—NIAGARA POWER PLANT.
A friction-brake on one of the large upright shafts.

and taking most of the vast weight of 116 tons from the bearings. Each turbine is connected by a hollow steel shaft with a dynamo in the power-house over the wheel-pit, and each dynamo develops 5,000-horse power. There are now nearly 20 of these dynamos in operation, and the design allows many more to be added. The turbines are made of bronze, are 5¼ feet in diameter, and rotate 250 times a minute. The dynamos used are of the two-phase alternating type, being constructed on special designs, with a stationary central armature and fields rotating outside, to obtain the required fly-wheel effect. The waste water from the wheel-pits is discharged through a tunnel a mile and a quarter in length, emptying back into the river below the falls. The tunnel is of horseshoe section, 21 x 19 feet, and will deliver 600,000 feet of water per minute, or about 1-27th of the flow of the falls. The tunnel is mostly blasted through solid rock, and is cased with concrete made of one part Portland cement and three parts gravel. The wheel-pits were also blasted out, and reduced to correct shape with masonry walls. The canal is walled with masonry seven feet thick at the base. The power-house is of most substantial construction, being entirely of stone and steel. From these works power is furnished to manufactories on the reservation. The municipal lights and water-works of Buffalo, 20 miles distant, also use the power, and private corporations in Buffalo are also furnished at a level, moderate price. The system of distributing the power by wire is being extended to other neighboring cities.

Niag'ara Univer'sity. (*Educ.*) A Roman Catholic institution, located in Niagara co., N. Y., 2 m. N. of Niagara Falls. Founded in 1856 as a seminary for the training of priests, it became in 1883 a general educational institution, under a charter from the State of New York. Besides a preparatory school, general collegiate instruction, and a theological course, there is a course in medicine, to which department alone women are admitted. In 1896 the university had 55 instructors, 240 students, and a library of 8,000 volumes, its income being $60,000.

Nian'tic, in *Illinois*, a post-village of Macon co.

Ni'as, or **Ne'as Isle,** an island of the Eastern Archipelago, belonging to Holland, on the W. of Sumatra; Lat. between 0° 18′ 54″ and 1° 35′ N., Lon. 97° and 98° E. *Area*, 1,575 sq. m. The surface is diversified, and the soil fertile. It has several convenient harbors. *Prod.* Rice, tobacco, sugarcane, cocoanuts, bananas, &c. The chief towns are Nias on the E., and Silorongang on the W. coast. *Pop.* Estimated at 170,000.

Nib, *n.* [A. S. *neb, nebb.*] The bill or beak of a bird.—The point of anything, particularly of a pen.

Nibbed (*nibd*), *a.* Having a nib or point.

Nicara'gua Canal'. (*Engin.*) Of all the proposed routes for a ship-canal from the Atlantic to the Pacific, the route across Nicaragua long met with most favor from Americans. This was surveyed, the desired concessions were obtained from the Nicaraguan government, and $4,000,000 were expended in work. It was, however, in the hands of a company, not of the United States government, and its completion depended upon the disposition of Congress to aid the enterprise with money, or to back it in a way that would induce capitalists to invest their funds in the undertaking. The history of this project extends back to 1849, when a concession was awarded to what was called "the Vanderbilt Company." This company failed to do the work called for by the conditions, and their concession was abrogated in 1856, only to be indefinitely renewed the following year. As a result of the agitation over the 1849 concession, the United States and Great Britain created the Clayton-Bulwer treaty in 1850, specifying that "The governments of the United States and Great Britain hereby declare that neither the one nor the other will obtain or maintain for itself any exclusive control over the canal." In 1887 the Nicaraguan government granted another concession to the New York Nicaragua Canal Association, and the promoters also obtained a charter from the U. S. Congress, February 20, 1889, creating the Maritime Canal Company, while the Nicaragua Canal Construction Company was organized under the laws of Colorado. These companies succeeded in raising some money, and expended $2,000,000 in 1890–91, according to the terms of the concession, and $2,000,000 more the following year. In 1891 an appeal was made to Congress for funds to prosecute the work, and in 1892 the Senate voted $100,000,000, but the House of Representatives killed the measure by inaction. Work was consequently suspended in 1893, pending the raising of further capital. At least two early surveys were made of the territory, but when the President appointed a commission of engineers in 1895 to examine the work done, they reported that the surveys were too incomplete to warrant the continuance of the work until they were properly made, but deferred a final judgment of the work until such a survey was obtainable. They, however, approved of the route chosen. In accordance with their recommendation, a government survey was made, and submitted to Congress, with a report, Feb. 7, 1896. The route, as then proposed, was 169½ miles long, from Brito, on the Pacific, to Greytown, on the Atlantic. Brito has an open roadstead, which would have had to be protected by stone dykes to form a harbor. Greytown has a harbor filled with drifting sands, which could have been made navigable by the completion of jetties then building, aided by dredging. From Greytown the projected route of the canal extended for almost 10 miles through low, swampy timber land. A system of three locks followed, with a total uplift of 106 feet. Three miles farther on was to be a cut called the Eastern Divide cut, nearly 3 miles long and 300 feet deep at its deepest point. This needed to be blasted through solid rock. The basin of the San Francisco River was next to be utilized by damming, the route following its bed 12½ miles to the San Juan, of which it is a tributary. Here an immense dam was to be built at Ochoa, with the rock taken from the Eastern Divide. It was proposed to make this 1900 feet long and 70 feet high, so as to raise the waters of the river and of Lake Nicaragua five feet, to a level 106 feet above the sea. Beyond the dam the river would form the route of the canal for 64½ miles, and the lake for 56½ miles farther. The remaining 17 miles of excavated canal were to have three large locks, to bring the level down to that of the Pacific. A later survey, considering all possible routes, was made, reporting in 1901. Its report was in favor of a Nicaragua Canal, its cost being estimated at $189,000,000. There was a serious political obstruction in the way of the construction of this canal by the United States, consisting of the Clayton-Bulwer treaty above mentioned, which would interfere with the exclusive control of the canal by the United States. Various futile efforts for the abrogation of this treaty were made, a final successful one being reached and ratified on December 16, 1901. But before all the necessary legislation was obtained, an offer to sell all rights in the French Canal at Panama to the United States reopened the question, with the result that the *N.* route was abandoned and the Panama route adopted. See PANAMA CANAL.

Nicom'achus, an eminent painter of antiquity, said by Cicero to have equalled Apelles. He lived about 350–300 B. C., and several of his works are noticed by Pliny, among them: *Apollo and Diana;* the *Tyndaridæ*, and the *Rape of Proserpine.* He was known for the rapidity of his execution, and was the pupil of his father, Aristodemus.

Nig'ger, *v. a.* (*Local.*) To exhaust (land) by cropping excessively without fertilizing; sometimes with *out.*—To burn (logs, &c.) in clearing land.

Night-her'on. (*Ornith.*) The common name of American herons (see HERON) of the genus *Nycticorax*, which are largely nocturnal in habits, breed in communities, and utter a hoarse note resembling *qua.* The

Fig. 3008.—THE NIGHT-HERON.

yellow-crowned night-heron (*N. violaceus*) inhabits all the warmer parts of America.

Night'ingale, FLORENCE, an English philanthropist, was born at Florence, 1820. She early commenced a career of practical beneficence by organizing associations of lady nurses for the English army hospitals in the Crimea, of which she became herself the superintendent; thus being the means of saving some hundreds of valuable lives. A national testimonial of $250,000, presented to her in recognition of her noble services, was at her special request devoted to the formation and maintenance of an institution for the training and employing of public nurses for the sick and invalided. Miss *N.* has written *Notes on Nursing*, of which 100,000 copies sold in one year (1860); and *Notes on Lying-in Institutions, together with a Proposal for Organizing an Institution for Training Midwives and Midwifery Nurses* (1871).

Nihil'ianism, *n.* (*Ch. Hist.*) The doctrine that the human nature of Christ had no true subsistence.

Nilom'eter, *n.* An arrangement for ganging the height of the river Nile; the one now in use on the island of Rhoda, or Er-Rodah, opposite Cairo, is a square well, connected with the river by a canal, and containing a marble column inscribed with a graduated scale in cubits; 25 feet is an average and favorable rise. This nilometer was built in 847, during the reign of Al-Mutawakkil. In earlier times, nilometers seem to have been located at various places along the river, but that of Memphis, described by ancient writers, was probably the earliest.—Any automatic register of the height of any river.

Nilsson (*nĭl'-s'n*), CHRISTINE, singer, was born near Wexio, Sweden, on Aug. 3, 1843. She first sang in public in Stockholm, in 1860, and in 1864 appeared in opera, at Paris, as *Violetta.* She sang with great success in England until 1870, when she came to the United States for two years, repeating her triumphs in the New World; then returned to England, where she remained for several years, singing in opera, with the exception of the season of 1876, which was devoted to a tour through Scandinavia. After 1881 she sang only in concerts until 1888, when she retired altogether to private life, on the occasion of her second marriage, to Count Casa di Miranda. Mme. *N.* was first married to M. Auguste Ronzaud, in 1872; his death occurred in 1882. She was most successful in the *rôles* of *Mignon, Marguerite, Ophelia, Elsa,* &c.

Nim'iny-pim'iny, *a.* Excessively nice or delicate from affectation.—*n.* Affectation of delicacy.

Nip'pur. (*Anc. Geog.*) See BABYLONIA

Nit, *adv.* (*Slang.*) In no wise, not at all.

Nitr-, Nitri-, Nitro-. A prefix, derived from the Latin *nitrum*, niter, denoting the presence of nitrogen.

Nitrifica'tion, *n.* (*Agric. Chem.*) The conversion of nitrogenous organic matter or compounds of ammonia into nitrates, thus bringing them into a condition suitable for organic assimilation. There is also

Florence Nightingale

1820

abundant reason to believe that the nitrogen of the air directly undergoes this change. The origin of plant nitrogen has long been a mystery. This substance is never absorbed from the air, as in the case of oxygen and carbon, while more nitrogen is taken up than the soil seems capable of furnishing, in view of the fact that the nitrogenous element of fertilizers is largely carried away by the rains. Recent research has demonstrated pretty conclusively that gaseous nitrogen may be fixed in the soil by the action of micro-organisms, and that this process is constantly in operation. The view is entertained by some experimenters that this power is confined to a single agent, spoken of variously as a "ferment," an "organized structure," and as the "micrococcus nitrificans;" but much more probably it is possessed by many bacterial organisms. These bacteria occur in the soil in considerable variety and in great abundance, and under certain favoring conditions as capable of assimilating gaseous nitrogen and converting it into nitrates. One of these conditions is that of temperature. The range of activity of the nitrifying bacteria lies between 40° and 130° F., and increases from about 54° to 98°, where it reaches it maximum. At a temperature of about 200° F. these bacteria are destroyed, or at a much lower temperature under desiccation. A second necessary condition to nitrification is the presence of oxygen. There is also necessary the presence of a salifiable base, such as lime, potash, or soda, in whose absence nitrification cannot go on. If these conditions are present, nitrification takes place in every fertile soil. Of course the requisite bacteria must be present, but no soil is fertile in their absence. Under these conditions nitrification goes on actively, either the nitrogen of the air or that present in organic manures or ammonia compounds being converted into the corresponding nitrates of lime, potash, or soda. It is from these nitric compounds that plants obtain most, perhaps all, of their nitrogen. Some experimentalists claim that they obtain at least a part of their nitrogen from ammonia, but this is not positive, and it may be that the whole existence of plants is due to the vital activity of the minute organisms in the soil. In some plants of the leguminous family the debt is more immediate, the nitrifying bacteria making their home within the root of the plant. On the roots of the pea plant, for example, there occur certain rounded knobs or protrusions, whose purpose was formerly not known, but whose presence is now found to be essential to the life of the plant. Research has shown that these are due to the presence of bacteria, which have found a resting place in the plant tissues, where they accumulate nitrates, which are directly assimilated by the plant. The discovery of nitrification is one of the most recent additions to vegetable physiology, and is of peculiar interest in showing a new and important phase of the essential interdependence of organic forms. This is strikingly so in the case of the leguminosæ, where the existence of the organism is dependent on the vital action of a seeming parasite.

Noailles (*no-ī'lz*), Paul, Duc de, a French historian, was born in 1802; became a member of the Académie Française in 1849, and has published *Histoire de la Maison Royale de Saint-Louis*, and *Histoire de Madame de Maintenon*. He belonged to the same noble family as the Marquis de Noailles, appointed French minister to Washington in 1872. Died in 1885.

No'bel, Alfred, a Swedish inventor and the discoverer of dynamite, which important explosive was produced by him in 1864. Nitroglycerin, discovered in 1847, proved too dangerous for ordinary use, from its great readiness to explode. To avert this danger *N.* instituted a series of experiments in 1863, soaking gunpowder with nitroglycerin for blasting purposes, while in 1867 he conceived the idea of mixing it with some inert and absorbent substance. The silicious infusorial earth, called in Germany *kieselguhr*, proved the substance best adapted for this purpose, the mixture being named by *N.* Dynamite (*q. v.*). This quickly came into general use for mining, warlike and engineering purposes, and *N.* amassed a large fortune, which, on his death, Dec. 10, 1895, he left by will as a fund for the advancement of scientific and other investigations. The estate, which is valued at about $10,000,000, is to be kept at interest and the income to be divided into 5 annual prizes: 1, for the best discovery during the year in physics; 2, for the best discovery in chemistry; 3, for the best in physiology and medicine; 4, for the best literary contribution to physiology or medicine; and 5, for the most useful efforts to promote the cause of peace.

No'ble, in *Oklahoma*, a N. E. co. *Cap.* Perry. *Pop.* (1897) 18,000.

No'bles, in *Minnesota*, a S.W. co.; *area*, 720 sq. m.; has several lakes and small streams. *Surface*, rolling prairie, timber scarce; *soil*, fertile. *Prod.* Live stock, butter, flax, hay, corn, wheat, and oats. *Cap.* Worthington. *Pop.* (1895) 11,905.

Noctilu'cin, *n.* The fluid secreted by animals and plants that shine in the dark, to which they owe their phosphorescence. In such animals, noctilucin is secreted by a special organ, and appears to be at once effectively luminous, but the luminosity ceases as soon as the substance is deprived of oxygen. Under certain conditions of temperature and humidity, it is also generated by dead animal matter, flesh, blood, and sometimes urine. Its light is invariable and monochromatic, and possesses always the same chemical properties. It can be obtained from certain myriapods, glowworms, and the phosphorescent surface of dead fish by scraping luminous matter on to damp filter paper. The secretion of noctilucin by superior luminous creatures, such as insects, is doubtless up to a certain point under the influence of the nervous system, so that they have the faculty of causing their light to cease at will, in which case the secretion is arrested for the time, but glowworms' eggs continue to glow for some time after they have been laid, so that they must also contain a small quantity of noctilucin. In the lower orders of animate beings, such as the infusorians (*Noctiluca*, &c.), to which the phosphorescence of the surface of the sea is principally due, there is also no doubt of the existence of a special organ for the production of the light; and, where there are scarcely any indications of a nervous system, the secretion of the material appears frequently to be susceptible to the influence of external circumstances.

Noctur'nograph, *n.* An instrument for recording night-work, as in factories, mines, &c.

Nogal'es, in *Arizona*, a post-town of Pima co., 75 m. S. of Tucson. *Pop.* (1897) 1,280.

No'gi, Baron, a Japanese general, born about 1850, a descendant of the Samurai, or military class. He took a prominent part in the war with China in 1894, and was afterward governor-general of Formosa, where he showed much administrative ability in pacifying the natives. In the war with Russia he commanded the army besieging Port Arthur, which surrendered to him January 2, 1905. He was promoted from lieutenant-general to the rank of general July 6, 1904. His two sons were slain during the campaign.

Non'uplet, *n.* [Fr. *nonuple.*] (*Mus.*) A group of nine notes that are to be played in the time of eight or six.

Noöcrat'ic, *a.* [Gr. *noos*, mind; *krateō*, to rule.] Pertaining to the view that regards the pure reason as directing all the other faculties.

Nor'borne, in *Missouri*, a post-village of Carroll co., 56 m. E. of Kansas City. *Pop.* (1897) 1,040.

Nor'cross, in *Georgia*, a post-town of Gwinnett co. *Pop.* (1897) 810.

Nor'dau, Max Simon, writer, was born in Budapesth, in 1849; studied medicine, and after travelling extensively he practiced in his native place, and also in Paris, where he has resided of late; has written many newspaper articles, afterward collected in book form, and several novels and plays. He has claimed attention from the reading public chiefly by his book *Degeneration*, which made a sensation as attacking the so-called "decadent" school of literature.

Nordenskjöld (*nord'enshöll*), Adolf Erik, a Swedish explorer, was born in Finland, Nov. 18, 1832. His father was a distinguished mineralogist; to this science his son turned his early attention. Dismissed from college for alleged anti-Russian sympathy, he left for Berlin. Subsequently he went to Sweden, and in 1858 began his career of Arctic adventure in an expedition to Spitzbergen. In 1863 he married a daughter of Count Mannerheim of Finland. In 1864 he led another expedition into Spitzbergen, and in 1870, accompanied by Dr. Breggren, the professor of Botany at Lund, he undertook the most successful journey which had been attempted over the ice through Greenland. The great difficulty of crossing the inland ice is due to the immense glaciers, always in motion, that drift slowly toward the sea. Chasms occur among them, of almost immeasurable depth, and make the way impassable. Nordenskjöld, however, started from the northern arm of a deep inlet called Auleitsivikfjörd, some 60 m. S. of the glacier which discharges at Jakobshaven, and 240 N. of the one at Godthaab. He commenced his inland journey on July 19, 1870, and advanced 30 m. over the glaciers to a height of 2,200 feet above the sea. The results of these researches were published in his *Redogörelse for en Expedition till Grönland* (1871). In 1875 he crossed the Kara Sea to the mouth of the Yenisei, going up the river in a small boat, and returning home overland. He visited the U. S. in 1876 as juror to the International Exposition at Philadelphia, and in 1878 started on his voyage in the *Vega*, partly under the auspices of the Swedish government, and partly through the support of two merchants, to achieve the northeast passage. The *Vega* was wintered in Bering Strait, and reached Japan Sept. 2, 1879, being the first vessel known to have rounded the northernmost point of the Old World. Nordenskjöld was created a baron in 1880, named a commander of the Legion of Honor, and a foreign knight of the Prussian Order of Merit for Arts and Sciences. In 1883, starting from Auleitsivikfjörd on July 4, he penetrated 84 miles further into Greenland than he had gone before, crossing a waste of snow to a height of 7,000 feet, and accomplishing results in the physical geography and biology of the Arctic regions that rendered the journey of inestimable value to science. The report of his voyage was published in several languages in 1884. Died Aug. 13, 1901.

Nord'hoff, Charles, journalist and miscellaneous writer, was born at Erwitte, Westphalia, Germany, Aug. 30, 1830. He has resided in America, and his numerous works are chiefly devoted to American topics, political and social. Among his published volumes are: *Secession is Rebellion* (1860); *Cape Cod and All Along Shore* (1868); *Politics for Young Americans* (1875); *God and the Future Life* (1881); and several works relating to California and the Gulf States, &c.

Nor'dica, Lillian (Mrs. Zoltain F. Dome), soprano vocalist, was born at Farmington, Me., about 1858. She was a distinguished pupil of the Boston Conservatory of Music, and finished her studies in Italy; she then went to England and achieved a great success, afterward appearing on the Continent and in the U. S. Her impersonation of *Marguerite* in *Faust* won the hearty approval of the composer, Gounod. In 1882 she married Mr. Gower, who shortly afterward lost his life in an aëronautic expedition. After several years of unremitting study and professional activity, Mme. *N.* attained recognition as the first soprano of the Wagner opera at Bayreuth, in 1894. In 1896 she was married, at Indianapolis, Ind., to Mr. Zoltain F. Doms, who had appeared for the first time in opera, at the Bayreuth Festival, in 1894, in *Parsifal*, taking the title *rôle*.

Nor'folk, in *Massachusetts*, a post-town of Norfolk co. *Pop.* (1895) 856.

Norfolk, in *Nebraska*, a city of Madison co., 15 m. N. of Madison; has a foundry and machine shop, cannery, creamery, beet sugar factory, and other industries; an important shipping point. *Pop.* (1897) 3,730.

Nor'ia, *n.* [Sp.] A water-raising machine with travelling pots or buckets. The true Spanish noria has earthen pitchers secured between two ropes, which pass over a wheel above and are submerged below. It is rotated by the force of the current.

Nor'mal For'est. In forestry, a forest with divisions of equal areas of trees at different stages of growth, the divisions being numbered, each successive number containing trees 20 years older than the preceding; the object being to fix the amount of timber to be cut each year.,

Nor'man, in *Minnesota*, a N.W. co.; *area*, 1,440 sq. m. *Rivers.* Wild Rice, Marsh, and White Earth. *Surface*, level; *soil*, very fertile; plenty of timber and good water. *Cap.* Ada. *Pop.* (1895) 13,470.

Norman, in *Oklahoma*, a post-village, cap. of Cleveland co., 50 m. S. of Guthrie. *Pop.* (1897) 2,500.

Norman French. A dialect of French, spoken by the Normans at the time of the conquest (1066), and introduced by them into England, where it continued to be the legal language for about 300 years. It coalesced to a certain extent with the Anglo-Saxon, which it greatly modified, and enriched it with terms pertaining to arts, sciences, religion, court-life, law, and higher culture. See England, Language and Literature.

Noropian'ic, *a.* (*Chem.*) Derived from opium.

Nor'ris, William Edward, novelist, was born in London in 1847. He was admitted to the bar in 1874, but has never practiced; has written numerous works of fiction, among them: *Heaps of Money*, *Matrimony*, *No New Thing*, *A Bachelor's Blunder*, *Major and Minor*, *The Countess of Radna*, &c.

North, John Thomas, capitalist, was born near Leeds, England, on January 30, 1842. He was apprenticed to a firm of millwrights, and after eight years' drill in mechanical work, he went to Peru to set up machinery and speculate. He condensed sea-water for domestic purposes, in a rainless Chilean town, and engaged in other ingenious and successful enterprises, chiefly the development of the famous nitrate fields of Tarapaca. He became the owner and operator of the most extensive nitrate deposits, and the largest exporter of nitrate of soda, which gave him the sobriquet of the "Nitrate King." Returning to England, he multiplied his fortune by starting and controlling speculation in the shares of nitrate works and nitrate railroads. In 1895 he presented himself as a Conservative candidate for Parliament, in West Leeds, and after a novel and lively campaign, almost won this naturally Liberal seat from Herbert Gladstone. Died May 5, 1896.

North Ad'ams, in *Michigan*, a post-village of Hillsdale co., 8 m. N.E. of Hillsdale. *Pop.* (1894) 461.

North Al'ton, in *Illinois*, a post-village of Madison co., 1 m. N. of Alton. *Pop.* (1897) 840.

North Am'herst, in *Ohio*, a post-village of Lorain co., 28 m. E. of Sandusky. *Pop.* (1897) 1,840.

North Bal'timore, in *Ohio*, a post-village of Wood co., 38 m. E. of Defiance; has natural gas; glass and brick works and other industries. *Pop.* (1897) 3,100.

North Branch, in *Minnesota*, a post-village of Chisago co., 12 m. N.W. of Center City. *Pop.* (1895) 1,141.

North Caroli'na, Univer'sity of. (*Educ.*) Located at Chapel Hill, Orange co., the university was founded in 1793, under a charter granted in 1789. Its first endowment was a gift of 20,000 acres of land in Tennessee from Benjamin Smith, who was governor of North Carolina, 1810–11. It is non-sectarian, and in 1896 had 38 instructors, 540 students, a library of 30,000 volumes, and an income of $44,000.

North Cod'orus, in *Pennsylvania*, a township of York co.

North Cohas'sett, in *Massachusetts*, a village of Norfolk co., about 15 m. S.E. of Boston.

North Col'lins, in *New York*, a post-village of Erie co. *Pop.* (1897) 670.
—A township of Erie co.

North Colum'bia, in *California*, a post-village of Nevada co., about 9 m. N. of Nevada.

North Corn'wall, in *Connecticut*, a village of Litchfield co., about 10 m. N.W. of Litchfield.

North Cove Creek, in *North Carolina*, enters the Catawba river in Burke co.

North Cov'entry, in *Pennsylvania*, a township of Chester co.

North Dako'ta. One of the United States of America, and the twenty-sixth State to be admitted into the Union. It lies between Lat. 46° and 49° N., and Lon. 96° 25′ and 104° W.; and was formerly the northern half of the Territory of Dakota (*q. v.*). Its northern boundary is the Dominion of Canada, its eastern the State of Minnesota, its southern the State of South Dakota, and its western the State of Montana. It has an area of 70,795 sq. m., of which 600 sq. m. are water surface. When admitted to the Union, in 1889, its population was about 37,000, but in 1900 had increased

to 319,146. The Red River of the North, which separates the State from Minnesota, flows north to Lake Winnipeg. The Missouri, in the western part of the State, flows south to the Mississippi. There are other large streams, and the drainage is abundant. Almost the entire soil of the State is fertile and some parts are exceptionally so, especially the valley of the Red River of the North, containing great wheat farms. This valley is a level plain, from 50 to 60 miles wide, sufficiently elevated above the river to be free from overflows, and contains the richest of bottom-land mold. The valley is also well wooded in parts. The James river valley is one of the most noted artesian-well districts in the world. The Mouse (or Souris) river enters the State from Assiniboia, and after a loug sweep, passes out of it again into Manitoba. Along this river are valuable deposits of coal. Devil's Lake, in the N. E., is a veritable inland sea. In the valley of the Red river glacial drift is found beneath lake mud, and lake shore lines with sand and gravel beds have been traced around the entire valley, proving it the bed of an ancient lake, which has been named Lake Agassiz. The yield of wheat in the State was, in 1893, 26,438,208 bushels, but in 1895 had risen to 61,057,710 bushels. The winters are cold and rainless and usually break in March. Farming begins early,

Fig. 3009.—SEAL OF THE STATE.

but plowing usually continues till about the middle of November. The dryness of the atmosphere renders the low winter temperature endurable by man and beast. The summers are warm by day and cool by night, with almost constant breezes. The autumnal weather is the most delightful of the year and frequently extends far into December. The State is crossed from E. to W. hy the Northern Pacific and Great Northern Railways, while three other large systems entcr it from the S., E., and S. E.—the Chicago, Milwaukee & St. Paul, the Chicago & Northwestern, and the Minneapolis, St. Paul & Sault Ste. Marie. Altogether there are within the State 2,223 miles of railway. The largest town in the State is Fargo, which had, by the census of 1890, 5,664 inhabitants, Bismarck, the capital, having then a population of 2,186. The U. S. granted the State for educational purposes 2,000,000 acres of land. While Dakota was still a Territory it expended for public education $10,000,000 in five years, and North Dakota entered the Union with 1,362 public schools, and with high and graded schools in its principal towns. By the census of 1890 the State had more than 600 religious organizations. It constitutes a missionary district of the Protestant Episcopal Chnrch, with a bishop, and Jamestown is the seat of a bishop of the Roman Catholic Church.

North Dan'vers, in *Massachusetts*, a village of Essex county.

North Dan'ville, in *New York*, a township of Livingston co.

North Dart'mouth, in *Massachusetts*, a post-villiage of Bristol co.

North Dix'mont, in *Maine*, a post-village of Penobscot co.

North E'nid, in *Oklahoma*, a post-village of Garfield co. *Pop.* (1897) 400.

North Indianap'olis, in *Indiana*, a post-town of Marion co. *Pop.* (1897) 1,850.

North Jud'son, in *Indiana*, a post-town of Starke co., 77 m. S.E. of Chicago. *Pop.* (1897) 680.

North MacGreg'or, in *Iowa*, a post-town of Clayton co. *Pop.* (1895) 599.

North Muske'gon, in *Michigan*, a post-village of Muskegon co. *Pop.* (1894) 911.

North Par'ma, in *New York*, a village in Monroe co. (P. O., HILTON.) *Pop.* (1897) 520.

North Peo'ria, in *Illinois*, a post-village of Peoria co. *Pop.* (1897) 1,560.

North Platte, in *Nebraska*, a city, cap. of Lincoln co., Platte river, 271 m. W. of Omaha; has extensive railroad repair shops, and mills. *Pop.* (1897) 4,200.

North Spring'field, in *Illinois*, a suburb of Springfield, Sagamon co. *Pop.* (1897) 1,400.

North St. Paul, in *Minnesota*, post-village of Ramsey co., 1½ m. from St. Paul; has manufacturing interests. *Pop.* (1897) 2,000.

Northeast'er, *n.* A wind blowing from the northeast; a northeasterly gale.

Northwest' Ter'ritories of Can'ada. (*Geog.*) That part of Canada beyond and northwest of Manitoba, formerly known as Prince Rupert's Land, Hudson's Bay Territory, or the fur conntries, purchased from the Hudson's Bay Company in 1870. This monopoly had held charter-rights over the whole of British America from the time of Charles I., bnt about 1860 British Columbia was withdrawn from its control as a crown colony, and the rapid growth of the Red river settlements soon after caused great friction. In 1870, at the end of tedious negotiations, the Hudson Bay Company relinquished to Canada its charter-control of all Prince Rupert's Land for $1,500,000 in cash, and about 7,000,000 acres of land, much of which has since become of great value, owing to the growing up of towns around the sites of the company's former trading-posts. Within a short time after Manitoba was set apart as a province, and settlers went thither in great numbers. The completion of the Canadian Pacific Railway across the continent induced a considerable settlement west of Manitoba, and certain embryo provinces were in 1882 marked out there, called provisional districts. They are:

Assiniboia, along the international boundary west of southern Manitoba, as far as the 111th meridian, and containing 95,000 sq. m. This is drained by the upper streams of the South Saskatchewan, Assiniboin, and Souris rivers, and contains a large amount of agricultural land, especially productive in wheat. It is traversed by several railway lines, and is dotted with villages.

Saskatchewan, north of Assiniboia, between the 51st and 55th parallels of latitude, from Lake Winnipeg west to the 111th meridian. This embraces the basin of the Saskatchewan river and its northern branch, and is more hilly, more forested, and less productive than Assiniboia or Manitoba. Its industries are mainly in cattle-raising, forestry, and fishing, and its inhabitants are few, except along the North Saskatchewan river, reached by railroad from Regina. *Area*, 111,000 sq. m.

Alberta, filling the elevated plains region between the western boundaries of these two districts and the Rocky Mountains, or eastern boundary of British Columbia, an area of 100,000 sq. m. Its altitude is too great and climate too cool and dry for general agriculture, but it pastures immense herds of cattle, horses, and sheep. The foothills of the mountains abound in coal of various kinds, particularly in the southern part, around Lethbridge and Fort McCleod, and in the Bow river valley; and its mining interests otherwise are considerable. The city of Calgary is a modern and handsome town of some 5,000 inhabitants; it is on the Bow river, where the Canadian Pacific transcontinental line enters the mountains, and has a railroad 200 miles northward to Edmonton, and another 250 miles southward to the coal regions and to a connection with Montana railroads. Banff and the Rocky Mountain Park (see NATIONAL PARKS) lie west of Calgary.

Athabasca lies north of Alberta, between the 111th and 120th meridians as far as the 60th parallel of latitude, and embraces the basin of Peace river and some other large streams emptying into Athabasca and Great Slave lakes. It is inhabited only by Indians and furtraders, is timbered, rocky, filled with small lakes and streams, and will probahly furnish gold, silver, copper, coal, petroleum, &c., in the future. *Area*, 122,000 sq. m.

Keewatin and *Yukon* are indeterminate judicial districts (see KEEWATIN, and YUKON), which may hereafter be given a more regular status. All the vast remainder, embracing the basins of Hudson Bay and the Mackenzie river, is an unorganized district, whose interests are represented by proxy when any occasion arises to legislate in behalf of its widely scattered population of Indians, Eskimos, and fur-traders.

All these districts together constitute the *Northwest Territories*. Their affairs are administered by a lieutenant-governor, appointed by the governor-general of the Dominion, an advisory council of his own selection, and a territorial legislature elected by the four organized districts. This assembly has control of the local finances, and of its own numbers and election, and thus grows with the advance of the region. The Northwest Territories are represented in the Dominion Parliament hy two members in the Senate and four in the House of Commons. The capital is Regina, in Assiniboia, where the lieutenant-governor resides, and where there are a number of public buildings, including the headquarters of the mounted police—the constabulary of these frontier regions. The total population is about 90,000, of which a quarter are Indians and half-breeds. The latter formed the ruling class and possessed certain privileges previous to the transfer of the region from the Hudson's Bay Company to Canada, out of which grew quarrels and conflicts, now happily settled. See RIEL REBELLION. These Territories have been scientifically explored of late, and are known to have great undeveloped resources. See CANADA.

Northwest'er, *n.* (*Colloq. nor'wester.*) A wind or gale blowing from the northwest.

Northwest'ern Univer'sity. (*Educ.*) A co-educational institution, maintained by the Methodist Episcopal Church, at Evanston, a suburb of Chicago. It was chartered in 1851 and organized in 1855. The schools are divided between Evanston and Chicago. The Garrett Biblical Institute at Evanston, though a separate corporation, serves as the theological department of the university, and includes a Norwegian-Danish and a Swedish theological seminary. The schools of law, medicine, pharmacy, and dentistry, as well as the woman's medical school, are located at Chicago. In 1896 the institution had 233 instructors, 3,016 students, and a library of 31,000 volumes. The income of the university in 1896 was $573,000. A part of the institution is the Dearborn Observatory, with a telescope of 18½-inch aperture—the largest in existence at the time it was made.

Nor'ton, ANDREW, theologian, was born at Hingham, Mass., in 1786. After graduating at Harvard in 1804, he succeeded Dr. Channing as Biblical lecturer in that college, and from 1819 till 1830 held there the Dexter professorship of Sacred Literature. Died in 1853. His most important literary effort is *Evidences of the Genuineness of the Gospels.*

Nor'ton, in *Kansas*, a N.W. co.; *area*, 900 sq. m.; intersected by the North Fork of Solomon river and by Prairie Dog creek. *Surface*, nearly all rolling prairie; *soil*, fertile. *Products.* Corn, wheat, rye, broom corn, potatoes, butter, hay, sorghum; live stock. *Cap.* Norton. *Pop.* (1895) 8,671.

Norumbe'ga, *n.* (*Anc. Geog.*) A region often mentioned hy old geographers as near the Atlantic coast of North America, usually placed more definitely within the limits of New England. There has been much discussion over its location, and also as to the origin of the name, whether Indian, Spanish, French, or Norwegian. The river of Norumbega has been thought hy many to be the Penobscot, and by others to be the Hudson. Professor Horsford, of Cambridge, Mass., was convinced that Norumbega is identical with Vinland, the North American settlements of the Norsemen, about 1006; and he wrote extensively to show the exact site of the lost city to be at the junction of Stony creek with the Charles river, at Watertown, Mass., where he built a monumental tower in honor of the Norwegian colonists.

Nor'well, in *Massachusetts*, a post-town of Plymouth co., 7 m. E. of Rockland. *Pop.* (1895) 592.

Nor'wood, in *Massachusetts*, a post-town of Norfolk co., 14 m. S.S.W. of Boston; has ink works, tanneries, and railroad repair shops. *Pop.* (1895) 4,574.

Norwood, in *Minnesota*, a post-village of Carver co., 47 m. from St. Paul. Ships wheat, pork, lumber, and farm produce. *Pop.* (1895) 468.

Norwood, in *New York*, a post-village of St. Lawrence co., 25 m. E. of Ogdensburg; has manufactures of lumher, shingles, sash and hlinds, and pulp. *Pop.* (1897) 1,600.

Noso-. A prefix, derived from the Greek *nosos*, disease, sickness.

Not-, Noto-. A prefix, derived from the Greek *notos*, the back.

Nothinga'rian, *n.* One who believes nothing; one who has no particular religious belief. Used also adjectively.

Nothor'oughfare, *n.* A blank or blind flange; a plate to close an opening, as in a pipe or a man-hole.

Nothosau'rus, *n.* (*Palæont.*) A genus of reptiles characteristic of an order of Sanropterygians, which lived in Europe in the Triassic period, and includes many species, of which *N. mirabilis* is best known. They were apparently fitted for terrestrial life, and preyed on other liviug creatures. Their remains are very abundant in the muschelkalk formations of central Germany.

Notor'nis, *n.* (*Palæont.*) A genus of purple waterrails incapable of flight, which has become nearly extinct in New Zealand within the historic period. The best-known species is *N. mantelli*, of which a few specimens may still survive. The bird is about 2 feet high, has a short strong beak, which, with the legs, is of a bright scarlet color. The neck and body are of a dark purple color, the wings and back being shot with green and gold. The tail is white beneath, and the wings are feeble in structure and plumage.

No'tre Dame, in *Indiana*, a post-town of St. Joseph co., 1½ m. N. of South Bend. Seat of the University of Notre Dame, and St. Mary's Academy for Girls. *Pop.* (1897) 680.

Notre Dame Univer'sity. (*Educ.*) A Roman Catholic institution, located at Notre Dame, Ind., which was founded in 1844, and is conducted by the members of the Congregation of the Holy Cross. It is the largest of the Roman Catholic colleges in the U. S., and possibly the most important. In 1896, it had 60 instructors, 630 students, and 50,000 volumes in its library. It has no endowments, its sole source of income heing the fees of students, each of whom is charged $300. For this sum, however, the student is lodged and fed. Among other things taught are phonography, telegraphy, and typewriting.

Noun'al, *a.* Pertaining to a noun; having the character or qualities of a noun.

Nounal Or'der or Arrange'ment. (*Gram.*) That arrangement of the words of an independent sentence which places the noun, or subject, first; then the verh, then the object or modifiers.

Novel'lo, JOSEPH ALFRED, music publisher, son of Vincent *N.*, was born in 1810. He established the publishing house of Novello, Ewer & Co., continuing and extending the business which his father had hegun. He introduced Mendelssohn to the English public, and also inaugurated a system of cheap music printing, which brought copies of hitherto expensive publications within popular reach. He retired from business in 1856, and went to Italy, where he devoted attention to the study of nautical subjects, ship-building, &c. Died July 17, 1896.

Novello, VINCENT, musical composer and editor, was born in London, Eng., Sept. 6, 1781, and died Aug. 9, 1861. His early efforts in the line of music publication led to the final establishment of the firm of Novello, Ewer & Co., by his son, Joseph Alfred. He was eminent as a musical composer and organist, and as a painstaking editor of unpublished works of eminent musicians he did great service to musical literature.

Nov'elwright, *n.* A term of contempt for a novelist, one who produces novels mechanically.

No'vus Ho'mo, *pl.* NOVI HOMINES. [Lat. a new man.] (*Rom. Antiq.*) A man who was the first of his family to obtain a curule office; one who had risen to distinction by his own endeavors or deserts; contemptuously, an upstart, a parvenu.

NORTH DAKOTA

SCALE OF MILES

0 10 20 30 40 50

Indian Reservation Boundaries

Military Reservation Boundaries

State Capital ☆ County Seat ⊙

Places of 5,000 and over — FARGO

" " 2,000 to 5,000 — Bismarck

" " 1,000 to 2,000 — Hillsboro

" " 500 to 1,000 — Hope

Hammond's 8 x 11 Map of North Dakota

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Longitude 104° West from Greenwich

N. DAKOTA.

Land surface, Sq. m. 70,195
Water surface, Sq. m. 600
Pop. 1900 ..319,146
White....311,712
African.....286
Indian.....6,968
Chinese 32
Japanese.. ..148
Native born, 206,055
Foreign-born, 113,091
Males.....177,493
Females. 141,653

COUNTIES.

Allred .....A 4
Barnes .....F 6
Benson.....E 3
Billings .....A 6
Bottineau.....D 2
Bowman .....A 7
Burleigh .....D 6
Cass .....G 5
Cavalier .....F 2
Dickey .....F 7
Dunn .....B 5
Eddy ..... F 4
Emmons .....D 7
Foster .....F 5
Grand Forks..G 4
Griggs .... ..F 5
Hettinger.....B 7
Kidder . ...E 6
Lamoure.....F 7
Logan.....E 7
McHenry.....D 3
McIntosh .....E 7
McKenzie .....A 5
McLean.....C 4
Mercer.....B 5
Morton.....C 7
Nelson .....F 4
Oliver .....C 5
Pembina .....G 2
Pierce..... ...E 3
Ramsey.....F 3
Ransom.....G 7
Richland .....H 7
Rolette .....E 2
Sargent.....G 7
Stark .....B 6
Steele .....G 5
Stutsman.....E 5
Towner .....E 2
Traill.....G 5
Wallace.....A 4
Walsh .....G 3
Ward .....B 3
Wells .....E 4
Williams.....A 3

CITIES-TOWNS

Pop. Thousands.

9 Fargo .....H 6
7 Grand Forks G 4
3 Bismarck ...D 6
2 Jamestown..F 6
2 Valley City. F 6
2 Grafton.....G 3
2 Wahpeton..H 7
2 Dickinson...B 6
1 Devils Lake F 3
1 Mandan.....D 6
1 Minot .....C 3
1 Larlmore .. G 4
1 Casselton ...G 6
1 Langdon ...F 2
1 Hillsboro. ..G 5
1 Mayville ....G 4
1 Park River .G 3
1 Cando .....E 3
1 Lisbon ..... G 7

Pop. Hundreds.

9 Bathgate....G 2
9 Pembina ...G 2
8 Bottineau...D 2
8 Minto.....G 3
7 New Rockford E 4
7 Williston ...A 3
7 Ellendale ...F 7
7 Hankinson .H 7
6 Northwood..G 4
6 Drayton ....G 2
6 Cavalier.....G 2
6 Oakes ..... .F 7
6 St. Thomas . G 2
6 Cooperstown F 5
6 Enderlin....G 6
6 Hope .....G 5
5 Lidgerwood G 7
5 Lakota.....F 3
5 Portland... G 5
4 Rugby.....E 3
4 Willow City D 2
4 Tower City..G 6
4 Kulm .....F 7
4 Lamoure....F 7
4 Minnewaukon E 3
4 Hatton..... G 4
4 Davenport..G 6
4 Hunter. ....G 5
4 Rolla.....E 2
3 Reynolds ...G 4
3 Milton .....F 2
3 Walhalla....G 2
3 Leeds.....E 3
3 Towner .....D 3
3 Mapleton ...G 6
3 Milnor.....G 7
3 Sheldon.....G 6
3 Michigan....F 4
3 Edgeley.....F 7
3 Medora..... .A 6
2 Ardock.....G 3
2 Fairmount..H 7
2 Churchs Ferry E 3
2 Sanborn.....F 6
2 Forman.....G 7
2 Forest River G 3
2 Sherbrooke.G 5
2 Wimbleton..F 5
2 Hamilton...G 2
2 Conway.....G 3
2 Buffalo .... G 6
1 Steele .....E 6
1 Hoople.....G 3
1 Pisek.....G 2

Now'lin, in *South Dakota*, a S. W. central co.; *area*, 1,220 sq. m.; drained by Bad river and its tributaries. Grazing is the leading industry. Unorganized. *Pop.* (1895) 262.

Nu'bia, *n.* [Lat., *nubes*, a cloud.] A soft, light hood or head-covering worn by women; sometimes called a cloud.

Nuck'olls, in *Nebraska*, a S. E. co.; *area*, 576 sq. m.; intersected by Republican and Little Blue rivers. *Surface*, undulating; timber scarce; *soil*, good for pasturage. *Products*, Corn, broom corn, wheat. *Cap.* Nelson. *Pop.* (1890) 11,417.

Num'bering-machine', *n.* Machines for printing consecutive numbers, as the pages of a book, are used by both printers and bookbinders, and vary from a somewhat complicated form of small printing-press to a form made resembling the hand-stamp. All of them employ figure-wheels, so geared as to bring to the surface figures showing the numbers from 1 to 10,000 or 100,000. For ticket-numbering they usually constitute a part of a special machine made for printing tickets in large quantities. These machines are also made so as to lock up with a form of type on any ordinary printing-press, thus numbering the sheets. For small work the hand-stamp type is used, being mounted on an upright handle, and the force of the downward pressure utilized to move the inking-apparatus and rotate the figure-wheels. Similar machines for exhibiting the number of strokes or impressions made by a machine are termed counters or counting-machines.

Nurl, *v. a.* To indent or flute the edges of, as a coin or screw-head, with a nurling-tool; to mill.

Nurl'ing, *n.* The indentations or fluting on the edges of coins, the heads of screws, &c.; milling or reeding. The object of it on coin is to prevent the clipping or filing of the edges, which might be done without discovery, except by weighing. On screws, it is to make them more easy to grasp by the fingers and thumb.

Nurling-tool, *n.* A milling-tool; an implement with a rotating steel disk which impresses a design on an object when rotated in a lathe.

Nurs'es, Train'ing of. The systematic training of attendants for the sick is a department of medicine which has come into existence within the last fifty years. Until 1848, what are now classed as "experienced nurses" were all that could be had, at best, and they were exceedingly few. In that year one of the first thorough training schools for nurses was founded by the St. John's Sisterhood, in London. In 1855, the heroic work of Miss Florence Nightingale, who had gone to the Crimea with 34 nurses to care for the wounded on the battle-fields, called attention to the inestimable value of organized and systematized nursing, and at the close of the war a fund of $250,000 was raised to enable her to establish a school for the education of women as nurses, and in 1887 Queen Victoria gave $350,000, the surplus of the Women'e Jubilee Offering, to the founding of a similar institution, the four central schools being situated in London, Edinburgh, Dublin, and Cardiff. In Germany, the late Empress Augusta, the Empress Frederick, and the late Princess Alice of Hesse have done much toward improving the methods and facilities of nursing, while in France the establishment of *L'école des gardes malades et d'Ambulancières*, in 1877, raised nursing to somewhat the same plane in which it ranks in England, where only gentlewomen are permitted to enter the army and navy training service. In America it has become a distinct profession, many nurses being graduated yearly. There are 350 training schools in the United States and Canada, the most important being situated in the large cities in connection with both public and private hospitals, such as Bellevue, the City Hospital on Blackwell's Island, the New York Hospital, the Flower (homœopathic) Hospital, and several others in New York; Hamilton Hospital, in Ontario, Can.; Johns Hopkins, in Baltimore; Massachusetts General Hospital, in Boston, and St. Luke's, in Chicago. In addition to these schools for regular nurses, the Babies' Hospital, in New York, has recently opened a training school for nursemaids. Certain qualifications are absolutely essential in the applicant for training as a regular nurse; she must be in sound health, a physician's certificate to that effect being required; she must be unmarried, or widowed, and able to guarantee herself free from outside responsibilities; she must be over 21 years old (and usually over 23); she must have a cheerful disposition, good character, good social standing, and a good common-school education. The course and the methods are approximately the same in all the schools, consisting of lectures and practical hospital training, including a full course of obstetrical nursing.

The course of training is as follows: (1) The dressing of blisters and burns, applying fomentations, poultices, &c. (2) Cupping, leeching, and subsequent treatment. (3) The administering of enemata and use of female catheter. (4) Management of helpless patients; moving, changing bed and body linen, giving baths, preventing and dressing bed-sores, and feeding. (5) Aseptic and antiseptic treatment of wounds. (6) Bandaging, making bandages, covering splints, &c. (7) Cooking, preparing, and serving appropriate food and delicacies for the sick. (8) Massage. (9) Emergencies and how to meet them.

Instruction is given in ventilation and in the proper care of sick-rooms and utensils. Also in accurate observation of the sick in regard to the state of the excretions, expectorations, pulse, temperature, respiration, action of the skin, eruptions, sleep, mental condition, condition of wounds, appetite, effect of diet, stimulants, medicines, and management of convalescents. The instruction is given by the directress of the school, and by the senior nurses of the wards. The length of the course has been two years, but is now being raised to three, the initiative having been taken by the New York and St. Luke's Hospitals in New York city.

Nut'pick, *n.* A small steel or silver instrument with a point for picking the kernels of nuts from the shells.

Nut-pine, *n.* A pine-tree yielding nut-like edible seeds. There are several varieties. See PINUS.

Nyan'da, *n.* [Afr.] Cloth made from the bark of a fig-tree.

Nyanza (*nē-ăn'za*), *n.* An African word, signifying lake, which is also the significance of Nyassa (*q. v.*). It has been particularly applied to two lakes of equatorial Africa, Victoria and Albert Nyanza, and more recently to a third lake, Albert Edward Nyanza. Victoria Nyanza, or Ukarewe, the first known of these, is a large fresh lake, discovered by Captain Speke in 1858, and further explored by Speke and Grant in 1861. Its S. point is in Lat. 2° 44′ S., Lon. 33° E., the N. shore extending to some 20 miles N. of the equator. It lies at an elevation of 3,740 feet above the sea, and is approximately circular in form, with a diameter of about 180 miles. It has an area of 27,000 sq. m., being, with one exception, the largest fresh-water lake in the world. The Kitangalé is the principal river flowing into this lake on the W. Several streams flow into it from the S., and form the most southerly feeders of the Nile, which has its origin in this lake, flowing from its northern extremity. The Albert Nyanza, or Mwutan, discovered by Sir Samuel Baker in 1864, lies 80 miles to the N.W. of the Victoria Nyanza, and forms a part of the course of the Nile (*q. v.*). It lies 2720 feet above sea level, but in a deep rock basin, being 1470 feet below the general level of the country. It is 140 miles long, N. to S., and 40 wide, its waters being fresh and of great depth toward the center. A massive range of hills, called the Blue Mountains, with an elevation of nearly 10,000 feet, lies N. and W. of the lake, which receives its drainage. S.W. of this lake lies the Muta Nzige, discovered by Stanley in 1876, and named by him, in 1889, the Albert Edward Nyanza. It occupies the southern extremity of the great rock basin above mentioned, whose northern end is occupied by the Albert Nyanza, and drains into the latter lake.

Nyct-, Nycti-, Nycto-. A prefix, derived from the Greek *nyx* (gen. *nyctos*), night.

Nye, EDGAR WILSON (sobriquet, "BILL NYE"), humorist, was born at Shirley, Maine, Aug. 25, 1850; removed to Wisconsin in his youth; studied law, and was admitted to the bar in 1876. Finding little opportunity to practice, he began writing humorous sketches for the newspapers, under the pen-name of "Bill Nye." After a varied experience in the Far West, he removed to New York city, continuing his humorous writing, and also becoming a popular lecturer, part of the time in association with J. Whitcomb Riley. The last three years of his life were spent at his home in Asheville, N. C., where he died Feb. 22, 1896.

Nye, in *Nevada*, a S. co.; *area*, 16,908 sq. m. *Surface*, mountainous; timber scarce; agricultural products very small. Silver and gold-mining is the chief industry. *Cap.* Belmont. *Pop.* (1890) 1,200.

O.

O The fifteenth letter, and the fourth of the five simple vowel series in the English alphabet. According to the existing pronunciation of the language it takes a position between *a* and *u*, and represents at least six different sounds; as, for instance, the long intonation, as in *moan, tone, gold*; the short sound as heard in *cot, dodge, sod*; a sound like the French *ou*, as in *prove, do, moot*; a cognate but sharper sound, as in *book, soot, wolf*; and a tone like broad *a*, as in *form, bourne*, &c. The primary and natural sound of O is that heard long in *nōr*, and short in *nŏt*. The Greeks had two forms of this letter, o (*omicron*, or little o) and ω (*omega*, or large *o*); the former of which was equivalent to the short, and the latter to the long pronunciation of this letter in other countries and later times. Among the ancients, O was a symbol indicative of triple time, from the idea that the ternary, or number 3, is the most perfect of numbers, and, accordingly, best described by a circle, the most perfect figure. In music, the O, or circle, is a note which the English style a *semibreve*, the French a *rond*, and the Italians *circolo*. In Irish family nomenclature, the letter O followed by an elision, thus O', and used as a prefix to certain names, signifies *son of*, and in this sense corresponds with the Gaelic *Mc* or *Mac*, and the English prefix of bastardy *Fitz*; as, *O'*Brien, son of Brien; *O'*Donnell, son of Donnell or Donald, &c. In Latin inscriptions, O signifies *optimus*; as D.O.M.—Deo Optimo Maximo. As a numeral, O signified 70 among the Greeks; in Middle Latin it signified 11; and with a dash over it, 11,000. In pharmacy, O is a contraction for *Octarius*, a pint or pound fluid; and in chronology, O.S. and N.S. stand for Old and New Style. In modern arithmetic, it is used for the cipher, and represents nothing.

O, *interj.* An exclamation employed in calling or directly addressing a person, or impersonated object;—used also as an impassioned exclamation indicative of desire, grief, surprise, pain, ecstasy, and the like.

O dear! and *O dear me!* [Corrupted from It. *O Dio mio!* O my God!] Exclamations expressive of various emotions, as those of fear, surprise, regret, consternation, pain, &c.

O, *n.* A circle or oval; something presenting the form of the letter O.

Oaf, (ōf,) *n.* [A corruption of *elf*, q. v.] A changeling; a foolish child left by fairies in the place of another.—A dolt; a dunderhead; an idiot; a clodhopper; a gaby.

Oaf'ish, *a.* Doltish; stupid; dull; thickheaded; idiotic; resembling an oaf.

Oaf'ishness, *n.* State or quality of being oafish; stupidity; mental dulness.

Oa'hu, WAHOO, or WOAHOO, one of the Sandwich Islands; Lat. 21° 20′ N., Lon. 157° 37′ W.; it is 40 m. long, and 20 m. broad; *pop.* 19,126.

Oajaca, or OAXACA, or GUAXACA, (*wa-ha'ka*,) a state of Mexico, having Vera Cruz on the N., Tehuantepec on the E., the Pacific Ocean on the S., and La Puebla on the W. It lies between 15°40′ and 18° 20′ N., and Lon. 94° 15′ and 98° 15′ W. *Area*, abt. 31,822 sq. m. *Rivers.* Alvarado, Rio Grande, and Verde. *Surface*, much diversified; *soil*, exceedingly fertile. *Prod.* Wheat, indigo, cotton, sugar, honey, cocoa, plantains, &c. Cochineal forms an important item among the exports. *Pop.* 601,850.

OAJACA, a city, cap. of the above state, abt. 210 m. S.S.E. of Mexico; Lat. 17° 3′ N., Lon. 97° 15′ W.; *pop.* 26,000.

Oak, (ōk,) *n.* [A. S. *āc, aac.*] (*Bot.*) See QUERCUS.

Oak, in *Iowa*, a township of Mills co.

Oak'-apple, *n.* A spongy excrescence found upon the twigs of the *Quercus pedunculata*. It is formed by the puncture of a cynips, and rises rapidly, being usually spheroidal in form, and about one to two inches in diameter. The oak-apple must not be confounded with those beautiful little excrescences so common on the underside of the leaves of the oak, and known by the names of *galls* and *spangles*. They are also produced by the puncture of different species of cynips. The oak-apple has some resemblance to the *bedeguar* of the eglantine, but is not so rough and fibrous on the surface. Oak-apples are very astringent, containing tannic acid, and are used both for making ink and for dyeing and staining.

Oak'-bark, *n.* The bark of the oak-tree, used in tanning, and for other purposes.

Oak Creek, in *Wisconsin*, a post-village and township of Milwaukee county, about 90 miles east of Madison.

Oak'dale, in *Iowa*, a township of Howard co.

Oak'dale, in *Minnesota*, a township of Washington co.

Oak'dale, in *Missouri*, a village of Shelby co., abt. 10 m. N. of Jefferson City.

Oaken, (ōk'n,) *a.* [A. S. *æcen.*] Made of oak, or consisting of oak; composed of branches of oak; as, an *oaken* cudgel.

Oake'sia, *n.* [From W. *Oakes* of New England.] (*Bot.*) A genus of plants, order *Juglandaceæ*. *O. conradi*, the Plymouth Crowberry, is a low, bushy, tufted shrub about 1 foot high, common in some parts of the Northern States.

Oak'field, in *Iowa*, a post-village and township of Audubon county, about five miles south-west of Exira.

Oak'field, in *Michigan*, a post-township of Kent county.

Oakfield, in *Missouri*, a post-village of Franklin co., abt. 35 m. W. by S. of St. Louis.

Oakfield, in *New York*, a post-village and township of Genesee county, abt. 250 m. W. by N. of the city of Albany.

Oakfield, in *Ohio*, a post-village of Perry co., abt. 24 m. S. by W. of Zanesville.

Oakfield, in *Wisconsin*, a post-village and township of Fond du Lac co., abt. 9 m. S.W. of Fond du Lac.

Oakfield Centre, in *Wisconsin*, a post-village of Fond du Lac co., abt. 12 m. S.W. of Fond du Lac.

Oak Glen, in *Minnesota*, a post-village and township of Steele co., abt. 32 m. W.S.W. of Rochester.

Oak Grove, in *Indiana*, a township of Benton county.

Oak Grove, in *Kentucky*, a post-village of Christian co., abt. 210 m. S.W. of Frankfort.

Oak Grove, in *Minnesota*, a post-village and township of Anoka co., abt. 10 m. N. of Anoka.

Oak Grove, in *Missouri*, a post-village of Jackson co., abt. 21 m. S.E. of Independence.

Oak Grove, in *Wisconsin*, a post-village and township of Dodge co., abt. 40 m. N.E. of Jackson.
—A township of Pierce co.

Oak'ham, in *Massachusetts*, a post-township of Worcester co.

Oak Hill, in *Illinois*, a village of Lake co., abt. 32 m. N.N.W. of Chicago.

Oak Hill, in *New York*, a post-village of Greene co., abt. 30 m. S.W. of Albany.

Oak Hill, in *Ohio*, a post-village of Jackson co., S.S.W. of Columbus.

Oak'land, in *Canada*, a village of Oxford co., abt. 8 m. S. of Brantford.

Oakland, in *California*, a city, cap. of Alameda co., on San Francisco Bay, opposite San Francisco. It contains many handsome public and private buildings, extensive manufactories, and is a most beautiful city, with many natural advantages. *Pop.* (1897) about 55,400.

Oakland, in *Illinois*, a post-village of Coles co., about 95 m. E. by S. of Springfield.—A twp. of Schuyler co.

Oakland, in *Iowa*, a village of Dubuque co., about 20 m. W. by N. of Dubuque.
—A township of Franklin co.
—A township of Louisa co.

Oakland, in *Maryland*, a village of Alleghany co., about 54 m. W.S.W. of Cumberland.
—A post-village, cap. of Garrett co., on the B. & O. R.R.

Oakland, in *Michigan*, a S.E. co. of the lower peninsula; *area*, about 900 sq. m. *Rivers.* Clinton, Shiawassee, Flint and Rouge, or Red, rivers. *Surface*, diversified; *soil*, fertile. *Products*, wheat, corn, oats, hay, butter, wool, and potatoes are the staples. It is one of the most productive counties in the State. It is intersected by 3 railroads. *Cap.* Pontiac. *Pop.* (1894) 42,668.
—A township of the above county.

Oakland, in *Minnesota*, a post-township of Freeborn co.

Oakland, in *Missouri*, a post-village of La Clede co., abt. 48 m. S.W. of Rolla.

Oak'land, in *New York*, a post-village of Livingston co., abt. 250 m. W. of Albany.

Oakland, in *Ohio*, a p. v. of Cliuton co., abt. 16 m. S. of Xenia.—A vill. of Fairfield co., abt. 12 m. S.W. of Lancaster.

Oakland, in *Oregon*, a post-village and precinct of Douglas co., abt. 18 m. N. of Roseburg.

Oakland, in *Pennsylvania*, a twp. of Butler co.—A twp. of Susquehanna co.—A twp. of Venango co.

Oakland, in *Rhode Island*, a village of Providence co., abt. 25 m. N.W. of Providence.

Oakland, in *Wisconsin*, a post township of Jefferson co.

Oakland, in *W. Virginia*, a post-village of Morgan co., abt. 28 m. N. of Winchester.

Oakland College, in *Mississippi*, a village of Claiborne co., abt. 70 m. S.W. of Jackson.

Oak'ley, in *Illinois*, a post-village of Macon co., abt. 9 m. E. of Decatur.

Oak'ling, *n.* A young oak.

Oak'-opening, *n.* A forest glade, free from underwood. (American.)

Oak Or'chard, in *New York*, a post-village of Orleans co., abt. 40 m. W. by N. of Rochester.

Oak Or'chard Creek, in *New York*, rises in Genesee co., and flowing a general N. course, enters Lake Ontario from Orleans co.

Oak'-paper, *n.* Paper-haugings stained and grained in imitation of oak-wood.

Oak-pru'ner, *n.* (*Zoöl.*) See STENOCORUS.

Oak Spring, in *Iowa*, a post-village of Davis co., abt. 85 m. S.W. of Iowa City.

Oak'ton, in *Illinois*, a village of Massac co., abt. 20 m. W. by S. of Golconda.

Oak'um, *n.* [A.S. *æcemba*, from *camb.*] Refuse of tow; the substance of old ropes untwisted and pulled into loose hemp, employed for caulking, &c.

Oak'ville, in *Michigan*, a post-village of Monroe co., abt. 35 m. S.W. by W. of Detroit.

Oak'ville, in *Missouri*, a post-office of St. Louis co.

Oakville, in *North Carolina*, a P. O. of Warren co.

Oakville, in *Texas*, a post-vill., cap. of Live Oak co.

Oakville, in *Virginia*, a post-vill. of Appomattox co.

Oak'y, *a.* Firm; strong; tough; resembling oak. (R.)

Oan'nes, *n.* (*Myth.*) The man-fish god of the Babylonians. He is represented as having a man's head under that of the fish, and with woman's feet joined to its tail. He is said to have issued out of the Persian Gulf, and to have founded the civilization of the Lower Chaldea. See also MYTHOLOGY.

Oar. See SECTION II.

Oared, (ōrd,) *a.* Equipped with oars;—chiefly used colloquially, and in composition; as, a four-*oared* racing-gig.

Oar'-footed, *a.* Possessing feet that may be used as oars;—said of certain animals.

Oars'man, *n.*; *pl.* OARSMEN. One who rows; one who tugs at an oar.

Oar'y, *a.* Having the form, use, or character of an oar.

Oa'sis, *n.*; *pl.* OASES. [Gr.; in Strabo, *auasis*, probably from Ar. *wah*, wonderful, excellent.] A fertile spot in a sandy, bleak, or barren desert,—particularly applied to such spots watered by springs in the deserts of Libya, Egypt, and other parts of Africa. (See EGYPT.) Three of these solitary places in the deserts of Libya were celebrated in ancient history under this name,—the Greater Oasis, according to Herodotus (B. c. 484–408), seven days' journey W. of Thebes; the Ammoniuni, the site of the famed temple of Jupiter Amnion, visited by Alexander III. (the Great), B. c. 333, with its celebrated oracle; and the Lesser Oasis. Juvenal is supposed to have been the first person banished to one of these solitary places, in the sandy deserts of Libya, in 94. Timasius, the master-general of Theodosius I., was banished by Eutropius to the Oasis, in 396. Nestorius, bishop of Constantinople, was also transferred from Petra to the Oasis, in 435. The Oases fell under the power of the Arabs in 943, and were visited by Poncet in 1698, by Browne in 1792, by Hornemann in 1798, and by Caillaud in 1819.

Fig. 1977.—TEMPLE OF JUPITER AMMON, (Oasis of Siwah.)

Oa'sis, in *Wisconsin*, a post-village and township of Waushara co., abt. 30 m. N.W. of Sacramento.

Oast, OST, OUST, and OOUST, *n.* A malt-kiln. (R.)

Oat, (ōt,) *n.* [A.S. *ata*, ate.] The common name, chiefly used in the plural, of the genus *Avena*, (q. v.) The species *Avena sativa*, of which there are many varieties, is used for feeding horses.

Oat' cake, *n.* A cake made of oat-meal;—a favorite article of food among the Scots Highlanders.

Oaten, (ōt'n,) *a.* Made of oat-meal; as, *oaten* bread.
—Consisting of an oat straw or stem; as, an *oaten* pipe.

"When shepherds pipe on *oaten* straws."—*Shak.*

Oath. See SECTION II.

Oath'-breaking, *n.* Perjury; violation of an oath.

Oat'land, in *Virginia*, a village of Loudoun co., abt. 150 m. N. of Richmond.

Oat'-malt, *n.* Malt made of oats.

Oat'-meal, *n.* The meal of crushed and pulverized oats; as, *oat-meal* porridge.
(*Bot.*) See PANICUM.

Ob. A Latin preposition, denoting, in its primary signification, before; ahead; in front; and hence, toward; against. In another sense, it expresses *reversed* or *backward*.

Obadi'ah, (Book of.) (*Script.*) One of the minor prophets, and the shortest book of the Old Testament, consisting only of 21 verses. Respecting the life and circumstances of the author nothing is certainly known, but in all probability the prophecy was delivered between the taking of Jerusalem by the Chaldeans (B. c.

588), and the destruction of Idumsa, which took place a few years later; consequently, he was partly contemporary with Jeremiah. The almost verbal agreement between the first eight verses of this book and a portion of Jeremiah's prophecy (ch. xl. 19) has led to the opinion that the former had been borrowed from the latter; but the more probable view (from comparison of the two passages) seems to be that Jeremiah is indebted to Obadiah. Ewald is of opinion that both writers copied from some earlier prophet. The subjects of the prophecy are the judgments to be inflicted upon the Idumeans on account of their wanton and cruel conduct towards the Jews at the time of the Chaldean invasion; and the restoration of the latter from captivity. The book may thus fitly be divided into two parts: the first containing a reprehension of the pride, self-confidence, and unfeeling cruelty of the Idumeans, and definite predictions of their destruction (1–16); the latter promising that the Jews shall not only be restored to their own land, but possess the territories of the surrounding nations, especially that of Idumea (11–21). The book is characterized by animation, regularity, and perspicuity.

O'ban, a small seaport-town of Scotland, co. of Argyle, on the bay of Oban, 61½ m. N.W. of Glasgow; *pop.* 2,000.

Obbliga'to, *a.* [It.] (*Mus.*) See OBLIGATO.

Obcla'vate, *a.* [*Ob* and *clavate.*] (*Bot.*) Clavate by inversion.

Obcompressed, (*-prêst',*) *a.* (*Bot.*) Compressed in a manner contrary to the customary one.

Obcon'ic, Obcon'ical, *a.* [*Ob* and *conic.*] (*Bot.*) Inversely conical.

Obcor'date, *a.* [Fr. *obcordé.*] (*Bot.*) Inversely heart-shaped, *i. e.*, with the broad end forming the apex.

Ob'duracy, *n.* Quality of being obdurate; obstinacy in will; invincible hardness of heart; impenitence that cannot be anbdued; inflexible persistency in sin.

Ob'durate, *a.* [Lat. *obduratus*, from *obduro—ob*, and *duro*, to harden.] Hardened in heart; made proof against good or favor; stubborn; unyielding; inflexible; persisting obstinately in sin or impenitence; stubborn in evil.—Made hard; harsh; rugged; rough; stiff; as, an *obdurate* consonant, an *obdurate* metal.

Ob'durately, *adv.* With obduracy; with obstinate impenitence; stubbornly; inflexibly; persistently.

Ob'durateness, *n.* Obduracy; stubborn in penitence; fixed persistence in evil.

O'beah, O'bi, O'by, *n.* A kind of occult worship, or necromantic ceremony, practised among the negroes in the West Indies.

O'bed. (*Script.*) The son of Boaz and Ruth, and grandfather of David.

Obe'dience, *n.* [Fr.; Lat. *obedientia.*] Act of obeying, or quality of being obedient; compliance with a command, prohibition, or known law and rule of duty prescribed; the performance of what is required or enjoined by authority, or the abstaining from what is prohibited, in compliance with the command given thereto.

Obe'dient, *a.* [Lat. *obediens.*] Yielding compliance with commands, orders, or injunctions; performing what is required, or abstaining from what is forbidden; dutiful; submissive to restraint and control; subservient.

Obedien'tial, *a.* [Fr. *obédienciel.*] In compliance with command or injunction. (R.)

Obe'diently, *adv.* With obedience; in an obediential manner; with due submission to commands or authority.

Obeisance, (*o-bā'sans,*) *n.* [Fr. *obéissance*, from Lat. *obedientia*, from *obedire*, to obey.] A bow or courtesy; an act of reverence made by an inclination of the body or knee; a genuflexion; an expression of respect.

Obei'sant, *a.* Disposed to obey; reverent; submissive; respectful.

Obelis'cal, *a.* Presenting the shape of an obelisk.

Ob'elisk, *n.* [Lat. *obeliscus;* Gr. *obeliskos*, dim. of *obelos*, a pointed pillar.] (*Arch.*) A tall 4-sided pillar, gradually tapering as it rises, and cut off at the top in the form of a flat pyramid. The Egyptian *O.* may be described as large stones of quadrilateral form, diminishing from the base upwards, till, within about a tenth of the height, the sides converge to a point. The width of the base is usually about a tenth of the height, to that part where the sides begin to converge; they are commonly formed from a single stone, mostly of granite.—Pliny (23–79) mentions two that stood before the temple in Alexandria: one Cleopatra's Needle was given to the U. S. in 1877, and erected in the Central Park of New York in 1881 (see Fig. 82). The Emperor Augustus removed several from Egypt to Rome, and succeeding emperors following his example 48 in all were transported. Four of these were restored and set up by Pope Sixtus V. (1585–90). Another was set up by Innocent X., one by Alexander VII., and one by Pius VII. An obelisk was removed by the French from Luxor to Paris in 1836, and one other by the English from Alexandria to London in 1877.

(*Printing.*) Same as DAGGER, *q. v.*

—*v. a.* To mark or designate with an obelisk.

Ob elize, *v. a.* To mark with an obelus; to point out as doubtful.

Ob'elus, *n.*; *pl.* OBELI. [Lat.; Gr. *obelos*, a spit.] (*Printing.*) A mark, thus —, or ÷; —so termed from its resemblance to a needle. It was used in old editions of the classics to point out suspected readings. The common use of the line—in modern writing is to mark the place of a break in the sense, where it is suspended, or where there is an ungrammatical transition; but a paragraph introduced where the sense is suspended, is more properly marked by the sign of a parenthesis.

O'berland, a portion of Switzerland, generally called *The Bernese* Oberland, and consisting of portions of the three cantons of Berne, Uri, and Unterwalden; in a more limited sense it only embraces the three adjacent valleys of Grindelwald, Hasli, Lauterbrunnen.

O'berlin, in *Ohio*, a town of Lorain co., located on the Lake Shore & Mich. South. R. R., 28 m. E. of Norwalk. It has some manufacturing interests, and is the seat of an eminent collegiate institution, founded in 1834 for the purpose of affording economical education by combining manual labor with study. *Pop.* (1897) abt. 4,490.

O'beron. (*Mediæval Myth.*) The king of the fairies. Wieland's beautiful poem, and Weber's romantic opera of this name, the *Midsummer Night's Dream*, and innumerable other poems and tales of which he is the hero, have made the name of *O.* so familiar, that it will be unnecessary to do more in this place than to state the origin of the fable. The name *O.* first appears in the old French *fabliaux* of Huon of Bordeaux; it is identical with Auberon, or Alberon, the first syllable of which is nothing more than the old German word Alb, *elf* or *fairy*, which in the *Heldenbuch* and other old German poems is expressed variously by Alberich or Alban. His wife's name was Titania, or Mab, whose powers have been so beautifully depicted in *Romeo and Juliet.*

Obese', *a.* [From *ob*, and *edere*, *esum*, to eat.] Excessively embonpoint; extremely corpulent; gross; stout; fat; fleshy.

Obes'ity, Obese'ness, *n.* [Fr. *obésité;* Lat. *obesitas.*] Fatness, or excess of the adipose tissue. All persons as they advance in life become fat, either generally or in part; some show it externally in the fulness and roundness of their limbs and body, and the general expansion of their frames; others remain externally the same spare, attenuated persons in advanced life they were in youth, though the fatty deposit may have taken place internally. It would seem also that a tendency to obesity is hereditary in some cases; and in such cases it results in all probability from some peculiarity of the organism which interferes with the proper oxidation of ingested material, such as a disproportion between the lung capacity and the fat-forming processes. Much has been written on the best method of preventing and removing obesity; all, however, insist on the great principle of avoiding farinaceous, oily, and saccharine ingesta in every form; and when discretion is used, great advantage sometimes accrues from this plan to the patient. But, on the other hand, much evil may arise from the adoption of a disciplinary diet unwatched by a physiological observer; and this especially applies to the rapid reduction of obesity in those who are hereditarily predisposed to it.

Obey, (*o-bā',*) *v. a.* [Fr. *obéir;* Lat. *obedire—ob*, and *audire*, to hear.] To hearken, listen, or attend to; to comply with, as the commands, instructions, or injunctions of a superior, or with the requirements of law; to yield submission to.—To be subject to or ruled by; to submit to the government, direction, or control of.

"Afric and India shall his power *obey.*" — *Milton.*

—To yield to the impulse, power, or operation of; as, a ship *obeys* her rudder.

Obeyer, (*o-bā'er,*) *n.* He who, or that which, yields obedience.

Obey'ingly, *adv.* Submissively; obediently; subserviently.

O'bey's River, in *Tennessee*, enters Cumberland River from Overton co. *Length*, abt. 100 m.

Obfus'cate, Offus'cate, *v. a.* [Prefix *ob*, and *fuscare*, to make dark; Fr. *offusquer.*] To obscure; to darken; to dim; to cloud.—To confuse; to daze; to bewilder; to make heavy or stupid.

"A gentleman slightly *obfuscated* with wine." — *Hazlitt.*

Obfusca'tion, *n.* [Lat. *obfuscatio.*] Act of darkening or confusing; state of being darkened, or bewildered.

O'bi, Oby, or **Ob,** a large river of Asiatic Russia, rising by two sources on the N.W. side of the Little Altai mountains, near the frontiers of China, Lat. 51° N., Lon. 89° E., and after a N.W. course of 2,700 m. falling into the Gulf of Obi, near Lat. 67° N., Lon. 72° E.—The Gulf of Obi is a long inlet of the Arctic Ocean, 450 m. long, by 100 m. broad.

Obidos, (*o-bē'doce,*) a town of Brazil, abt. Lat. 1° 50′ S., Lon. 55° 18′ W. It is situated on the Amazons at the head of its tide-water, is regularly built, and carries on an extensive trade in cotton and cocoa. *Pop.* 6,000.

Obim'briate, *a.* [*Ob*, and *imbricato.*] (*Bot.*) Having the imbrication depending downward.

O'bion, in *Tennessee*, a river formed by the union of several branches in Obion co., and flowing S.W., enters the Mississippi River from Dyer co.

—A N.W. co., adjoining Kentucky on the N., intersected by the Obion river, and numerous smaller streams; *area*, about 540 sq. m. *Surface*, nearly level; *soil*, fertile. Tobacco, cotton, corn and live stock are the staple products. *Cap.* Union City. *Pop.* (1890) 27,273.

Obispo, (*o-bees'po.*) [Sp., a bishop.] A river of the Isthmus of Panama, flowing into the Chagres River near Cruces.

O'bit, *n.* [Lat. *obitus—obeo*, to go down, to sink, to die—*ob*, and *eo*, *itum*, to go.] Death; demise; decease.—Funeral ceremonies.—A funeral service for the dead on the anniversary of decease.—A peculiar length of slate.

Post obit. [Lat. *post obitum.*] After death.

Obi'ter, *adv.* [Lat.] Incidentally; casually; in passing; as, *obiter dictum*, a thing incidentally said.

Obit'nal, *a.* [From Lat. *obitus*, death. See OBIT.] Belonging or having reference to obits, or the times of celebration of funeral ceremonies; as, *obitual* days.

Obit'uarily, *adv.* After the manner of an obituary.

Obit'uary, *n.* [Fr. *obituaire*, from Lat. *obitus*, death.] An account of a person or persons deceased; that which is caused by the *obit* or death of any one, especially a public announcement of a person's decease, accompanied by a brief biographical notice of his life and character. See *Annual Index of Obituaries*, by the Index Soc.

(*Eccl.*) In the Roman Catholic Church, a list of the dead, or a register of the days set apart for obitual solemnizations and services.

Ob'ject, *n.* [O. Fr.; Fr. *objet*; Lat. *objectus*, from *objicio—ob*, and *jacio*, to throw.] That which is put against, in the way, or opposite; that about which any power or faculty is employed, or something apprehended or presented to the mind by sensation or imagination.—That to which the mind is directed for accomplishment or attainment; something presented to the senses, or the mind, to excite emotion, affection, or passion; that which is produced, influenced, or acted on by something else; end; aim; ultimate purpose.

(*Gram.*) That to which activity is directed; that which is influenced or acted by something else, as a noun or pronoun governed by a verb or preposition.

(*Metaph.*) *Object* and *Subject*, *Objective* and *Subjective*, are two sets of correlative terms much used in philosophy, and not always free from ambiguity. In philosophy there is a grand philosophical distinction, lying at the root of all knowledge, between that which knows (the subject) and that which is known (the object). The former is what is known among philosophers as the *Ego*, or conscious mind; the latter, as the *Non ego*, or that which is known, with its modes and properties. But this distinction, though at first sight so clear, is not without its ambiguities, for we may find in the mind itself both the object and subject of thought. The feelings and emotions of the mind itself may become as it were objectified and contemplated by the *ego*. Hence, Sir William Hamilton proposes that "when we wish to be precise, or when any ambiguity is to be dreaded, we should employ, on the one hand, either the terms *subject-object*, or *subjective-object* (and this we could again distinguish as absolute or as relative), on the other, either *object-object*, or *objective-object.*" The terms subject and object were, for a long period, not sufficiently discriminated from each other. Even among the philosophical Greeks, the terms *hupokeimenon* and *antikeimenon* were used ambiguously, the former being used by Aristotle to signify both the subject proper (*id in quo*) and the object proper (*id circa quod*); while the latter he uses in the plural to signify in general the various kinds of opposites. To constitute a metaphysical object, actual existence is not necessary; it is enough that it is conceived by the subject. Nevertheless, it is customary to employ the term objective as synonymous with real, so that a thing is said to be *objectively* considered when regarded in itself, and to be *subjectively* considered, when it is presented in its relation to us.

—*v. a.* [Fr. *objecter*, Lat. *objicio*, *objectus—ob*, and *jacio.*] To throw or put before; to cast in the way or against; to expose prominently to view.

"Pallas . . . the mist *objected*, and condens'd the skies." — *Pope.*

—To oppose; to present in opposition; to offer opposingly; —with *to* or *against;* as, to *object to* the evidence of a witness.—To reproach with; to hold up to censure; —sometimes with *to.*

"He gave to him *to object* his heinous crime." — *Spenser.*

—*v. n.* To oppose in words or arguments; to offer reasons against;—generally followed by *to;* as, she *objects to* my company.

Ob'ject-glass, *n.* (*Optics.*) The glass in a telescope or microscope placed at the end of a tube next the object. See MICROSCOPE.

Object'ify, *v. a.* [Lat. *objectus*, and *facere*, to make.] To cause to become, or assume the character of, an object.

Objection, (*jĕk'shun,*) *n.* [Fr.; Lat. *objectio*] Act of objecting.—That which is, or may be, put forward in opposition; adverse reason or argument; reason existing, though not offered, against a measure or an opinion; fault found.—Cause of trouble or difficulty. (R.)

Objec'tionable, *a.* Justly open to objections; such as may be liable or likely to be objected against; as, an *objectionable* book or individual.

Ob'jectist, *n.* A person learned in the objective philosophy.

Object'ive, *a.* [Fr. *objectif.*] Pertaining or having reference to an object.

(*Metaph.*) Relating to whatever is exterior to the mind; outward; exterior; extrinsic;—correlative to *subjective.* See OBJECT.

(*Gram.*) Noting the case which follows a transitive verb or a preposition; accusative.

Objective point. (*Mil.*) A point of concentration for the operations of an army.

—*n.* The object-glass of the microscope or telescope.

(*Gram.*) The objective case.

Object'ively, *adv.* In an objective manner.

Object'iveness, *n.* State, relation, or condition of being objective.

Objectiv'ity, *n.* [Fr. *objectivité.*] State or condition of being objective.

Ob'jectize, *v. a.* To make an object of, or to regard as, or place in the position of an object.

Ob'jectless, *a.* Without an object; purposeless; aimless.

Object'or, *n.* One who objects; one who raises difficulties; one who puts forward arguments or reasons against a proposition or measure.

Objicient, (*-jĭsh'yant,*) *n.* [From Lat. *objicere*, to object.] One who offers objections; an objector.

Objura'tion, *n.* [From *ob*, and Lat. *jurare*, to swear.] A binding by oath or adjuration.

Objur'gate, *v. a.* [From *ob*, and Lat. *jurgare*, to quarrel.] To reprove; to scold; to chide; to rebuke.

Objurga'tion, *n.* [Lat. *objurgatio.*] Act of objurgating; reprehension; reproof; a chiding.

Objur'gatory, *a.* [Lat. *objurgatio.*] Administering objurgation or reproof; culpatory; as, an *objurgatory* lecture.

Oblan'ceolate, *a.* [Prefix *ob,* and *lanceolate.*] (*Bot.*) Inversely lanceolate, as a leaf.

Oblate', *a.* [Lat. *oblatūs,* from *offero* — *ob,* against, and *fero, latus,* to bear.] (*Geom.*) Flattened or shortened; — a term applied to a spheroid, produced by the revolution of a semi-ellipsis about its shorter diameter. Of this figure is the earth, and probably all the planets, having the equatorial diameter greater than the polar.

—[Lat. *oblatus,* from *offero,* to offer.] Offered up; devoted; consecrated; dedicated; — almost wholly used in the titles of Roman Catholic orders.

—*n.* (*Eccl. Hist.*) In the Roman Catholic Church the term Oblate was anciently applied to: 1. A person who, on embracing the monastic state, had made a donation of all his goods to the community. 2. One dedicated to a religious order by his parents from an early period of his life. 3. A layman residing as an inmate in a regular community, to which he had assigned his property either in perpetuity or for the period of his residence. 4. A layman who had made donation, not only of his property, but his person, as bondsman to a monastic community. — In modern times the Oblates are a class of religious bodies, which differ from the religious orders strictly so called, in not being bound by the solemn vows of the religious profession.

Oblate'ness, *n.* State or quality of being oblate.

Obla'tion, *n.* [Fr.; Lat. *oblatio,* from *offero, oblatus,* to offer, to present.] Anything offered or presented in worship, reverence, or sacred ceremony; a sacrifice; an offering.

"The kind *oblation* of a falling tear." — *Dryden.*

(*Eccl.*) A contribution for the support of religious services, the clergy, and the poor, in the times of the early Christian Church.

Oblecta'tion, *n.* [Lat. *oblectatio.*] The act of gratifying exceedingly; delectation; delight; pleasure. (R.)

Obliga'do, a town of the Argentine Republic, on the Parana River, near Buenos Ayres.

Ob'ligate, *v. a.* [Prefix *ob,* and Lat. *ligare,* to bind; Fr. *obliger.*] To hold by a constraining force or motive; to cause to be under obligation. — To bind by pledge, contract, or sense of duty; to hold firmly and formally to an act, implying constraint.

Obliga'tion, *n.* [Fr.; Lat. *obligatio,* from *obligo* — *ob,* and *ligo,* to bind. See LIGAMENT.] Act of binding, obligating, or holding by constraint. — The binding power of a pledge, promise, vow, oath, or contract, or of law, civil, political, or moral, independent of a promise; that which constitutes legal or moral duty, and which renders liable to coercion and penalty for non-performance or neglect thereof; the binding force of civility, kindness, or gratitude, when the performance of a duty cannot be enforced, or the infraction thereof punished by law.

"No ties can bind, that from constraint arise,
When either 's forc'd, all *obligation* dies." — *Granville.*

An act by which a person becomes bound to do something to or for another, or to forbear something; state of being indebted for an act of service, good-will, or kindness; as, he placed me under many *obligations* to him.

(*Law.*) A bond containing a penalty with a condition annexed for payment of money, the performance of a covenant, or the like. It differs from a bill, which is generally without a penalty or condition, though a bill may be made obligatory.

Ob'ligato, Ob'bligato, *a.* [It., bound, compelled.] (*Mus.*) A term applied to all voices or instruments which are indispensable to the just performance of a piece. An instrument is sometimes *obligato* throughout a piece, in which case it would be called a *concerto* for that instrument but when an instrument is only *obligato* in certain parts, these parts are termed *obligato* or *solo* passages. In its more general acceptation, the word *obligato* refers to those auxiliary *parts* or accompaniments which cannot properly be omitted.

Ob'ligatorily, *adv.* By constraint; under bond or obligation.

Ob'ligatoriness, *n.* State or quality of binding, constraining, or coercing.

Ob'ligatory, *a.* [Fr. *obligatoire;* L. Lat. *obligatorius.*] Imposing or implying an obligation; binding in law or conscience; necessitating fulfilment or forbearance of some act; constraining duty.

Oblige, (*ob-līj'*; sometimes, but antiquatedly, pronounced *ob-leej'.*) [Fr. *obliger;* Lat. *obligo* — *ob,* and *ligo,* to bind.] To bind, constrain, or compel by necessity or physical force; to bind or compel by legal or moral power; to necessitate; to bind or constrain by a sense of propriety, honor, or duty. — To do a favor to; to lay under obligation of gratitude; to please; to gratify; to bring under a sense of obligation; to afford gratification; to bind by some service rendered; to accommodate.

Obligee', *n.* [Fr. *obligé.*] The person to whom a bond is given, or he to whom another is bound.

Oblige'ment, *n.* Obligation. (R.)

Obli'ger, *n.* One who confers an obligation; one who binds another.

Obli'ging, *a.* [Fr. *obligeant.*] Having the disposition to oblige or confer favors; granting favors; — hence, civil; kind; complaisant; courteous.

"So *obliging* that he ne'er obliged." — *Pope.*

Obli'gingly, *adv.* With complaisance; kindly; civilly; gratifyingly.

Obli'gingness, *n.* Constrained obligatoriness. — Disposition to courtesy or kindness; complaisance; civility.

Obligor', *n.* One who gives his bond to another; — opposed to *obligee.*

Oblig'uiate, *a.* (*Bot.*) Said of the corolla of a ligulate floret, when extended on the inner, instead of on the outer, side of a capitulum.

Obliqua'tion, *n.* [From Lat. *obliquare,* to turn obliquely.] Act of becoming oblique, or of deviating from a straight direction or course; a declination to one side; obliquity; as, the *obliquation* of the eyes. (*Newton.*) — Divergence from moral rectitude.

Oblique, (*ob-lēk',*) *a.* [Fr.; Lat. *obliquus* — *ob,* and *liquis,* awry.] Awry; aslant; inclined; not direct; deviating from a right line; not perpendicular or parallel; as, an *oblique* glance.

"It has a direction *oblique* to that of the former motion." — *Cheyne.*

—Deviating from rectitude; not straightforward; sinister; obscure; also, underhand.

"Critics . . . of *oblique* or imperfect views." — *Browne.*

—Unpropitious; envious; emulous. (R.) — Collateral; not in the direct line of descent; as, an *oblique* connection.

O. angle. (*Geom.*) Any angle greater or less than a right angle. — *O.-angled triangle,* a triangle with no right angle. — *O. arch,* a skew-arch; an arch crossing in an oblique direction. — *O. case.* (*Gram.*) Any case in nouns except the nominative. — *O. circle.* A circle of projection whose plane is in an oblique direction to the axis of the primitive plane. — *O. cylinder,* or *cone.* One whose axis is oblique to the plans of its base. — *O. fire.* (*Mil.*) A fire directed in course from the perpendicular of the line fired at. — *O. leaf.* (*Bot.*) An unsymmetrical leaf. — *O. line.* (*Geom.*) When one straight line stands upon another, and makes unequal angles therewith, the angles are said to be *oblique,* the one being greater than a right angle, and the other less; — hence, a line is only oblique as it relates to another line; otherwise the word would be destitute of meaning. — *O. motion.* (*Mus.*) In contrapuntal music, that motion in which one of the parts holds on a sound, while the other rises or falls. — *O. muscle.* (*Anat.*) The name given to several sets of muscles whose function is to perform a sideways or oblique action: thus we have the internal and external oblique muscles of the eye, the latter sometimes called the pathetic or *trochlearis,* from the use ladies make of them to ogle; next, the external and internal abdominal oblique muscles, serving partly to turn round the trunk; and finally, a set of oblique muscles of the neck, moving the head round. — *O. planes.* (*Dialling.*) Planes which inclines toward the horizon. — *O. sailing.* (*Naut.*) The movement that occurs when a ship, being in some intermediate rhomb between the four cardinal points, makes an oblique angle with the meridian, and continually with both its latitude and longitude. — *O. speech.* (*Rhet.*) That which is indirectly quoted from an original speaker. — *O. system of coördinates.* (*Geom.*) In analytical geometry, a system wherein the coördinate axes are oblique to each other.

—*v. n.* To move in an oblique direction, or swerve from a perpendicular line. — (*Mil.*) To move forward obliquely, by stepping sidewise either to the right or left.

Obliqué'-angled, *a.* Presenting oblique angles; as, an *oblique-angled* triangle.

Obliquely, (*ob-lēk'lȳ,*) *adv.* In a line deviating from a parallel, perpendicular, or right line; indirectly; by a side glance; by an illusion; not in the straight or plain meaning.

Obliquity, Obliqueness, (*ob-lik'wi-ty,*) *n.* [Fr. *obliquité;* Lat. *obliquitas.*] State of being oblique; deviation from a straight line; divergence from parallelism or perpendicularity. — Deviation from moral rectitude.

"For a rational creature to oppose the will of God imports a moral *obliquity.*" — *South.*

—Irregularity; a swerving or divergence from ordinary rules.

Oblit'erate, *v. a.* [Fr. *oblitérer;* Lat. *oblitero, obliteratus,* from *oblino, oblitus,* to daub or smear over — *ob,* and *lino,* to besmear.] To blot out; to erase; to efface; to expunge; to cancel; as, to *obliterate* a passage in a writing. — To wear out; to deface or destroy by time or other means.

"Wars and desolations *obliterate* many ancient monuments." *Hale.*

—To reduce to a very faint, low, or imperceptible state; as, an *obliterated* pulse.

Oblitera'tion, *n.* [Lat. *obliteratio.*] Act of obliterating or erasing; effacement; a blotting, expunging, or wearing out; extinction.

Oblit'erative, *a.* Tending to obliterate or expunge; erasing.

Obliv'ion, *n.* [Lat. *oblivio, oblivionis,* from *obliviscor,* to forget — *ob,* and obsol. *liviscor.*] Act of forgetting, or the state of being forgotten, or blotted out from memory; effacement from the mind or recollection; forgetfulness; cessation of remembrance. — A forgetting of offences, or official remission of punishment; an amnesty.

Obliv'ious, *a.* [Lat. *obliviosus.*] Promoting oblivion; causing forgetfulness. — Forgetful; evincing oblivion.

Obliv'iously, *adv.* Forgetfully; in an oblivious manner.

Obliv'iousness, *n.* State or condition of being oblivious.

Ob'long, *a.* [Fr.; Lat. *oblongus* — *ob,* and *longus,* long.] Possessing greater length than breadth.

(*Bot.*) A term applied to bodies which are elliptical and blunt at each end, as in the leaves of *Hypericum perforatum.*

—*n.* (*Geom.*) A parallelogram which is equiangular but not equilateral. The term is synonymous with *rectangle.* A prolate spheroid is sometimes, though rarely, called an *oblong spheroid.*

Ob'longish, *a.* Inclined to be oblong.

Ob'longly, *adv.* In an oblong form.

Ob'longness, *n.* State or quality of possessing greater length than breadth.

Ob'long-o'vate, *a.* (*Bot.*) Partly oblong and partly ovate, but having an inclination to the latter.

Obloquy, (*ob'lo-kwē,*) *n.* [L. Lat. *obloquium,* from Lat. *obloquor* — *ob,* and *loquor,* to speak.] Language that casts contempt on men and their actions; contumelious speech; reviling or reproachful language; detraction.

Obmutes'cence, *n.* [Prefix *ob,* and Lat. *mutescere,* to grow dumb.] Loss of speech; silence. — A keeping silence; continued muteness; taciturnity.

Obnoob'by, in *Indiana,* the former name of a township of Fulton co.

Obnoxious, (*-nŏk'shus,*) *a.* [Lat. *obnoxius* — *ob,* and *noxa,* harm, hurt, injury, fault.] Liable or subject to cognizance; exposed to blame or punishment; reprehensible; censurable; as, an *obnoxious* look. — Liable or subject to cognizance; exposed; answerable. — Not approved; hurtful; noxious; odious; detested; as, an *obnoxious* person, an *obnoxious* policy.

Obnox'iously, *adv.* In a state of subjection or liability; reprehensibly; odiously; offensively.

Obnox'iousness, *n.* State or quality of being obnoxious.

O'boe, *n.* [Fr. *hautbois.*] (*Mus.*) A wind-instrument of the reed kind, which at a very early date took its place as one of the essential instruments of the orchestra. It consists of a tube, made of box, ebony, or cocoa-wood, about twenty-one inches long, narrow at the top, but gradually widening towards the lower end or bell, and divided into three pieces or joints. In the upper and middle ends are holes, by stopping or opening which with the fingers, the natural scale is formed, the intermediate semi-tones being produced by means of the keys, of which some hautboys have but two, while others have fifteen, and sometimes more; they are seldom made now with less than fifteen keys. Its range of available notes extends from B to G. in alt. The tone of the hautboy is rich and sweet, and is particularly adapted to *piano* and *dolce* passages. This term is also given by organ-builders to a reed stop similar in shape to the real hautboy, the sound of which it is intended to imitate. — (Also written *hautboy.*)

O'boeist, *n.* A performer on the oboe or hautboy.

Obola'ria, *n.* [From the form of the leaves resembling a small coin.] (*Bot.*) A genus of perennial plants order *Orobanchaceæ,* having leaves opposite, flowers axillary and terminal, sessile, with leaf-like sepals. — *O. Virginica,* the Penny-wort, has a stem 4–8 inches high, often in clusters, sub-simple, or with a few opposite branches above; corolla, pale-purple, or whitish, larger than the stamens. It is found in woods in the Middle States.

Obo'le, *n.* [Fr.] (*Phar.*) The weight of twelve grains.

Ob'olize, *v. a.* Same as OBELIZE, *q. v.*

Ob'olus, *n.* [Lat.; Gr. *obolos.*] (*Antiq.*) An Athenian silver coin, which was the sixth part of a drachma, equivalent in value to abt. 3 cents. — Also, an ancient weight, the sixth part of a drachm.

Obo'vate, *a.* [Fr. *obové;* Lat. *ob,* and *ovatus,* egg-shaped.] (*Bot.*) Inversely ovate, as a leaf.

Obo'void, *a.* (*Bot.*) Approaching the obovate form.

Obrajillo, or OBRAXILLO, (*o-bra-heel'yo,*) a town of Peru, abt. 50 m. N.E. of Lima.

Obreptitious, (*-tish'us,*) *a.* [Lat. *obreptitius.*] Done secretly, or in a surreptitious manner. (R.)

O'Brien, WILLIAM SMITH, an Irish politician, b. of an ancient family, 1803, was educated at Harrow School, and Trinity College, Cambridge. In 1826, he entered the British House of Commons as member for Ennis, and, in 1835, was returned for Limerick, which city he represented for 13 successive years. Starting in political life as a Tory of the "bluest" type, *O'B.* gradually veered round to liberalism, and eventually became a zealous adherent of the so-called "Young Ireland" party. In July, 1848, he took part in the insurrection which broke out in co. Tipperary, was arrested, tried at Dublin for high-treason, and sent as a political convict for life to Tasmania. There, his exemplary conduct, and chivalrous observance of his parole of honor, became so marked, that, in 1856, the British govt. granted him a free pardon, and he returned home. D. 1864.

O'Brien (*o-brī'en*), in *Iowa,* a N.W. co.; *area,* about 576 sq. m. *Rivers.* Little Sioux river, Floyd creek, and several smaller streams. *Surface,* level; *soil,* fertile. *Cap.* Primghar. *Pop.* (1895) 15,609.

—A village, former cap. of the above co., about 130 m. N.W. of Des Moines.

Obscene, (*ob-sēēn',*) *a.* [Fr.; Lat. *obscænus;* most probably from *obscævus* or *obscævinus*—*ob,* and *scævus,* that is on the left, as an omen; Gr. *skaios,* left, ill-omened.] Impure; immodest; lewd; indecent; offensive to modesty, chastity, or delicacy; as, *obscene* language, an *obscene* book. — Foul; filthy; disgusting; offensive to the senses; as, *obscene* attire. — *Dryden.*

—Ill-omened; inauspicious; bodeful. (A Latinism.)

"Atheism, sailing on *obscene* wings." — *Coleridge.*

Obscene'ly, *adv.* In a manner offensive to chastity or purity; lewdly; unchastely; impurely.

Obscene'ness, Obscen'ity, *n.* [Fr. *obscenité;* Lat. *obscœnitas.*] State or quality of being obscene; impurity in expression or representation; that quality in words or things which presents what is offensive to chastity, or purity of mind; ribaldry; lewdness.

Obscur'ant, *n.* One who obscures, or hinders mental enlightenment and the progress of knowledge.

Obscur'antism, *n.* The doctrinal system or principles of one who seeks to prevent the dissemination of knowledge, and the light of popular inquiry and progress.

Obscur'antist, *n.* An obscurant.

Obscura'tion, *n.* [Lat. *obscuratio.*] Act of obscuring

or darkening.—State of being darkened or obscured; as, the *obscuration* of the sun during an eclipse.

Obscure', *a.* [Fr. *obscur*; It. *oscûro*; Lat. *obscûrus*—*ob*, and perhaps Gr. *skieros*, shady, from *skia*, a shadow, shade; Sansk. *sku*, to cover.] Over-shadowed; clouded; darkened; dim; destitute of light; imperfectly illuminated; as, an *obscure* grove.—Living in darkness; hidden; concealed; as, an *obscure* bird.—Remote from observation; retired; comparatively unknown or unnoticed; as, an *obscure* village.—Hnmble; mean; not noted or noticed; unknown; as, an *obscure* person.—Not easily understood; not obviously intelligible; abstruse; complex; illegible; as, an *obscure* passage in theology.—Indistinct; imperfect; incomplete; as, an *obscure* view of a distinct object.

—*v. a.* [Lat. *obscuro*.] To darken; to cloud; to make partially dark; to dim; to hide from the view; to maks less visible or less legible: to make less intelligible; to make less glorious, beautiful, or noteworthy.

Obscure'ly, *adv.* Darkly; imperfectly; dimly; privately; not plainly or conspicnously; indirectly; by hints or allusious.

Obscure'ness, Obscur'ity, *n.* [Fr. *obscurité*; Lat. *obscuritas*.] State or quality of being obscure; darkness; want of light; state of being unnoticed or unknown; illegibleness; humble condition; unintelligibleness; as, hs raised himself out of *obscurity*; *obscureness* of a meaning, &c.

Obscur'er, *n.* He who, or that which, obscnres.

Ob'secrate, *v. a.* [From *ob*, and Lat. *sacrare*, to declare as sacred.] To supplicate; to beseech; to implore.

Obsecra'tion, *n.* [Lat. *obsecratio*.] Act of obsecrating or entreating.

(*Rhet.*) A figure of speech in which the orator beseeches the aid of God or man.

Obse'quience, *n.* Obsequiousness.

Obsequions, (*-sē'kwi-us,*) *a.* [Fr. *obséquieux*; Lat. *obsequiosus*—*ob*, and *sequor*, to follow.] Meanly obedient or submissive to the will of another; abjectly compliant; unduly yielding to the desires of others; servilely or meanly condescending; compliant to excess; parasitical; toadyish; as, an *obsequious* admirer or follower.

Obse'quiously, *adv.* With servile obedience; with abjectly prompt compliance; with obsequionsness, or fawning readiness.

Obse'quionsness, *n.* State or quality of being obsequious; ready obedience; abject compliance; servile submission to the commands or wishes of a superior; mean or excessive complaisance; toadyishness.

Ob'seqny, *n.*; *pl.* **Obse'quies,** (rarely nsed in the singular,) (*ob'se-kweez.*) [Fr. *obsèques*, from Lat. *obsequium*—*ob*, and *sequor*, to follow.] Funeral rites or solemnitles; the last duties performed to a deceased person.

Observ'able, *a.* [Fr.; Lat. *observabilis*.] That may be observed or noticed; worthy of observation or particular notice; remarkable; as, an *observable* difference.

Observ'ableness, *n.* State or quality of being observable.

Observ'ably, *adv.* In a manner worthy of note or rsmark; in an observable degree.

Obscrv'ance, *n.* [Fr.; Lat. *observantia*.] Act of observing; the act of kseping or adhering to in practice; attention; performance.—Thing to be observed; rnle of practice or performance.—Ceremonial reverence in practice; performance of external rites, ceremonies, or service.

"Religion . . . consisting in a few easy *observances*."—*Rogers.*

Observan'dum, *n.*; *pl.* **Observan'da.** [Lat.] Something to be observed or remarked.

Observ'ant, *a.* [Lat. *observans*.] Observing; taking note or notice; attending, viewing, regarding, or remarking; as, an *observant* traveller.—Mindful; heedful; regardful; adhering to or observing in practice,—preceding *of*.

"She, now *observant of* the parting ray."—*Pope.*

—Submissively; scrupnlously or carefully attentlve.

Observ'antly, *adv.* With attentive observatlon, view, or regard.

Obser'vants, *n. pl.* (*Eccl. Hist.*) A branch of the Franciscan friars, who, after the departure of the order from the strictness of its first rule, resolved to go back to its original acceptation; while the other party, who were called the Conventuale, preferred adhering to the relaxed regulations. See FRANCISCANS.

Observa'tion, *n.* [Fr.; Lat. *observatio*.] Act of observing, or of taking notice; act of seeing or of fixing the mind on anything; attentive inspection or view.—Notion gained by observiug; effect or result of taking cognizance in the mind.—Expresslon of what is observed or thought; note; remark.—Observance; adherence to in practice; performance of that which is prescribed.

(*Nat. Philos.*) Act of takiug cognizance of some fact or event in nature, as any meteorological phenomenon, &c.

(*Astron.* and *Phys.*) Act of measuring with proper instrnments the angular distance, altitnde, &c., of the sun, and other celestial bodies.

Observa'tional, *a.* Tending to, containing, or consisting of observations.

Observ'ative, *a.* Observing; heedful; attentive; watchful.

Observa'tor, *n.* [Lat.; Fr. *observateur*.] One who observes, remarks, or takes notice; as, "the *observator* of the bills of mortality."—*Hale.*

Observ'atory, *n.* A place or building destined for the purpose of making astronomical or physical observations, and furnished with appropriate instruments. Observatories are generally built in the form of a tower, from which there is an unobstructed view of the heavens, and in which the instruments are protected from disturbing lnfinences. For example, there are large astronomical telescopes always placed in the direction of the meridlan, and the luternal arrangement of the edifice is such as to facilitate astronomical observations. The roof of the observatory is also flat, to favor the view towards the horizon. The principal lustruments used in an observatory are quadrants, sextants, and octants; transit, equatorial, parallactic, and circular instruments; achromatic and reflecting telescopes, nlght and day telescopes, chronometers, &c.; which will be found described under their proper heads. The Tower of Babel, erected about B. C. 2247 (*Gen.* xi. 1–9), is supposed by some writers to have been an observatory. The tomb of Osmandyas, in Egypt, was an edifice of this kind. Observatories existed among the Chinese and the Hindoos at a remote period. The observatory at Alexandria, built B. C. 300, was the most celebrated of ancient times. The first modern observatory was erected at Cassel in 1561. The Imperial *O.* of Paris was built in 1667, that of Greenwich in 1676, that of Berlin in 1711, and that of St. Petersbnrg in 1725. The first telescope used for astronomical purposes, in this country, was set up at Yale College in 1830, and the first *O.* building was erected in 1836 at Williams College, Mass. The National *O.* at Washington was built in 1842; that at Cambridge, about the same time, and each have subsequently been furnished with the best equatorials, and have done great service to science. *O.* has been erected upon many noted elevations, such as Mt. Washington in this conntry, and Etna and Vesuvius in Europe.

Observe, (*ob-zĕrv'*,) *v. a.* [Fr. *observer*; Lat. *observe*—*ob*, and *servo*, to watch for, to guard, to keep, to hold.] To take notice of; to watch; to mark; to heed; to see or behold with some attention; to take notice or cognizance of by the intellect; as, to *observe* a comet, to *observe* another person's dress or peculiarities, &c.—To ntter or express, as a remark, opinion, or sentiment; to mention in a casual or incidental manner.—To keep religiously; to celebrate with devont or ceremonious care; as, to *observe* the Sabbath.—To keep or adhere to in practice; to comply with; to obey; to practice; as, to *observe* the etiquette of good society.

—*v. n.* To be attentive; to heed; to take notice.

—To comment; to make an incidental remark; to say casually, or in passing.

Observ'er, *n.* One who observes, or who remarks or takes notice, particularly one who looks to with care, attention, or vigilance; a beholder; a looker-on; a spectator; as, a keen *observer*.—One who keeps any law, cnstom, rite, or regulation; one who practises anything closely.—One who is bred or trained to, or habitually engaged ln, habits of observation; as, a meteorological *observer*.—One who performs; one who fulfils or carries out; as, he is a strict *observer* of his word.—One who keeps or holds religiously; as, an *observer* of the duties of Christianity.

Observ'ership, *n.* State, office, condition, care, or qnality of an observer.

Observ'ing, *a.* Paying particular attention; taking constant notice; closely attentive to all that passes; as, an *observing* writer.

Observ'ingly, *adv.* With close observation; heedfully; carefully; attentively.

Obsession, (*-sĕsh'un,*) *n.* [Fr.; Lat. *obsessio*.] Act of besieging, or state of being besieged.—In the language of exorcists, the state of a person who is said to be vexed or besieged by an evil spirit. *O.* differed from demoniacal possession: in the latter, the demon had possession of the patient internally; in the former, he attacked him from without. Thus, the state of Sara, the bride of Tobias, whose bridegrooms were killed by an evil spirit hannting her (*Tob.* iii. 8), was one of *obsession*.

Obsid'ian, *n.* [Said to be uamed after *Obsidius*, a person who first fonnd it in Ethiopia.] (*Min.*) A vitreous lava, produced in large quantitiee during volcauic eruptions by the melting of pumice-stone. It is a true glass, closely resembling furnace-slag, and consists of silicate of alumina, with varying percentages of eoda, potash, lime, and oxide of iron. It is generally black or dark-gray, with occasional crystals of felspar dispersed throngh its mass. It occurs in streams or detached masses near volcanoes, and is nsed by savage nations for making mirrors, axes, knives, &c. It often graduates into pumice-stone.

Obsid'ional, *a.* Pertaining, or having reference to a siege.

Obsidional crown. (*Rom. Antiq.*) A crown of honor given to a general who raised the siege of an invested place. It was formed of grass, growing on the rampart.

Obsigna'tion, *n.* [Lat. *obsignatio*.] Act of sealing; state of being sealed or confirmed;—used, specifically, of sealing by the Holy Spirit; as, "the spirit of *obsignation*."—*Bp. Taylor.*

Obsoles'cence, *n.* State or qualty of becoming obsolete.

Obsoles'cent, *a.* [From prefix *ob*, and *solere*, to use.] Passing into desuetude; becoming obsolete; going out of use.

Ob'solete, *a.* [Lat. *obsoletus*—*ob*, and *solio*, to be accustomed.] Antiquated; gone into disuse; no longer current; out of date; gone by; as, an *obsolete* phrase.

(*Nat. Hist.*) Obscnre; somewhat indistinct; rudimental.

Ob'solcteness, *n.* State of being obsolete or ont of use; state of being neglected in use; state of desuetude; quality of being no longer of current application.

(*Nat. Hist.*) Lack of development; obscureness.

Obstacle, (*ob'sta-kl,*) *n.* [Fr.; Lat. *obstaculum*—*ob*, and *sto*, to stand.] That which stands against or opposes; a stoppage; a hinderance; an impediment; an obstruction; anything that stands in the way and hinders progress, either in a moral or physical seuse.

Obstet'ric, Obstet'rical. *a.* [It. *ostetrice*, a midwife = Lat. *obstetrix*, from *obsto*, to stand before—*ob.* and *sto*, *statum*, to stand.] Belonging or relating to midwifery, or the delivery of women in childbed; as, the *obstetric* art.

Obstetrician, (*-trish'an,*) *n.* One skilled ln, or who practises, obstetrics.

Obstet'rics, *n. sing.* The sclence of mldwifery; the art of facilitating the delivery of women in partnrition; obstetricy.

Obstet'ricy, *n.* See OBSTETRICS.

Ob'stinacy, *n.* [Lat. *obstinacio*; Fr. *obstination*.] Quality of being obstinate; a firm, and usually unreasonable, adherence to an opinion, purpose, or system; a fixedness of thought, belief, or judgment, that will not yield to persuasion, arguments, or other fair means; inflexibility; resoluteuess; persistency; pertinacity; stubbornness; headstrong tenacity of will; as, *obstinacy* of disposition.—Fixedness impervious to, or proof against, application, or that yields with difficulty, and by slow degrees; as, the *obstinacy* of a disease.

Ob'stinate, *a.* [Lat. *obstinatus*, from *obstino*—*ob*, and *sto*, to stand.] Standing firmly against, or ln opposition; inflexible; immovable; stnbborn; persistent; self-willed; fixed firmly in resolution; pertinaciously adhering to an opiuion, idea, or purpose; not yielding to reason, argument, or other means;—used, for the most part, in a bad sense, as indicative of unreasonableness; as, an *obstinate* man, an *obstinate* mule.—Not yielding, or not easily subdued, reduced, or removed; as, an *obstinate* cough.

Ob'stinately, *adv.* Stubbornly; pertinaclously; persistently; with fixedness of purpose not to be shaken; in an obstinate manner; as, *obstinately* stiff-necked.

Ob'stinateness, *n.* State, quality, or condition of being obstinate; stubbornness; pertinacity in opinion or purpose; fixed determination.

Obstipa'tion, *n.* [Lat. *obstipare*, to lean to one side.] Act of stoppiug up, as a way or passage.

Obstrep'crous, *a.* [Low Lat. *obstreperus*—*obstrepo*, to make a noise at—*ob*, and *strĕpo*, to make a noise.] Making a tumultuous noise; attended by clamor; vociferous; loud; noisy; as, *obstreperous* mirth.

Obstrep'erously, *adv.* With tumultuous or clamorous noise; loudly; vociferously.

Obstrep'erousness, *n.* State or quality of being obstreperous.

Obstriction, (*-strĭk'shun,*) *n.* [*Ob*, and Lat. *stringere*, to bind tight.] State of being constraiued; that which compels; bond.

Obstruct', *v. a.* [Fr. *obstruer*; Lat. *obstruo*, *obstructus*—*ob*, and *struo*, *structus*, to bnild.] To block up; to stop up or close, as a way or passage; to fill with obstacles or impediments that hinder passing; to barricade; as, to *obstruct* a road or river.—To stop; to impede: to be ln the way of; to interrupt; to hinder from passing; as, fog *obstructs* the light of the sun.—To render slow; to retard; to clog; to impede; as, to *obstruct* progress.

Obstruct'er, *n.* One who, or that which, obstructs, checks, hinders, or opposes.

Obstruction, (*-strŭk'shun,*) *n.* [Fr.; from Lat. *obstructio*.] Act of obstrncting, or state or condition of being obstructed.—Anything that stops, bars, or closes a way, passage, or channel; that which impedes progress; obstacle; bar or barrier; impediment; hindrance; check; embarrassment.

Obstruct'ive, *a.* [Fr. *obstructif*.] Having a tendency to obstruct; presenting obstacles or impediments; hindering; causing check or stoppage.

—*n.* One who stands in the way of political or social progress.

Obstruct'ively, *adv.* In an obstructive manner.

Ob'struent, *a.* [Lat. *obstruens*, from *obstruo*.] Obstructing; blocking np; checking; hindering.

—*n.* Anything that obstructs the natural passages in the body.

Obtain', *v. a.* [Fr. *obtenir*; Lat. *obtineo*—*ob*, and *teneo*, to hold.] To get hold or possession of; to gain; to procure; to acquire; to win; to earn; as, to *obtain* a fortune by marriage.—To keep; to hold firmly to; to possess. (R.)

—*v. n.* To be received into customary or common use; to continue in use or application; to be established in practice; to subsist in nature.

"Sobriety hath by use *obtained* to temperance in drinking."—*Bp. Taylor.*

Obtain'able, *a.* That may be obtained; that may be gained or procured.

Obtain'er, *n.* One who obtains.

Obtain'ment, *n.* Act of obtaining.

Obtend', *v. a.* [Prefix *ob*, and Lat. *tendere*, to stretch.] To pretend; to advance as the cause or reason of anything. (R.)

Obten'sion, *n.* Act of obtending. (R.)

Obtest', *v. a.* [Lat. *obtestor*—*ob*, and *testor*, from *testis*, witness.] To implore; to beseech; to supplicate. (R.)

"Suppliants *obtest* his clemency."—*Dryden.*

—To invoke as a witness; to adjure.

—*v. n.* To protest. (R.)

Obtesta'tion, *n.* [Lat. *obtestatio*.] Act of obtesting; supplication; entreaty.—Act of obtesting; protestation; earnest or solemn adjnration or injunction.

Obtrude', *v. a.* [Lat. *obtrudo*—*ob*, and *trudo*, to thrnst.] To thrust in, into, or on; to throw, crowd, or thrust into any place; to present or introduce with authority or permission.—To offer with unreasonable importunity; to urge upon against the will.

—*v. n.* To thrust, or be thrust upon; to enter without in-

vitation; to make an officious or unsolicited offer or visit; to put one's self forward with impudence and coolness.

Obtrud'er, *n.* One who obtrudes.

Obtrun'cate, *v. a.* [*Ob*, and Lat. *truncare*, to lop.] To lop; to deprive of a limb or branch. (R.)

Obtruncation, *n.* [Lat. *obtruncatio.*] Act of lopping or cutting off.

Obtrusion, (*tru'zhun,*) *n.* [Lat. *obtrusio*, from *obtrudo.*] Act of obtruding; a thrusting in, or entrance without right or invitation.

Obtru'sive, *a.* Disposed to obtrude anything upon others; inclined to intrude or thrust one's self among others, or to enter uninvited.

Obtru'sively, *adv.* By way of obtrusion or thrusting upon others, or entering unsolicited; in an obtrusive manner.

Obtund', *a.* [*Ob*, and *tundere*, to strike repeatedly.] To dull, deaden, or blunt the edge of; to take away a sharp corner; to lower the power, pungency, or forcible action: as, to *obtund* the acrimony of the gall.—*Harvey.*

Obtund'ent, *n.* (*Med.*) A soothing preparation; a demulcent.

Ob'turator, *n.* [Fr. *obturateur*, from Lat. *obturare*, to stop up.] That which closes or blocks up an entrance, fissure, cavity, &c.;—chiefly used in reference to anatomical parts and organs; as, the *obturator* muscles.

O. muscles. (*Anat.*) Muscles which roll a limb outwards or inwards, as the obturator externus and internus of the thigh.

Obtusan'gular, *n.* [From *obtuse* and *angular.*] Possessing angles that are obtuse, or larger than right angles.

Obtuse', *a.* [Fr. *obtus*; Lat. *obtusus*, from *obtundo*, to strike, to beat, to blunt—*ob*, and *tundo* = Sansk. *tud*, to strike.] Blunt; not pointed or sharp —opposed to *acute;* as, an *obtuse* angle.—Dull; lacking acute intelligence or sensibility.

"Thy senses thus *obtuse*, all tastes of pleasures must forego." *Milton.*

—Not sharp or shrill; dull; deadened; obscure; as, an *obtuse* sound.

Obtuse angle. (*Geom.*) An angle that is greater than a right or acute angle.—*Obtuse-angled triangle*, a triangle having an obtuse angle.

Obtuse'ly, *adv.* Without a sharp or acute point; also, dully; stupidly; insensibly.

Obtuse'ness, *n.* State or quality of being obtuse; bluntness; dulness; want of quick sensibility; dulness of sound.

Obtusion, (*-tū'zhun,*) *n.* [Lat. *obtusio.* See OBTUND.] Act of making obtuse, dull, or blunt.—State of being deadened, dulled, or blunted.

"*Obtusion* of the senses, internal and external."—*Harvey.*

Obum'brate, *v. a.* [From *ob*, and *umbra*, shade.] To shade; to cloud; to darken; to obscure.

Obumbra'tion, *n.* Obscuration; act of darkening. (R.)

Obuncous, (*-ŭnk'us,*) *a.* [Lat. *obuncus.*] Excessively crooked or curved.

Obverse', *a.* [From Lat. *obvertero.*] (*Bot.*) With the base less broad than the top.—said of a leaf.

—*n.* [Fr. *obvers*; Lat. *obversus*, from *obverto*, to turn toward—*ob*, and *verto*, to turn.] (*Numismatics.*) The side of a coin which contains the principal symbol; usually the face in profile of the sovereign, or the emblematic type of the nation.—That which is involved by conjunction with another, or forms its correlative; as, the *adverse* of a proposition.

Obverse'ly, *adv.* In an obverse manner.

Obversion, (*-vĕr'zhun,*) *n.* Act of turning downward or toward.

Obvert', *v. a.* [*Ob*, and *vertere*, to turn.] To turn toward or downward.

Ob'viate, *v. a.* [Fr. *obvier*; from Lat. *obvius*—*ob*, and *via*, a way.] To oppose; to meet in the way; hence, to hinder; to withstand; to remove, as difficulties or objections.

Obviation, *n.* Act of obviating; state of being obviated.

Ob'vious, *a.* [Lat. *obvius.*] Open; exposed; subject; liable; as, *obvious* to dispute. (*Milton.*)—Plain; clear; evident; manifest; readily comprehensible; easily perceived by the eye or the intellect; readily discovered, seen, or understood.

"All the great lines of our duty are clear and *obvious.*"—*Rogers.*

Ob'viously, *adv.* Evidently; plainly; apparently; clearly; manifestly; naturally to be found and perceived easily.

Ob'viousness, *n.* State of being obvious, plain, or evident to the eye or the mind.

Ob'volute, Ob'voluted, *a.* [Prefix *ob*, and *volvere*, to roll.] (*Bot.*) Alternately overlapping, as the margins of leaves in a bud.—*Gray.*

O'by, *n* Same as OBEAH, *q. v.*

O'byism, *n.* A species of witchcraft practised by some of the W. Indian negroes. See OBEAH.

Oc, *n* A Turkish arrow.

Oca'la, in *Florida*, an important city, cap. of Marion co., on the Fla. Southern and 2 other R.Rs., 50 m. S. W. of Palatka; in the phosphate-rock region, and ships largely of oranges and other fruits. *Pop.* (1897) about 4,750.

Ocaña (*o-kan'ya*), a town of the Republic of Colombia, about 60 m. N. W. of Pamplona. *Pop.* (1897) 7,100.

Occasion, (*ok-kā'zhun,*) *n.* [Fr.; from Lat. *occasio*, from *occido*—*ob*, and *cado*, *casus*, to fall. See CASE.] A falling out, happening, or coming to pass; an occurrence, casualty, or incident; that which happens out of the natural order or sequence of events.

"The laws of Christ we find mentioned by *occasion* in the writings of the Apostles."—*Hooker.*

—Opportunity; convenience, favorable time, season, or circumstances; timely chance.

"Courage mounteth with *occasion.*"—*Shaks.*

—Accidental cause; incident, event, or circumstance giving rise to something else.

"Her beauty was the *occasion* of the war."—*Dryden.*

—Incidental need; casual contingency or exigency; need; necessity; opportunity accompanied with requirement or demand; as, he is equal to the *occasion.*

On occasion, in time of necessity; as it occurs; from time to time; occasionally.

—*v. a.* [Fr. *occasionner.*] To cause incidentally to give rise to; to bring about; to influence; to cause; to produce.

Occa'sional, *a.* [Fr. *occasionnel.*] Happening by accident; casual; incidental; occurring at times, but not regular or systematic; made or happening as opportunity requires or admits: as, an *occasional* frolic.—Brought about or caused by accident; as, the *occasional* origin of a prodigy.—Produced or made on some particular event or emergency; as, an *occasional* quarrel.

Occasional cause. (*Metaph.*) See OCCASIONALISM.

Occa'sionalism, *n.* (*Metaph.*) The system of *occasional causes*, by which certain philosophers of the Cartesian school accounted for the apparent action of the soul on the body; *e. g.* in the phenomena of voluntary action. According to these theories (which were more or less clearly developed by different writers), the will was not the *cause* of the action of the body; but whenever the will required a motion, God caused the body to move in the required direction.

Occasionality, *n.* State or quality of being occasional, casual, or incidental; occurrence at intervals.

Occa'sionally, *adv.* In an occasional manner; on occasion; according to incidental exigence; at times, as convenience requires or opportunity offers; not regularly or systematically.

Occa'sioner, *n.* He who, or that which, occasions, causes, or produces.

Occa'sive, *a.* [Lat. *occasivus*, from *occidere*, to go down.] Pertaining, or having reference to the setting sun; descending; sinking in the west.

Occecation, (*ŏk-se-kā'shun,*) *n.* [From *ob*, and *cæcus*, blind.] The act or process of making blind. (R.)

Occident, (*ŏk'sī-dent,*) *n.* [Fr.; Lat. *occidens*, falling, from *occido.*] The quarter where the sun goes down or sets; the west; the western quarter of the hemisphere; —correlative to *orient.*

Occident'al, *a.* [Lat. *occidentalis.*] Situated in, or having reference to, the west; western;—opposed to *oriental;* as, an *occidental* climate.—Setting after the sun; as, an *occidental* planet.

(*Gem.*) A term applied to those precious stones which possess an inferior degree of hardness and beauty.

Occipital, (*ŏk-sip'ī-tal,*) *a.* [Fr., from Lat. *occiput*, the back part of the head.] Pertaining or relating to the occiput, or back part of the head.

Oc'ciput, *n.* [Lat., from *ob*, and *caput*, the head.] (*Anat.*) The back part of the head, the *occipital* bone being the opposite of the *frontal—sinciput*, as it is sometimes called—or forehead.—A muscle, thin, broad, and fibrous, extending from the base of the occipital bone to the ridge of the eyebrows, and called, from the place of its origin and insertion, the *occipito frontalis.* This muscle corrugates the brows, and moves the scalp.

Occlud'ent, *n.* That which closes up or shuts to.

Occlusion, (*ok-klū'zhun,*) *n.* [From Lat. *occludere*, to shut up.] Act of shutting up; state of being shut up.—The transient approximation of the edges of a natural opening.

Occo'quan, in *Virginia*, a small but rapid river flowing into the Potomac River between Fairfax and Prince William cos.

—A post-village of Prince William co., abt. 100 m. N. of Richmond.

Occult', *a.* [Fr. *occulte;* Lat. *occultus*, from *occulo—ob*, and *colo*, *cultis*, to till.] Concealed; hidden from the eye or understanding; invisible; secret; unknown; undiscovered; undetected; as, an *occult* art or science.

O. sciences. A term applied to the imaginary sciences of the Middle Ages. See ALCHEMY, AMULET, ASTROLOGY, AUGURY, BIBLIOMANCY, DIVINATION, EXORCISME, KING'S EVIL, MAGIC, ORACLES, ROSICRUCIANS, SORCERY, SPIRIT-RAPPING, TABLE-TURNING, and WITCHCRAFT

Occulta'tion, Occult'ing, *n.* [Fr.; Lat. *occultatio.*] Act of making occult, or state of being occult; as, a period of *occultation*

(*Astron.*) The hiding of a heavenly body from our sight by the intervention of some other of the heavenly bodies; said particularly of the eclipses of stars and planets by the moon. It is sometimes called *lunar occultation*, or *occultation of stars by the moon.*

Occult'ed, *a.* (*Astron.*) Concealed by the intervention of some other heavenly bodies, as a planet by the moon.

Occult'ing, *n.* See OCCULTATION.

Occult'ly, *adv.* In an occult or secret manner.

Occult'ness, *n.* State of being occult, or concealed from view; secretness.

Oc'cupancy, *n.* [From Lat. *occupo.* See OCCUPY.] Act of taking or holding possession.

(*Law.*) The taking possession by any one of a thing of which there is no owner, and the right acquired by such taking possession. See PRE-EMPTION.

Oc'cupant, *n.* [Fr., from Lat. *occupans—occupo.*] One who occupies or takes possession; one who has possession; and sometimes one who first takes holding of that which has no legal owner.

Occupa'tion, *n.* [Fr., from Lat. *occupatio.*] Act of occupying or of taking possession; as, the *occupation* of an enemy's country.—A holding, keeping, or using; tenure; use; possession; state of being occupied; as, a house in the *occupation* of a tenant.—Business; vocation; calling; employment; office; trade; profession; that which engages one's time and attention; the business which a person follows to procure a living or obtain wealth.

O. bridge. (*Civ. Engin.*) A bridge carried above or beneath a line of railroad, and connecting the parts of an estate divided by the line.

Oc'cupier, *n.* One who occupies or takes possession; one who holds or retains possession.

Oc'cupy, *v. a.* [Fr. *occuper;* Lat. *occupo—ob*, and *capio*, to take, seize, hold. See CAPTURE.] To take possession of; to keep in possession; to possess; to hold or keep for use; as, we *occupied* elegant rooms.—To take up; to cover or fill; as, the book *occupies* all his time.—To employ; to use; as, the business *occupies* many hands.—To busy;—used in a reflexive sense; as, he *busies himself* about other people's affairs.

—*v. n.* To be an occupant; to follow business or occupation; to traffic or negotiate.

Occur', *v. n.* [Lat. *occurro—ob*, and *curro*, to run. See CURRENT.] To meet or come to the mind; to be presented to the mind, imagination, or memory; as, an idea has just *occurred* to me.—To appear; to meet the eye or observation; to be found here and there, or at various times; as, mistakes will *occur* in spite of every care.

Occur'rence, *n.* [Fr.] Something which occurs; any incident, or accidental or fortuitous event; a contingency; that which happens without premonition, or being designed or expected; any single event or circumstance; as, the daily *occurrences* of life.—Occasional presentation.

Occur'rent, *a.* Occurring, happening, or taking place; hence, incidental; casual; accidental; fortuitous.

—*n.* [Lat. *occurrens.*] An adversary; an opponent: one who meets.—An incident; an occurrence; an event.

Ocean, or Sea, (*ō'shŭn,*) *n.* [Fr. *océan;* Lat. *oceanus.*] The general name given to the whole volume of water which occupies the lower part of the surface of the world and surrounds the mainland on all sides. The surface of the earth is made up of about 200,000,000 sq. m., and of these the ocean occupies 143,259,300 sq. m., thus covering five-sevenths of the whole area of the earth. The bulk of dry land on the surface of the globe is found surrounding the north pole; while by far the largest extent of water is found in the southern hemisphere. In geography, the ocean is comprehended in five principal divisions: the Arctic Ocean, surrounding the north pole; the Antarctic Ocean, surrounding the south pole; the Atlantic Ocean, between Europe and America, and the Arctic and Antarctic oceans; the Pacific Ocean, between America and Asia; and the Indian Ocean, lying to the south of Asia, and extending between Australia and the Cape of Good Hope. From these larger divisions there branch off a great variety of smaller seas, which receive the name of bays, gulfs, and seas, or when they are of smaller extent, of friths, fiords, creeks, roadsteads, and harbors. The mean depth of the ocean is believed to be about 2,080 fathoms (12,480 feet, or nearly 2⅜ miles). The average depths of the main divisions of the ocean are as follows: Pacific Ocean, 2,500; Atlantic, 2,200; Indian, 2,300; Southern, 2,200; Arctic, 630; and Antarctic, 630 fathoms. The ocean consists entirely of salt-water. For ages it has been continually receiving the drainage of the land, besides having washed over the disintegrated materials of successive continents; it consequently holds in solution all the saline substances capable of being dissolved in cold water. By far the larger proportion of these, however, consist of common salt (chloride of sodium), the chlorides and sulphates of magnesia and lime being next in regard to quantity. In minute, but still appreciable quantities, also occur various salts of potash and ammonia, the iodide and bromide of sodium, carbonate of lime, silica, and a great number of other substances. The sulphate and carbonate of lime, and the silica, although the percentage of the two latter is small, are of great importance in the economy of animated nature, as they furnish the materials out of which the shells of the mollusca, the structures of the coral and other insects, and the shells and carapaces of the silicious infusoria, &c., are derived. Besides these saline and earthy ingredients, sea-water holds in solution metallic salts in extremely minute quantities, including gold and silver, of which the ocean as a whole holds a large quantity, which has been estimated as high as 2,000,000 tons. The whole of the saline matter contained is between three and four per cent.; and the specific gravity of the water varies, according to the proportion of the saline ingredients, from about 1·026 to 1·030, pure water being supposed to be 1·000. Dr. Marcet, in 1819, made a series of experiments on this subject, and the general conclusions which he drew from them were as follows:—1. That the Southern Ocean contains more salt than the Northern Ocean in the ratio of 1·02919 to 1·02757. 2. That the mean specific gravity of sea-water near the equator is 1·02777, or intermediate between that of the northern and that of the southern hemispheres. 3. That there is no notable difference in sea-water under different meridians. 4. That there is no satisfactory evidence that the sea, at great depths, is more salt than at the surface. 5. That the sea in general contains more salt where it is deepest and most remote from land; and that its saltness is always diminished in the vicinity of large masses of ice. 6. That small inland seas, though communicating with the ocean, are less salt than the ocean. 7. That the Mediterranean contains rather larger proportions of salt than the ocean. (*Philos. Trans.* 1819.) The saline contents of the ocean are of immense importance in the

OCEANIA AND THE PACIFIC

ON MERCATORS PROJECTION

Ocean Steamer Routes, with distances in nautical miles

Submarine Cables

Telegraph Lines — Railways

Hammond's 8 x 11 Map of Oceania
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OCEANIA AND THE PACIFIC.

Australia .....D 6
Area sq. m.
2,972,573
Pop.....3,771,715

Borneo ..... B 4
Area sq. m.
246,737
Pop.....1,329,889

Celebes .....C 4
Area sq.m.49,390
Pop.....1,448,700

Fiji Is.....H 5
Area sq. m. 7,435
Pop.....129,925

Menado .....C 3
Area sq.m.22,080
Pop... ...429,773

Hawaiian Is...L 1
Area sq.m. 6,449
Pop.....63,592

Java and Madura
B 4
Area sq.m.50,554
Pop....27,746,688

New CaledoniaG 5
Area sq. m .7,650
Pop 51,415

New Guinea ..E 4
Area sq. m.
242,329
Pop 550,000

New South Wales
E 7
Area sq. m.
310,700
Pop 1,354,846

New Zealand .H 8
Area sq. m.
104,751
Pop.....772,719

Philippine Is ..C 2
Area sq. m.
115,029
Pop. ... 7,635,437

Queensland ...E 6
Area sq. m.
668,497
Pop.....496,596

Samoa or Navigator Is.....J 5
Area sq. m. 1,054
Pop.....36,412

Solomon Is....F 4
Area sq. m. 4,200
Pop.....45,000

South Australia
D 6
Area sq. m.
903,690
Pop..... 362,604

Sumatra .....A 4
Area sq. m.
161,612
Pop.....3,168,312

Tasmania .....E 8
Area sq.m.26,215
Pop.....172,475

Victoria.....E 7
Area sq.m.87,884
Pop.....1,201,070

Western Australia
C 6
Area sq. m.
975,920
Pop 184,124

economy of nature. In fact, so great is their importance, that it is doubtful whether the present order of things could be maintained without them. By their beneficial action the freezing-point of water is lowered, and the tendency to give off vapor diminished. They also communicate a greater buoyancy to water, by which means the waters of the ocean are better fitted for the purposes of navigation. There is also reason to believe that the presence of these saline bodies in solution contributes in no small degree to the stability of sea-water, and that an ocean of fresh water would rapidly undergo changes which would probably render it incompatible with animal life. At the mouths of great rivers the ocean is often superficially freshened to a considerable distance from the shore. This is the case with the Amazon River to such an extent, that fresh water can be taken up from the sea-surface when out of sight of land, and the sea itself is rendered sensibly less saline at a distance of two or three hundred miles from its mouth. In the polar seas there are also extensive regions where large accumulations of fresh water from snow or glaciers melting in summer, render the surface-water comparatively fresh. The sea is only purely blue in the open ocean, or in very deep water out of the fouling influence of rivers, the washing away of coasts, or such currents as carry mud or impurities along with them. When perfectly clear, a white object, such as a plate, thrown overboard, is seen to become bluer and bluer as it sinks. The blue color of water, like the blue color of the sky, has not yet been scientifically explained. The phosphorescence of the ocean — a phenomenon regarded by all with wonder and admiration — prevails largely through the whole extent of the tropical seas, and proceeds from a great variety of minute organisms. They mostly shine when excited by a blow, or when a fish darts along, or an oar dips in the water. Between the tropics, the temperature of the ocean diminishes with the depth; in the polar seas, on the contrary, the temperature increases with the depth. The surface temperature in the polar regions is about 28° F., in equatorial regions about 85° F., while in the abysmal depths it varies from 32·7° F. to 36·8° F., the great mass of the ocean consisting of water below 40° or 45° F., the coldest water, as a rule, being found at the bottom of the sea. As we have before stated, the saline matter in solution influences the freezing-point of sea-water. This fact is of great importance in the economy of nature. In its natural state, sea-water freezes at about 28° or 29°; but when it has become concentrated by previous freezing, the congealing point is reduced to 15° or 16°, while water saturated with salt does not freeze at a temperature above 5°. One of the most interesting phenomena connected with the ocean is that presented in the daily ebb and flow of the tide. If it were not for the disturbing influences of the sun and moon, and of the winds, the surface of the ocean would be level, and would assume the form determined by the attraction of the whole mass of the earth, combined with the centrifugal force belonging to its velocity of rotation. This uniformity, however, cannot be established, on account of the tide, which is at different heights in different parts of the ocean at every instant. (See TIDES.) Wind-waves are small at their first origin, beginning with a mere ripple; but each, as it advances, acquires increased height by the continued pressure of the wind. The largest waves known are those off the Cape of Good Hope, under the influence of a north-west gale — the storm-wind of that region, which drives the swell round the cape, after passing obliquely over the surface of the South Atlantic Ocean. Waves forty feet in height are there met with in such gales; so that two ships in the trough of the sea, with such a wave between them, lose sight of one another from the decks. Waves of thirty-two feet from the trough to the crest have also been observed off Cape Horn. The waves in the N. Atlantic rarely exceed eight or ten feet in height. Besides tides and waves, there are other movements in the ocean which are of great importance; namely, the currents. (See CURRENT.) — In the ocean of the moderns, one of the most important circumstances known is the distribution of life. Until lately it was believed that below a certain comparatively moderate depth all animal and vegetable life ceased, on account of the increased pressure and the want of light and air. It appears that animal life exists at vast depths. The greatest depth recorded by the *Challenger*, in the Pacific Ocean, was 4,475 fathoms. A more recent sounding, taken off Japan, gives 4,655 fathoms. The greatest depth reached in the Atlantic is 4,561 fathoms, off Porto Rico, West Indies.

O'cean, *a.* Pertaining or having reference to the main or great sea; as, the *ocean* wave.

Ocean (*o'shun*), in *New Jersey*, an E. co., bordering on the Atlantic Ocean; *area*, about 578 sq. m. *Rivers.* Metetecunk and Toms rivers, Cedar creek, and other smaller streams. *Surface*, generally level; *soil*, fertile. *Min.* Iron in large quantities. Marl is also abundant. *Cap.* Toms River. *Pop.* (1895) 18,739.

Ocean City, in *New Jersey*, a post-borough of Cape May co., 10 m. from Atlantic City; a summer resort and camp-meeting site. *Pop.* (1895) 921.

Oceana (*o-she-ah'na*), in *Michigan*, a W. co. of the lower peninsula, bordering on Lake Michigan; *area*, about 750 sq. m. *Rivers.* White and Notipekago rivers, besides several smaller streams. *Surface*, agreeably diversified; *soil*, fertile. *Cap.* Hart. *Pop.* (1894) 16,597.

Oceana, or WYOMING COURT-HOUSE, in *West Virginia*, a post-village, cap. of Wyoming co., about 58 m. S. of Charlestown.

Ocean'ia, or **Ocean'ica.** (*Geog.*) A name which is very often applied to the 5th division of the globe, comprising all the islands between the S.E. coast of Asia, and the W. shore of America, including the Eastern Archipelago, Australasia, and Polynesia.

Oceanic, (*ō'she-ăn'ĭk,*) *a.* [Low Lat. *oceanicus.*] Pertaining to the ocean; found or formed in the ocean.

Oceanol'ogy, *n.* [Gr. *ōkeanos*, ocean, and *logos*, treatise.] A treatise upon the ocean; that branch of physical science which relates to the ocean.

Ocean Port, in *New Jersey*, a post-village of Monmouth co., abt. 3 m. W. of Long Branch.

Ocea'nus. (*Myth.*) The god of the sea, son of Cœlus and Vesta, the husband of Tethys, and the father of all the water-nymphs, called Oceanides, and those presiding over fountains, streams, and rivers.

O'ceanville, in *New Jersey*, a village of Atlantic co., abt. 16 m. E. of May's Landing.

Ocel'lary, *a.* Belonging or relating to ocelli. See OCELLUS.

O'cellated, *a.* [From Lat. *ocellus*, a little eye; Fr. *ocellé.*] Resembling an eye. — Presenting a configuration of little eyes, after the manner of a peacock's tail.

Ocel'lus, *n.*; *pl.* OCELLI. [Lat. dim. of *oculus*, eye.] A little eye; a minute ocular organ found in certain animals.

Ocelot, (*ō'se-lŏt,*) *n.* [Mex. *ocelott.*] (*Zoöl.*) The name of several species of the family *Felidæ*, generally smaller than the Ounce. They present considerable variety in the form and distributions of the markings of its coat; but, nevertheless, the coloring is always chaste and the assemblage harmonious; the rich red of the ground tint blending finely with the deep brown, or almost black color, of the borders of the spots. The common *O.*, *Felis pardalis*, is about three feet and a half to four

Fig. 1978. — OCELOT, (*Felis pardalis.*)

feet in length, including the tail, which is between 11 and 12 inches. It is a native of the warm parts of America from Texas to Brazil, and of Sumatra, inhabiting the forests, and climbing trees in search of its prey, which consists of birds and small animals.

Oceo'la, or OSCEOLA, in *Indiana*, a post-village of St. Joseph co., abt. 8 m. E. of South Bend.

Oceo'la, in *Wisconsin*, a post-township of Fond du Lac co.; *pop.* abt. 1,500.

Ochil Hills, (*ok'il,*) a range of mountains in Scotland, cos. of Perth and Fife. *Extent.* 24 m. long, and 12 m. in average breadth. The highest peak, Bencleugh, attains an elevation of 2,400 ft.

Ochlesis, (*ok-lē'sis,*) *n.* [Gr. *ochlos*, a crowd.] (*Med.*) A morbid condition induced by the crowding together of sick persons under one roof.

Ochlocracy, (*ok'lok-ra-se,*) *n.* [Fr. *ochlocratie*; Gr. *ochlokratia* — *ochlos*, the populace, the mob (akin to Lat. *vulgus*, Eng. *folk*, Ger. *volk*, and Fr. *canaille*), and *kratos*, might, power, rule.] A form of government in which the multitude or common people hold the reins of power: mob-law; red-republicanism.

"An *ochlocracy* is a noisy prelude to anarchy." — *Hare.*

Ochlocrat'ic, Ochlocrat'ical, *a.* Belonging or relating to ochlocracy; possessing the attributes or characteristic form of mob-rule; as, an *ochlocratic* government.

Ochlocrat'ically, *adv.* In an ochlocratic manner; mob-fashion.

Ochna'ceæ, *n. pl.* [Gr. *ochne*, the pear-tree.] (*Bot.*) An order of plants, alliance *Rutales.* DIAG. A one-seeded, finally apocarpous fruit, whose pericarp does not laminate, and a succulent corricsl torus. — They are under-shrubs or smooth trees, with alternate, simple, stipulate leaves. Flowers, hypogynous, perfect, regular, and symmetrical, with the pedicels articulated in the middle; calyx and corolla usually with a quinary distribution, imbricated, the former persistent, the latter deciduous, stamens hypogynous, 5, 10, or numerous; anthers 2-celled, with longitudinal or porous dehisceuce; style simple, with minute stigmas. Seed with very little or no albumen; embryo straight, with the radicle towards the hilum. The *O.* are natives chiefly of the tropical parts of India, Africa, and America. They are generally remarkable for their bitterness. Some, as *Gomphia parriflora*, yield oil suitable for salads. The order includes 82 species in 6 genera.

Ochraceous, (*o-krā'shus,*) *a.* [Fr. *ocreux*, from Lat. *ochra*; Gr. *ōchra.*) Of an ochre color, or a yellowish brown.

Ochre, (*ō'kr,*) *n.* [Fr. *ocre*; Lat. *ochra*; Gr. *ōchra*, from *ōchros*, pale, yellow; Sansk. *hari*, yellow.] (*Min.*) A name applied to certain metallic oxides occurring in an earthy or pulvernlent form, especially to such as are used for pigments, as red ochre, yellow ochre, &c.

O'chrea, *n.*; *pl.* **O'chreæ.** [Lat. *ocrea*, a greave.] (*Bot.*) A kind of sheath consisting of two stipules lapped round a stem.

O'chreate, *a.* (*Bot.*) Having ochreæ.

Ochreous, (*ō'ker-us,*) *a.* [Fr. *ocreux.*] Consisting of, or containing ochre; resembling ochre; ochraceous; ochry.

Ochroite, (*ōk'ro-īt,*) *n.* [Fr., from Gr. *okros.*] (*Bot.*) Same as CERITE, *q. v.*

Ochro'ma, *n.* [Gr., pallid hue.] (*Bot.*) A genus of plants, order *Sterculiaceæ.* The species *O. lagopus*, a West Indian tree, has an antisyphilitic bark, and spongy wood, which is sometimes used as a substitute for cork.

Ochry, (*ō'kĕr-y,*) *a.* Pertaining or having reference to ochre; containing or resembling ochre.

Ocil'la (or OSCILLA) **River,** rises in Thomas co., Georgia, and flowing S. into Florida, enters the Gulf of Mexico between Taylor and Jefferson cos.

Oci'mum, *n.* (*Bot.*) A gen. of plants, ord. *Lamiaceæ*, to which belongs the Basil, one of the most fragrant and aromatic of kitchen herbs. The most esteemed kind is *O. Basilicum*, the Royal Ocimum, or Sweet Basil, a native of Persia, the flavor of which somewhat resembles cloves, and is much used in cookery, as seasoning.

Oclau, (*ok'lau,*) in *Georgia*, a creek flowing into the Ocmulgee River in Pulaski co.

Ocmul'gee (or LITTLE OCMULGEE) **River,** in *Georgia*, is formed by the union of several branches in Newton co., and flowing a general S.E. course, joins the Oconee at Colquitt in Montgomery co., to form the Altamaha.

Ocmul'gee Creek, in *Alabama*, enters Cahawba River in Dallas co.

Oco'na, a town of Peru, abt. 90 m. W. of Arequipa.

Oconee', in *Georgia*, a river formed by the union of numerous branches in Washington co., and flowing S.S.E. joins the Ocmulgee River in Montgomery co., to form the Altamaha River.

—A post-village of Washington co., abt. 147 m. N.W. of Savannah.

Oconee' Station, in *Illinois*, a post-village of Shelby co., abt. 22 m. N. of Vandalia.

O'Con'nell, DANIEL, a distinguished Irish patriot and orator, styled *The Liberator of Ireland*, and the *Great Agitator*, B. of an ancient family in co. Kerry, 1775. (See Fig. 1403.) After receiving his education at the Roman Catholic College of St. Omer, and at the Irish seminary at Douay, *O'C.* became a student of Lincoln's Inn, London, in 1794, was admitted to the bar in 1798, and speedily rose to a large and lucrative practice as a special pleader. In 1809, he became popularly known by his fervent advocacy of Catholic Emancipation, which he carried so far as to several times involve himself in personal rencontres. In 1815, having in one of his diatribes stigmatized the corporation of Dublin as "beggarly," he was challenged by Alderman D'Esterre, and a hostile meeting took place, in which the latter fell. In 1828, *O'C.* was returned to the British House of Commons as member for Clare co.; in 1830 for Waterford co., and, in 1831, for his native county, Kerry. From 1832 till 1836, he represented the city of Dublin in Parliament, and in the last-named year was unseated on petition. He next sat for the city of Kilkenny, and, in 1837, was once more returned for Dublin. In 1841, the great county of Cork chose him as their representative, and in the same year he was elected Lord Mayor of Dublin. The return of the Conservatives to power in that year was the signal for re-

Fig 1979. — DERRYNANE ABBEY.
(The country-seat of O'Connell.)

newed political agitation in Ireland. Repeal of the Union was the object sought, and *O'C.* placed himself at the head of the movement. A monster meeting to be held at Clontarf, 8th Oct., 1843, was estopped by the government, and *O'C.* sentenced to pay a fine of $10,000, and to be imprisoned one year. This judgment was shortly after reversed by the House of Lords, and *O'C.* set at liberty. The return of the Whigs to power in 1836, and *O'C's* avowed adherence to that party, brought him into unpopularity with the "Irish" national party, which he had swayed for half a century, and his health also failing him, he retired from public life, and, while taking a journey to Rome, D. at Genoa, in 1847. To great abilities, native wit, unrivalled activity and energy, and a marvellous gift of popular eloquence, *O'C.* united a thorough knowledge of, and identification with, the Irish character. By these qualities, and by long service on behalf of the rights of his Roman Catholic countrymen, he achieved, and retained, nearly to the last, an almost despotic power over the great body of the Irish people. The only substantial literary performance connected with his name is the *Memoirs of Ireland.* A statue of *O'C.*, by Foley, has been erected in Dublin, and another is to be erected in the Central Park of New York.

Oconom'owoc, or OCONOM'OWOC, in *Wisconsin*, a creek rising in Waukesha county, and flowing W. into Rock River, in Jefferson co.

—A city of Waukesha co., on the C., M. & St. P. R. R., 31 m. N.W. of Milwaukee. *Pop.* (1895) 3,172.

Ocon'to, in *Wisconsin*, a small river flowing into Green bay, of Lake Michigan, from Oconto co.

Ocon'to, in *Wisconsin*, a N. E. co., washed on the E. by Green Bay, of Lake Michigan; *area*, abt. 1,127 sq. m. *Rivers.* Menomonee, Pine, Pishtego, and Oconto rivers. *Surface*, diversified; *soil*, not very fertile. *Cap.* Oconto. *Pop.* (1895) 18,339.

—A thriving city, cap. of the above co., on Green Bay and the C. & N. W. and C., M. & St. P. R. Rs., 28 m. N. by E. of Green Bay City. Has very extensive manufs. and large shipments of lumber, fish, &c. *Pop.* (1895) 6,017.

Ocopil'co Creek, in *Georgia*, enters the Withlacoochee River from Lowndes co.

Ocosingo, (*o-ko-sing'go,*) a ruined city of Mexico, abt. 65 m. S.E. of Ciudad Real.

Oco'ya, in *Illinois*, a post-village of Livingston co., abt. 23 m. N.E. of Bloomington.

O'cracoke, in *N. Carolina*, an island and light-house of Hyde co., in the Atlantic Ocean. It exhibits a revolving light 75 ft. high; Lat. 35° 5′ 30″ N., Lon. 75° 59′ W.

—A post-village and port of entry of Hyde co., on the above island, abt. 35 m. W.S.W. of Cape Hatteras. It has an active coast trade.

O'created, *a.* Supplied with, or wearing a boot, bandage, or legging.

Octachord, (*ŏk'ta-kord.*) *n.* [Fr. *octachorde*, from Gr. *oktō*, eight, and *chordē*, chord.] (*Mus.*) An instrument, or system of eight sounds.

Oc'tagon, (*ŏk-,*) *n.* [Gr. *oktō*, eight, and *gōnia*, angle.] (*Geom.*) A figure of eight sides and as many angles; when all the sides and all the angles are equal, the figure is called a *regular octagon.*

Octag'onal, *a.* Having eight angles and eight sides.

Octag'ynous, Octog'ynous, *a.* [Gr. *oktō*, eight, and *gynē*, wife.] (*Bot.*) Having eight pistils or styles.

Octahe'dral, *a.* Having eight equal faces or sides.

Octahe'drite, *n.* (*Min.*) An oxide of titanium, which occurs in octahedral crystals; also called *anatase.*

Octahe'dron, *n.* [Gr. *oktō*, eight, and *hedra*, a side.] (*Geom.*) One of the five regular bodies (Fig. 1980) consisting of eight equal and equilateral triangles.

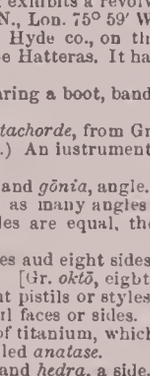

Fig. 1980. OCTAHEDRON.

Octam'erous, *a.* [Gr. *oktō*, and *meros*, part.] (*Bot.*) Having the parts in eights.

Octan'dria, *n.* [Gr. *oktō*, eight, and *andros*, man.] (*Bot.*) The eighth class of plants in the Linnæan system, distinguished by having eight stamens.

Octan'drian, Octan'drous, *a.* (*Bot.*) Having eight distinct stamens, like the class *Octandria.*

Octan'gular, *a* [Lat. *octo*, and Eng. *angular.*] Eight-angled.

Octan'gularness, *n.* State or quality of having eight angles.

Oc'tant, *n.* [Fr.; Lat. *octans*, from *octo*, eight.] (*Geom.*) The eighth part of a circle. (Also written *octile.*)

(*Astron. and Naut.*) A name given to the nautical instrument known as *Halley's Quadrant*, the arc of which is one-eighth of a circle, or 45 degrees.—(*Astrol.*) A word denoting position or aspect; thus the moon is in her *octant* when she is in the positions intermediate between her syzygies and quarters, or at 45°, 135°, 225°, and 315° from her conjunction.

Oc'tapla, *n.* A polyglot Bible printed in eight languages.

Oc'tarchy, *n.* [Gr. *oktō*, and *archē*, a sovereignty.] Government by eight persons. (R.)

Octaroon', *n.* See OCTOROON.

Oc'tastyle, *n.* See OCTOSTYLE.

Oc'tateuch, (*-tūk,*) *n.* [Gr. *oktō*, and *teuchos*, book.] A collection of eight books; particularly, the first eight books of the Old Testament. (R.)

Oc'tave, *n.* [Fr.; Lat. *octavus*, the eighth.] (*Mus.*) The eighth note of the scale, an harmonical interval consisting of seven degrees or twelve semitones, containing the whole diatonic scale; thus forming a complete system or series of sounds, which can only be exteuded by repeating the same order in a second *octave*, and again in a third, and so on, as high or as low as the compass of the voice or instrument will allow.

(*Eccl.*) The eighth day after a feast, the feast-day itself included. Thus, the first Sunday after Easter is the octave of Easter; and the Circumcision (Jan. 1) is the *octava natalis Domini*, the octave of Christmas.

Octave flute. (*Mus.*) Same as PICCOLO, *q. v.*

Octavia, (*ok-tā've-a,*) sister of Augustus, renowned for her beauty and purity of character, and practical wisdom. She was first married to Marcellus, a noble Roman of consular dignity, and soon after his death, B. C. 40, to Mark Antony. This marriage, it was hoped, would strengthen the new alliance between Octavius, her brother, and Antony, her husband; and her influence more than once prevented fresh civil war, and alleviated the sufferings of its victims. But Antony had seen Cleopatra; his passion for her had only slumbered; and he treated his wife with a contempt and cruelty which Octavius could not forgive, and which became the occasion of renewed war. When Antony set out for the East again, *O.* was not allowed to accompany him. She mourned sincerely his miserable end, and brought up all his children as her own. To all her bitter trials was added, B. C. 23, that of the death of the young Marcellus, her son by her first husband, and the destined successor of Augustus. She never rose above this sorrow, nor would hear the name of her son mentioned. She D. B. C. 11.

Octa'via, a daughter of the emperor Claudius by Messalina. She was the sister of Britannicus, and, at the age of sixteen, became the wife of Nero. The latter divorced her and married Poppæa, at whose instance she was put to death in the twentieth year of her age, A. D. 62.

Octa'vius. See AUGUSTUS.

Octa'vo, *n.* [Fr.; Lat. *octavus.*] A book in which a sheet is folded into eight leaves.—The size of a book of this character;—generally noted thus: 8vo., or 8o.

Octeu'nial, *a.* [Lat. *octo*, and *ennis*, year.] Happening every eighth year.—Lasting eight years.

Octeu'nially, *adv.* Once in eight years.

Oc'tet, *n.* (*Mus.*) A musical composition containing eight parts.

Oc'tile, *n.* (*Astrol.*) Same as OCTANT, *q. v.*

Octillion, (*-til'yun,*) *n.* (*Arith.*) According to English numeration, the power expressed by a unit with 48 ciphers annexed. According to the French method, the number denoted by a unit with 27 ciphers annexed.

Octo'ber, *n.* [Lat. from *octo*, eighth.] The eighth month of the primitive Roman year; the tenth month of the Julian year in our calendar, containing 31 days.—A kind of strong ale;—so called from being brewed in the month of October.

Octodecimal, (*-dēs'ĭ-mal,*) *a.* [Fr. from Lat. *octodecim*, eighteen.] (*Crystallurgy.*) Presenting eighteen faces;—said of a crystal.

Octodec'imo, *a.* [Lat. *octodecim*, eighteen—*octo*, eight, and *decim*, ten.] Having or consisting of 18 leaves to a sheet; as, an *octodecimo* book.

—*n.; pl.* OCTODECIMOS. A book composed of sheets folded into 18 leaves.—The size of such book;—generally noted thus: 18*mo*, 18.*o*

Octodeu'tate, *n.* [Lat. *octo*, and *dens, dentis*, tooth.] Eight-toothed.

Oc'tofid, *a.* [Lat. *octo*, and *findere, fidi*, to split.] (*Bot.*) Split or divided into eight segments, as a calyx.

Octog'amy, *n.* [Gr. *oktō*, and *gamein*, to marry.] The marrying eight times.

Octogena'rian, Oc'togenary, *n.* A person who is eighty years of age.

Oc'togenary, *a.* [Lat. *octogenarius*, from *octogeni*, eighty each.] Of eighty years of age.

Oc'togeuary, *n.* An instrument having eight strings.

Oc'togild, *n.* [Lat. *octo*, eight, and A. S. *geld*, payment, money.] (*O. Eng. Law.*) A pecuniary compensation, exacted for an injury, of eight times the value of the thing.

Octog'ynous, *a.* (*Bot.*) Same as OCTAGYNOUS, *q. v.*

Octohe'dron, *n* See OCTAHEDRON.

Octoloc'ular, *a.* [Lat. *octo*, and *loculus*—*locus*, place.] (*Bot.*) Eight-celled, said of certain plants.

Oc'tonary, *a.* [Lat. *octonarius.*] Pertaining or having reference to the number eight.

Octonoc'ular, *n.* [From Lat. *octō*, and *oculus*, eye.] Eight-eyed. (R.)

Octopet'alous, *a.* [Gr. *okto*, and *petalon*, leaf; Fr. *octopetale.*] Possessing eight petals, as certain flowers.

Oc'topod, *n.* [Gr. *oktō*, and *pous, podos*, foot.] (*Zoöl.*) An insect or mollusc having eight feet or legs.

Octora'diated, *a.* [Lat. *octo*, and *radius*, ray.] Possessing eight rays.

Octora'ra, in *Pennsylvania*, a creek flowing into the Susquehanna from Lancaster co.

Octoroon', Octaroon', *n.* [From Lat. *octo.*] The offspring of a white person and a quadroon.

Octosperm'ous, *a.* [Gr. *okto*, and *sperma*, seed.] (*Bot.*) Having eight seeds.

Oc'tostyle, *n.* [Gr. *okto*, and *stylos*, column.] (*Arch.*) A portico having eight columns in front.

Octosyllab'ic, Octosyllab'ical, Octosyl'lable, *a.* [Lat. *octo*, and *syllabo*, syllable.] Eight-syllabled.

Octosyl'lable, *n.* A word containing eight syllables.

Octroi, (*ok-trwaw',*) *n.* [Fr., from Lat. *auctor*, maker.] This word implied originally a right, such as a franchise, a charter, or a monopoly, granted to some individual by the monarch. In modern times it has been used almost exclusively to represent the taxes levied by the corporations of towns in France, on all articles of consumption introduced within the barriers. These taxes form great part of the revenue of the principal towns.

Oc'tuor, (*Mus.*) Same as OCTET, *q. v.*

Oc'tuple, *a.* [Lat. *octuplus*, from Gr. *oktō*, and *aplous*, single.] Eight-fold.

Oc'ular, *a.* [Fr. *oculaire;* Lat. *ocularius*, from *oculus* = Sansk. *ukhsa*, the eye.] Pertaining to the eye or the faculty of vision; depending on, or known by, the eye; received by actual sight; as, "Give me the *ocular* proof."—*Shaks.*

—*n.* The eye-piece of an optical instrument.

Oc'ularly, *adv.* By the eye, vision, or actual view.

Oc'ulary, *a.* Relating, or pertaining, to the eye; as, an *oculary* medicine.

Oc'ulate, Oc'ulated, *a.* Having eyes; knowing by the eye.—Having spots resembling eyes.

Ocu'liform, *a.* [From Lat. *oculus*, and *forma*, form.] In the form of an eye; presenting the appearance or form of an eye.

Oc'ulist, *n.* [Fr. *oculiste*, from Lat. *oculus.*] One who is skilled in diseases of the eye, or one who professes to cure them.

Oc'ypoda, *n.* [Gr. *okys*, speedy, and *pous, podos*, foot.] (*Zoöl.*) A genus of brachyural Crustaceans, inhabiting the sea-shores of warm climates in both hemispheres. They derive their name from the rapidity of their motions; those who have observed these animals in their native haunts declaring that they run so fast that a man can hardly overtake them. They form holes for themselves in the sand immediately above the level of the wash of the sea, and in these they reside during the summer, but they pass the winter in a state of hibernation. There are several species, differing but little from each other. The one here figured is *Ocypoda arenaria*, or SAND-CRAB; length about 2 inches; color yellowish. In the summer their general time of quitting the burrow to seek their food is the night; but towards the end of October they retire inland to hibernate in the earth; and when they have found a suitable place, they dig a hole like that which they had occupied on the edge of the sea, enter it, and close up the entrance so thoroughly that no trace of it can be seen. There they remain till the warm weather brings them forth, when their instinct again teaches them to repair to their marine residences.

Fig. 1981.—AMERICAN SAND-CRAB. (*Ocypoda arenaria.*)

Oczakov, or OTCHAKOV, (*otch-ak'ov,*) a town of European Russia, govt. of Kherson, on the Dnieper, at its mouth in the Black Sea, 40 m. E.N.E. of Odessa; *pop.* 3,500.

Od, (*ŏd,*) *n.* [From *Odin*, the omniscient deity of Scandinavian mythology.] The name given by Baron Von Reichenbach to a supposed all-pervading force in nature, which he claims to have discovered in 1844, but in which few, if any, really scientific men have any belief. According to the discoverer, the *Od* force, also called *Odyle, Odic* force, or *Odyllic* force, pervades all nature, and is akin to electricity, magnetism, light, &c. It has two poles, like electricity and magnetism,—a positive and a negative,—which appear in all organic substances; the human body, for example, being positive on the left side and negative on the right. Its rays pass through all kinds of matter, and can be felt and seen by certain persons called *sensitives*, who have a peculiar nervous sensibility; but the majority of mankind are *non-sensitives*, and insensible to odic influences. The meeting of like odic poles causes a disagreeable sensation to the sensitive, while an agreeable sensation follows the pairing of unlike poles. The odic emanation is felt by the touch, as though it were a breath, and it is also seen in the dark, like a luminous vapor, by the sensitive. Od is the agent or force by which mesmerism or animal magnetism operates, and is also that by which the flowing of water underground is discovered by the sensitive; hence the secret of the water-finders and their divining-rods. The earth is strongly od-negative in the northern hemisphere and od-positive in the southern; and this is said to be the reason why many persons in the northern hemisphere cannot sleep on their left sides. It must be said that no other experimenter has succeeded in obtaining the results claimed by Reichenbach, and no belief is now entertained by science in the existence of such a substance.

Odalisque, (*ō'dal-īsk,*) *n.* [Turk. *ôdalik*, a room-mate.] In Turkey and other parts of the East, a female inmate of a harem or seraglio; a female slave or concubine.

Odd, *a.* [Dan. *ôde*, Icel. *audr*, wanting, without; Goth. *ulde*, uneven, dissimilar.] Standing by itself; unmatched; not paired with another.—Singular; fantastic; peculiar; unique; as, an *odd* thing or affair, he is remarkably *odd* in his manner.—Left or remaining after the union, estimate, or use of even numbers, or remaining after round numbers or any numbers specified; not taken into the account; hence, of trifling value, worth, or account; fractional; fragmentary; insignificant.

"Sixteen hundred and *odd* years after the earth was made." *Burnet.*

—Not even; not divisible into two equal whole numbers, as three, five, &c.

"There 's luck in *odd* numbers, said Rory O'More."—*Lover.*

—Queer; strange; inappropriate or unusual; as an *odd* book or subject.

Odd-Fellows, (Independent Order of.) The name of a secret charitable society existing chiefly in Great Britain and the U. S. Although Odd Fellows' Lodges exist in many parts of Europe, South America, Australia, and other countries, yet it is chiefly in England and the U. S. where they are numerous. It sprang from certain lodges or societies of mechanics and laborers existing in London in the latter part of the 18th century, and calling themselves the *Ancient and Honorable Loyal Odd-Fellows.* Their meetings were for convivial purposes, and were usually held in taverns; but it became the custom for each member among them to contribute a penny a week to form a fund for the relief of the poor among them, and especially to defray burial expenses and to provide for widows and orphans. On the extension of the order to Liverpool and other parts, the lodges united in a general system, under the title of the *Union Order of Odd-Fellows*, having its seat of government in London. In 1809 attempts were made to reform the order, and to abolish its convivial character; but these were opposed by the majority, and at length, in 1813, a convention of the friends of reform was held at Manchester, when several lodges seceded from the Union Order, and formed the *Independent Order of Odd-Fellows.* In 1825, a central standing committee was established in Manchester to govern the order in the interim between the sessions of the grand lodge, or national movable committee, as it is termed. Dissensions arose which led to secessions; but the *Manchester Unity* remains to this day the main body of British Odd-Fellows, and numbers about 500,000 members in its lodges. The organization of the order bears a general resemblance to that of the Freemasons. The

primary body is the Subordinate Lodge, which derives its power from a charter granted by the Grand Lodge, and must comprise at least five members, who must be males of at least twenty-one years of age. They make their own laws, and manage their own pecuniary affairs, collecting certain fixed dues from their members, paying a weekly allowance to the sick, and granting a stated sum for the burial expenses of a member, or a member's wife. After initiation, a member may apply for and receive certain degrees, by the paying of certain sums. These degrees, in the order in which they are conferred, are: 1, the white degree; 2, the covenant degree; 3, the royal blue degree; 4, the remembrance degree; 5, the scarlet degree. The officers of a subordinate lodge are the noble-grand (who presides), the vice-grand, the treasurer, and the permanent and recording secretaries. A person who has filled for six months the office of noble-grand is styled *past-grand*. The grand lodge of a State is formed of past-grands, not less than five in number. It derives a revenue from fees for charters, dispensations, and a percentage of the revenues of subordinate lodges. Its presiding officer is the grand-master, who is elected annually. In 1897, there were in the U. S. 50 grand lodges, with about 775,000 members. The first lodge was founded in Baltimore in 1819. The grand lodge of the U. S. is composed of representatives, elected biennially by the State grand lodges. It is presided over by the *grand-sire*. The annual disbursements in the U. S. are nearly $3,000,000. In every State there exists a separate institution called encampments, whose members, called patriarchs, are chosen from the Odd-Fellows who have received the scarlet degree. Above these encampments, there exists a grand encampment. The elective officers of an encampment are a chief-patriarch (who presides), a high-priest, a senior warden, a scribe, a treasurer, and a junior warden. The elective officers of a grand encampment are the most worthy grand-patriarch, most excellent grand high-priest, right worthy grand senior warden, grand-scribe, grand-treasurer, and grand-representative.

Odd'ity, *n.* Singularity; strangeness; queerness; state or quality of being odd; as, *oddity* of dress, manner, language. — That which is odd; also, a person of odd or peculiar manner.

Odd'-looking, *a.* Having a strange or unusual appearance; as, an *odd-looking* person.

Odd'ly, *adv.* Singularly; strangely; unusually; peculiarly; irregularly; uncouthly.

Odd'ness, *n.* The state of being odd or not even. — Singularity; strangeness; particularity; uncouthness; peculiarity; irregularity.

"This habitual concern puts an *oddness* into his looks."—*Collier.*

Odds, *n. sing.* and *pl.* Inequality; excess of either, compared with the other; difference in favor of one and against another; advantage; superiority; as, to fight against *odds.* — Quarrel; strife; dispute; debate; controversy.

"I can't speak any beginning to this peevish *odds.*"—*Shaks.*

At odds. At variance; at daggers'-drawing; in dispute.

"One gross crime or other sets us all *at odds.*"—*Shaks.*

It is odds. It is likely or probable.

"*It is odds* they are already encumbered with a numerous family." *Swift.*

Odds and ends. Scraps; fragments; debris; refuse; remnants.

"My brain is filled with all sorts of *odds and ends.*"—*Irving.*

Ode, *n.* [Lat.; Gr. *ōdē*, from *aeidō*, to sing; probably akin to Ir. *laoid*, a song.] (*Lit.*) A short, stately poem; a lyric song; a poetical composition proper to be set to music and sung; as, the *Odes* of Horace.

Ode'-factor, *n.* One who makes odes; a dabbler in odes; — applied in a contemptuous sense.

Ode'let, *n.* A little ode.

Odell', in *Illinois*, a post-village and township of Livingston co., about 10 m. N. E. of Pontiac. *Pop.* of village (1897) 910.

O'den, in *Arkansas*, a township of Chicot co. *Pop.* (1897) 2,115.

Odensee', a town of Denmark, capital of the island of Funen, on a small river, 2 m. from Stegestrand Bay, 88 m. S.W. of Copenhagen. *Manuf.* Woollens, gloves, leather, soap. *Pop.* (1897) 31,350.

O'denwald, a mountainous, wooded region of West Germany, extending between the Neckar and Main rivers. *Ext.* 45 m. long, culminating in the summit of Katzenbuckel, 2,300 feet above the sea.

Ode'on, Ode'um, *n.* [Lat. *odeum*; Gr. *ōdeïon.*] Among the ancients, a small theatre for the recitation of musical compositions, generally in the neighborhood of a larger theatre. The odeon at Athens was contiguous to the theatre of Bacchus; that at Pompeii also adjoined the theatre. — In modern parlance, a minor theatre, or a hall or chamber for the performance of musical or dramatic compositions.

O'der, a large river of Germany, rising in Moravia, abt. 15 m. E. of Olmütz; Lat. 49° 35′ N., Lon. 17° 35′ E.; and after a N. course of 500 m., falling into the Great Haaff, an inlet of the Baltic, by numerous mouths, near Stettin. It is navigable for small vessels as far as Ratisbon, and for barges of 40 or 50 tons as high as Breslau.

O'deran, a town of Saxony, 32 m. from Zwickau; *pop.* 5,500.

Odes'sa, a city and seaport of South Russia, govt. of Kherson, on the N.W. coast of the Black Sea, half-way between the mouths of the Dniester and Bug. The bay is open and easy of access, with sufficient depth of water to float the largest ships near the town. The harbor, which is artificial, is formed of two moles, and is capable of accommodating over 200 vessels. It is defended by two batteries towards the sea; and on the E. side is a citadel, which commands the town and port. The principal buildings are the cathedral of St. Nicholas,

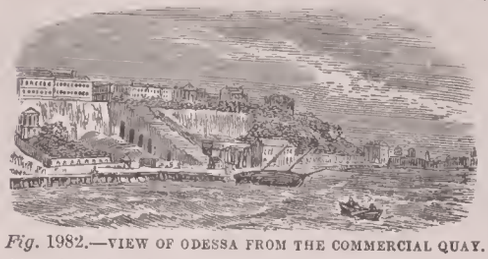

Fig. 1982.—VIEW OF ODESSA FROM THE COMMERCIAL QUAY.

the Admiralty, Custom-house, and Exchange. In the centre of the esplanade facing the port is a large statue in bronze, in honor of the Duke de Richelieu. A great drawback is the scarcity of wood and water, and the intensity of the heat, which frequently reaches 120°, and destroys the vegetation of the vicinity. *O.* is the emporium for the produce of S. Russia, and owes its rapid growth to its being declared a free port. *O* is much frequented in the summer months by the Russian and Polish aristocracy, for the facilities afforded for sea-bathing. The great trade of the town, and its principal export, is corn, which, garnered here from the adjacent Ukraine and Moldavia, is shipped to almost every part of Europe. *O.* was founded by Catharine II., in 1794. *Pop.* (1897) 304,450.

Odes'sa, in *Delaware*, a post-town of New Castle co., about 24 m. N. by W. of Dover. *Pop.* (1897) 715.

Odes'sa, in *Michigan*, a township of Ionia co.

Odes'sa, in *Minnesota*, a village of Fillmore co., abt. 11 m. S. of Preston.

Odeypoor, or **Oudepore,** (*o-de-poor'*,) capital of a rajahship of same name, in the province of Rajpootana, Hindostan, 135 m. S.S.W. of Ajmere, and 165 m. N.W. of Oojein; Lat. 24° 35′ N., Lon. 73° 44′ E.

Od'ic, *a.* Relating or pertaining to *od*; as, *odic* force.

Od'ic, Od'ical, *a.* Pertaining or relating to an ode.

Od'ically, *adv.* In the manner or by means of odic force.

O'din, *n.* [Icel. *Odhinn*; O. H. Ger. *Wuotan*; Saxon, *Wodan* or *Woden* — whence *Wednesday.*] (*Teutonic Myth.*) The principal deity of the German and Scandinavian mythologies, common to all Teutonic peoples, and, in a measure, corresponding to the Zeus of the Greeks. Odin, while not the creator, is the ruler of heaven and earth, an omniscient being, the king of the deities. His celestial residence is the palace Heidskialf, in Asgard, from whence his two black ravens, Hugin (Thought) and Munin (Memory), are sent forth daily to gather and bring in tidings of all that is taking place in earth and heaven. He is also the god of war, holding his court in Valhalla, whither brave warriors pass after death to revel in joys of battle and the hunt, such as they loved best upon earth. Odin became the wisest of the gods by the aid of a draught from Mimir's fountain, though in doing so he lost the sight of one eye. Like Zeus, he added to his queen, Frigga, various other wives and favorites, and had a numerous progeny of sons and daughters. According to Rhys, Odin, or Woden, the sky god of the Teutons, may have had a Celtic origin, and been synonymous with the Celtic Gwydion.

O'din, in *Illinois*, a post-village of Marion co., about 9 m. N. N. E. of Centralia. *Pop.* (1897) 915.

Odin'ic, *a.* Relating or pertaining to Odin.

O'dious, *a.* [Fr. *odieux*; Lat. *odiosus* — *odium*, hatred — *odi*, *odisso*, to hate.] Hateful; meriting hatred; detestable; abominable; as, an *odious* crime. — Offensive to the senses; disagreeable; disgusting; noxious; as, an *odious* smell. — Causing hate; invidious. — Exposed to hatred or extreme aversion; hated; as, he had rendered himself *odious* to the people.

O'diously, *adv.* In an odious manner; hatefully; invidiously; in a manner to deserve or excite hatred; so as to cause hatred or extreme aversion.

O'diousness, *n.* Quality of being hated; hatefulness; that quality which merits or may excite hatred or intense aversion; as, the *odiousness* of a sin. — State of being hated. (R.)

O'dium, *n.* [Lat.] Hatred; dislike; enmity; extreme aversion. — The quality that excites or provokes hatred; invidiousness; offensiveness.

"New taxes seldom fail of bringing *odium* upon their projector." *Davenant.*

Odium theologicum, the class of enmity peculiar to controversialists or polemical disputants.

Odoacer, (*o-do'a-sar*,) first barbarian king of Italy, was son of one of Attila's officers. He entered into the Imperial guards, in which he rose to an honorable rank. In 476 he was chosen chief of a confederate army, and was saluted by them king of Italy. He defeated the patrician Orestes at Pavia, banished his son, Romulus Augustus, last Roman emperor, and made Ravenna the seat of his kingdom. He obtained the title of *Patrician* from Zeno, emperor of the East, and did not assume the imperial ensigns. By his wise and honorable administration, he showed himself worthy of the dignity to which he was raised; but misery, desolation, and gradual depopulation were the prominent features of the condition of his kingdom. In 489, Theodoric, king of the Ostrogoths, invaded Italy, and *O.* was three times defeated by him: first near Aquileia, then near Verona, and lastly near Ravenna. He was then besieged three years in Ravenna, and at length, compelled by famine and the clamors of the people, he made a treaty with Theodoric, by which they were to rule jointly. But after a few days, *O.* was assassinated by his conqueror, March, 493.

Odom'eter, *n.* [Gr. *odos*, way, and *metron*, measure.] An instrument attached to the wheel of a carriage, to measure distance in travelling. See SECTION II.

Odomet'rical, *a.* [Fr. *odometrique.*] Belonging or having reference to an odometer, or to the measurements effected by it.

Odom'etrous, *a.* Serving to measure distance on a road.

Odona'ta, *n.* (*Zoöl.*) The Dragon-fly, a family of insects, comprising neuroptera which are known as the Devil's Darning-needles, and are distinguished by their long body, large, lustrous, gauze-like wings, large head, large, lateral, compound eyes, and three ocelli. They are among the most conspicuous of insects, and at once arrest the attention by their size, light and graceful figure, variegated colors, and the great velocity with which they speed their way over fields and meadows, or skim the surfaces of the pools or ponds in search of flies, mosquitoes, and other insects, which constitute their food. In the larva and pupa states they live in the water, and when the time comes for the last change, they crawl up the stems of plants, and, having withdrawn from the pupa-skin, which remains clinging to the plant, and dried themselves a little, they spread their wings and dart swiftly away. Though they bite fiercely with their jaws, they are without any sort of sting, and are perfectly harmless to man.

O'Don'nell, LEOPOLD, Count of Lucena, and Duke of Tetuan, a Spanish marshal, of Irish descent, B. 1808, entered the military service at an early age, and attained the rank of colonel before he was twenty-five. When Don Carlos commenced that struggle which proved so disastrous to Spain, O'Donnell fought courageously for Queen Isabella, became, in 1838, chief of the staff, and was placed in command of the Army of the Centre. At the close of the Carlist war, he was nominated general of brigade, and created Count of Lucena; in 1840 he embraced the cause of the Queen-mother Christina against the people and the army, and emigrated with her to France. In 1841 he demanded permission to return to Spain as a friend to the established government, and Espartero granted his request; but having raised a formidable, though unsuccessful, insurrection against the regent's government, he made his escape into France. In 1843, Espartero fell, and O'Donnell, for his share in the intrigue that led to his fall, was rewarded with the governor-generalship of Cuba. He returned to Spain when Narvaez was in power, and became Minister of War and the Colonies, and President of the Council, July 1, 1858. In 1859, Spain declared war against Morocco, and Gen. O'Donnell was intrusted with the command of an invading army, and for his services in bringing the war to a successful conclusion, received the title of Duke of Tetuan. He continued in office until Feb., 1863, when he resigned, in consequence of the queen's refusal to dissolve the Chambers, and was succeeded as war minister by Gen. Concha. He returned to power at the head of another ministry, June 21, 1865, and was replaced by Narvaez in 1866. D. 1867.

Odontal'gia, *n.* [Gr. *odous*, *odontos*, a tooth, and *algos*, pain.] (*Med.*) The TOOTHACHE, *q. v.*

Odontalgic, (*-tăl'jĭk.*) *a.* [Fr. *odontalgique.*] Pertaining or relating to the toothache.

—*n.* (*Med.*) A remedy for the toothache.

Odontal'gy, *n.* (*Med.*) Odontalgia; pain in the teeth or gums.

Odon'to, *n.* [Gr. *odontos*, tooth.] A specific for cleansing and purifying the teeth; a dentrifice; tooth-powder.

Odontog'eny, *n.* [Gr. *odous*, *odontos*, tooth, and *genein*, to produce.] (*Med.*) Generation of the teeth.

Odon'tograph, *n.* [Gr. *odous*, *odontos*, and *graphein*, to describe.] (*Civ. Eng.*) An instrument used in designing the teeth of wheels, invented by Prof. Willis, of Cambridge, England.

Odontog'raphy, *n.* A description of teeth.

Odon'toid, *n.* [Gr. *odous*, *odontos*, and *eidos*, form, shape.] Tooth-like.

Odon'tolite, *n.* [Gr. *odous*, *odontos*, and *lithos*, stone.] (*Pal.*) A fossilized tooth.

Odontol'ogy, *n.* [Gr. *odous*, *odontos*, and *logos*, treatise.] (*Anat.*) That branch of anatomical science which relates to the teeth; a treatise on the teeth.

O'dor, O'doar, *n.* [Lat. *odor*, a pleasant smell; allied to Gr. *ozō*, to smell.] Any smell, whether agreeable or offensive; scent; perfume.

To be in bad odor, to be in disrepute, or out of favor.

O'dorant, *a.* Diffusing odors; as, *odorant* herbs.

O'dorate, *a.* Having a strong smell, fetid or fragrant; scented; odorous; as, *odorate* vapor.

O'dorating, *a.* Odorant; fragrant; diffusing scent.

Odorif'erous, *a.* [Lat. *odoriferus* — *odor*, and *fero*, to bear.] Bringing or bearing odors; as, *odoriferous* gales. (*Milton.*) — Diffusing fragrance; perfumed; yielding scent; odorous; usually, sweet-smelling; as, *odoriferous* flowers.

Odorif'erously, *adv.* In an odoriferous manner.

Odorif'erousness, *n.* State or quality of being odoriferous, or scent-bearing.

O'dorine, *n.* (*Chem.*) A product of the redistillation of the volatile oil obtained by distilling bone.

O'dorless, O'dourless, *a.* Without odor; free from odor.

O'dorous, *a.* [Lat. *odorus*, from *odor.*] Emitting a scent or odor; usually, sweet-smelling; fragrant; as, an *odorous* substance.

O'dorously, *adv.* In an odorous manner; fragrantly.

O'dorousness, *n.* Quality of being odorous, or exercitive of the sensation of smell.

Odyle, (*ō'dil.*) *n.* See OD.

Odyssey and **Iliad** (*od'is-se, il'e-ăd*). [Gr. *Odysseus*, Ulysses, and *Ilias*.] (*Lit.*) The name of two admirable poems of high antiquity, attributed to the earliest known Greek poet Homer (*q. v.*). The Iliad is the first complete epic poem in existence and the first of the two Homeric poems. Its subject is the siege of Ilium, or Troy, or, more properly speaking, the quarrel between Achilles and Agamemnon, the general of the Grecian army before that city. It consists of 24 books, the first of which relates the origin of the quarrel, and the residue contain an account of the efforts made by Agamemnon and his chiefs to conquer the Trojans without the coöperation of Achilles, and his resumption of arms in favor of the sons of Hellas, and the death of Hector, the Trojan champion, by his hands. The Odyssey, on the other hand, relates the wanderings of Ulysses, and his return to his native land, Ithaca. The characteristics of Homer's poetry, as the culmination of ballad poetry and the grand model of the minstrel epos, may be expressed in a very few words. In the first place, the materials are national in character, and if not properly considered historical, they grew, like all ballad poetry, out of the real life of the people, and may perhaps rest upon some degree of historical substratum. However this be, these poems possess great importance in the knowledge they give us of the habits and customs of the early Grecks. Though the Greeks of the historical period looked upon them as descriptive of actual historical events, modern research has thrown great doubt on their historical value, and they are now valued, from this point of view, mainly as an important record of an early stage of human society, similar to those we possess in the early Hebrew and Hindu literatures. It may be confidently asserted that the first germs of almost all arts and sciences afterwards cultivated by the Greeks and Romans are to be found in the Iliad or Odyssey. In this view, they were to the Grecks themselves an encyclopædia of their national culture; and as embodying the grand features of their polytheistic faith, they are also constantly quoted by their great writers with all the defereuce due to a Bible.

Œcolampadius, (*e-ko-lam-pai'di-us.*) One of the German reformers, B. in Franconia, 1482. His original name, JOHANN HAUSSCHEIN, was, according to the fashion of the time, turned into its Greek equivalent. He studied chiefly at the university of Heidelberg, became acquainted with Ruechlin, Capito, and Erasmus, assisted the latter in his editiou of the Greek Testament, and afterwards adopted the views of Luther. About 1519 he retired to a monastery, where he spent two years; his opinions becoming more decided, he quitted it, and found an asylum, like other reformers, with the knight Franz von Sicklingen. He soon after settled at Basle, as pastor and professor of theology. He took the same view of the eucharist as Zwinglius, attended several theological conferonces, and D. 1531.

Œ'cumen'ical Coun'cil, *n.* [Gr. *oikoumenike*, of, or belonging to, *oikoumene*, the world.] (*Eccl. Hist.*) A council of the entire Church, or general council. A council is said to be œcumenical by the Roman Catholic Church in three different ways, viz.: in convocation, in celebration, and in acceptation. For the first, the summons of the Pope, direct or indirect, is held to be necessary; this summons must be addressed to all the bishops of the entire Church. To the second, it is necessary that bishops from all parts of the world should be present, and in sufficient numbers to constitute a really representative assembly; they must be presided over by the Pope, or a delegate or delegates of the Pope; and they must enjoy liberty of discussion and of speech. For the third, the decrees of the council must be accepted by the Pope, and by the body of the bishops throughout the Church, at least tacitly. The last of theso conditions is absolutely required to entitle the decrces of a council to the character of *Œ.*; and even the decrees of provincial or national councils so accepted, may acquire all the weight of infallible decisions. In the doctrine of the Roman Catholic Church, the decrees of an *Œ. C.* are necessarily exempt from error or infallibility. The infallibility claimed by that Church is of two kinds, *passive* and *active*, — the first (*Matt.* xvi. 18), in virtue o which the Church never can *receive* or *embrace* any erroneous doctrine, no matter by whom proposed; the second, in virtue of which she is charged with the function (*Matt.* xxviii. 19; *Mark* xvi. 15; *Ephes.* iv. 11–16) of permanently *teaching* to the world the essential truths of God, of actively resisting every access of error, and of authoritatively deciding every controversy by which the oneness of belief among the faithful may be endangered. Catholics regard this gift as a natural and necessary accompaniment of the authority in matters of faith with which they believe the Church to he invested, and which, if not guided in its exercise by such infallible assistance, would be but a false light, and an attractive but dangerous instrument of delusion. — Twenty *Œ. C.* are recognized in tho Roman Catholic Church — 9 Eastern and 11 Western :—1. The Synod of Apostles in Jerusalem, wherein the relation of the Christian doctrine to the Mosaic law was determined. (See *Acts* c. xv.) 2. The first C. of Nice, held 325 A.D., to assert the Catholic doctrine respecting the Son of God In opposition to the opinions of Arius. 3. The first C. of Constantinople, convoked nnder the Emperor Theodosius the Great (381 A. D.), to determine the Catholic doctrine regarding the Holy Ghost. 4. The first C. of Ephesus, convened under Theodosius the Younger (431 A. D.), to condemn the Nestorian heresy. 5. The C. of Chalcedon, under the Emperor Marcian (451 A. D.), which asserted the doctrine of the union of the divine with the human nature in Christ, and condemned the heresies of Eutyches and the Monophysites. 6. The second C. of Constantinople, under Justinian (553 A. D.), which condemned the doctrines of Origen, Arius, Macedonius, and others. 7. The third C. of Constantinople, convoked under the Emperor Constantine V., Pogonatus (681 A. D.), for the condemnation of the Monothelite heresy. 8. The second C. of Nice, held in the reign of the Empress Ireue and her son Constantine (787 A. D.), to establish the worship of images. Against this C., Charlemagne convened a counter-synod at Frankfort, (794 A. D.) 9. The fourth C. of Constantinople, uuder Basilius and Adrian (869 A. D.), the principal business of which was the deposition of Photius, who had intruded himself into the see of Constantinople, and the restoration of Ignatius, who had been unjustly expelled. 10. The first Lateran C., held in Rome under the Emperor Henry V., and convoked by the Pope Calixtus II. (1123 A. D.), to settle the dispute on investiture (*q. v.*). 11. The second Lateran C., under the Emperor Conrad III. and Pope Innocent II. (1139 A. D.), condemned the errors of Arnold of Brescia and others. 12. The third Laterau C., convened by Pope Alexander III. (1179 A. D.), in the reign of Frederick I. of Germany, condemned the "errors and impieties" of the Waldcuses and Albigenses. 13. The fourth Lateran C., held under Innocent III. (1215 A. D.), among other matters asserted and confirmed the dogma of transubstantiatiou and necessity for the reformation of abuses and the extirpation of heresy. 14. The first Œcumenical Synod of Lyons, held during the pontificate of Inuocent IV. (1245 A. D.), had for its object the promotiou of the Crusades, the restoration of ecclesiastical discipline, &c. 15. The second Œcumenical Synod of Lyons, was held during the pontificate of Gregory X. (1274 A. D.). Its principal object was the re-union of the Greek and Latin churches. 16. The Synod of Vienue in Gaul, under Clemens V. (1311 A. D.), was convoked to suppress the Knights Templars, &c. 17. Tho C. of Coustance was convoked at the request of the Emperor Sigismund (1414 A. D.), and sat for 4 years. It asserted the authority of an Œcumenical C. over the Pope, and condemned the doctriues of John Huss and Jerome of Prague. 18. The C. of Basle was convoked by Pope Martin V. (1430 A. D.). It sat for nearly 10 years, and purposed to introduce a reformation in the discipline, and even the constitution of the Roman Catholic Church. All acts passed in this C., after it had been formally dissolved by the Pope, are regarded by the Roman Catholic Church as null and void. 19. The celebrated C. of Trent, held 1545–1563 A. D. It was opened by Paul III., and brought to a close under the pontificate of Paul IV. 20. The Council of Rome convoked by Pope Pius IX., 1869, which, in July, 1870, decreed the personal infallibility of the Pope, in matters of faith and morals, to be a dogma of the Church.

Œde'ma, *n.* [Gr. *oideo*, I swell.] (*Surg.*) A tumor or swelling, but, more strictly speaking, a diffused, puffy distention of a part or limb, white, soft, and insensible, proceeding from an effusion of water, as in the case of dropsy. *Œ.* of a limb or membrane may occur from debility as well as from disease in the organ, from a simple loss of power in circulation, or from pressure on some important vessel. *Œ.* is generally characterized by a white, shining appearance of the distended cuticle, loss of beat in the part, the absence of pain, and by the swelling *pitting* when pressed with the finger. *Œ.* when the result of weakuess or inaction, should be treated by tonics, blue pill, and repeated friction.

Œ'denburg, a frec town of Hungary, cap. of the co. of Œdenburg, near the S.W. border of Neusiedl Lake, 49 m. W. of Raab, and 37 S.S.E. of Vienna. *Manuf.* Cotton and woollen goods, potash, nitre, tobacco, and refined sugar.

Œderan, (*ö'deh-ran,*) a town of N. Germany, in Saxony, 32 m. N.E. of Zwickau. *Manuf.* Woollens and cottons. *Pop.* 5,000.

Œdipus, (*e'di-pus.*) (*Myth. Hist.*) The son of Laius, king of Thebes, who, after being married to Jocasta, consulted the oracle, which iuformed him that he was doomed to die by the hand of his own son. To prevent so fearful an accident, he ordered his wife, as soon as Œdipus, the child ahe was then pregnant with, was born, to destroy him. The affection of the mother, however, prevailed over the duty and obedienco of the wife; and she secretly sent the child away, by a confidential servant, with a command to exposo it in some place where it would meet with a protector — instead of which, he cruelly bored the feet of the child and hung him on a treo, suspended by his heels, on Mount Cithæron. In this situation he was discovered by a shepherd in tho service of Polybius, king of Corinth, who carried him home and adopted him as his own son. As he grew up, tho talent he displayed, even with the imperfect educatiou they were able to givo him, soon enabled him to outstrip all his companions and acquire with avidity all the accomplishments of the age, which so excited their envy, that they taunted him with the baseness of his birth. Doubting the truth of the information as to his being illegitimate, Œdipus, so called on account of the deformity of his feet, resolved to procced to Delphi to consult the oracle, and was told that if he returned to his home he would become his father's murderer. Knowing no father but tho man who had adopted him, he turned from Corinth and proceeded towards Phocis, on the road to which, in a narrow pathway, he met his father Laius, who was in his chariot, accompanied by his armor-bearer. Being insolently ordered to make way, and refusing to comply, a contest ensued, in which the decree of the oracle was verified hy Œdipus slaying both Laius and his attendant. Proceeding to Thebes, he was attracted by the enigma proposed by the Sphinx, and which he determined to solve — as Creon, who had succeeded Laius, promised any one who should succeed in doing so the crown of Thebes as a reward. The enigma was this: "What animal in the morning walks upon four feet, at noon upon two, and in the evening upon three?" — which Œdipus explained by saying it was Man, who, in his infancy, or the morning of his life, crawls on his hands and feet; in his manhood, or the noon of his age, he stands erect and goes on two feet; and in old age, or the evening of his days, he supports his trembling limbs with a staff. This, being the true explanation, resulted in the death of the Sphinx (who destroyed herself, as the fable goes), and the accession of Œdipus to the throne of Thebes. In his endeavors to find the murderer of Laius, he first became aware that the stranger he had encountered and killed was his father, upon the knowledge of which his remorse was so great that he voluntarily deprived himself of sight and banished himself from his kingdom. He is said to have perished in a singular manner, the earth opening and engulfing him in its depths. The more revolting part of this story we have purposely suppressed, but it will be found referred to under LAIUS and JOCASTA.

Œhlenschlæger, ADAM GOTTLIEB, (*e(r)'len-shlai'ger,*) the greatest dramatic poet of the Scandinavian North, B. 1777. He commenced his career on the stage, but abandoned the profession for literature, and finally became professor of æsthetics in his native city. Among his greatest works may be mentioned — 1. *The Death of Balder*; 2. *The Gods of the North*; 3. *Aladdin*; 4. *Sterkodder*; 5. *Hakem-Jarl*; 6. *Pulnatoke*; 7. *Axel and Valborg*; 8. *The Admiral Fordens Kjold*; and many others. D. 1850.

Œil de Bœuf, *n.* [Fr., bull's eye.] (*Arch.*) A small light formed in a roof for the purpose of lighting an attic, or a story in it. The small opeuings in a dome are also called hy this name.

Œiliad, (*e-il'yad.*) *n.* [Fr. *œillade*, from Lat. *oculus*, eye.] A side-glance; an ogle; a wink; a sly or arch look. (R.)

Oeiras, (*o-a'e-ras,*) in Brazil, a city in the prov. of Piauhi, abt. Lat. 7° 5′ S., Lon. 42° 40′ W.; *pop.* 6,000.—A village abt. 140 m. W.S.W. of Para.

Oe'land, an island of the Baltic, belonging to Sweden, prov. of Calmar, from which it is separated by the Stralts of Calmar; Lat. between 56° 13′ and 57° 22′ N., Lon. 16° 20′ and 17° 10′ E.; *area*, 300 aq. m. *Chief town*, Bergholm. *Pop.* 33,140.

Oe'land, (Little,) an island of Denmark, duchy of Schleswig, between the island of Fohr and the mainland.

Œls, (*e(r)ls,*) a town of Prussian Silesia, dist. of Breslau, on the river Œls, a tributary of the Oder, 17 m. N.E. of Breslau. *Manuf.* Woollen and linen fabrics. *Pop.* 7,520.

Œlsnitz, (*ölz'nits.*) a town of N. Germany, in Saxony, on the Elster, 6 m. S.E. of Plauen. *Manuf.* Woollens, cottons, and leather. *Pop.* 4,500.

Œnan'the, *n.* [Lat., from Gr. *oinē*, the vine, and *anther* — *anthos*, flower.] (*Bot.*) A genus of European plants, order *Apiaceæ*. The species *Œ. crocata*, the Dropwort or Dead-tongne, and *Œ. phellandrium*, the fine-leaved Water-dropwort, are intensely poisonous in most localities. The roots of *Œ. pimpinelloides* are said to be wholesome. These species are often improperly called hemlock.

Œnan'thic Acid, *n.* (*Chem.*) An acid obtained by the destructive distillation of castor-oil.

Œnan'thic Ether, *n.* (*Chem.*) A peculiar compound, upon which the fragrancy and persistent odor of certain wines depend. It remains in the form of an oily liquid, when large quantities of wine are distilled.

Œnan'thole, or ŒNANTHIC ALDEHYDE, *n.* (*Chem.*) A product of the destructive distillation of castor-oil. When purified, it is a clear liquid, of a peculiar pungent smell and taste.

Œnothe'ra, *n.* (*Bot.*) A genus of plants, order *Onagraceæ*. The roots of *Œ. biennis* and other species are

Fig. 1983. — EVENING PRIMROSE, (*Œnothera biennis.*)
a, Flower divested of calyx and corolla to show the parts of fructification; *b*, tuberous root.

edible. The yellow flower of several species expand in the evening; and hence they have been called the evening primrose.

Œn'omel, *n.* [Gr. *oinos,* wine, and *meli,* honey.] Mead; methegliu.

Œnom'eter, *n.* [Gr. *oinos,* wine, and *metron,* measure. Same as ALCOHOLMETER, *q. v.*

O'er, *prep.* and *adv.* A contractiou for OVER, *q. v.*

Er'sted, HANS CHRISTIERN, a Danish natural philosopher, B. 1777. When 12 years of age he became assistaut to his father, who was an apothecary; but in 1794 he entered the university of Copenhagen, where he soon distinguished himself. In 1801 he left Copenhagen ou a lengthened tour through Germany, France, and Holland; and, iu 1806, he was appointed to the chair of natural philosophy iu Copenhagen, where he labored assiduously till his death. It would far exceed our limits to mention the numerous works which Œrsted gave to the world, duriug his loug and brilliant career. In 1819, his labors were crowned by his grand discovery of electro-magnetism. Renowu aud houorable testimonials streamed in upon him from every side. Many learned societies elected him as their momber; the Royal Society of England sent him the Copley Medal, and the Institute of France, as an extraordinary acknowledgment, presented him with one of the mathematical class-prizes worth 3,000 francs. His *Soul of Nature* has been translated into English. D. 1851.

Œ'sel, or ESEL, an island in the Baltic, belonging to Russia, govt. of Livonia or Riga, off the mouth of the Gulf of Riga; Lat. between 58° and 58° 40′ N., Lon. 24° 40′ and 23° E.; *area,* 1,150 sq. m. Its surface is level, and the soil moderately fertile. *Chief town.* Arensburg. *Pop.* 1,800.

Œsophagot'omy, *n.* [Gr. *oisophagos,* the gullet, and *temnein,* to cut.] (*Surg.*) The operation of cutting into the œsophagus to remove any foreign body, which, too large to pass farther, or arrested by a spasm of the muscles of the gullet in the passage, causes the mass to press on the windpipe before it, aud thereby endauger the person's life. The substances that most frequently lodge in the gullet, and require the operatiou of œsophagotomy, are new potatoes, pieces of meat, or lumps of apple, all of them unmasticated, and most frequently swallowed with gluttonous haste.

Œsophagus, (*ē-sof'a-gus,*) *n.* [Gr. *oisophagos,* from *oiō,* to carry, and *phago,* to eat.] (*Anat.*) The gullet, a long muscular tube, the coutinnation of tho pharynx, or hack of the mouth, and descending with a slight curve to terminate on the left eide of tho stomach, at the cardiac opeuing of that organ.

Œs'tridæ, *n. pl.* [Gr. *oistros,* a gad-fly.] (*Zoöl.*) A family of insects comprising diptera which have their antennæ very short and inserted in two little holes upon the forehead; head large, eyes small, with a large space between them; wings large, covering the balancers, and the hind body of the females with a conical tube bent under the body, and with which they deposit their eggs while flying. The larvæ inhabit various parts of the body of herbivorous animals. They are thick, fleshy, without feet, tapering towards the head, which in most cases is armed with two hooks, and the segments of the body are also armed with hooks or prickles. (*Tenney.*)—The Large Bot-fly, *Gasterophilus equi,* the Ox Bot-fly, *Œstus bovis,* the Sheep Bot-fly, *Œphalmgia ovis,* and other species, are found in this country. See GAD-FLY.

Œs'trum, *n.* (*Zoöl.*) One of the ŒSTAINÆ, *q. v.*

—A strong impulse amounting to frenzy.

Œta, (Mount,) (*ee'ta,*) a mountain of Greece, nomarchy of Phthiotis, 9 m. W. of Thermopylæ. Ite principal summits are Aninos and Katahothra, abt. 7,000 ft. above the sea.

Of, (*ŏv,*) *prep.* [A. S.; Ger. *ab;* Lat. *ab;* Gr. *apo;* Sansk. *ava,* and *apa.*] From, or out of; belongiug, pertaining, or relating to; concerning;—employed in various applications, as noting the relation of source, cause, origin, or motive; specifying that from which anything proceeds; as, a man *of* good family. — Expressing the relation of subject to attribute; marking possession, holding, or proprietorship.

"Peace, *of* all worldly blessings, is the most valuable."... *Small.*

—Specifying the material suhstance, or constitnent properties of anything; as, a dress *of* linen, a shower *of* raln. — Implying portion of an aggregate, or appendage to a whole or a numher specified.

"Lo, all that's left *of* him, thy husband's ghost."— *Dryden.*

—Denoting causative power or impelling force.

"It was not *of* my own choice I undertook this work."— *Dryden.*

—Marking congruity, propriety, consequential effect, or that which is fit or appropriate.

"It is *of* the Lord's mercies that we are not consumed." *Lam.* iii. 27.

—Betokeniug reference to, or connection with, a thing;—corresponding with *concerning, about;* as, to tell tales *of* another

"The quarrel is now *of* fame and tribute."—*Ben Jonson.*

—Denoting distance from; equivalent to *from;* as, within a mile *of* the village. — Denoting propinqnity or distance iu point of time; as, it yet wants half an hour *of* the stated time.—Expressing identity or equivalence;—employed with a name or appellation, aud corresponding with the relation of opposition; as, the city *of* Philadelphia, the continent *of* Europe. — Denoting agency, or person by whom, or thing by which, anything is, or is performed.

"A blow whose violence grew *of* fury, not *of* strength."—*Sidney.*

—Describing relation to place or time; as, the architecture *of* the Middle Ages, the people *of* China, in the days *of* our forefathers.

Of late, in later days; recently; in time not long gone by; as, he has changed *of late.* — *Of old,* remotely in time past; formerly; anciently; in days of yore.

"The brave days *of* old."—*Macaulay.*

O'Fal'lon, In *Missouri,* a post-village of St. Charles co., abt. 34 m. W.N.W. of St. Lonis.

O'Fal'lon Depot, in *Illinois,* a post-village of St. Clair co., abt. 18 m. E. of St. Louis, Missouri.

Ofan'to, a river of S. Italy, rising In the province of Principato Ulteriore, 6 m. E. of Monte Marano, and after an E.N.E. course of 75 m., flowing Into the Adriatic 4 m. N.W. of Barletta. Near its mouth was fought the famous battle of Cannæ, in which the Romans were defeated by Hannibal.

Off, *a.* [The same word as *of,* differently applied.] Most distant; on the opposite or further side; — opposed to *near* or *nearest;* as, the *off* leader iu a team of horses.

Off side, the right haud in driving. In England the rule is reversed.

Off, *adv.* From, noting distance; as, the place is far *off.* From, with the action of removing or separating; as, to fly *off,* to cut *off,* to tear *off,* to march *off.* — From, denoting departure, abatement, remission, &c.; as, the skin came *off,* the fever goes *off,* to take discount *off.*—From; away; not toward; — implying a different direction. "Neither she could look on, nor would look *off.*" (*Sidney.*) — The opposite side of a question or argument.

"The questions in no way touch upon Puritanism, either *off* or on." *Sanderson.*

From off, off; off from. — *Off-hand,* spontaneous; without study or preparation; extempore; as, to write an epigram *off-hand.* — *Off and on,* at oue time active and engaged, theu inert and absent.

"Competitions intermit and go *off and* on as it happens." *L'Estrange.*

(*Naut.*) Fetching the land on differeut tacks, now going toward, and now receding from. — *To be off,* to depart; to recede from an intended agreement or design. (Colloq.)

To come off, to escape, or to fare in so doing; as, he narrowly *came off* with his life. — To take place; to occur, as a puhlic performance; as, when does the affair *come off?*

To get off, to effect escape; as, he *got off* with difficulty. — To alight; to come down; as, to *get off* one's horse.— *To go off,* to depart; to desert; to abaudon; to leave; as, he has *gone off* without ceremony. — To he discharged; to become ignited, as a gun. — *To take off,* to remove; to take away; as, she quickly *took* herself *off.* — To persouate; to portray; to mimic; to assume the character of; as, to *take off* a person's peculiarities of manner. — *Well off, badly off, ill off,* having good or ill fortune or success.

Off, *prep.* Not on; as, "I was never *off* my legs a day." *Temple.*

Off, *interj.* Hence; away; begone; — a command to depart, usually implying some degree of impatience, contempt, or aversiou.

Offal, *n.* [D. *afval;* Ger. *abfall.*] Waste meat; the parts of the carcass of an animal which are rejected as unfit for food. — Carrion; putrid flesh.

"I should have fatted all the kites with this slave's *offal.*"—*Shake.*

—Refuse; that which is thrown away as of no value; rubbish; scraps.

"What trash is Rome; what rubbish and what *offal.*"—*Shake.*

Off'cut, *n.* (*Printing.*) That part of a printed sheet which cuts off, and which when folded is inserted in the middle of the other part, forming together a regular and orderly succession of all the pagee in the signature.

Offenbach, (*ŏf'f'n-bahk,*) JACQUES, a popular musical composer, B. at Cologne, 1819, studied in Paris, and became famous for his light and sparkling "musical buffooneries." The best of theee hnrlesque operas are: —*La Grande Duchesse, Orphée aux Enfers,* and *La Belle Hélène.* D. 1880. His posthumous opera *Les Contes d'Hoffman* was given with success iu New York in 1882.

Offenbach, a city of Central Germany, grand-duchy of Hesse-Darmstadt, on the Main, 5 m. S.E. of Frankfort, aud 17 N.E. of Darmstadt. *Manuf.* Silk and cotton stockings, cotton fahrics, carriages, iron-ware, jewelry, carpets, tobacco, snnff, &c.

Offenburg, a town of Germany, grand-duchy of Baden, circle of the Middle Rhine, on the Kinzig, 17 m. S.S.W. of Carlsruhe; *pop.* 4,200.

Offence', (sometimee written OFFENSE,) *n.* [Fr. *ffense;* Lat. *offensio,* from *offendo,* to offend. See OFFEND.] Act of striking against; act of offending or of exciting displeasure; injury.

—Any violation of law, divine or human; act of wickedness, or of omission or dereliction of duty; a crime; a sin; a fault; a transgression.

"O my *offence* is rank . . a brother's murder."—*Shaks.*

—That which excites anger; that which offends.

"What dire *offence* from amorous causes springs."—*Pope.*

—Cause f stumhling; cause of being offended or angered; displeasure.

"The pains of the touch are greater than the *offences* of other senses."—*Bacon.*

—Anger; displeasure; state of heing offended; as, he gave no just cause of *offence.*

(*Law.*) The doing that which a penal law forbids to be done; or omitting to do what it commands. In this sense, it is nearly synonymous with crime. In a more confined sense, it may be considered as having the same meaning with misdemeanor; but it differs from it in this, that it is not indictable, hut punishable summarily for the forfeiture of a penalty.

Offence'less, *a.* Unoffending; inoffensive; giving no ground for offenco or displeasure.

Offend', *v. a.* [Lat. *offendo* — *ob,* and obsol. *fendo.*] To affront; to make angry; to displease; as, I regret that I have *offended* her. — To pain; to shock; to wound; to annoy; to injure; as, a bad smell *offends* the nose. —To transgress; to violate; as, many fear to *offend* the law. — To disturh, annoy, molest, or cause to fall, halt, or stumble.—To canse to sin, or ignore or neglect dnty; to allnre to evil; to obstruct in obedience.

"If thy right eye *offend* thee, pluck it out."— *Matt.* v. 29.

—*v. n.* To sin; to transgress or violate the moral or divine law; to commit a crime or misdemeanor. — To excite or occasion dislike, anger, or dissatisfaction. — To be made to stumble or bluuder; to be outraged or scandalized.

To offend against, to act offensively or injurious toward. — To commit an offence against.

"Our language, in many instances, *offends against* every part of grammar."— *Swift.*

Offend'ant, *n.* Au offender; one who offends. (R.)

Offend'er, *n.* One who gives offence; one who transgresses auy law, diviuc or human; one who commits a crime or iujury; a delinquent; a misdemeanant; a transgressor.

Offen'sive, *a.* [Fr. *offensif,* from Lat. *offendo, offensus.*] Causiug offence; exciting displeasure or some degree of auger; displeasing; as, *offensive* words or actions. — Causing pain or disagreeable sensations; obnoxious; repuguant; as, an *offensive* sight, taste, or smell. — Occasioning ill or injury; injurious; mischievous; as, bile is *offensive* to the stomach. — Assailant; used in attack;—opposed to *defensive;* as, an *offensive* weapon. —Making the initiatory attack; invading; aggressive; —correlative to *defensive;* as, an *offensive* war.

League offensive and defensive, a league or confederacy necessitating both or all parties to act in concert together against a common enemy, whether in attacking or in defending the other in the event of boing attacked.

—*n.* The part of attacking; state or posture of attack; —opposed to *defensive;* as, our troops assumed the *offensive.*

To act on the offensive, to be the party which attacks.

Offen'sively, *adv.* In a manner to cause anger, displeasure, or umbrage; injuriously; mischievously; disagreeably; by way of invasion or first attack.

Offen'siveness, *n.* The quality that offends or displeases; injuriousness; mischief; cause of disgust.

Of'fer, *v. a.* [Fr *offrir;* Lat. *offero* — *ob,* and *fero,* to bear, carry, bring. See BEAR.] To hring to or before; to present for acceptance or rejection; to show; to furnish; to give. — To propose; to tender; to proffer; to make a proposal to. — To sacrifice; to immolate; to preseut in prayer or devotion. — To bid, as a price, reward, or wages.

—*v. n.* To present itself; to be at hand.—To present verbally; to declare willingness.

—*n.* [Fr. *offre.*] A proposal to be accepted or rejected; presentation to choice; first advance; act of bidding a price, or the sum bid.

Of'ferable, *a.* That is worthy of heing offered.

Of'fered, *p. a.* Presented for acceptauce or rejection. — Presented in worship or devotion; Immolated. — Bid. — Presented to the eye or the mind.

Of'ferer, *n.* One who offers; one who sacrifices or dedicates in worship.

Of'fering, *n.* Act of one who offers; that which is offered or presented.

(*Eccl.*) A gift presented to the deity. A principal part of the religious service of all the nations of antiquity consisted in offerings to a divine heing, from a feeling of dependence upon him and a desire to propitiate his favor. Such offerings took their character from the mode of life of those who presented them. Herdsmen and hunters offered beasts, husbandmen fruits of the earth; each selecting the choicest of what he possessed. Prisoners taken in war, slaves, and even their own children, were frequently offered by rude and cruel nations to their idols. Among the ancient Hebrews, offerings were of several kinds, some being free-will, others by obligation. The first-fruits, the tenths, the sin-offerings, were of obligation; the peace-offerings, vows, offerings of wine, oil, bread, aud other things made to the Temple or to the ministers of Jehovah, were offerings of devotion. Sacrifices were not commonly included under the name of offerings. In a modern sense, the term *offering* is applied to certain ecclesiastical dues payable by custom. This latter custom has obtained from the first period of Christianity, when, as in our days in this country, those who officiated at the altar had no other maintenance or allowance than the free gifts or offerings (*oblationes*) of the people.

Of'fertory, *n.* [Fr. *offertoire;* L. Lat. *offertorium,* from Lat. *offero.*] (*Eccl.*) In the Roman Catholic Church, the first part of the Mass, in which the priest prepares the elements for consecratiou. In the office of the Church of England communion, it denotes the sentences which are recited by the officiating priest while the people are making their ohlations or offerings.

Off'-hand, *a.* [*Off* and *hand.*] Speedily sent from the hand; done without study or hesitation; unpremeditated; done or said at a moment; done or said without hesitation or previous preparation.

—*adv.* On the spur of the moment; promptly; without premeditation or delay.

Of'fice, *n.* [Fr.; Lat. *officium* — *ob,* and *facio,* to make, to do. See FACT.] That which one does or ought to do for another; a service; a particnlar duty, charge, or trust conferred by public authority and for a public purpose; an employment undertaken by commission or authority from government, or those who administer it; a dnty, charge, or trust of a sacred nature conferred by God himself; duty or employment of a private nature; that which ie performed, intended, or assigned to be done by a particular thing, or that which anything is fitted to perform; function; business; particular employment; act of good or ill voluntarily tendered; a service; a kindness, favor, or courtesy. — Formulary

of devotion. — A house, apartment, or place in which business is transacted.

Office-bearer, *n.* One who holds or discharges an office.

Of'ficer, *n.* A person invested with an office, either civil or military; a person commissioned or authorized to perform any public duty; one who holds a command in the army or navy; one authorized to take into legal custody.

—*v. a.* To furnish with officers; to appoint officers over.

Official, (*o-fish'yal,*) *a.* [Fr. *officiel;* Lat. *officialis,* from *officium.* See OFFICE.] Pertaining to an office or public trust; derived from the proper office or officer, or from proper authority; made or communicated by virtue of authority.

—*n.* [Fr.] An ecclesiastical judge appointed by a bishop, chapter, archdeacon, &c., with charge of the spiritual jurisdiction.

Offi'cially, *adv.* By the proper officer; by virtue of the proper authority; in pursuance of the special powers vested.

Offi'cialty, *n.* (*Common Law.*) The court of an official.

Offi'ciary, *a.* That relates to an officer; official.

Offi'ciate, *v. n.* [Fr. *officier,* to read divine service.] To transact the appropriate business of an office or public trust. — To perform the appropriate official duties of another.

Offi'ciating, *p. a.* Performing the appropriate duties of an office; performing the office of another.

Offi'ciator, *n.* One who officiates.

Offic'inal, *a.* [Fr., from Lat. *officina,* contracted from *opificina,* a workshop, from *opifex, opificis,* an artificer, a workman — *opus,* a work, and *facio,* to make, to do.] Pertaining to those medicines which are directed in the pharmacopœia to be kept in apothecaries' shops.

Offi'cious, *a.* [Fr. *officieux;* Lat. *officiosus,* from *officium.* See OFFICE.] Kind; obliging; doing kind offices; ready to serve; excessively forward in kindness. — Importunately interposing services; busy; intermeddling in affairs in which one has no concern.

Offi'ciously, *adv.* Kindly; with solicitous care. — With importunate or excessive forwardness; in a busy or meddling way.

Offi'ciousness, *n.* Quality of being officious: eagerness to serve; — unduly, an excess of zeal to serve others, or improper forwardness.

Offing, *n.* (*Naut.*) A part of the sea at a considerable distance from the shore where there is deep water. Thus, if a ship from shore be seen sailing out towards the sea, they say, "she stands for the *offing.*"

Offscour'ing, *n.* [*Off* and *scour.*] That which is scoured off; — hence, refuse; rejected matter; that which is vile or despised; scum.

Offscum, *n.* Refuse; offscouring.

Offset, *n.* [*Off* and *set.*] (*Book-keeping.*) A sum, account, or value set off against another sum or account as an equivalent.

(*Surveying.*) A narrow, irregular slip of ground, on the outside of lines which include the main portion; also, a perpendicular let fall from the stationary lines to the hedge, fence, or extremity of an inclosure.

(*Gardening.*) A young radical bulb when separated or taken off from the parent roots; also, short lateral shoots bearing clustering leaves at the extremity. One of the chief methods of propagating plants is by means of offsets.

(*Arch.*) See SET-OFF.

—*v. a.* To set off, as one account against another; to make the account of one party pay the demand of another.

Offset-staff, *n.* (*Surveying.*) A rod, usually 10 links in length, for measuring offsets.

Offshoot, *n.* An offset or shoot of a plant; applied also to anything arising from or growing out of another.

Off-side, *n.* The right, or right-hand side.

Offskip, *n.* The part of a landscape which recedes from the spectator into distance.

Offspring, *n.* That which springs from. — A child or children; a descendant or descendants; propagation; generation; issue; progeny; posterity. — Production of any kind.

Offus'cate, *v. a.* [Fr. *offusquer.*] To cloud; to obfuscate.

Offusca'tion, *n.* [Lat. *offuscatio.*] The act of darkening; obfuscating.

Offward, *a.* (*Naut.*) Inclining with the side to the water, as a ship when aground.

Oft, *adv.* [A. S. and Ger. *oft,* often, oftener, oftenest.] Often; frequently; not rarely.

Often, (*of'n,*) *adv.* [A. S. *oft.*] Frequently; many times; not seldom.

—*a.* Frequent. (R.)

Often-bearing, *a.* (*Bot.*) Producing more than twice in one season.

Oftenness, *n.* Frequency. (R.)

Oftentimes, Oft'times, *adv.* Many times; frequently; often.

Oft'times, *adv.* Frequently; often.

Og. (*Script.*) A giant Amoritish king of Bashan east of the Jordan, defeated and slain by the Israelites under Moses.

Og'den, in *Indiana,* a post-village of Henry co., abt. 42 m. E. of Indianapolis.

Og'den, in *Iowa,* a post-town of Boone co., 54 m. N.W. of Des Moines. *Pop.* (1895) 897.

Og'den, in *Kansas,* a post-village of Riley co., about 12 m. S.W. of Manhattan.

Og'den, in *Michigan,* a post-township of Lenawee co.

Og'den, in *Missouri,* a village of New Madrid co., about 140 m. S.S.E. of St. Louis.

Og'den, in *New York,* a post-township of Monroe co. *Pop.* (1897) 2,642.

Og'den, in *Utah,* a city and R. R. center, cap. of Weber co., 37 m. N. of Salt Lake City. *Pop.* (1895) 15,828.

Og'densburg, in *Minnesota,* a village of Winona co., about 13 m. N.W. of Winona.

Og'densburg, in *New Jersey,* a post-village of Sussex co., about 22 m. N.N.W. of Morristown.

Og'densburg, in *New York,* a city, port of entry of St. Lawrence co., on the St. Lawrence river, at the mouth of the Oswegatchie, and on the site of Fort Oswegatchie, about 200 m. N.N.W. of Albany. The chief imports are grain, flour, beef, pork, iron, and coal. *Pop.* (1897) 12,750.

Og'densburg, in *Wisconsin,* a post-village of Waupaca co., abt. 45 m. N.W. of Oshkosh.

Ogee', *n.* (*Arch.*) See CYMA.

Ogee'chee, or LITTLE OGEECHEE, in *Georgia,* a river rising in Taliaferro co., and after a general S.E. course of abt. 250 m. enters the Atlantic Ocean between Chatham and Bryan cos.

Ogive, (*ō'jiv,*) *n.* [Fr.] (*Arch.*) A name applied to arches or branches of a Gothic vault, which, instead of being circular, pass diagonally from one angle to another, and form a cross with the other arches, which make the side of the square of which the ogives are diagonals. The centre, where the ogives cross each other, is called the *key,* and is sometimes carved in the form of a rose or a *cul-de-lampe.*

O'gle, *v. a.* [Ger. *äugeln,* to twinkle, to open and shut the eyes; Du. *oogen,* the eye, to have an eye upon one, from *oog,* the eye; Lat. *oculus.* See EYE.] To eye; to view with side glances, as in fondness, or with a design to attract notice.

—*n.* A side glance or look.

Ogle, in *Illinois,* a N. co.; *area,* about 780 sq. m. *Rivers.* Rock and Leaf rivers, and Elkhorn and Pine creeks. *Surface,* nearly level; *soil,* very fertile. *Products.* Grain, hay, butter, &c. Intersected by three railroads. *Cap.* Oregon. *Pop.* (1890) 28,710.

—A village of the above co.

O'gler, *n.* One who ogles.

Oglethorpe (*o'gl-thorp*), in *Georgia,* a N.E. co.; *area,* about 528 sq. m. *Rivers.* Broad and Oconee rivers, and Beaverdam, Cloud's, Millstone, and Long creeks. *Surface,* hilly; *soil,* generally fertile. *Min.* Iron, jasper, agate, and granite. *Cap.* Lexington. *Pop.* (1890) 16,951.

—A post-village, cap. of Macon co.

Oglethorpe, JAMES EDWARD, B. at London, Dec. 21, 1698. In 1732 he obtained a charter and a grant for the founding of Georgia. Savannah was founded the following year. During the war between Great Britain and Spain, he commanded the Georgia and South Carolina forces in an invasion of Florida. He returned to England in 1743, and in 1745 served against the Pretender. He was retired from the army in 1765, as a general, upon half pay. Died at Cranham Hall, Essex, Jan. 30, 1785.

O'gling, *n.* The act of viewing with side glances.

Oglio, or **Ollio,** (*ol'yo,*) a river of N. Italy, rising in the Rhætian Alps, and after a S. course of 130 m. joining the Po at Terre d'Oglio, 10 m. S.W. of Mantua.

Ogre, (*ō'ger,*) *n.* [A. S. *orc,* hell, a goblin; Fr. *ogre;* It. *orco,* a hobgoblin, from Lat. *Orcus,* Gr. *Horkos,* a divinity who punishes the false and perjured; or from the *Ogurs,* or *Onogurs,* a savage Asiatic horde, which overran part of Europe about the middle of the 5th century.] An imaginary monster or hideous giant in fairy tales, who lived on human beings.

O'gress, *n.* A female ogre.

Ogyges, (*oj'i-jeez,*) said to have been the first king of Attica and Bœotia, in the 18th century B. C. In his reign occurred the great deluge that covered the whole of Greece. According to some, the name belongs not to a king, but to the deluge above mentioned.

Oh, O, *exclam.* A word denoting surprise, pain, sorrow, or anxiety. See O.

Ohi'o, (*La Belle Rivière* of the French,) a large river of the U. States, formed by the junction, at Pittsburg, of the Alleghany and Monongahela. Its level at this point is stated to be about 830 ft. above the Atlantic; its width somewhat exceeds 600 yards; and it immediately assumes that broad, placid, and beautiful aspect which it maintains, except at the rapids of Louisville, all the way to its confluence with the Mississippi. Its valleys are of great depth and fertility, generally high, dry, and healthy; and the country on both sides presents a variety of scenery not elsewhere to be found in the Mississippi valley. The *O.* varies in breadth from 400 to 1,400 yards. At Cincinnati it is nearly 600 yards, which may be taken as its mean breadth. At Louisville, at the rapids, the descent of the river, in 2 m., is 22½ ft.; but the current is not so broken but that boats have, in many instances, ascended the falls. A canal, however, 2 m. in length, and 200 ft. wide, with a depth sufficient for large steam-boats, was completed in 1831, by which the rapids are avoided. The rise of the river, during the floods, which occur between March and July, varies from 45 to 60 ft.; but in the dry season it may be forded, in several places, near Louisville. Its higher parts are annually frozen over, and the navigation is usually suspended 8 or 10 weeks, during winter, by floating ice. Its current, when at mean height, is estimated at 3 m., and, when very low, at 2 m. per hour. It has many islands; but there are none between the States of Ohio and Kentucky. The principal cities and towns on the *O.*, below Pittsburg, are Wheeling, Gallipolis, Cincinnati, Louisville, and Jeffersonville. The length of the river, from Pittsburg to the Mississippi, including its windings, is abt. 950 m. It enters that river nearly in a S.E. direction. The *O.* separates Virginia and Kentucky on the S., from Ohio, Indiana, and Illinois, on the N. Its N. affluents are, the Big Beaver, Muskingum, Scioto, and Wabash, the last of which is navigable for 400 m. from its mouth; the S. tributaries are, the Kenhawa, Sandy, Green, Cumberland, and Tennessee, all rising on the W. side of the Alleghanies, and flowing, by very tortuous courses, through some of the richest districts of the U. States. The last two rivers are navigable for steamers, during spring, upwards of 200 m. from their mouths; and the *O.*, with its feeders, cannot have less than 5,000 m. of navigable waters. It is traversed, in all directions, by an immense number of steamers; and taking all circumstances into account, few rivers can vie with it, either in utility or beauty.

Ohi'o, a large and important State of the American Union, between Lat. 38° 30′ and 42° N., and Lon. 80° 28′ and 84° 42′ W., and deriving its name from the magnificent river Ohio, which forms the whole of its S.E. and S. boundary, separating it from West Virginia and Kentucky; on the E. it has Pennsylvania; W., Indiana; and N., Michigan and Lake Erie. Length, N. to S., 200 m.; breadth, E. to W., 195 m.; *area,* 39,962 sq. m., or 25,576,960 acres. — *Gen. Desc.* This State comprises about one-third of the region sloping from the Alleghanies in Pennsylvania down to the Mississippi. It possesses no very elevated hill ranges, but consists almost wholly of a table-land elevated from 600 to 1,000 ft. above sea-level, the central position of the State being the highest. This, also, which is its least fertile portion, is in parts interspersed with swamps and marshes. The declivity toward Lake Erie is much more abrupt than the S. slope of the State, and the country is here also in parts marshy; that portion of the surface which declines towards the Ohio, and is the most extensive, is diversified with hills and valleys, and, on the whole, fully nine-tenths of the surface are susceptible of cultivation, nearly three-fourths being preeminently fertile. The hills are generally cultivable to their summits, and the river bottoms are exuberantly productive. The surface of the central and N. and W. parts is level and moderately rolling, consisting of forest and prairie. The E. and S.E. are somewhat hilly, becoming rather rough and broken on the banks of the Ohio. A ridge of highlands is found crossing the N. half of the State from E. to W., forming the watershed between the streams flowing into Lake Erie and those emptying into the Ohio. Extensive timber tracts, in former times denominated the "barrens," were found between the Scioto and Great Miami rivers, many of which, by the prevention of fires, are again covered with forest growth, and in this section of the State timber is becoming more abundant than it was half a century ago. — *Rivers.* The State is amply watered; besides the Ohio, with its affluents, the Scioto, and Great and Little Miami, there are the Muskingum, the Maumee, Sandusky, Huron, and Cuyahoga rivers, all having their outlet in Lake Erie, and draining the N. part of the State. Lake Erie extends along two-thirds of the N. frontier, with a shore-line of 200 m., including Maumee and Sandusky bays, forming fine harbors within the limits of the State. — *Geol. and Min.* The geological formations are nearly all secondary, comprising limestone, lias, saliferous and ferriferous rocks, sandstone, greywacke; &c., in horizontal strata. The great bituminous coal-field of Pennsylvania and Virginia projects into the E. and S.E. parts of the State, among the western foot-hills proper of the Alleghany mountain system, its W. boundary extending from the N.E. corner of Trumbull co., through the cos. of Portage, Wayne, Knox, Licking, and Fairfield, to the mouth of the Scioto. The coal-fields cover, in the aggregate, an estimated superficies of 12,000 sq. m., extending through 20 cos., and embrace nearly one-third of the area of the entire State. There are numerous seams, varying from a few inches to 13 feet in thickness, and estimated to contain 20,000,000,000 tons. More than 14,000,000 tons of bituminous coal were mined in the State in 1897. To the N.W. of the coal measures is found a very narrow belt of the underlying coal conglomerate, forming the rim of the coal basin. To this succeed the Chemung and Portage groups, and other formations in the downward series of the Devonian and Silurian systems. Salt springs are numerous within the carboniferous limits, and large quantities of this mineral are manufactured for market, being obtained by evaporating the brine. Iron is found in abundance between the Licking and Muskingum rivers, near Zanesville, and in the Ohio near the S.W. corner of Adams co., and more particularly in the cos. of Lawrence, Gallia, Jackson, Meigs, Vinton, Athens, Hocking, Perry, and Licking. The ore obtained in some of these counties is of very superior quality, being suited to the finer class of castings; it is computed to cover an area of 1,200 sq. m., and has laid the foundation of a very extensive iron interest in the S. part of the State. In the N. the furnaces are supplied with the raw material from the Lake Superior mines. Petroleum also forms an important mineral product of the State. The first well was sunk in 1859, and in 1873 the natural gas which accompanies the oil was first turned to practical use. This important substance is now largely employed for manufacturing purposes, especially in glass-making. A deep well bored in Find-

Fig. 1984. — SEAL OF THE STATE.

James Edward Oglethorpe

1698–1785

OHIO

SCALE OF MILES

10 5 0 10 20 30 40 50

State Capital ⊛ County Seats ⊙

Places of 300,000 and over	CLEVELAND
" " 100,000 to 300,000	Toledo
" " 25,000 to 100,000	Akron
" " 10,000 to 25,000	Mansfield

Hammond's 8 x 11 Map of Ohio

Copyright, 1904, by C.S. Hammond & Co., N.Y.

W. 82 Longitude, J West 81 30 from K Greenwich 81

MICHIGAN

INDIANA

KENTUCKY

WEST VIRGINIA

PENNSYLVANIA

ERIE

LAKE ERIE

523 feet above mean sea level

Toledo

Cleveland

Columbus

Springfield

Sandusky

Akron

Canton

Youngstown

Cincinnati

Portsmouth

Ironton

Athens

Marietta

Pittsburg

Wheeling

Parkersburg

Point Pelee

Middle Sister I.

E. Sister I.

Light House

Hen I.

Pt. Pelee I.

Little Chick I.

W. Sister I.

Isle St George

Sugar I.

L. H.

Middle I.

Turtle I.

Maumee Bay

Cedar Pt.

Put-in-Bay

Kelley's I.

Marblehead

Catawba I.

Lorain

Vermilion

Rocky River

Conneaut Harbor

Light House

Ashtabula Harbor

Fairport Harbor

Grand River

Mentor Harbor

Painesville

Conneaut

Ashtabula

Geneva

Jefferson

Austinburg

Pierpont

Andover

Orwell

Stanhope

Kinsman

Farmington

Johnsville

Cortland

Bristolville

Gustavus

Greenville

Meadville

Titusville

Oil City

Franklin

Allegheny R.

Mercer

Branchtown

Butler

Callery

Rochester

Allegheny City

Pittsburg

Conway

Beaver

Wellsville

Steubenville

Cadiz

Bellaire

Barnesville

Woodsfield

Caldwell

Cameron

Moundsville

Glen Easton

Benwood

Waynesburg

Brownsville

Conzer

Mannington

Fairmont

Middlebourne

Rinehart

Pennsboro

West Union

Clarksburg

Volcano

Parkersburg

Ritchie C.H.

Ravenswood

Millwood Jc.

Point Pleasant

Jackson C.H.

Spencer

Apple Grove

Chambersburg

Bushs Mill

Portsmouth

Ironton

Coalgrove

Labelle

Victorville

Ashland

Catlettsburg

Kenova

Huntington

Greenup

Hanging Rock

Maysville

Vanceburg

Aberdeen

Ripley

Manchester

Tulip

Koppa

Friendship

Buena Vista

Quincy

Powelsville

Franklin

Haverhill

Vesuvius

Marion

Dobbston

Labelle

Victorville

Coalgrove

S. Point

Ashland

Catlettsburg

Kenova

Huntington

Ohio River

Scioto River

Muskingum River

Kanawha River

Little Kanawha R.

Hocking River

Licking River

Great Miami River

Maumee River

Wabash R.

St. Joseph R.

St. Mary's R.

Auglaize R.

Tuscarawas R.

Cuyahoga R.

Grand R.

Chagrin R.

Conneaut Cr.

Ashtabula R.

Rocky R.

Vermilion R.

Black R.

Huron R.

Sandusky R.

Portage R.

Honey Cr.

Tymochtee Cr.

Olentangy R.

Big Walnut Cr.

Alum Cr.

Big Darby Cr.

Little Miami R.

Mill Cr.

Whitewater R.

Miami R.

Stillwater R.

Loramie Cr.

Mad R.

Buck Cr.

Honey Cr.

Wills Cr.

Duck Cr.

Little Muskingum R.

Middle Island Cr.

Meigs Cr.

Raccoon Cr.

Symmes Cr.

Big Sandy R.

Guyandotte R.

Twelve Pole Cr.

Ohio Co.

Brooke Co.

Hancock Co.

Jefferson Co.

Columbiana Co.

Mahoning Co.

Trumbull Co.

Ashtabula Co.

Lake Co.

Geauga Co.

Cuyahoga Co.

Summit Co.

Medina Co.

Lorain Co.

Erie Co.

Huron Co.

Richland Co.

Ashland Co.

Wayne Co.

Holmes Co.

Tuscarawas Co.

Carroll Co.

Harrison Co.

Belmont Co.

Monroe Co.

Noble Co.

Washington Co.

Morgan Co.

Perry Co.

Muskingum Co.

Guernsey Co.

Coshocton Co.

Knox Co.

Licking Co.

Fairfield Co.

Pickaway Co.

Ross Co.

Vinton Co.

Meigs Co.

Gallia Co.

Jackson Co.

Scioto Co.

Lawrence Co.

Hocking Co.

Athens Co.

Morgan Co.

Perry Co.

Fayette Co.

Clinton Co.

Warren Co.

Hamilton Co.

Butler Co.

Preble Co.

Montgomery Co.

Greene Co.

Clark Co.

Champaign Co.

Miami Co.

Darke Co.

Shelby Co.

Auglaize Co.

Mercer Co.

Van Wert Co.

Paulding Co.

Defiance Co.

Williams Co.

Fulton Co.

Henry Co.

Lucas Co.

Wood Co.

Ottawa Co.

Sandusky Co.

Seneca Co.

Wyandot Co.

Hardin Co.

Marion Co.

Morrow Co.

Union Co.

Delaware Co.

Logan Co.

Shelby Co.

Darke Co.

Miami Co.

Champaign Co.

Clark Co.

Greene Co.

Montgomery Co.

Preble Co.

Butler Co.

Hamilton Co.

Clermont Co.

Brown Co.

Adams Co.

Lawrence Co.

Scioto Co.

Pike Co.

Ross Co.

Highland Co.

Clinton Co.

Warren Co.

Fayette Co.

Madison Co.

Pickaway Co.

Fairfield Co.

Hocking Co.

Vinton Co.

Meigs Co.

Gallia Co.

Jackson Co.

Athens Co.

Perry Co.

Morgan Co.

Washington Co.

Monroe Co.

Noble Co.

Guernsey Co.

Muskingum Co.

Coshocton Co.

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Pickaway Co.

Ross Co.

Vinton Co.

Meigs Co.

Gallia Co.

Jackson Co.

Scioto Co.

Lawrence Co.

Hocking Co.

Athens Co.

OHIO.

Land surface, Sq. m. 40,760
Water surface, Sq. m. 300
Pop. 1900...4,157,545
White ..4,060,204
African.. 96,901
Indian 42
Chinese.....371
Japanese 27
Native-born, 3,698,811
Foreign-born, 458,734
Males ..2,102,655
Females2,054,890

COUNTIES.

Adams.. .....F 7
Allen.. .. ....D 3
Ashland.....H 3
Ashtabula.....L 1
Athens.....H 6
Auglaize.....D 3
Belmont.. ....K 4
Brown.....E 7
Butler. .....C 6
Carroll..... K 3
Champaign...E 4
Clark..... ...E 5
Clermont.....D 7
Clinton.....E 6
Columbiana...L 3
Coshocton.....J 4
Crawford.....G 3
Cuyahoga.....J 2
Darke.....C 4
Defiance.....C 2
Delaware.....F 4
Erie.....G 2
Fairfield .....G 5
Fayette.....F 5
Franklin .....F 4
Fulton .....D 1
Gallia.....H 7
Geauga.....K 1
Greene.....E 5
Guernsey ....K 4
Hamilton.....C 6
Hancock.....E 3
Hardin.....E 3
Harrison.....K 4
Henry.....D 2
Highland.... .E 6
Hocking.....H 5
Holmes.....J 3
Huron.....G 2
Jackson.....G 6
Jefferson.....L 4
Knox.....H 4
Lake.....K 1
Lawrence .....G 7
Licking.....G 4
Logan ....E 4
Lorraine.....H 2
Lucas.. .....E 1
Madison.....F 5
Mahoning ....L 2
Marion..... ....F 3
Medina .....J 2
Meigs.....H 6
Mercer.....C 3
Miami.....D 4
Monroe .....K 5
Montgomery..D 5
Morgan.....J 5
Morrow.....G 3
Muskingum ...J 4
Noble.....J 5
Ottawa.....F 1
Paulding.....C 2
Perry.....H 5
Pickaway.. ...F 5
Pike ....F 6
Portage.....K 2
Preble .....C 5
Putnam..... D 2
Richland.....G 3
Ross .....F 6
Sandusky.....F 2
Scioto..... .G 7
Seneca.....F 2
Shelby .....D 4
Stark.....K 3
Summit .....J 2
Trumbull.....L 2
Tuscarawas....J 4
Union.....F 4
Van Wert.....C 3
Vinton .....G 6
Warren.. .....D 6
Washington...J 6
Wayne. .....J 3
Williams.. ...C 1
Wood.....E 2
Wyandot.....F 3

CITIES-TOWNS

Pop. Thousands.

381 Cleveland..J 1
325 Cincinnati C 6
131 Toledo ....E 1
125 Columbus F 4
85 Dayton.....D 5
44 YoungstownL2
42 Akron .....J 2
38 Springfield E 5
30 Canton.... K 3
23 Hamilton ..C 6
23 Zanesville .H 5
21 Lima... ....D 3
19 Sandusky...G 2
18 Newark .. H 4
17 Portsmouth G 7
17 Mansfield ..G 3
17 Findlay ....E 2
16 E.Liverpool L 3
16 Lorain .....H 2
14 Steubenville L4
13 Marietta....K 6
12 Chillicothe G 6
12 Ashtabula..L 1
12 Piqua .....D 4
11 Massillon....J 3
11 Ironton ....G 7
11 Marion.....F 3
10 Tiffin .. ....F 2
9 Bellaire .... L 4
9 Middletown.D 5
8 Lancaster...G 5
8 Alliance ....K 3
8 Elyria.....H 2
8 Xenia . .....E 5
8 Warren ..... L 2
8 Fremont ....F 2
8 Cambridge...J 4
8 Wellston ....G 6
7 Delaware ....F 4
7 Martins Ferry..L 4
7 Fostoria ... F 2
7 Salem. .....L 3
7 Defiance ....D 2
7 Niles.....L 2
7 Galion.....G 3
7 Conneaut ...L 1
7 Norwalk ....G 2
6 Circleville...G 5
6 Kenton.....E 3
6 Urbana .....E 4
6 Bellefontaine..E 4
6 Mt. Vernon..H 4
6 Bucyrus. ...G 3
6 Coshocton...J 4
6 Van Wert ...C 3
6 New Philadelphia...K 4
6 Wooster.....J 3
6 Newburg.....J 2
5 Troy .....D 4
5 Washington.F 5
5 Sidney .....D 4
5 Greenville...C 4
5 Gallipolis...H 7
5 Canal Dover.J 3
5 Nelsonville..H 6
5 St. Mary's...D 3
5 Bowling Green..E 2
5 Painesville..K 1
4 Shelby.....G 3
4 Jackson.....J 6
4 Pomeroy....H 6
4 Uhrichsville.K 4
4 Kent .....K 2
4 Hillsboro .. E 6
4 Delphos .....D 3
4 Barberton ..K 2
4 Bellevue.... G 2
4 Ashland ....H 3
4 Oberlin .....H 2
4 Ravenna.....K 2
3 Greenfield ..F 6
3 Bridgeport..L 4
3 Miamisburg.D 5
3 WapakonetaD 3
3 Dennison....K 4
3 Barnesville. K 5
3 Napoleon....D 2
3 Wilmington.E 6
3 N.Baltimore.E 2
3 Toronto.....L 4
3 London.....F 5
3 Logan.....H 5
3 Upper Sandusky..F 3
3 Lakewood...J 1
3 Lisbon .....L 3
3 Crestline....G 3
3 Eaton.....C 5
3 MadisonvilleD 6
3 Bryan .....C 2
3 Reading.....D 6
3 Athens.....H 6
3 Marysville...F 4
2 Shawnee....H 5
2 Mingo Jc....L 4
2 Waverly ... G 6
2 Lebanon ....D 6
2 Celina .....C 4
2 Middleport .H 6
2 E. Cleveland J 1
2 Leetonia ....L 3
2 Franklin....D 5
2 Lockland....D 6
2 New Comers-town..J 4
2 Girard.....L 2
2 Ada .....E 3
2 Hicksville...C 2
2 Clyde.....G 2
2 Berea.....J 2
2 E. Palestine..L 3
2 Port Clinton.G 1
2 Salineville ..L 3
2 Chicago Jc..G 2
2 S. Brooklyn..J 2
2 Geneva.....L 1
2 Ottawa.....D 2
2 New Straitsville..H 5
2 Ripley.....E 7
2 Medina .....J 2
2 Glouster.....H 5
2 Wauseon....D 1
2 Wellington .H 2
2 Paulding....C 2
2 Fairport....K 1
2 Oxford .....C 5
2 Manchester..E 7
1 Millersburg..J 3
1 Columbus Grove...D 3
1 New Richmond..D 7
1 Orrville.....J 3
1 Spencerville D 3
1 Montpelier ..C 1
1 Maumee ....E 1
1 Hartwell.....D 6
1 McConnelsville J 5
1 Carey .....F 3
1 Woodsfield..
1 Gibsonburg..F 2
1 Blanchester.E 6
1 Bluffton.....E 3
1 Perrysburg..E 1
1 Wadsworth ..J 2
1 N. Amherst..H 2
1 Cadiz.....K 4
1 Willoughby.K 1
1 Leipsic .....E 2
1 Huron.....G 2
1 Tippecanoe .D 5
1 Germantown..D 5
1 New Lexington..H 5
1 Richwood ...F 4
1 Oak Harbor.F 1
1 Deshler.....E 2
1 Coalton .....G 6
1 Mechanicsburg E 4
1 Dresden.... H 4
1 Chagrin Falls..E 3
1 Loudenville.H 3
1 Glendale ....D 6
1 Georgetown.E 7
1 Mt. Gilead...G 3
1 Addyston ...C 6
1 Bedford ... J 2
1 Sabina.....E 6
1 Versailles ...D 4
1 Minster..... D 4
1 Westerville .G 4
1 Harrison.....C 6
1 Wyoming...D 6
1 Plain City...F 4
1 Granville....H 4
1 Corning.....H 5
1 Louisville...K 3
1 Yellow Springs..E 5
1 Chardon ....K 1
1 Cardington..G 3
1 Columbiana L 3
1 Payne.....C 2
1 Cleves..... C 6
1 Jefferson....L 1
1 Rocky River.J 2
1 New Bremen D 4
1 Union City..C 4
1 Carrollton...K 3
1 Byesville,.....J 5
1 Loveland....D 6
1 Bradford ....D 4
1 Holgate.....D 2
1 West Liberty E 4
1 Hubbard.....L 2
1 Delta .....E 1
1 Arcanum....C 4
1 Dunkirk.....E 3
1 St. Paris.....E 4
1 Mineral City K 3
1 Scio..... ...K 4
1 Monroeville.G 2
1 St. Clairsville L 4
1 Rockford ...C 3
1 Roseville....H 5
1 Antwerp ....C 2
1 Stryker .....D 1
1 Jamestown..E 5
1 Minerva.... K 3
1 McComb.....E 2
1 Cedarville...E 5
1 Vermillion..H 2
1 N. London ..H 2
1 Kellys I. ...G 1
1 Canal Fulton J 3
1 Forest.....E 3
1 Plymouth...G 2

lay, in 1884, showed that the Trenton limestone of the Lower Silurian is a prolific source of oil and gas—an unlooked for result. The Upper Silurian also holds large deposits of oil and gas. In 1901 the product of petroleum reached 21,648,083 bbls., being a considerable percentage of the yield of the whole country. Clay, in all its forms, is found in vast quantities, as also, carbonate of lime. Hydraulic cement, in large deposits, is known to exist, though it has as yet not been made developable. Large quantities of building-stone and grindstones are quarried in the N. part of the State, and contribute pretty largely to the industrial economy of the commonwealth.—*Clim. and Veg.* The climate of N. Ohio is, of course, colder in winter than the southern and central divisions, yet even here severe weather is not usual. In the last-named regions the ground is seldom covered with snow more than a few days, the thermometer not usually sinking as low as zero. The summers in all parts of the State are warm and well adapted to the growth and maturation of Indian corn; the fall season is remarkable for its genial features. The rain-fall is generally sufficient for the most successful husbandry—droughts, although sometimes occurring, being not more frequent than in the adjoining States. In point of salubrity, the State will favorably compare with any in the Union. Meteorological observations have been kept up with commendable regularity in some 20 different localities in the State for a number of years. From these it is would appear that the north winds of Lake Erie reduce the mean temperature of the State almost to an equality with the northern boundary. The timber growth of the State includes white and black oak, jack oak, and several other quercine varieties; the black, blue, gray, and swamp ash, several kinds of poplar, sycamore, pawpaw, dogwood, buckeye, elm, cherry, and hornbeam, besides beech, iron-wood, basswood, walnut, and a few evergreen trees.—*Soil and Agric.* The soil of this State is, generally speaking, of the highest fertility, free from rock or stone, and readily cultivated. There is but a small proportion of the surface unavailable for agricultural production of some sort, or absolutely unfitted for tillage. The valleys of the rivers, and, particularly, of the two Miamis, the Scioto, the Maumee, and their feeders, contain the most fertile and valuable soils. Indeed, it might be difficult to find anywhere lands equalling these in extent, surpassing them in the elements of fertility, or in agricultural capacity. The Scioto and Miami bottoms contain each an area of about 3,300,000 acres, and together comprise more than one-fourth of the superficies of the whole State. The basin of the Muskingum, though less in extent, has much excellent land, while the Maumee bottoms in the N.W., when once thoroughly drained, will be found equal to any in fecundity, being for the most part deep, black mould, with just sufficient sand intermixed to constitute soils of the very highest fertility. Of such a character is the "Black Swamp," in the N.W. of the State, tracts of which have of late years become sufficiently dry for cultivation, and, it is claimed, are the best corn and grass lands. The lake-shores of Erie are of superior adaptation to the growth of fruits, on account of their exemption from pernicious frosts. The peach, so liable to fail in most of the N. States, finds here a congenial atmosphere, while the culture of the grape is, perhaps, more successful than in any other part of the State; in fact, some of the islands of the lake are becoming celebrated for their vinous produce. In an agricultural point of view, *O.* takes a front rank. Wheat, maize, barley, oats, buckwheat, rye, hay, grass-seeds, Irish and sweet potatoes; the various kinds of pulse, with flax, hemp, and other fibrous growths; hops, tobacco; the principal hardy fruits and cucurbitaceous varieties, with nearly every kind of garden-vegetables, are extensively cultivated; maple and sorghum syrup, and sugar, honey, wine, butter, and cheese in considerable quantities; and horses, cattle, sheep, and hogs are reared in large numbers.—*Manuf.* *O.* holds a high rank among the manufacturing States of the Union, leading all others in certain important lines of production, such as farming implements, carriages and wagons, &c. It possesses also great rolling mills and iron works, extensive glass factories, potteries, and oil-works. The abundance and excellence of hardwood timber invites wood-working of all kinds, and the plentiful supply of cheap fuel offers an active incitement to manufacturing industries in general. In the last census year the total product of manufactures in this State was valued at $832,438,113, an output surpassed only by New York, Pennsylvania, Illinois, and Massachusetts.—*Canals, &c.* *O.* is abundantly provided with means of communication. The Ohio river and Lake Erie afford splendid channels for external commerce, while its railroads, over 8,000 m. in length, traverse the State in every direction. Internal communication is also aided by 4 canals, built and operated by the State, and 697 m. in total length. Two of these traverse the State from Lake Erie to the Ohio, the Ohio canal extending from Cleveland to Portsmouth, and the Miami and Erie canal from Toledo to Cincinnati. The others are the Hocking, a branch of the Ohio, 56 m., and the Walhonding, 25 m., in length. It may be appropriate to speak here of the archæological importance of *O.*, it being richer in the relics of ancient man than any other State in the Union. Nowhere else have the early inhabitants of America left so many traces of their presence in mounds and earthworks, and in implements of stone, bone, copper, and other materials. See MOUND BUILDERS.—*Quarries.* This State is noted for its ample supply of excellent building-stone. The Dayton stone is famous for its beauty as well as its strength. It has so good a name that it has found its way to markets hundreds of miles distant. In strength it equals good granite. It resists a crushing power of more than 15,000 pounds to the cubic inch. But the limestones, however available for these purposes, and however valuable to the localities where they occur, become insignificant when considered by the side of the great sandstone quarries of the State. Of these the Berea grit leads the list. This wonderful stratum stretches entirely across the State from north to south, and supplies the best building-stone, all things considered, found in the United States. As Ohio stone, it is known and esteemed from the remote seaboard to the Rocky Mountains, and it is now exported to England in considerable quantity.—*Public lands, &c.* Within the limits of the State, the public land system was inaugurated under the ordinance of 1785, passed by the Continental Congress. The earlier operations of the system in *O.* were singularly complicated by reservations in the claims of the States ceding the territory. Virginia reserved 4,204,800 acres between the Scioto and Little Miami rivers, nearly one-sixth of the area of the State, to satisfy the claims of the officers and soldiers of her Continental line. Connecticut retained 3,800,000 acres bordering on Lake Erie, and surrendered her claims under her colonial charter to the zone between the 41st and 42d parallels westward. Of this reservation, she retained only the title to the soil, the right of eminent domain being resigned to the general government. Some 500,000 acres of the W. part of this reserve were granted, in 1792, to certain of her citizens whose property had been burned during the inroads of the British troops under General Arnold and others during the Revolutionary War. These latter donations are commonly known as "fire-lands." The United States Military Lands constituted a separate tract W. of the first 7 tiers of townships surveyed under the ordinance of March 20, 1785, to the Scioto river. These lands, embracing 2,500,000 acres, were appropriated by Act of June 1, 1796, to satisfy certain claims of officers and soldiers of the War of Independence. Land-warrants granted by the U. S. for war service during the Revolutionary period were locatable in that district up to July 3, 1832, when, by statute to that date, the vacant lands in the U. S. military district were laid open to sale; and the scrip principle in satisfying warrants was adopted. The Ohio Company's Purchase, lying along the Ohio river in the S. E. corner of the State, originally absorbed 1,500,000 acres, of which, however, less than 1,000,000 were paid for and patented. Symmes' Purchase, including 311,682 acres, extended from the Ohio river N. between the Miami and Little Miami rivers, with a breadth averaging 27 miles. The two tracts last mentioned were subject to the school reservation of the 16th section in every township, and of section 29 for the support of religious worship. Several small tracts, reserved for special purposes, present anomalies in the earlier land operations which subsequent legislation has happily removed. The substitution of military bounty land-warrants for meeting the claims of our veterans has very greatly simplified this branch of the public service. The public land operations in this State may be regarded as practically closed, only a very few isolated tracts remaining, if in fact there be any, at the disposal of the general government.—*Pol. Div.* The State is divided into 88 counties, as follows:

Adams,	Fairfield,	Licking,	Portage,
Allen,	Fayette,	Logan,	Preble,
Ashland,	Franklin,	Lorain,	Putnam,
Ashtabula,	Fulton,	Lucas,	Richland,
Athens,	Gallia,	Madison,	Ross,
Auglaize,	Geauga,	Mahoning,	Sandusky,
Belmont,	Greene,	Marion,	Scioto,
Brown,	Guernsey,	Medina,	Seneca,
Butler,	Hamilton,	Meigs,	Shelby,
Carroll,	Hancock,	Mercer,	Stark,
Champaign,	Hardin,	Miami,	Summit,
Clark,	Harrison,	Monroe,	Trumbull,
Clermont,	Henry,	Montgomery,	Tuscarawas,
Clinton,	Highland,	Morgan,	Union,
Columbiana,	Hocking,	Morrow,	Van Wert,
Coshocton,	Holmes,	Muskingum,	Vinton,
Crawford,	Huron,	Noble,	Warren,
Cuyahoga,	Jackson,	Ottawa,	Washington,
Darke,	Jefferson,	Paulding,	Wayne,
Defiance,	Knox,	Perry,	Williams,
Delaware,	Lake,	Pickaway,	Wood,
Erie,	Lawrence,	Pike,	Wyandot.

Cities and towns. The principal are Cincinnati, Columbus (State cap.), Cleveland, Dayton, Toledo, Zanesville, Hamilton, Springfield, Chillicothe, Steubenville, Sandusky, Portsmouth, Akron, Marietta, Gallipolis, Ironton, Urbana, Wooster, Bellair, Youngstown, Xenia, Piqua, Delaware, Lancaster, Lima, Mount Vernon, &c.—*Govt., &c.* The existing Constitution of the State was adopted in 1851. The right of suffrage is vested in every male citizen who has resided in the State one year next preceding the election, and who has paid a State or county tax. The general elections are held biennially on the second Tuesday of October. The general assembly consists of a Senate of 37 members, and a House of Representatives of 112 members, both chosen in districts for 2 years. The executive consists of a governor (also elected for 2 years), a lieutenant-governor, secretary of State, State auditor, State treasurer, comptroller of the treasury, attorney-general, commissioner of schools, clerk of the Supreme Court, and a board of public works, composed of 3 members. The judiciary is represented by a Supreme Court, presided over by a chief justice in conjunction with 4 puisne judges, or justices, chosen by popular vote for 7 years, by a joint ballot of the general assembly, and exercising original jurisdiction in causes of *quo warranto, mandamus, habeas corpus,* and *procedendo,* and appellate jurisdiction in other cases; and 43 judges of common pleas, also elected for 7 years. The State is divided into 9 judiciary districts, each possessing its superior or district court, besides being further divided into 88 sub-districts, coming under the jurisdiction of courts of common pleas, and presided over by 44 justices. A probate judge is also allotted to each county, together with a clerk of court, auditor, and treasurer.—*Education.* The fund from the sale of public lands set aside for school purposes yields an annual income of over $200,000. The unsold portion of these lands is leased. This source of income is added to by the proceeds of a tax of one mill, laid on all taxable property for public school purposes. The number of children enrolled in the schools is over 800,000, with an average attendance of about 600,000, and over 25,000 teachers. For higher instruction the State provides several institutions, including the Ohio University, at Athens; the Ohio State University, at Columbus, and the Miami University, at Oxford. It outranks any other State in the number of its colleges, there being 40 of these as compared with 31 in Illinois, the second in rank. These have a corps of over 900 instructors and more than 12,000 students. Among them may be named Adelbert, Kenyon, Marietta, Oberlin, Cincinnati, &c. As regards library facilities, *O.* possesses nearly 200 of more than 1,000 volumes each, having a total of more than 1,400,000 volumes.—*Institutions.* Of other than educational institutions there is a satisfactory provision, including 6 State hospitals for the insane, institutes for the feeble-minded, the blind, and the deaf and dumb, a working-home for the blind, soldiers and sailors' home, and soldiers' and sailors' orphans' home, industrial homes for boys and girls, with children's homes in 40 counties, and infirmaries in every co. of the State.—*Finances.* At the end of 1901 the funded debt of the State aggregated $451,665. The assessed value of real estate in the State was $1,377,253,183; personal property, $591,026,817; making a total of taxable property of $1,968,280,000. The rate of taxation was $2.89 per $100. Of the principal cities the debt was as follows: Cincinnati, $25,086,252; Cleveland, $18,468,546; Columbus, $3,667,956; Toledo, $5,634,118; Dayton, $2,777,000. — *History.* The first exploration of the territory now constituting the State of Ohio was made by the French explorer La Salle, in 1680. About the middle of the following century the English laid claim to the region, and their effort to make good their claim brought on the French and Indian War. In 1763, the whole region was ceded by France to England, and after the Revolutionary War it became part of the territory of the U. S. The cession of this territory by the States claiming it, and the reservations held by them, have been already treated of in this article. The Ohio Company, organized in New England, in 1787, composed of men who had served in the Revolutionary War, purchased from the government a large tract N. of the Ohio, paying for it in Continental currency. This was the first sale of public lands made by the U. S. government. The first permanent settlement was made at Marietta in 1788. Cincinnati was soon after founded, and the settlement of the southern section of the territory went on with considerable rapidity. In 1791, the Indians became stirred up by the encroachments of the whites, and a war ensued, which at first proved disastrous to the U. S. troops, but was finally ended in victory by General Wayne, in 1794. In the treaty of peace that followed, the Indians ceded a large section of territory, in which several new towns were quickly established. *O.* formed part of the N. W. Territory until 1800, when it was organized as a separate Territory, Chillicothe being made the seat of government. In 1802 a Constitution was adopted for the "Eastern Division of the Territory N.W. of the Ohio," under the name of Ohio, and it was formally admitted into the Union on February 19, 1803. The population reached 230,760 by the census of 1810, and rapidly increased from that time forward. Steamboat navigation on the Ohio began in 1812; excavation of the State canals began in 1825, and was completed by 1844; and the first railroad, begun in 1837, was opened to traffic in 1842. O. took an active part in the Civil War, and since the war has given four Presidents to the Union—Grant, Hayes, Garfield, and Harrison, all born in this State, though not all residents of it when elected. *Pop.* (1870) 2,665,260; (1880) 3,198,062; (1890) 3,666,719; (1900) 4,157,545.

—A township of Clermont co.
—A township of Gallia co.
—A township of Monroe co.

Ohio, in *Indiana,* a S.E. co., adjoining Kentucky; *area,* about 90 sq. m. *Rivers.* Ohio, and Laughery creek. *Surface,* diversified; *soil,* very fertile. *Cap.* Rising Sun. *Pop.* (1890) 4,955.

—A township of Bartholomew co.
—A township of Crawford co.
—A township of Spencer co.
—A township of Warwick co.

Ohio, in *Iowa,* a township of Madison co.

Ohio, in *Kansas,* a township of Franklin co.

Ohio, in *Kentucky,* a W. central co.; *area,* about 610 sq. m. *Rivers.* Green river, Rough creek, and several smaller streams. *Surface,* level; *soil,* fertile. *Min.* Coal and iron. *Cap.* Hartford. *Pop.* (1890) 22,946.

Ohio, in *New York,* a post-township of Herkimer co.

Ohio, in *Pennsylvania,* a township of Allegheny co.

Ohio, in *West Virginia,* a N. co., adjoining Pennsylvania on the E., and Ohio on the W.; *area,* about 120 sq. m. *Rivers.* Ohio river, Wheeling creek, and some smaller streams. *Surface,* hilly; *soil,* fertile, producing large quantities of wheat, Indian corn, oats, hay, butter, and wool. Glass is largely manufactured. *Min.* coal. *Cap.* Wheeling. *Pop.* (1890) 41,557.

Ohio City, in *Kansas*, a village, former cap. of Franklin co., about 35 m. S. of Lawreuce.

Ohio City, in *Missouri*, a village of Mississippi co., about 170 m. S. E. of St. Louis.

Ohio Farm, in *Illinois*, a village of Kendall co., abont 50 m. S. W. of Chicago.

Ohio Grove, in *Illinois*, a village of De Kalb co., about 55 m. W. by N. of Chicago.

Ohi'opyle Falls, in *Pennsylvania*, a cataract of the Youghhlogheny rlver, in Fayette co., about 60 m. above its uionth.

Ohi'o State Univer'sity. (*Educ.*) In 1862 Congress granted each State public lands for the endowmeut of a State institution of higher learning. Ohio accepted its grant, but took no actiou ou it until 1872, when this Institution was organized at Columbus, and has since been liberally supported. It is co-educational and nonsectarian. In 1896 it had 79 instructors and 969 studeuts, with 20,000 volumes in its library. Its income in that year was $176,000.

Ohio University. (*Educ.*) In 1787 the Ohio Company of Associates was organized in New England by those who had served in the war of the Revolution, and under their auspices a large tract of land was purchased from the U. S. govcrnment in the territory northwest of the Ohio river, payment beiug made in Continental certificates issued to the soldiers for their services. In connection with the sale was passed the famous "Ordinance of 1787," providing for the government of the territory N. W. of the Ohio. In the contract of sale it was provided that two townships should be set apart for an institution of learning to be maiutained by the legislature when Ohio should be admitted as a State. Ohio was so admitted in 1803, and the Ohio University was established at Athens in 1804, in compliance with the terms of the contract. Owing to adverse legislation, the original endowment has been very much reduced and the income from that source has consequently been small. For several years past, however, the legislature has appropriated for the institution sums varying from $5,000 to $20,000. The trustees are appointed by the governor of the State. In 1896, the institution had 25 instructors and 320 students, with 14,500 volumes in its library. Its income in that year was $42,000.

Ohi'oville, in *Pennsylvania*, a post-village of Beaver co., about 11 m. W. S. W. of Beaver.

Ohio Wes'leyan University. (*Educ.*) A co-educational institution at Delaware, O., organized under the auspices of the Methodist Episcopal Church, in 1844. In addition to the regular collegiate courses, Instruction is given in music, art, aud commercial studies. It has an endowment estimated at $550,000 in 1896, when its income was $110,000. In that year it had 98 instructors, 1,402 students, and 18,000 volumes in its library.

Ohm's Law. (*Elec.*) The numerical estimation of the value of any arraugement for the generation of an electric current is a matter of hlgh practical importance, and the means of doing this is furnished by the celebrated Law of Ohm given in 1827. The problem is the following: Given any number of electromotors, of specified kind and dimensions, such as a number of Bunseu's or of Daniell's cells, and any number of specified conductors, through which the electric current is sent, to find the strength (or intensity) of the current, that is, the quantity of electricity which flows through any section of the circuit in a given time, and the Law of Ohm states that *the strength of the current is directly proportional to the whole electromotive force in operation, and inversely proportional to the sum of the resistance in the circuit.* Ohm deduced this law from theoretical cousiderations.

Ohoo'pee, in *Georgia*, a river flowing into the Altamaba from Tatnall co.

Ohrdruff, (*or'drooff,*) a town of Germany, duchy of Saxe-Coburg, 8 m. S. of Gotba. *Manuf.* Woollens, linen, and porcelain. In the vicinity are iron and copper mines. *Pop.* 4,500.

Oich, (Loch,) (*lok-oik',*) a lake of Scotland, co. of Inverness, which receives the Glengarry River, and discharges itself into Loch Ness hy the river Oich. It is 6 m. long, with an average breadth of 1 m.

Oi'dium, *n.* [Gr. *oideo*, to swell.] The vine-mildew, a pest to which grapes, both in vineyards and hot-houses, have in recent times been subject in Europe, and which has been traced to the attacks of a species of fungus, *Oidium tuckeré.* This plant is one of the naked-spored moulds. Berkeley, however, thinks that the *O.* is an early stage of some *Erysiphe.* Sulphur is the only remedy which has, as yet, been discovered.

Oignon, or **Ognon,** (*wan-yong',*) a river of France, between the depts. of Haute-Saone and Doubs, which, after a W.S.W. course of 80 m., joins tbe Saone 9 m. N. of Auxonne.

Oil, *n.* [A. S. *ele, æl;* Fr. *huile;* Lat. *oleum* = Gr. *elaion*, olive-oil, oil.] (*Chem.*) A name given to three different classes of bodies: — 1. The *Fixed oils.* such as olive, linseed, sperm, and castor-oil; 2. The *Essential oils*, as oil of lavender, of rue, o' nutmeg, &c.; 3. The *Mineral oils*, which are hydrocarbons, more or less impure.

Fixed Oils. The fixed oils and fats constitute an important group of organic compounds, found abundantly and in great variety in both the animal and vegetable kingdoms, through which they are very widely distributed. They are not simple compounds, but mixtures of such compounds, or *glycerides*, whose mixture in varlous proportions forms the many oils and fats—the latter distinguished from the former by being solid at ordinary temperatures. The glycerides involved are usually those of stearic, oleic, and palmitic acids, and more rarely other fatty acids, such as butyric, caproic, caprylic, and capric acids, which occur in butter, myristic acid, found in cocoanut oil, &c. These mixtures vary in consistency, being hard aud solid, like suet; semi-solid, like butter and lard; or fluid, like the oils. The most solid of them are readily fusible, and assume the fluid or oily state at less than the boiling point of water. They nearly all boil at a temperature betweeu 500° and 600° F., being at the same decomposed and giving off acrolein aud other compounds. The term *fixed oils*, by which these substances are known, refers to this property, which distinguishes them from the *volatile oils*, so called from their bearing distillation without chemical change. The latter are also known as *essential oils*, and are derived from plants, being the substauces on which the odoriferous properties of plants depend. The fats and oils are all lighter than water, upon which they float, and in which they are insoluble. They may be dissolved, however, by ether, oil of turpentiue (one of the volatile class), benzol, and partly by alcohol, while they are capable of dissolving phosphorus, sulphur, and other substances. They penetrate paper, textile materials, &c., causing a persistent staiu, aud in paper a degree of translucency. When pure and fresh they are free from odor and taste, but on exposure become oxidized, chauge color, grow acrid in taste and disagreeable in odor. In this state they are said to be *rancid.* They are not very readily inflammable, but when drawn up through a wick they hurn with a bright flame. Oils are found in all animals and nearly all parts of the animal frame, while in plants there is scarcely a tissue in which they do not occur. They are particularly abundant in seeds, this being especially the case with the *Cruciferæ*, whose seeds are rich in oil. Linseed yields 20 per cent. and rape seed about 40 per cent. of oil, while such fruits as the olive and the oil palm yicld it abundantly. The seed of the cotton plant is also rich in oil, and is an abundant source of this valuable material.—*Animal Fats.* The chief solid fats of animal origin are the suet or tallow of beef and mutton, the lard of swine, butter, goose grease, &c., while among the liquids may be named whale, sperm, and fish oils, cod-llver and neatsfoot oils. To the lists of solid fats may be added spermaceti and beeswax, which have similar properties. The fats and oils differ in that the former have a preponderance of stearin and palmatin, which are solid at ordinary temperatures, and the latter of olein, which is a liquid at 32° F. All these substances will combine with the hydrated alkalies to form what is known as soap, while the sweet, viscid liquid called glycerin is at the same time formed. We cannot here speak at length of the vast production of these oils, alike those obtained from domesticated animals, and from whales and fishes, those subjects being already dealt with under separate headings. It will suffice to say that lard and tallow, and the oleins obtained by pressure from the fats, and known as lard oil and hy other names, are very abundantly produced in the U. S. and other pastoral countries. Of the olein obtained from beef-suet thousands of tons are employed in the manufacture of the substitute for butter, known as oleomargarin (*q. v.*). Horse grease is exported largely from the Rio Plata region, where there are millions of horses. Neatsfoot oil is obtained by boiling the feet of cattle, and from raw wool is obtained a large percentage of a fat known as suint. The whale fishery has been largely abandoned, but seal fishiug is still actively pursued, and yields large quantities of oil annually. Fish oil is also produced in immense quantities. It is usually thick and of a strong odor, and the former considerable use of this and whale oil for illumination has been largely superseded by petroleum and other modern illuminants. The tunny of the Mediterranean yields a large quantity of oil of a pale amber color aud an agreeable flavor.—*Vegetable Oils.* Among the principal solid fats extracted from plants are cocoanut oil, nutmeg-butter, cocoa-butter, and palm-oil. The fluid oils are numerous, being obtained from a great variety of plants, each of which impresses some specialty upon its derivative. Some of the more important of them are olive oil, cotton-seed oil, linseed oil, castor-oil, croton-oil, and rape-seed oil. The chief vegetable oils are divided into two classes—the *drying* and the *non-drying* oils, the former becoming dry and solid, through oxygenation, when exposed in thin layers to the air, while the latter continue fluid. Some of the drying oils, when mixed with cotton, wool, or tow, absorb oxygen so rapidly, and in consequence become so heated, as to take fire, and cause what is known as spontaneous combustiou Many conflagratlons have probably been due to carelessness in the disposal of oily waste that has been used in cleaning machinery. The most important of the drying oils are those of linseed, hemp, poppy, and walnut; of the non-drying oils, olive, almond, and colza; while castor-oil is intermediate in its properties, drying with long exposure to the air. Of the important vegetable oils not here named may be instanced that of the ground-nut, which is produced largely at Marseilles from nuts grown in Africa, the fats of the butter-tree and of what are known as candle-nut plants, and the oil of the cotton-seed, so largely produced in the United States.—*Uses.* Oils and fats are employed for a great variety of purposes, and rank among the most valuable of organic products. They are used extensively as medicines and lubricants, and in the manufacture of soaps, varnishes, ointments, pigments, in leather dressing, and as illuminating agents in lamps and candles. They are indispensable for use In machine shops and factories, and for machinery of all kinds in the prevention of friction, heavy or light oils being used in accordance with the speed of the machinery. For watches and sewing-machines very fine light oils are employed. Mineral oils are often mixed with those of organic origin for lubrication, the effect being to keep them more fluid and thus aid in diminishing friction. A use for oil now frequently employed is to throw it on the waters of the sea in stormy weather, the oil spreading into a thiu film with great rapidity, and having a remarkable effect in smoothing and subduing the force of the waves. A few gallons may serve to save a vessel from wreck. Another suggested use, not without interest and importance, is to spread it over the surface of stagnant waters, and thus prevent the development of the mosquito larvæ, this being the only available means known of checking the increase of this pest. In Africa, Asia, and the Pacific islands oils and fats are much used for anointing the body and smearing the hair as a protection against heat and insects, and to check undue perspiration. The practice is healthful, and gives a smoothness and softness to the skin.—*Essential Oils.* The essential oils, or volatile oils, agree with those named in being hydrocarbons, or compounds of hydrogen, carbon, and oxygen, in which the hydrogen and oxygen occur in different proportions from those necessary to form water. In chemical character, however, there is a considerable difference. They are themselves diverse in chemical constitutiou, but are invariably rich in carbon. They form an extremely numerous class, existing usually as constituent elements of plants, whose odorous principles they are believed to constitute. At ordinary temperatures they are nearly all limpid liquids, though some are viscid, and the essential oil, or otto, of roses is solid. Many of them, on exposure to low temperatures, separate into two portions—a solid one called *stearoptene* and a liquid one called *elæoptene.* Some are yellow or brown in color, and in some few cases green or blue colors appear. Oxygen acts powerfully on them all, affecting their color, odor, consistency, and constitution. With the hydrocarbons of which they are composed are generally associated oxygenated compounds, due sometimes to oxidation of the hydrocarbons. A limited class of them have sulphur for one of their constituents. Of the hydrocarbons which compose these oils, *terpene*, $C_{10}H_{16}$, is the most important. It is the chief constituent of oil of turpentine, and is also found in the oils of bergamot, orange, and, with some difference in chemical composition, in a great number of others. The most common of the oxygenated compounds in essential oils are the camphors, whose type is common or Japan camphor, $C_{10}H_{16}O$. Similar compounds are found in many essential oils, such as those of wormwood, mint, and chamomile; while camphors of different chemical composition are found in the oils of coriander, peppermint, eucalyptus, patchouli, &c. The essential oils which contain sulphur, typified by oil of garlic, $C_6H_{10}S$, have generally a penetrating, pungent, and disagreeable odor.—*Mineral Oils.* For a description of these, see PETROLEUM; PARAFFIN; NAPHTHA; and OIL WELLS.

Manufacture of Oils. The simplest of these varied manufactures is that of animal oils. such as whale-oil. Soon after being taken from the whale, the *blubber* is cut into small pieces, and packed in casks. When it arrives at home, it is in a half putrid state, and is then emptied into a large receiver. After being allowed to settle for some time, the decomposing fat is conducted into a copper boiler, in which it is subjected to heat. From the boiler the melted oil flows through a sort of filter into coolers, from which, when cold, it can be drawn off into casks. In the South Sea whale-fishery the blubber is boiled on board the ships. In the manufacture of most vegetable oils, the oils are generally procured from the seeds. Olive-oil, however, is an exception, being extracted from the soft fleshy pericarp of the fruit. The manufacture is very simple. The finest oil is obtained by crushing the olives in a mill, the stones of which are so constructed as not to break the stones of the fruit, but merely crush the pulp. The bruised mass is then put into bags made of bulrush matting, or of coarse canvas, and subjected to gradual compression in a screw-press. The extracted oil flows into casks, or stone cisterns, partly filled with water, on the surface of which it floats, so that it can readily be collected by skimming; this is the pure virgin oil. When the oil ceases to flow from the press, the mass of pulp is taken out of the bags, mixed with hot water, and subjected to an increase of pressure. The second quality of oil thus obtained is fit for the table when used fresh, but is apt to turn rancid with keeping. A still coarser kind of oil is lastly obtained by crushing the solid residue in a mill, so as to break the stones of the fruit. The manufacture of linseed-oil from the seeds of the flax-plant is an illustration of the manufacture of oils from seeds. Formerly, linseed, rape-seed, poppy-seed, and other oleiferous seeds, were pounded in hard wooden mortars with pestles shod with iron, and afterwards wrapped up in hair-cloth and subjected to pressure. These mortars and presses constitute what are called Dutch mills, and are still in use in some parts of this country and the continent. On account of the extreme hardness and smoothness of the seeds of flax and hemp, very powerful presses are required in order to extract the whole of the oil. For this reason the wedge-press and Bramah's hydraulic press have been introduced for the purpose. The seeds are first crushed in a powerful mill, sometimes called an *edge-mill*, consisting of a pair of stones, technically called *running-stones*, or *runners*, generally made of granite, resembling grindstones in shape, and from five to seven feet in diameter, so mounted as to roll round in a circular bed of stone or iron. These millstones roll around the bed thirty or thirty-six times per minute, and soon convert the seeds, through the partial expression of the oil, into a pasty mass, from which a small quantity of very

fine *cold-drawn* oil can be obtained by the simple action of the press. In order, however, to obtain the principal supply of oil, heat is necessary before pressing. The processes differ in various manufactories. In this country *lard-oil* is largely manufactured from the fat of hogs. The essential oils are obtained from their source in four ways—by distillation, by expression, by influenrage or absorptiou, and by maceration. Of these the process of distillation is the most important, from the fact that these oils distil with ease, unchauged. The odoriferous materials are placed in a small still with a little water, whose steam carries over the vapor of the oil. This, being insoluble in water, is easily separated from the condensed distillate. For the other processes see ESSENTIAL OILS.

Oil, *v. a.* To lubricate, or to anoint with oil.

Oil, in *Indiana*, a township of Perry co.

Oil'-bag, *n.* A bag, cyst, or gland in animals, containing oil.

Oil City, in *Pennsylvania*, a city of Venango co., about 36 m. S.E. of Meadville. Previous to 1860, *O. C.* was a hamlet scarcely known outside the co., but the immeuse yield of petroleum in the vicinity caused it to increase rapidly in population and importance. *Pop.* (1897) 11,250.

Oil'-cloth, *n.* A cloth or canvas having on one side a thick coat of oil-paint. (See FLOOR-CLOTH.)

Oil'-color, *n.* A pigment ground and diluted in oil.

Oil Creek, in *Indiana*, enters the Ohio River from Perry co.

Oil Creek, in *Pennsylvania*, enters the Alleghany River in Venango co.

—A post-township of Crawford co.

Oil'-dried, *a.* Exhausted of oil.

Oiled, *p. a.* Smeared or anointed with oil.

Oil'er, *n.* One who oils.—A trader in oils, but rare in this sense.

Oil'ery, *n.* The goods of an oilman.

Oil Gas, *n.* (*Chem.*) The inflammable gases and vapors (chiefly *hydro-carbons*) obtained by passing fixed oils through red-hot tubes, and which may be used, as *coal-gas*, for the purpose of illumination. They yield a brilliant light, but are too expensive to be generally adopted.

Oil'iness, *n.* Quality of being oily; unctuousness; greasiness; a quality approaching that of oil.

Oil'man, *n.*; *pl.* OILMEN. A dealer in oils only, or in oils and pickles.

Oil'-nut, *n.* A name applied to any nut or seed which yields oil.

(*Bot.*) See PYRULARIA.

Oil of Vit'riol, *n.* (*Chem.*) See SULPHURIC ACID.

Oil'-painting, *n.* Painting in which the medium for using the colors consists partly of oil. Mere decorative work was often executed with oil-color in the early Middle Ages; but Hubert and John Van Eyck, early in the 15th century, were the first to substitute *oil* or *varnish* painting for *tempera*, in the execution of pictures. Oil-painting has the advantages, above all other modes, of affording great delicacy of execution, a union and insensible blending of the colors, and, above all, that of imparting great force to its effects. The principal oils used are those extracted from the poppy, nut, and linseed. With the latter driers are introduced. A small quantity of oil only is necessary, the colors being tempered with turpentine, and with mastic or copal varnish. In restoring old oil-pictures no oil should be used, as it darkens after a little time. The dry colors should be mixed with pure mastic varnish, and tempered in their application with turpentine. See PAINTING.

Oil'-palm, *n.* See ELAIS.

Oil'-press, *n.* A mill or machine for squeezing out oil from seeds or pulp.

Oil'-seed, *n.* The seed of the castor-oil plant, *Ricinis communis*.

Oil'-shop, *n.* The shop of an oilman.

Oil'-skin, *n.* Leather or linen prepared for making water-proof garments.

Oil'-stone, *n.* A name applied to two varieties of black or white hone-slate, imported from Turkey.

Oil'-tree, *n.* (*Bot.*) See RICINUS.

Oil'y, *a.* Consisting of oil; having the qualities of oil; containing oil; resembling oil; fatty; greasy.

Oil'y-grain, *n.* (*Bot.*) See SESAMUM.

Oil'y-palm, *n.* (*Bot.*) Same as OIL-TREE. See ELAIS.

Oinoma'nia, or **Dipsoma'nia,** *n.* [Gr. *oinos*, wine, *dipsa*, thirst, *mania*, madness.] (*Med.*) An inordinate or insane craving for alcoholic stimulants. Lately, English medical men have come to the opinion that an inveterate drunkard is to be regarded as habitually under the influence of an insane impulse, which it is impossible for him to resist, and which, therefore, renders him a fit subject for confinement or restraint.

Oint, *v. a.* See ANOINT.

Oint'ment, *n.* [Lat. *unguentum*, from *unguo*, *unctum*, to smear, anoint; Sans. *auj*, to anoint.] An unguent; any soft unctuous substance or compound, used for smearing, particularly the body, or a diseased part thereof.

Oise, a river of France, dept. of Oise, rises in the Belgian prov. of Hainault, near the frontiers of Ardennes, and after a S.W. course of 190 m., joins the Seine at Conflans St. Honorien, 12 m. N.W. of Paris. It is navigable from Chauny, in the dept. of Aisne, to its mouth, a distance of 75 m.

Oise, (*woise,*) a dept. of the N. of France, formerly comprised in the Isle of France, between Lat. 49° 5′ and 49° 45′ N., Lon. 1° 40′ and 3° 10′ E.; having N. the dept. of Somme, E. Aisne, S. Seine-et-Marne and Seine-et-Oise, and W. Eure and Seine-Inferieure. *Area*, 2,280 sq. m. *Desc.* The surface is undulating, the soil fertile, and agriculture far advanced. *Rivers.* Oise, Terrein, and Epte. *Prod.* Corn, wheat, oats, vegetables, and fruits. Numerous cattle are reared. *Manuf.* Table-linen, woollen and cottou fabrics, yarn, hosiery, lace, metallic and glass wares, and horn, wooden, and ivory articles. *Chief towns.* Beauvais (the cap.), Clermont, Compiegne, and Senlis. *Pop.* 401,274.

Ojib'beways, a tribe of N. American Indians. See CHIPPEWAS.

O'ka, a river of European Russia, rising in the govt. of Orel, and after a N.E. course of 837 m., joining the Volga, at the town of Nijni-Novgorod.

Oka'mon, in *Minnesota*, a village of Waseca co., about 20 m. E. of Mankato.

Okanag'on (or OKINAGAN) **River,** rises in British Columbia, and flowing S. into Washington, enters the Columbia river about Lat. 48° N. *Length*, about 200 miles.

O'kaw, in *Illinois*, a township of Shelby co.

Okaw'ville, in *Illinois*, a post-village of Washington co., about 14 m. W.N.W. of Nashville.

Oke, *n.* In Turkey, a weight of about 2¾ pounds. In Hungary and Wallachia, a measure of the capacity of about 2¼ pints.

O'keana, in *Ohio*, a post-village of Butler co., abt. 14 m. W.S.W. of Hamilton.

Okecho'bee, in *Florida*, a lake in the S. part of the peninsula, being surrounded by Brevard, Dade, Monroe, and Hillsborough cos. It covers an area of abt. 400 sq. m., is nearly circular in outline, and contains many islands.

Okee'che Creek, in *Alabama*, enters the Tombigbee River from Sumter co.

Oke'finoke Swamp, in *Georgia*, an extensive marsh or swamp in the S. part of Wake co., having a circumference of abt. 180 m.

O'kemos, in *Michigan*, a post-village of Ingham co., abt. 7 m. E. of Lansing.

O'ken, LAWRENCE, an eminent Swiss naturalist, B. at Offenburg, 1779, studied medicine and natural history at Gottingen, and was afterwards professor of medicine in the universities of Jena and Zurich. The aim of all his writings might be summarily said to be an attempt at applying the principles of transcendental philosophy to the facts of natural history. He produced his first work in 1802, with the title *Elements of Natural Philosophy, the Theory of the Senses, and the Classification of Animals founded thereon.* *O.* was the first to suggest that all animals are built up of vesicles or cells, in his work on generation, published in 1805. His remarkable essay *On the Signification of the Bones of the Skull* attracted little attention at the time of its publication, but was, nevertheless, the forerunner of the investigations of Carus, Geoffroy St. Hilaire, and Professor Owen, upon the laws of homology in the vertebrate skeleton. In 1847, his work called *Elements of Physio-Philosophy* was translated into English; and although, like the other efforts of this writer, it is beyond the grasp of the general reader, it would seem to be of the deepest importance to the man of science. D. at Zurich, 1847.

Oke'nite, *n.* [After Prof. *Oken.*] (*Min.*) A hydrated bisilicate of lime, composed of 28 per cent. of lime, silica 62, and water 18. It generally occurs in delicately fibrous, and sometimes in radiating masses, of a snow-white color, with a tinge of yellow or blue. It is very tough. It is found in Disco Island and other places.

Okewal'kee Creek, in *Georgia*, enters the Oconee River in Montgomery co.

Okhotsk, or **Ochotsk,** (*o-hotsk,*) a prov. of Asiatic Russia, in E. Siberia, bordering on the Sea of Okhotsk, between Lat. 57° and 66° N., Lon. 135° 30′ and 166° E., having E. Kamtschatka and the Tchooktchee country, and W. and N. the govt. of Yakoutsk. *Ext.* 1,100 m. long, with an average breadth of 150 m. It is traversed by the Stanovoi mountains. The climate is severe. The principal river is the Okhota. *Prod.* Fur and timber. *Cap.* Okhotsk. *Pop.* Unknown.

OKHOTSK, cap. of the above prov., is a seaport-town, on the Sea of Okhotsk; Lat. 59° 20′ N., Lon. 143° 14′ E.

Okobo'ji, in *Iowa*, a post-township of Dickinson co.

Okolo'na, in *Mississippi*, a post-town, semi-cap. of Chickasaw co., on the Mobile & Ohio R. R., 68 m. S. by W. of Corinth; in a corn and cotton growing region. *Pop.* (1897) 2,250.

O'kra, or **O'kro,** *n.* (*Bot.*) A species of plant, genus *Hibiscus*, yielding green pods, which abound in nutritious mucilage, and are used for pickles, or served up with butter.

Oktib'beha, in *Mississippi*, a river flowing into the Chickasawha from Clarke co.

—A small river flowing into the Tombigbee river in Lowndes co.

—A N. E. central co.; *area*, about 460 sq. m. *Rivers.* Noxubee and Oktibbeha rivers. *Surface*, generally level; *soil*, fertile. *Products*, corn, cotton, butter, sweet potatoes; some live stock. *Cap.* Starkville. *Pop.* (1890) 17,694.

O'la, in *Iowa*, a village of Tama co., about 48 m. N. of Oskaloosa.

Olaca'ceæ, *n.* (*Bot.*) The Olacad family, an order of plants, alliance *Berberales*. DIAG. Regular symmetrical flowers, axile placentæ, stamena alternate with the petals, pendulous ovules, and valvate corolla. They are trees or shrubs, often spiney. Leaves simple, alternate, entire, without stipules; occasionally altogether wanting (rarely compound). Flowers small, axillary, often fragrant. The plants of this order are natives of tropical or nearly tropical climates, and are chiefly found in the East Indies, New Holland, and Africa. One only is known in the West Indies. The order includes 23 genera.

O'laf I., king of Denmark, perished in 814, in combat with the Turks.

OLAF II., succeeded his brother, Canute IV., in 1086. D. 1095.

O'laf I., king of Norway, ascended the throne in 994. He introduced Christianity into Norway, Iceland, and Greenland. Having been defeated by the kings of Sweden and Denmark in 1000, he threw himself into the sea.

OLAF II., (ST.,) king of Norway, energetically propagated Christianity throughout his dominions; but was driven from his throne by Canute, in 1030. Two years afterwards, he was killed by the people of Drontheim.

OLAF III., surnamed the *Pacific*, reigned, in conjunction with his brother Magnus II., from 1066 until 1068, and singly for nineteen years afterwards.

OLAF IV., son of Magnus III., reigned, in conjunction with his two brothers, between the years 1103–1116.

OLAF V., son of Haco VII., succeeded to the throne of Denmark in 1376, and to that of Norway in 1380. After his death, in 1387, his mother, Margaret de Waldemar, united the three kingdoms of Denmark, Sweden, and Norway under one crown.

Ol'amon, in *Maine*, a post-village of Penobscot co., about 80 m. N.E. of Augusta.

Olathe (*o-la'the*), in *Kansas*, a city, cap. of Johnson co., about 21 m. S.W. of Kansas City. *Pop.* (1895) 3,456.

Ol'bers, HEINRICH WILHELM MATHIAS, a celebrated German physcian and astronomer, B. near Bremen, 1758, is chiefly known for his discovery of two planets, Pallas in 1802, and Vesta in 1807. In 1815 he discovered a comet, and subsequently wrote a treatise on the probability that a comet may come into collision with the earth. Among other useful works of his was a proposal to revise the nomenclature of the stars, and a reformation of the constellations. D. 1840.

Ol'cott, in *New York*, a post-village of Niagara co.

Old, *a.* [A. S. *eald, ældi*; D. *oud*; Ger. *alt.*] Grown up to strength and maturity; far advanced in years, or life; aged; having lived beyond the middle period, or rather toward the close of life, or toward the end of the ordinary term of living; having passed the grand climacteric of human existence;—opposed to *young*; as, an *old* man, *old* age.—Being of long duration or continuance; having been long made or used; not new or fresh; as, an *old* city.

"*Old* wine is wholesomest, *old* soldiers are surest, and *old* lovers are soundest."—*John Webster.*

—That existed in former ages; preëxisting or preceding; as, an *old* law, an *old* custom, an *old* fashion.—Of any indefinite duration; advanced in existence or development; as, a child ten years *old.*—Skilled; experienced; versed; adept by long practice; as, an *old* offender, an *old* humbug, an *old* hand at the business.—Long cultivated or tilled; matured; as, *old* land.—Long existing or surviving;—hence, decayed; threadbare; impaired; good for nothing; as, *old* garments.—Ancient; antique; of venerable age; as, an *old* relic, an *old* family, an *old* manuscript.—Shrewd; astute; sagacious; crafty; cunning; smart; as, he carries an *old* head on young shoulders. (Used colloquially.)—Aged; antiquated; servile; used up;—hence, deficient in the natural powers pertaining to youth and vigor; poor; paltry; mean;—used in a sense of contempt, derision, or disparagement.—Old-fashioned; in a former mode or style; as, of *old*; that once was wont; as, the good *old* times;—hence, by analogy, jolly; festive; hearty; merry; gladsome.

Of old, long ago; from ancient times.

"The monks *of old*, what a jovial race they were."—*Procter.*

Old Age, *n.* The decline of life; advanced years.

Old Bridge, in *New Jersey*, a post-village of Middlesex co., abt. 6 m. S.E. of New Brunswick.

Old Cath'olics. (*Ecclesiastical History.*) See SECTION II.

Old'en, *a.* Old; ancient; as, the *olden* times.

Oldenland'ia, *n.* [From H. B. *Oldenland*, a Danish botanist.] (*Bot.*) A genus of perennial herbaceous plants, order *Cinchonaceæ*. The root of the species *O. umbellata* forms the so-called *chay* or *che root*, which is occasionally imported from India, and used for dyeing red, purple, and orange-brown.

Old'enburg, (Grand-Duchy of,) a state of N Germany, between Lat. 52° 30′ and 53° 43′ N., Lon. 7° 35′ and 8° 50′ E., having N. the North Sea, E. the territory of Bremen, S. and W. Hanover; *area*, 2,417 sq. m. The surface is level, and so low on the coast as to render necessary the formation of dykes, as in Holland, to prevent inundations of the sea. The soil is rich on the banks of the rivers, but in other parts sandy or marshy. *Rivers.* Weser, Hunte, Haase, Leda, and Jahde. *Lakes.* Drummersee is the principal. *Prod.* Flax, hemp, hops, rape-seed, corn and potatoes. Horses and cattle of superior breed, and sheep, are extensively reared. *Min.* Iron. *Manuf.* Linen and woollen stuffs. Its commerce is principally carried on in small vessels of from 20 to 40 tons, along the coast with Denmark, Holland, Hanover, &c. *Exp.* Horses, cattle, linens, thread, hides, &c. *Imp.* The ordinary colonial goods, and manufactures. *Govt. O.* is governed by a Grand-Duke, the power of whom is limited by an hereditary constitution common to *O.*, and the principalities of Lubeck and Birkenfeld, which are represented in one joint chamber composed of 47 members, chosen by free voters. Each principality has, however, its own provincial council, the members of which are likewise elected by votes. *Hist.* The Duchy of *O.* was formed in 1773 by Joseph II., of the cos. of *O.* and Delmenhorst. It joined the Confederation of the Rhine in 1808, incorporated with the French empire by Napoleon I. in 1810, and was restored to the duke in 1814. Augustus first assumed the title of Grand-Duke in 1829. Knipphausen was added to the grand-duchy in 1854. *O.* entered into an alliance with Hanover against Prussia in 1865, and after the defeat of the Austrians, submitted to Prussia, with which it signed a treaty of alliance in 1866. *Cap.* Oldenburg.

Old'enburg, cap. of the preceding grand-duchy, on the River Hunte, a tributary of the Weser, 24 m. W.N.W. of

Fig. 1986.—OLDENBURG.

Bremen. Its principal public buildings are the ducal castle, the church of St. Lambert, and the public library of 24,000 volumes. *Pop.* (1897) 13,330.

Old'enburg, in *Indiana*, a post-town of Franklin co., abt. 12 m. S.W. of Brookville.

Old'-faced, *a.* Having an old aspect.

Old-fash'ioned, (*-făsh'und,*) *a.* Formed according to antiquated fashion or custom.

Old'field Point Lighthouse, in *New York*, on the N. coast of Long Island, opposite Stratford, Connecticut. It exhibits a fixed light 67 ft. high; Lat. 40° 58′ 30″ N., Lon. 73° 7′ 30″ W.

Old Fort, in *Pennsylvania*, a village of Centre co.

Old-gen'tlemanly, Old-gen'tlemanlike, *a.* Pertaining to an old gentleman, or resembling one.

Old'ham, a town of England, co. of Lancaster, on the Medlock, 6 m. N.E. of Manchester. It owes its rapid increase in pop. and wealth to the extensive coal-mines in the vicinity, and to its cotton manufactures. *Pop.* 82,333.

Oldham, in *Arkansas*, a village of Crittenden co., on the Mississippi River, abt. 18 m. above Memphis, Tenn.

Oldham, in *Kentucky*, a N. co., adjoining Indiana; *area*, abt. 220 sq. m. *Rivers.* Ohio River, and several less important streams. *Surface*, diversified; *soil*, fertile. *Cap.* La Grange.

Old'ish, *a.* Somewhat old.

Old Jef'ferson, in *Missouri*, a village of Saline co.

Old'-lang'-syne, *n.* The same as AULD-LANG-SYNE, *q.v.*

Old Ly'coming, in *Pennsylvania*, a township of Lycoming co.

Old Man's Creek, in *Iowa*, enters Iowa River in Johnson co.

Old Man's Creek, in *New Jersey*, enters the Delaware River between Gloucester and Salem cos.

Old Mines, in *Missouri*, a post-village of Washington co., abt. 100 m. S.E. by E. of Jeffersou City.

Old'ness, *n.* Old age; an advanced state of life or existence.

—State of being of long continuance; antiquity.

Old Point Com'fort, in *Virginia*, a village of Elizabeth City co., on Hampton Roads, about 12 m. N. of Norfolk. Its post-office is FORTRESS MONROE.

Old Prov'idence, an island of the Republic of Colombia, in the Caribbean Sea; Lat. 13° 21′ N., Lon. 80° 22′ W.; *area*, about 10 sq. m. *Surface*, hilly; *soil*, fertile. Chief town, Isabel, on the N. coast. *Pop.* 500.

Old Red Sand'stone, *n.* (*Geol.*) The old red sandstone, or *Devonian system*, may be considered as embracing the whole series of strata which lies between the Silurian and Carboniferous systems. Certain portions of the formation were first distinguished in Devonshire, from which it derives its second name. The lower margin of the system is characterized by strata containing the fossil remains of fishes, and forming a line of separation between it and the Silurian system. On its upper margin it is distinguished by the rarity of the vegetation which so remarkably distinguishes the overlying carboniferous rocks. The great bulk of the system consists of a succession of sandstones, alternating with subordinate layers of sandy shale, and beds of a concretionary limestone. The sandstones pass in fineness from close-grained fissile flags to thick beds of coarse conglomerate, and the shales from sandy, laminated clay, to soft flaky sandstone. Oxide of iron often tinges the whole of the system more or less with a color varying from a dull rusty gray to bright red, and from red to a fawn or cream-colored yellow. In the Devonian system, properly so called, the middle and upper portions exhibit an abundance of fossiliferous limestones and calcareous shales, or dark bituminous-looking schists. The Devonian formation is nowhere found so largely developed as in the U. States. In the New York system of rocks it includes (see Fig. 1142) the following rocks:

Names.	Approximate thickness in N. York.
Catskill group, or old red sandstone	2,000 feet.
Chemung	1,500 "
Portage, and Genesee	1,000 "
Hamilton	1,000 "
Marcellas	50 "
Upper Helderberg	50 "
Schoharie, and Canda-galli	10 "
Oriskany sandstone	5 to 30 ft.

Old Say'brook, in *Connecticut*, a township of Middlesex co.

Old School, *n.* A school, party, or class of society belonging to a past age, or presenting the characteristic qualities peculiar to former times; as, a gentleman of the *old school*; — used also adjectively, as, *old-school* religionists.

Old'-style, *n.* See STYLE.

Old'style, JONATHAN, a pseudonym of WASHINGTON IRVING. *q. v.*

Old Tes'tament, *n.* (*Script.*) That part of the Bible which contains the collected works of the inspired writers previous to Christ.

Old Town, in *Illinois*, a township of McLean county.

Old Town, in *Maine*, a post-village and township of Penobscot co., abt. 70 m. N.E. of Augusta. It has extensive water power and large lumber mills.

Old Town, in *Maryland*, a village of Alleghany co.

Old Town, in *Tennessee*, a post-village of Claiborne co.

Old Town Creek, in *Mississippi*, enters Tombigbee River in Monroe co.

Old Town Island, in *Maine*, an Indian settlement on an island of the same name in the Penobscot River, abt. 1 m. N. of the village Old Town.

Old Wash'ington, in *Alabama*, a village, former cap. of Washington co., abt. 70 m. N.N.W. of Mobile.

Old-wife, *n.*; *pl.* OLD-WIVES. A contemptuous name for a prating old woman.

O'lea, *n.* [Gr. *olaia*, oil.] (*Bot.*) The typical genus of the order *Oleaceæ*. The species *O. europæa* is the olive-tree, one of the most celebrated and useful of plants. It is usually a small tree, with ever-green but dull-looking leaves. The ripe fruit has a very fleshy pericarp, which yields, when pressed, a fixed oil, called *olive-oil*. This valuable product is used for dietetical purposes, in the arts, and in medicine. The finest sorts are produced near Aix, Montpellier, Nice, Genoa, Lucca, and Florence.

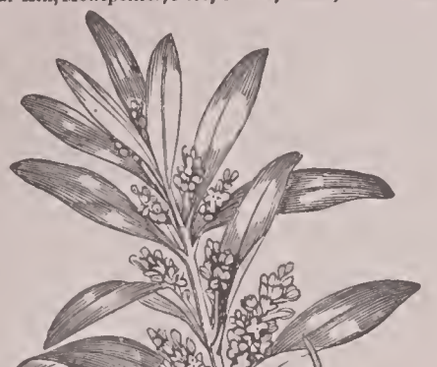

Fig. 1987. — COMMON OLIVE.
(*Olea Europæa.*)

Olive-oil is also largely produced in the state of Naples, and exported from Gallipoli; hence it is often called *Gallipoli oil*. In medicine, the oil is principally employed externally, either by itself or mixed with other materials, in cerates, ointments, and plasters. When administered internally, it is nutrient, emollient, demulcent, and laxative. The fruit of the olive is esteemed as an article for dessert, being supposed to be particularly valuable for preparing the palate for choice wines. Olives for dessert are gathered when unripe, soaked in water to get rid of their excessive bitterness, and then preserved in salt and water, slightly aromatized. The wood of the olive is much employed for cabinet-work, being remarkable for its hardness. The leaves and barks have been highly extolled by some medical writers for their tonic and febrifugal properties. The substance called *olive gum*, or *olivile*, is a resinous exudation from the tree.

Olea'ceæ, *n.* (*Bot.*) The Oliveworts, an order of plants, alliance *Solanales*. DIAG. Two or four free stamens. — They are trees or shrubs, with opposite leaves; flowers usually perfect, or rarely unisexual; calyx persistent, 4-cleft, sometimes obsolete, inferior; corolla regular 4-cleft, or of 4 distinct petals — sometimes absent æstivation valvate; ovary 2-celled, with 2 suspended ovules in each cell; fruit fleshy or dry, often 1-seeded; seeds with abundant fleshy albumen; embryo straight. Most of the plants of this order flourish in temperate regions, but a few occur in the tropics. The barks of many are tonic and febrifugal. The mild purgative called *manna* is obtained from several species. The wood of some is hard and durable. The most valuable product of the order is olive-oil. (See OLEA.) The order contains 24 genera and 130 species.

Oleaginous, (*ō-le-ăj'i-nus,*) *a.* [Lat. *oleaginus*, from *olea*, an olive, Fr. *oléagineux.*] Oily; unctuous.

Olea'men, *n.* [Lat.] (*Med.*) Any soft ointment prepared of oil.

Olean (*o-le-an'*), in *New York*, an important railroad town of Cattaraugus co., on the Allegheny river, the Genesee Valley canal, and the Erie R. R. *O.* has immense oil storage tanks, with a total capacity of many million barrels. It is the N.E. terminus of the United Pipe Lines. *Pop.* (1897) about 9,500.

Olean'der, *n.* (*Bot.*) See NERIUM.

Oleas'ter, *n.* (*Bot.*) See ELEAGNACEÆ.

O'leate, *n.* (*Chem.*) A salt formed of oleic acid and a base.

Olecra'non, *n.* [Gr. *olekranon*, from *olene*, elbow, and *kranon*, *kranion*, the head.] (*Anat.*) The projecting process of the *ulna*, the sharp, uncovered projection at the elbow, over which the ulnar nerve passing, and only protected by the cuticle, exposes it to the numbing sensation experienced in the hand and forearm when the part is accidentally bruised or hit.

Ole'fiant Gas, *n.* [Fr., from Lat. *oleum*, and *facere*, to make.] (*Chem.*) A hydrocarbon obtained by reacting on alcohol with an excess of sulphuric acid, in a retort (Fig. 1988) capable of holding three or four times the bulk of the liquid. On heat being applied, the mixture froths up and gives off a transparent, colorless, inflammable gas, which has a faint, sweetish odor, and dissolves in twelve times its bulk of water. It was liquefied by Faraday under great pressure. When mixed with chlorine, it forms an oily body, first discovered in Holland, and thence known as *Dutch liquid*.

Fig. 1988. — PREPARATION OF OLEFIANT GAS.

From this circumstance, it has received its name of *olefiant gas*. Mixed with oxygen, it forms a highly explosive mixture. It burns with a brilliant white flame, depositing a large amount of carbon on cold surfaces, and is a more or less large constituent of ordinary coal-gas. It is the type of a series of homologous bodies known as the olefiant gas series of hydrocarbons, which progress, in regular increments of two equivalents of hydrogen and carbon, from methylene (C_2H_2) to paramylene ($C_{30}H_{30}$). It is also known in organic chemistry as ethylene; and its oxide, in the hands of M. Wurtz, an eminent French chemist, has produced a series of compounds of great interest and importance. M. Wurtz looks on it as the connecting link between organic and inorganic compounds.

Olegglo, (*o-led'jo,*) a town of N. Italy, Piedmont, 10 m. N. of Novara; *pop.* 7,500.

Ole'ic Acid, *n.* (*Chem.*) An acid obtained by saponifying almond-oil with potash, and decomposing the soap by hydrochloric acid, which separates a mixture of oleic acid and margaric acid. This, by digestion with oxide of lead, is converted into oleate and margarate of lead; and by digesting these in ether, an acid oleate of lead is dissolved. The ethereal solution is mixed with its bulk of water, and decomposed by hydrochloric acid which throws down chloride of lead, and leaves the oleic acid in solution, from which it is obtained by evaporation. The crude oleic acid produced by pressure in the manufacture of stearine candles may be similarly purified. Oleic acid is colorless, concretes at about 50°, and reddens litmus. It is insoluble in water, but abundantly soluble in alcohol. The neutral oleates have little tendency to crystallize. The soluble alkaline oleates are soft, fusible compounds, more soluble in alcohol than in water, and are decomposed, by excess of water, into free alkali and acid compounds.

Oleiferous, *a.* [Lat *oleum*, and *ferre*, to bear.] Oil-producing; as, *oleiferous* seeds.

O'leine, *n.* [Fr. *oleine.*] (*Chem.*) The principal ingredient in the fat oils which remain fluid at common temperatures. It is procured by separating the palmitin and stearine from a fat oil by cold and pressure, dissolving the liquid portion in ether, evaporating and digesting the residue in cold alcohol, which dissolves the oleine, and leaves palmitin and stearine undissolved. Oleine is colorless, inodorous, and tasteless. Its specific gravity is about 0·9. It is insoluble in water, but abundantly soluble in alcohol and in ether. It remains fluid at 32°.

Olek'ma, a river of Asiatic Russia, in Siberia, govt. of Yakoutsk, which, after a N. course of 400 m., joins the Lena opposite the village Olekminsk.

O'lema, in *California*, a post-village of Marin co., abt. 18 m. W.N.W. of San Rafael.

Ole'na, in *Illinois*, a post-village and township of Henderson co., about 120 m. N.W. of Springfield, and 10 m. E. of Burlington, Iowa.

Ole'na, in *Ohio*, a post-village of Huron co., about 8 m. S.S.E. of Norwalk.

Olentan'gy (or WHETSTONE) **River,** in *Ohio*, enters the Scioto River in Franklin co.

Oleom'eter, *n.* [From Lat. *oleum*, and Gr. *metron*, measure.] An instrument to determine the weight and purity of oil.

Oleo-sac'charum, *n.* [Lat. *oleum*, and Gr. *sakcharon*, sugar.] (*Pharmacy.*) A mixture of oil and sugar.

Oleose', O'leous, *a.* Oily; as, an *oleose* substance. (a.)

Oleraceous, (*ol-e-rā'shus,*) *a.* [From Lat. *oleris*, pot

herbs.] (*Bot.*) Belonging or having reference to pot-herbs; consisting of herbs for cookery.

Oleron, (Isle of,) (*o'lai-rawng,*) an island off the W. coast of France, dept. Charente-Inferieure, opposite the mouth of the Charente; Lat. 46° N., Lon. 0° 20' W.; 7 m. S. of the Isle of Ré. *Area*, 99 sq. m. *Cap.* Château d'Oleron. *Pop.* 18,178.

O'ley, in *Pennsylvania*, a post-township of Berks co.; *pop.* abt. 2,500.

Olfact', *v. a.* To smell; — used in burlesque.

Olfac'tion, *n.* (*Physiol.*) The sense by which we perceive the impressions made on the olfactory nerves by the odorous particles suspended in the atmosphere. The olfactory nerve, or first pair, has usually been considered the great nerve of smell; and it is probably the nerve of special sensibility, general sensibility being communicated by the branches of the fifth pair, distributed on the pituitary membrane of the nose and sinuses.

Olfac'tive, Olfac'tory, *a.* Pertaining to smelling; having the sense of smelling; as, the *olfactory* organs.

Olfac'tor, *n.* A nose; an organ of smelling.

Olfac'tory, *a.* Pertaining to the sense of smell.

O. nerves. (*Anat.*) The nerves of smell; the first pair of nerves. They arise from the part of the brain called the *corpora striata*, and, perforating the ethmoid bone, are distributed over the mucous membrane of the nose.

Ol'ga, a woman of obscure birth, who became the wife of Igor, grand-duke of Russia, and after the death of her husband, in 945, governed the country for ten years as regent. Having become a Christian, and contributed to the spread of the faith, she is regarded as a saint in the Greek Church. D. 968.

Olliba'num, *n.* [Fr. *oliban;* Lat. *olibanum*, from Gr. *libanos.*] A fragrant gum-resin, chiefly used as a fumigation. Indian olibanum is the produce of *Boswellia thurifera;* but African or Arabian olibanum appears to be derived chiefly from another species, *B. floribunda*, according to Royle. This resin is the *lebouah* of the Hebrews, and the incense or frankincense of the Bible. See Boswellia.

Ol'ifant's River, or Elephant's River, in S. Africa, Cape Colony, enters the Atlantic Ocean in Lat. 31° 38' S., Lon. 18° 12' W.; *length*, abt. 150 m.

Ol'igarch, (*-gark,*) *n.* One of the rulers in an oligarchical government.

Oligarch'al, Ollgarch'ic, Oligarch'ical, *a.* Pertaining to oligarchy.

Oligarch'ist, *n.* An upholder or supporter of oligarchical rule.

Ol'igarchy, *n.* [Fr. *oligarchie;* Gr. *oligarchia*, from *oligos*, few, and *arche*, rule.] A form of government in which the supreme power is placed in a few hands; a species of limited aristocracy, possessing autocratical powers.

Ol'igist, *n.* (*Min.*) A variety of specular iron ore.

Ol'igist, Ollgis'tic, *a.* Pertaining or relating to, or consisting of, specular iron ore.

Olig'oclase, *n.* [Gr. *oligos*, few, and *klasis*, fracture.] (*Min.*) A soda-felspar. It is a silicate of soda and alumina, composed of 62·3 per cent. of silica, alumina 23·5, and soda 14·2. It is white, with a tinge of gray, green, yellow, or red, and is more or less translucent. The crystals, which often occur in twins, resemble those of albite.

Olin'da, a city of Brazil, about 4 m. N. of Recife; *pop.* 5,000.

O'lio, in *Alabama*, a village of St. Clair co. Its post-office is Greenport.

O'lio, in *Iowa*, a vill. of Union co., abt. 10 m. S.E. of Afton.

O'lio, *n.* [It. *olla*, a pot; Sp. *olla*, an earthen pot.] A dish of meat boiled or stewed. — A mixture; a medley; a pot-pourri; a jumble.

"I have such an *olio* of affairs, I know not what to do." *Congreve.*

(*Mus.*) A miscellany of various pieces.

Ol'iphant, Margaret, (*née* Wilson,) a popular English novelist, a. at Liverpool, 1820. Of her very numerous contributions to the world of prose fiction, the following may be mentioned as enjoying a wide popularity: — *Passages in the Life of Mrs. Margaret Maitland of Sunnyside*, a graphic picture of Scottish domestic life (1849); *Adam Græme of Mossgray* (1852); *Lilliesleaf* (1855); *Katie Stewart; The Quiet Heart; Chronicles of Carlingford*, &c. The latter is generally esteemed her *chef d'œuvre*. In 1870, *Memoirs of the Comte de Montalembert* appeared; in 1876, *Dante;* and in 1882, *the Literary Hist. of England in the end of the eighteenth and beginning of the nineteenth century*. 3 vols. Died 1897.

Ol'itory, *a.* Belonging to the kitchen garden; as, *olitory* seeds.

Oli'va, *n.* (*Zoöl.*) A genus of Mollusca, of the Buccinidæ or "Whelk" family, common in the seas of warm climates. The species are very numerous; some of the shells being large, and ornamented with a great variety of rich markings and brilliant colors. The animal has a small head, terminated by a proboscis; 2 tentacula enlarged at the base, and having the eyes situated in the middle; foot very large, as is also the mantle. The shell is oblong, cylindrical, smooth, and shining; spire short, with sutures distinctly grooved; aperture narrow and long, and notched at both extremities; outer lip generally thick; columella obliquely striated; operculum horny and small in some species, in others not existing. They are brought principally from Asia, but some are also met with on the coasts of Africa and South America.

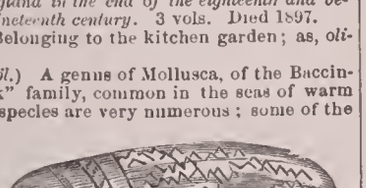

Fig. 1989. — oliva porphyzia.

Oli'va, a town of Spain, prov. of Valencia, 39 m. S.E. of Valencia, and 28 m. S.E. of Madrid. *Manuf.* Linen and hempen cloths. *Pop.* 7,000.

Olivaceous, (*-va'shus,*) *a.* Olive-green; green mixed with brown.

Olivarez, Gaspar Guzman, (*o-le-va'rais,*) Count, and Duke d', an eminent Spanish statesman, was b. abt. 1587, at Rome, whither his father had been sent on an embassy to Pope Sixtus V. When Philip IV. succeeded to the crown, the management of public affairs was intrusted wholly to *O.*, and he enjoyed, during the period of 22 years, almost unbounded authority. The domestic affairs of the kingdom he conducted with much success; but in foreign affairs he was constantly thwarted by the bolder genius of the French minister, Richelieu, and had the mortification to witness the separation of Portugal from the crown of Spain, and the loss of Brazil and other foreign colonies, which fell into the hands of the Dutch. In consequence of these misfortunes the king was reluctantly forced to dismiss him in 1643, and he n. soon after.

Olivas'ter, *a.* Tawny; of the color of the olive; darkly brown.

Ol'ive, *n.* [Fr.; Lat. *oliva;* Gr. *oleia.*] (*Bot.*) See Oliva.

—The hue or color of the olive, being a combination of violet and green mixed proportionately; as, an *olive* complexion.

Olive, in *Indiana*, a township of Elkhart co.—A township of St. Joseph co.

Olive, in *Iowa*, a township of Clinton co.

Olive, in *Michigan*, a township of Clinton co.—A township of Ottawa co.

Olive, in *New York*, a post-township of Ulster county.

Olive, in *Ohio*, a township of Meigs co.

—A village and township of Noble co., abt. 26 m. N. of Marietta.

Ol'ive City, in *Arizona*, a village of Yuma co., about 150 m. W. S. W. of Prescott.

Oliveira, (*o-le-va'e-ra,*) a town of Brazil, abt. 40 m. S. of Tamandua; *pop.* 2,000.

Oliven'ça, or Olivenza, a town of Brazil, abt. 130 m. S.S.W. of Bahia.

Ollvenite, *n.* (*Min.*) A mineral, consisting chiefly of arseuic acid and protoxide of copper, with a little phosphoric acid and a little water. It is generally of some dark shade of green, sometimes brown or yellow. It is found, along with differeut ores of copper, in Cornwall and elsewhere. It is often crystallized in oblique four-sided prisms, of which the extremities are acutely bevelled, and the obtuse lateral edges sometimes truncated, or in acute double four-sided pyramids; it is sometimes also spherical, kidney-shaped, columnar, or fibrous.

Olivenza, (*o-le-vain'tha,*) a town of Spain, prov. of Estremadura, 14 m. S.S.W. of Badajoso. *Pop.* 5,917.

Ol'ive Oil. (*Agric.*) See Section II.

Ol'iver, in *Ohio*, a township of Adams co.

Oliver, in *Pennsylvania*, a township of Mifflin co. *Pop.* (1897) 1,140.—A township of Perry co.

Olive'rian River, in *New Hampshire*, enters the Connecticut River, in Grafton co.

Ol'iver's Prairie, in *Missouri*, a village of Newton co., abt. 12 m. E. by N. of Neosho.

Ol'ivesburg, in *Ohio*, a post-village of Richland co., abt. 76 m. N.N.E. of Columbus.

Ol'ives, (Mount of,) or Mount Olivet, a ridge running N. and S. on the E. side of Jerusalem, its summit about half a mile from the city wall, and separated from it by the valley of the Kidron. It is composed of a chalky limestone, the rocks everywhere showing themselves. The olive-trees that formerly covered it, and gave it its name, are now represented by a few trees and clumps of trees which ages of desolation have not eradicated. There are three prominent summits on the ridge; of these the southernmost, which is lower than the other two, is now known as the "Mount of Offence," originally the "Mount of Corruption," because Solomon defiled it by idolatrous worship. Over this ridge passes the road to Bethany, the most frequented road to Jericho and the Jordan. The central summit (See Fig. 1151,) rises 200 feet above Jerusalem, and presents a fine view of the city, and indeed of the whole region, including the mountains of Ephraim on the N., the valley of the Jordan on the E., a part of the Dead Sea, on the S.E., and, beyond it, Kerak in the mountains of Moab. Perhaps no spot on earth unites so fine a view, with so many memorials of the most solemn and important events. Over this hill Christ often climbed in his journeys to and from the holy city. Gethsemane lay at its foot on the west, and Bethany on its eastern slope. From the summit, three days before his death, Christ beheld Jerusalem, and wept over it, recalling the long ages of his more than parental care, and grieving over its approaching ruin.

Ol'ivine, *n.* (*Min.*) The name applied to varieties of *Chrysolite* of inferior color and clearness. It occurs in yellowish-green or olive-colored masses and grains embedded in basalt and lava, as in the basalt of the Giant's Causeway in Ireland, the lava of Unkel on the Rhine, &c. *O.* is an anhydrous silicate of magnesia and protoxide of iron, and is very difficult of fusion.

Ol'la, *n.* [Hind.] The leaf of a palm preparod for writing on by means of a sharp stick, &c.

Ol'la, *n.* [Sp.] An Olio, *q. v.*

Olla-podrida, (*ol'ya-pŏd-reē'da,*) *n.* [Sp., putrid mixture.] (*Cookery.*) A favorite dish among the Spaniards, forming a kind of stew of meat and vegetables, seasoned with garlic and hot peppers. The epithet *poarida* is applied to this dish, in consequence of the poorer classes being obliged to serve it up so often that the odor arising from long keeping is far from agreeable.

—An olio; a pot-pourri; a melange; any curious mixture or medley; any bizarre or incongruous collection.

"Quite an *olla-podrida* of people, I declare." — *Marryat.*

Olliv'ier, Emile, a French advocate and statesman, b at Marseille, 1825. He became a member of the Paris bar in 1847; and in 1848 was Commissary-General of the Republic at Marseilles; next Préfect at Langres; and returned to the bar in 1849. Elected as "Opposition" candidate for the third circumscription of the Seine in 1857, he took part in several important discussions; among which may be mentioned those relating to the laws respecting public safety, the expedition to Italy, and regulation of the press. During the session of 1860 he was one of the most distinguished members of a small group of opposition deputies, known by the name of "The Five." In the meantime he undertook the defence of M. Vacherot, indicted for his work entitled *La Démocratie*, and in consequence of the style he adopted in pleading, was suspended for three months, an appeal against this judgment failing. In 1863 he was re-elected for Paris, and in the first session he distinguished himself by his report on the law relating to coalitions, and showed such moderation in his relations with the government as to cause a coldness between himself and his old political friends, a feeling which was increased during the session of 1865, in which year he was elected a member of the Council-General of Var. In July of the same year he received the appointment of Judicial Counsel and Commissary-General to the Viceroy of Egypt in Paris, and retired from the Paris bar. In Jan., 1870, Napoleon III. selected him as prime minister, and his nomination was favorably received by the French nation, as the initiative of a more liberal system of government. But his administration did not answer public expectations, and it soon became evident that he was not strong enough to resist the personal will of the Emperor. As the head of a responsible ministry, *O.* incurred the grave responsibility of declaring war with Prussia, without being ready to maintain it, and at the first news of the Prussian invasion, his administration fell, making way for a stronger cabinet.

Olm'sted, in *Iowa*, a village of Harrison co., abt. 44 m. N.N.E. of Council Bluffs.

Olm'sted, in *Minnesota*, a S.E. co.; *area*, abt. 650 sq. m. *Rivers.* Zumbro, Root, and Minneska rivers. *Surface*, nearly level; *soil*, very fertile; *prod.*, wheat, oats, hay, corn, cattle, and butter. *County-seat*, Rochester.

Olm'sted in *Ohio*, a post-township of Cuyahoga county.

Olmütz, (*ol'me(r)tz,*) a city of Austria, in Moravia, on the March, 40 m. N.E. of Brünn. It is one of the strongest fortresses of Austria. The principal public buildings are the cathedral, town-hall, theatre, and military hospital; also a public library of 50,000 vols. *Manuf.* Woollen, linen, and cotton fabrics, earthenware, and leather. *Pop.* 15,000.

Ol'ney, in *Illinois*, a thriving city and township, cap. of Richland co., on Balt. & Ohio S. W. and P., D. & E. R. Rs., 53 m. S. of Mattoon. *Pop.* (1897) 4,560.

Ol'ney, in *Pennsylvania*, a former village of Philadelphia co., now included within the chartered limits of the city of Philadelphia, abt. 7 m. N.E. of the State-House.

Ol'neyville, in *Rhode Island*, a post-village of Providence co., abt. 1 m. W. of Providence.

Ol'ograph, *n.* See Holograph.

Ol'ona, a river of N. Italy, falling into the canal Naviglio Grande, near Milan.

Oloron, (*o-lo-rawng',*) a town of France, dept. of Basses-Pyrénées, on the Oloron, 13 m. S.W. of Pau. *Manuf.* Woollen cloth, yarn, hosiery, paper, and leather. *Pop.* 9,362.

Olot, (*o'lote,*) a town of Spain, prov. of Gerona, on the Fluvia, 53 m. N.N.E. of Barcelona. *Manuf.* Cotton cloth, and woollen caps, paper, and soap. *Pop.* 12,000.

Olus'tee, or Olustee Station, in *Florida*, a post-village of Baker co., about 20 m. E. of Lake City. Here in Feb., 1864, a Union force numbering about 5,000 men, under Gen. Seymour, encountered a body of about 3,000 Confederates, under Gen. Finuegan, and after a severe conflict of several hours, the Nationals were defeated, with a loss of over 2,000 men, besides artillery, ammunition, and wagon trains. Confederate loss, about 1,000 men.

Olym'pia, in *Washington*, a thriving city, port of entry, cap. of Thurston co., and also the State capital; at the head of steam navigation of Puget Sound, about 150 m. from the Pacific Ocean. It is pleasantly situated, and is increasing somewhat in population and importance. *Pop.* (1897) 4,950.

Olympia, (*o-lim'pe-a,*) a celebrated valley of Elis, in Greece, on the right bank of the Alpheus, and the seat of the Olympic games. The Sacred Grove (called the *Altis*) of *O.*, enclosed a level space about 4,000 ft. long by nearly 2,000 broad, containing both the spot appropriated to the games and the sanctuaries connected with them. It was finely wooded, and in its centre stood a clump of sycamores. The Altis was crossed from W. to E. by a road called the "Pompic Way," along which all the processions passed. The Alpheus bounded it on the S., the Cladeus, a tributary of the former, on the W., and rocky but gently swelling hills on the N.; W. it looked towards the Ionian Sea. The most celebrated building was the *Olympieium*, or *Olympium*, dedicated to Olympian Zeus. It was designed by the architect Libon of Elis in the 6th century B. C., but was not completed for more than a century. It contained a colossal statue of the god, the master-piece of the sculptor Phidias, and

many other splendid figures. In the immediate neighborhood were numerous other public buildings, called, collectively, like the plain, *Olympia*. Their temple of Zeus, in wonderful preservation, was brought to light

Fig. 1990.—JUPITER OLYMPUS.

by the German explorers in 1876, together with many statues in marble and bronze, also numerous articles in terra cotta.

Olym'pia, daughter of Neoptolemus, king of Epirus, was the wife of Philip, king of Macedon, and mother of Alexander the Great. She was repudiated by Philip about 336 B. C. Olympia, in revenge, is presumed to have instigated the murder of Philip. After the death of Alexander, she seized the government of Macedonia, and put to death a number of the leading personages of the kingdom; but Cassander at length besieged her in Pydna, and obliged her to surrender. Cassander promised to spare her life, but she was soon afterwards killed by the relatives of those whom she had put to death.

Olympiad, (*o-lim'pe-ăd,*) *n.* [Gr. *Olympias.*] (*Chronology.*) The period of four years which elapsed between the celebration of the Olympic games was called an Olympiad, and gradually became a celebrated æra among the Greeks, who computed their time by it. The custom of reckoning by Olympiads was first established, it is supposed, with reference to the Olympic games, which were celebrated 776 years before the Christian æra, and the computations by them ceased after the 304th, in the year 440 of the Christian æra. History has derived much advantage from the Olympiads, as they have served to fix the time of many important events; but they were not an altogether convenient measure of time; for as the games were celebrated at the time of the full moon next after the summer solstice, and as the time of the full moon differs eleven days every year, the Olympiads were of unequal lengths, sometimes beginning the next day after solstice, and sometimes four weeks afterward.

Olym'pian, Olym'pic, *a.* Pertaining to Olympus, or to Olympia, in Greece; relating to the Greek games celebrated at Olympia.

Olym'pic Games. See GAMES (PUBLIC).

Olym'pic Moun'tains, a coast-range of mountains in the northwest peninsula of Washington, between Hood's Canal and the Pacific Ocean. Mount Olympus, with an altitude of 8,138 feet, as estimated by Wilkes, is a snow-capped peak, and may be seen far out to sea. It gives identity to the chain; and the name *Olympic* is now generally applied to this range. This sierra, for it consists of several peaks, was first seen by Perez, in 1774, who named it *La Sierra Santa Rosalia.* Meares saw it in 1788, and describes it under the name which he gave it, of Mount Olympus. Around and from the base of this main sierra, the numerous mountains descend to hills and spurs, and abruptly terminate on the sandy beach of the ocean in low perpendicular bluffs.

Olympion'ic, *a.* [Gr. *Olympionikes.*] Among the ancients, an ode or triumphal song in honor of a victor in the Olympic games.

Olym'pus. [Gr. *Olympos.*] A celebrated mountain of Thessaly, on the border of Macedonia, 30 miles N. of Larissa; Lat. 40° 4′ 32″ N., Lon. 22° 25′ E. Its highest peak is 9,745 feet above the sea, and is covered with snow during two-thirds of the year. The E. side, which fronts the sea, is composed of a line of precipices, while a profusion of oak, beech, chestnut, and other trees are scattered at its base, and higher up are immense forests of pine, giving it in parts a majestic and again a sombre appearance: hence, the appellations of the ancient writers; as, the *frowning Olympus*, the *majestic Olympus*, &c. It was regarded by the ancient Greeks as the abode of the gods; and the palace of Jupiter was supposed to be on the summit. According to the Greek legend, it was formerly connected with Ossa, but was separated from it by an earthquake, allowing a passage for the Peneus through the narrow vale of Tempe to the sea. The philosophers afterwards transferred the abode of the gods to the planetary spheres, to which they also transferred the name of Olympus. *O.* is also the ancient name of several mountains, viz.: the N.W. range of Taurus, in Mysia; a mountain in the island of Cyprus; one in Lycia; one in Elis; and one on the borders of Laconia and Arcadia.

Olym'pus, in *Tennessee*, a post-village of Overton co.

O'maha, in *Missouri*, a post-village of Putnam co., about 75 m. W. by N. of Keokuk, Iowa.

O'maha, in *Nebraska*, the chief commercial city of the State, cap. of Douglas co., and one of the most important in the West, located on the right bank of the Missouri river, opposite Council Bluffs, Iowa; Lat. 41° 16′ N., Lon. 96° W. *O.* is a great R. R. center, and the principal shops of the Union Pacific R. R. are here located. There are several immense packing houses (also in South Omaha, adjoining), extensive breweries, foundries, brick works, machine shops, &c., and one of the largest silver smelting works in America. The principal streets are from 100 to 200 feet wide, with smooth pavements, and the city is, on the whole, well built and attractive in appearance. *Pop.* (1900) 102,555.

Oman', (anc. *Omana,*) an extensive division of S.E. Arabia, between the Persian Gulf and Arabian Sea, or Sea of Oman, and forming the central part of the Muscat dominions. It is a kind of desert, studded with oases, and having fertile valleys among its mountains. *Chief towns.* Bostak, Muscat, and Minnah. The latter has copper-mines. *Pop.* Unknown.

Oman'ney, (Cape,) in *Alaska*, the most S. point of King George III. Archipelago, at the entrance to Chatham Sound; Lat. 56° 10′ N., Lon. 134° 34′ W.

O'mar I., caliph of the Mussulmans, was the successor of Abu-Bekr, and father-in-law of Mohammed. He began his reign A. D. 634, and is conspicuous among the conquerors who chiefly contributed to the spread of Islamism. His generals, Khaled and Abu-Oheidah, drove the Greeks out of Syria and Phœnicia; and the caliph himself took possession of Jerusalem in 638, which city remained in the hands of the infidels till it was reconquered by Godfrey of Bouillon, at the end of the 11th century. Amru, one of his generals, defeated the troops of Heraclius, near Antioch, in 641. Memphis and Alexandria surrendered; all Egypt and a part of Libya were conquered from the Romans; and the famous library, which had been founded at Alexandria by Ptolemy Philadelphus, is said to have been burnt by the express order of *O.* Having fixed his residence at Medina, he was there assassinated by a Persian slave, in the 10th year of his reign, A. D. 643. He refused to appoint a successor; and thus the caliphate became elective. The æra of the Hegira was established in the time of this caliph, who also introduced the system of standing armies, and a police force. *O.* was highly distinguished for his impartial administration of justice.

OMAR II., the eighth caliph of the Ommiades, was great grandson of the preceding, and succeeded Solyman in 717. He laid siege to Constantinople, but was forced to raise it, on account of a violent storm, which destroyed a great part of his fleet. Poisoned, 720.

O'mar, in *New York*, a post-village of Jefferson co., abt. 160 m. N.W. of Albany.

Omar, in *Ohio*, a village of Seneca co., abt. 18 m. E. of Tiffin.

Oma'sum, *n.* [Lat.] (*Anat.*) The third stomach of ruminant animals.

Om'bay, MALOEWA, or MALUWA, an island between Celebes and the N.W. coast of Australia, lies to the N. of Timor, from which it is separated by the Strait of Ombay, Lat. 8° 8′—8° 28′ S., Lon. 124° 17′—125° 7′ E.; *area*, 961 sq.m. The hills of *O.* are volcanic, and the coasts steep and difficult to approach. The inhabitants are dark brown, have thick lips, flat nose, and woolly hair; appearing to be of mixed Negro and Malay origin. They are armed with the bow, spear, and creese, and live on the produce of the chase, with fish, cocoa-nuts, rice, and honey. A portion of the island formerly belonged to the Portuguese, but since August 6, 1851, it has entirely become a Netherlands possession. *Pop.* abt. 200,000.

Ombre, (*ŏm'br,*) *n.* [It. *ombre*; Fr. *hombre*, from Lat. *homo*, a man.] A game at cards, usually played by three persons.

Ombrom'eter, *n.* [Fr. *ombromètre*; Gr. *ombros*, rain, and *metron*, a measure.] An instrument to measure a rain-fall; a rain-gnage.

O'Mea'ra, BARRY EDWARD, the confidential medical attendant of the Emperor Napoleon I. in his last days, and author of *A Voice from St. Helena*, was a native of Ireland, and B. 1778. He was originally a surgeon in the British navy, and was on board the "Bellerophon" in that capacity on the 7th of August, 1815, when Napoleon went on board. Napoleon having observed Dr. O'Meara's skill and his knowledge of Italian, made overtures to him, on being transferred to the "Northumberland," to accompany him to St. Helena as his surgeon. Having obtained Admiral Keith's permission, Dr. O'Meara assented, and remained with the ex-emperor till July, 1818, when he was recalled and deprived of his rank, for having accused Sir Hudson Lowe before the Admiralty of cruel and arbitrary conduct. He was latterly an active partisan of O'Connell, at one of whose agitation meetings he is said to have caught the illness which terminated fatally, June 3, 1836.

Ome'ga, *n.* [Gr. ὦ *mega*, the long o.] The last letter of the Greek alphabet; hence, the last of anything.

Alpha and Omega, the beginning and the ending.

Ome'ga, in *California*, a post-village of Nevada co., abt. 20 m. E.N.E. of Nevada City.

Om'elet, *n.* [Fr. *omelette.*] (*Cookery.*) A kind of pancake or fritter made with eggs and other ingredients mixed; as, an *omelet* aux truffés.

O'men, *n.* [Lat.] A sign believed to prognosticate a future event. Omens have been common among most nations, but were chiefly received in the ruder ages, and among the more ignorant of a people. Even in the present day, in many parts of England, a superstitious belief in omens exists. The howling of a dog by night is believed to presage a death in the neighborhood. The screeching of the owl and the croaking of the raven have, both in ancient and modern times, been regarded as omens of some dire calamity. It is regarded as unlucky to see first one magpie and then more: but two denote marriage or merriment; three, a successful journey; four, an unexpected piece of good news; five, that you will shortly be in a great company. To kill a magpie is to incur some terrible misfortune. When a person goes out on any important business, it is lucky to throw an old shoe after him. To present a knife, scissors, razor, or other sharp or cutting instrument to one's friend is unlucky, as they are apt to divide love and friendship. The falling of salt towards persons at table, the spilling of wine on their clothes, are evil omens. Breaking a looking-glass betokens the death of the best friend of the person to whom it belonged. The itching of the nose implied that a stranger was coming; the burning of the cheeks, or tingling of the ears, that others were talking of us; if of the left cheek or ear, ill — the right, well. The way in which fires, candles, or lamps burned suggested sundry omens. Divers presages concerning the weather are taken from the habits of birds, bees, gnats, &c. A sow crossing the road before a person going on a journey, is believed to indicate a disappointment, if not a bodily accident to such person; but if the sow be attended by her litter of pigs, it denotes a successful journey. To stumble is regarded as unlucky, except in going up stairs, when it is considered lucky. Fishermen and sailors are particularly influenced by omens, which they fancy they discover in the most trivial circumstances. To lose a bucket, or to throw a cat overboard, is believed to be very unlucky. Whistling is supposed to raise the wind. Sneezing, an involuntary tremor in the mind or body, or other nervous affection, particularly spots on the body, are among the circumstances from which good or evil is presaged. By a regard to these things, many persons add very considerably to their proper share of human misery without any countervailing amount of good.

Omen, *v. a.* To forbode: to indicate, as likely to happen or come to pass; as, to *omen* well of an undertaking.—To augur; to divine; to foretell; to prognosticate.

Omened, (*o'mend,*) *a.* Containing an omen or prognostic; as, an ill-*omened* occurrence.

O'mening, *n.* A prognostication; a divination. (R.)

Omen'tum, *n.* [Lat.] (*Anat.*) A prolongation of the peritoneum, which floats above a portion of the intestines and is formed of two membranous layers, with vessels and fatty bands distributed through it.

O'mer, *n.* A Hebrew measure of capacity; the tenth part of an ephah, or a little more than 5 pints.

O'mer Pasha, or **Omar Pasha,** MICHEL LATTAS, Generalissimo of the Sultan's forces in Europe, and Grand Vizier, of Croat origin, born at Plaski, on the Adriatic, 1806; received his education at the high school at Thurm, in Transylvania, and distinguished himself, it is said, by proficiency in mathematics. He became a cadet in the border regiment of Ogulin, which he shortly left to become assistant surveyor of roads and bridges.

Fig. 1991 — OMAR PASHA.

Tiring of this drudgery, he deserted from the Austrian army, when, being in quest of a living, he was induced, as a means of qualifying himself for the position of tutor, in the house of a Turkish merchant, to adopt the creed of Islam, and thereupon took the name of Omer, applying himself with great assiduity to study the language, manners, and customs of his new countrymen. He became a master in the new military school at Constantinople, where Kosrew Pasha, then minister of war,

perceiving his talents and enterprise, appointed him officer in the regular army of the Sultan, and shortly afterwards made him adjutant on his personal staff. It was in quelling the insurgents in Syria and Albania that he first distinguished himself, and he was equally successful in Kurdistan. In 1848, having become a pasha, he kept the aggressive policy of the Russians in check in Wallachia, and in 1852 was sent to effect the reduction of the hardy and warlike Montenegrins, and he had advanced to within a day's march of Cettigne, when the Austrian special commissioner at Constantinople induced the Divan to recall him, and abandon the war. In June, 1853, the Russian troops having marched into Moldavia and Wallachia, *O. P.* was appointed Generalissimo of the Turkish army. The Sultan's declaration of war was dated Oct. 4, and the first important collision between the belligerents, in which the Russians were defeated with great loss, (as they were on subsequent occasions,) occurred Nov. 4. He joined General Canrobert and Lord Raglan, with a part of his army, before Sebastopol; and though his troops took no part in the siege, he made a diversion in Asia Minor, and forced the passage of the Ingour, Nov. 6, 1855. He was sent to restore order in Herzegovina, in May, 1861, and having performed various services, was employed in 1867 to subdue the Cretan insurrection. His personal and domestic habits were European, and, notwithstanding his change of creed he became the protector of the Christian subjects of the Sultan, and the ameliorator of their lot. In later life he held the rank of commander of the Imperial Guard at Constantinople. Died in 1871.

Omer (*o-mair'*), **St.,** a fortified town of France, dept. Pas-de-Calais, on the Aa, 40 m. N.W. of Arras, and 29 m. N.E. of Boulogne. It is surrounded by strong fortifications. The principal public buildings are the cathedral of Notre Dame, the town-hall, the college, and the military hospital. *Manuf.* Woollen cloth, yarn, lace, basket-work, soap, glue, paper, and tobacco-pipes. *Pop.* 21,869.

Omet'epe, or OMETEPEC, a volcanic island in Lake Nicaragua, Central America; *area*, abt. 150 sq. m. On it are two villages, Ometepe and Muyagalpa, and extensive ruins of Indian sepulchres and other ancient architecture.

Om'inous, *a.* [Lat. *ominosus*, from *omen*, *ominis*.] Pertaining, or having reference to omens.—Containing or conveying an omen; as, prognosticating that which is propitious or happy; auspicious; — used in a good sense; as, a good *ominous* name. (*Bacon.*) — Foreshadowing evil; adverse; inauspicious; — employed in an ill sense; as, an *ominous* warning.

Om'inously, *adv.* With good or bad omens.

Om'inousness, *n.* Quality of being ominous.

Omis'sible, *a.* That may be omitted or passed by.

Omission, (*o-mish'un,*) *n.* [Fr.; Lat. *omissio*, from *omitto*.] The neglect or failure to do something which a person had power to do, or which duty required to be done; a leaving out; neglect or failure to insert or mention; as, acts of *omission* and commission. — That which is omitted, passed by, or left out; as, an *omission* that cannot be repaired.

Omis'sive, *a.* Leaving out; neglecting; omitting. (R.)

Omis'sively, *adv.* By leaving out, or omitting.

Omit', *v. a.* [Fr. *omettre;* Sp. *omittir;* Lat. *omitto*, from *ob*, and *mitto*, to let go.] To leave out; not to insert or mention; to let fall; to drop; not to name.

"Who can *omit* the Gracchi?" — *Dryden.*

—To pass by; to ignore; to neglect to perform or make use of; as, he *omitted* to pay the money he owed me.

Omit'ter, *n.* One who omits, ignores, or leaves out; a neglecter.

Om'miades, *n. pl.* (*Hist.*) A dynasty founded in Arabia by Moawiyah, in 655 or 661. Merwan II., the fourteenth and last caliph of this race, was slain in a mosque on the banks of the Nile, Feb. 10, 750, when the Abbassides (*q. v.*) assumed the reins of power. Abderrahman, the only member of the Ommiades who escaped the massacre at Damascus, founded a caliphate in Spain, in 755. Eighteen caliphs reigned, Hinem III., who resigned in 1031, being the last.

Om'nibus, *n.* [Lat., for all; dative *pl.* of *omnis*.] A large carriage, with seats running lengthwise, drawn by horses, and used for conveying passengers a short distance in a city, or from a city to its environs.

Omni'ety, *n.* The omniscient, or all-comprehensive spirit; — hence, the Great Creator.

Omnifa'rious, *a.* [L. Lat. *omnifarius*, from Lat. *omnis*, all, and *varius*, different, various.] Of all varieties, forms, degrees, or kinds; as, *omnifarious* learning, *omnifarious* drinks.

Omnif'erous, *a.* [Lat. *omnifer*, from *omnus*, and *fero*.] All-bearing; producing all kinds.

Omnif'ic, *a.* [From Lat. *omnis*, all, and *facio*, *facere*, to make.] All-creating.

Om'niform, *a.* [From Lat. *omnis*, and *forma*, form.] Having every shape or form.

Omniform'ity, *n.* Quality of having every shape or form.

Om'nify, *v. a.* [Lat. *omnis*, and *facere*, to make.] To make univereal, or of every form, degree, or kind.

Omnigenous, (*om-nij'e-nus,*) *a.* [Lat. *omnigenus*.] Consisting of all kinde.

Om'nigraph, *n.* [Lat. *omnis*, all, and *graphein*, to write.] Same as PANTOGRAPH, *q. v.*

Omnipa'rient, *a.* [Lat. *omnis*, and *parere*, to produce.] All-producing.

Omnipar'ity, *n.* [From Lat. *omnis*, and *paritas*.] General equality; common parity.

Omnip'arous, *a.* Omniparient; producing all things.

Omnipercip'ience, Omnipercip'iency, *n.* [Lat. *omnis*, and *percipiens*, perceiving.] Power of universal perception.

Omnipercip'ient, *a.* All-perceiving.

Omnip'otence, Omnip'otency, *n.* [Fr.; Lat. *omnipotentia*, from *omnis*, and *potens*.] Unlimited or infinite power; a word, in strictness, applicable only to God; — hence, sometimes used for *God*.

"Will *Omnipotence* neglect to save?" — *Pope.*

Omnip'otent, *a.* [Lat. *omnipotens*.] Possessing unlimited power; all-powerful; almighty; as, the *Omnipotent* Being. — Having unlimited power of a particular kind; all-pervading; as, the *omnipotent* love of money.

Omnip'otently, *adv.* With almighty power; in an omnipotent manner.

Omnipres'ence, *n.* [Fr. *omniprésence;* Lat. *omnis*, and *præsentia*.] Presence in every place at the same time; unbounded or universal presence; ubiquity; an attribute of the Almighty.

Omnipres'ent, *a.* Present in all places at the same time; ubiquitary.

Omnipresential, (*-sen'shal,*) *a.* Implying universal presence. (R.)

Omniprev'alent, *a.* [Lat. *omnis*, and *prævalens*, prevalent.] All-prevalent.

Omniscience, (*om-nish'ens,*) *n.* [Fr. *omniscience;* Lat. *omnis*, and *scientia*.] The quality of knowing all things at once; knowledge unbounded or infinite; — an attribute belonging to the Deity.

Omniscient, (*om-nish'ent,*) *a.* [Lat. *omniscions*.] Having universal knowledge, or knowledge of all things, past, present, and future; infinitely knowing; all-seeing; as, the *omniscient* eye of God.

Omni'sciently, *adv.* By omniscience.

Omnispec'tive, *a.* [Lat. *omnis*, and *specere*, to view.] All-seeing.

Om'nium, *n.* [Lat., of all.] (*Finance.*) A term used on the English Stock Exchange, to denote the average par of valuation of the different stocks in which a government loan is funded.

Om'nium-gath'erum, *n.* [Lat. *omnium*, from *omnis*, and *gatherum*, from Eng. *gather*.] A confused mixture or varied assortment of things; an incongruous or miscellaneous collection or medley of persons; a jumble; a hotch-potch; an olio, olla-podrida, or melange; — used colloquially.

"*Omnium-gatherum*, or, in plain English, a mass of all sorts." *Steele.*

Omniv'agant, *a.* [Lat. *omnis*, and *vagans*, wandering.] Wandering about anywhere and everywhere.

Omniv'orous, *a.* [Lat. *omnivorus*, from *omnis*, and *vorare*, to eat greedily.] All-devouring; eating everything indiscriminately.

Omo'a, a village of Honduras, Central America, on the Bay of Honduras, abt. Lat. 15° 47′ N., Lon. 88° 3′ W.

Om'oplate, *n.* [Fr.; Gr. *omoplate*, from *omos*, the shoulder, and *plate*, *plata*, the broad surface of a body.] (*Anat.*) The scapula, or shoulder-blade. — *Dunglison.*

Omphacine, (*om'fa-sin,*) *a.* [Fr. *omphacin;* Gr. *omphakinos*.] Belonging to, or expressed from, green or unripe fruit.

Omphale, (*om'fā-le,*) a queen of Lydia. She married Tmolus, who, at his death, left her mistress of his kingdom. She purchased Hercules, who had been sold as a slave for the recovery of his senses, after the murder of Eurytus. Omphale soon restored her slave to liberty, and the hero became enamored of his mistress. The queen favored his passion, and had a son by him. Hercules is represented by the poets as so desperately enamored of the queen, that, to conciliate her esteem, he spun by her side among her women, while she covered herself with the lion's skin, and armed herself with the club of the hero, often striking him with her sandals for the uncouth manner with which he held the distaff.

Omphal'ea, *n.* [Gr. *omphalos*, the navel, — from the remarkable umbilicated form of the seed-cases.] (*Bot.*) A genus of plants, order *Euphorbiaceæ*. The juice of *O. triandra* is sometimes employed in Guiana as a substitute for black ink.

Omphal'ic, *a.* [Gr. *omphalikos*.] (*Med.*) Pertaining to the navel.

Om'phalocele, *n.* [Fr. *omphalocele*.] (*Med.*) Hernia occurring at the navel.

Om'phalode, *n.* [Gr. *omphalos*.] (*Anat.*) Umbilicus; the navel.

Omphalot'omy, *n.* [Gr. *omphalotomia*.] (*Surg.*) The division of the navel-string.

Om'phazite, *n.* (*Min.*) A foliated leek-green variety of Pyroxene.

Om'ri. (*Script.*) A general of the army of Elah, king of Israel, who, being at the siege of Gibbethon, and hearing that his master Elah was assassinated by Zimri, who had usurped his kingdom, raised the siege, and being elected king by his army, marched against Zimri, attacked him at Tirzah, and forced him to burn himself and all his family in the palace in which he had shut himself up. After his death, half of Israel acknowledged Omri for king; the other half adhered to Tibni, son of Ginath, which division continued four years. When Tibni was dead, the people united in acknowledging Omri as king of all Israel, who reigned twelve years. Omri built the city of Samaria, which became the capital of the kingdom of the ten tribes. It appears under the name of Beth-Omri, on the stone tablets exhumed by Layard from the ruins of Nineveh.

Om'ro, in *Wisconsin*, a post-village and township of Winnebago co., abt. 11 m. W. of Oshkosh. *Manuf.* Lumber, machinery, glass, carriages, and cheese.

Omsk, a fortified town of Asiatic Russia, on the Irtish, at its junction with the Om; Lat. 54° 57′ N., Lon. 73° 40′ E. *Pop.* 12,000. — A military school, in which the Kirghiz and Mongol languages are taught, is located here. *Manuf.* Military clothing.

On, *prep.* [A. S.; Ger. *an;* Sansk. *ana*, In. The A. S. *on* bears both meanings, *in* and *on;* and the difference between the two is probably the result of usage, with the intention to distinguish.] Denoting closeness, nearness, or contiguity; being in contact with the upper surface or upper part of a thing, and supported by it; placed or lying in contact with the surface; as, we lie *on* a bed; the house rests *on* a foundation. — Coming or falling to the surface of anything; — employed to denote the motion of a thing as descending to the surface of another; as, tears fell *on* her cheek. — Performing or acting by contact or collision with the surface, outside, or external part of anything; upon; hence, with; by means of; as, to play *on* the piano, to hit a person *on* the nose. — Noting augmentation; besides; in addition to; as, heaps *on* heaps of money. — At or near; — denoting situation, position, or location; as, *on* one hand or the other, *on* the Atlantic Ocean, Paris is situated *on* the Seine. — Indicating a resting or dependence for support; with confidence in; in reliance on; as, may I rely *on* your promise; hence, noting the ground or base of anything; as, I will do it *on* certain conditions. — At or in the time of; as, *on* the Fourth of July we take a holiday; — it is customary to say *at* the hour, *on* or *in* the day, week, month, or year. — At the time of; — implicative of some cause or motive; as, the joy of a lover *on* receipt of a letter from his mistress. — For; toward; — denoting the object of some passion or excitation; as, Lord have mercy *on* me. — At the peril of; for the well-being or safety of.

"Hence, *on* thy life; the captive maid is mine." — *Dryden.*

—Denoting a pledge, promise, or engagement; upon; as, he affirmed it *on* his honor as a gentleman.

—Noting invocation or imprecation, or coming to, or falling, or resting on; to the account of; as, *on* him be the blame. — In consequence of, or immediately after; following; as, peace was made *on* the proclamation of an armistice. — Noting part, distinction, or opposition; in reference or relation to.

"The Rhodians *on* the other side valiantly repulsed the enemy." *Knolles.*

On a sudden, suddenly; unexpectedly; as, he flew into a rage *on a sudden*. — *On fire*, in a state of burning, heat, or inflammation; and, figuratively, in anger, passion, or excitement.

"Her beauty set his heart *on fire*." — *Croker.*

On high, in an elevated place or position; sublimely. — *On it*, *on 't*, of it; — a colloquial vulgarism; as, I have had enough *on 't*. — *On the alert*, in a state of activity or watchfulness; vigilant; on the "qui vive." — *On the way* or *road*, travelling; journeying; progressing; as, he is *on the road* to ruin. — *On the wing*, in flight; hence, taking departure; as, birds *on the wing*, travellers *on the wing* for home, &c.

On, *adv.* Forward; onward; in advance or progression; as, move *on*. — Forward; in succession; as, from father to son, and so *on*. — Without interruption or cessation; in continuance or sequence.

"Sing *on*, sing *on*, for I can ne'er be cloyed." — *Dryden.*

—Not off; adhering; as in the expression, "He is neither *on* nor off," that is, he is irresolute; his mind is not made up. — *To put on*, to fix or attach to the body; as, he *put* his hat *on*.

(NOTE. *On* is sometimes employed as an exclamation, and, more often, as a peremptory command to go or to advance, some verb being understood; as, "*On*, Stanley, *on!*" *Scott.*)

On. (*Anc. Geog.*) See HELIOPOLIS.

On'ager, *n.* (*Zoöl.*) A name of the wild ass, *Equus asinus*. See ASS.

Onagra'ceæ, *n.* (*Bot.*) The Evening Primrose family, an order of plants, alliance *Myrtales*. DIAG. A plurilocular ovary, polypetalous or apetalous flowers, valvate calyx, definite stamens, horizontal or ascending ovules, and flat cotyledons, much larger than the radicle. — They are herbs or shrubs, with simple, exstipulate, dotless leaves; calyx superior, 2- to 4-lobed, stamens inserted into the throat of the calyx with the petals; ovary inferior, 2- to 4-colled; style simple; stigma lobed or capitate; fruit dehiscent or indehiscent; seeds numerous, without albumen. The plants of this order are chiefly native of the temperate parts of N. America and Europe; many are found in India; but they are rare in Africa, except at the Cape. They are unimportant in an economical point of view. The genera *Fuchsia* and *Œnothera* furnish the florist with many beautiful plants. The order includes 28 genera and 450 species.

Onalas'ka, in *Wisconsin*, a thriving city and township of La Crosse co., on three lines of R. R., 5 m. N.W. of La Crosse. *Pop.* (1895) 1,634.

Onan'cock, in *Virginia*, a post-village of Accomac co., about 100 m. E. by N. of Richmond.

O'nanism, *n.* [From Onan, *Gen.* xxxviii. 9.] Self-pollution; masturbation.

Onar'ga, in *Illinois*, a post-village and township of Iroquois co., about 86 m. S. by W. of Chicago. *Manuf.* Flour, flax, and wagons.

Onate (*o-nai'tai*), a town of Spain, prov. of Guipuscoa, 28 m. E.S.E. of Bilbao, and 194 m. N.N.E. of Madrid. *Manuf.* Nails. In the vicinity are iron mines. *Pop.* 5,000.

On'awa, in *Iowa*, a post-town cap. of Monona co., about 55 m. N. of Council Bluffs.

Once, (*wŭns,*) *adv.* [From *one;* D. *eens*, from *een*, and Ger. *einst*, from *ein*, one.] At one time; on one occasion and no more.

"To be *once* in doubt, is *once* to be resolved." — *Shaks.*

—Formerly; at one former time.

"Such were the notes thy *once* loved poet sung." — *Pope.*

(NOTE. *Once* is used as a noun when following *this* or *that;* as, *this once*, *that once.*)

At once, immediately; on the moment; at the same point of time.

"Stand not upon the order of your going, but go *at once*."—*Shaks.*

—At the same time; as, they all moved off *at once*.

Once and again, time after time; repeatedly; at intervals.

"A dove, sent forth *once and again* to spy." — *Milton.*

Once, (*ŏns,*) *n.* (*Zoöl.*) The OUNCE, *q. v.*

Oneid'ium, *n.* (*Bot.*) A name of the genus CALYPSO, *q. v.*

Oneot'omy, Onkot'omy, *n.* (*Surg.*) Act of operating on a tumor or abscess with a cutting instrument.

Ondaree', a small island of Hindostan, outside of the harbor of Bombay, 1 m. from the mainland.

On dit, (*ŏng dē.*) [Fr.] It is said; or, they say; hence, as a noun, a rumor flying about; as, *on dit* our friend Jack is about to be married.

One, (*wŭn,*) *a.* [A. S. *un, æn, ain;* D. *een;* Ger. *ein;* Lat. *unus;* Fr. *un;* Gr. *heis, hen.*] Single in number or kind; individual; being but a single unit, or entire being or thing, and no more; — used as a cardinal number, and often employed in a sense almost equivalent to the indefinite article *a* or *an*; as, *one* man. — Indicating a person conceived or alluded to indefinitely; — employed as an indefinite pronoun or adjective; as, "I am the sister of *one* Claudio." (*Shaks.*); — that is, of a certain individual named Claudio. It is also often used in this sense, with *some, any,* or *no;* as, will *no one* speak? and, also, sometimes employed in conjunction with *another*, to indicate a reciprocal relation.

"When they have enemies abroad, they do not contend with *one another* at home." — *Davenant.*

(In this use, as a pronoun, *one* may be in the plural; as, she went home with her little *ones.*)

Different; diverse: — denoting a contrast or a particular thing opposed to some other specified thing; — applied as a correlative adjective.

"Ask from the *one* side of heaven unto the other."—*Deut.* iv. 32.

—Constituting a whole; closely allied; united; undivided; as, they are *one* in interest.—Common in kind; the same.

"I answer'd not again, but that's all *one*." — *Shaks.*

(NOTE. *One* forms the prefix of numerous compound words; the greater number are self-explanatory; as, *one*-armed, *one*-eyed, *one*-handed, *one*-leaved, *one*-legged, *one*-masted, *one*-seeded, and the like.)

All one, identical; just the same; not different; as, it is *all one* to me whether you go or stay. — *At one*, in accord or union; with agreement, concord, or consonance; as, he is not *at one* with himself. — *In one*, in unity; in one common stock or body.

"Join'd *in one*, the good, the fair, the great." — *Granville.*

One'-berry, *n.* (*Bot.*) A plant of the genus PARIS, *q. v.*

One'eo, in *Illinois*, a post-village and township of Stephenson co., abt. 222 m. N. of Springfield.

One day, on a certain or specified day; — referring to a time gone by.

"*One day*, he found a casket filled with gold." — *Harte.*

—At a future time; on some forthcoming day or occasion; as, I expect *one day* to be married and done for.

Oneehow, Onihow, or **Nihan,** (*o-nee-how',*) one of the Sandwich Islands, Lat. 22° N., Lon. 160° 35′ W. *Ext.* 18 m. long and 8 broad; *pop.* 1,000.

One'ga, in European Russia, a lake in the govt. of Olonetz, between Lat. 60° 50′ and 62° 50′ N., Lon. 34° 20′ and 36° 20′ E. Length, N W. to S.E., 130 m.; breadth 40 m. *Area*, estimated 4,000 sq. m. It receives numerous rivers, the principal of which are the Migra, the Shooya, the Vodla, and Vytegra, and discharges its waters by the river Soir into Lake Ladoga.

—A river which rises in the Lake Latcha, and after a N. course of 250 m. enters the White Sea.

—A gulf, embracing the most S. portion of the White Sea, between Lat. 63° 50′ and 65° N., Lon. 34° 30′ and 38° E. *Ext.* About 100 m. in length and breadth. It receives the rivers Onega and Kemi.

Onegli'a, (*o-nail'ya,*) a town of N. Italy, prov. of Genoa, 41 m. E.N.E. of Nice; *pop.* 5,500.

One'-horse, *a.* With one horse; drawn by one horse; as, a *one-horse* carriage.

Oneida, (*o-ni'da,*) in *Illinois*, a post-village of Knox co., abt. 12 m. N.E. of Galesburg.

Onel'da, in *Iowa*, a township of Delaware co.—A township of Tama co.

Oneida, in *Michigan*, a twp. of Eaton co.; *pop.* abt. 2,000.

Oneida, in *New York*, a lake occupying portions of Oneida, Madison, Onondaga, and Oswego cos. It covers an area of abt. 100 m., abounds in fish of an excellent quality, receives many small streams, and empties its surplus waters into the Osage River by Oneida River.

—A central co. *Area*, abt. 1,200 sq. m. *Rivers.* Mohawk and Black rivers, and Oneida and Oriskany creeks. The Oneida occupies the S.W. angle of the co. *Surface*, undulating or nearly level; *soil*, generally very fertile, producing immense quantities of grain, hay, butter, and cheese. *Min.* Iron ore, potters' clay, gypsum, marl, and water limestone. *Caps.* Rome and Utica. *Pop.* (1890) 122,922.

—A town of Madison co., abt. 120 m. W. by N. of Albany. It has railroad communication with New York city, Oswego, and the other large towns of the State, and is a place of much activity.

Oneida, in *Ohio*, a village of Carroll co., abt. 16 m. S. E. of Canton.

Onel'da Cas'tle, in *New York*, a post-village of Oneida co., abt. 20 m. W. of Utica.

Onel'da Creek, in *New York*, enters Oneida Lake between Madison and Oneida cos.

Oneida Dep'ot, in *New York*, a village of Oneida co., abt. 26 m. E. of Syracuse.

Oneirocrit'ic, *n.* [Gr. *oneiros*, a dream, and *kritikos*, one who can discern.] An interpreter of dreams.

Oneirocrit'ical, Oneirocrit'ical, *a.* [Gr. *oneiros*, dream, and *kritikos*, critical.] Pertaining or relating to the interpretation of dreams.

Oneirocrit'icism, *n.* The art or practice of interpreting dreams.

Oneirocrit'ics, *n. sing.* Same as ONEIROCRITICISM, *q. v.*

Oneirodyn'ia, *n.* [Gr. *oneiros*, dream, and *odynē*, pain.] (*Med.*) A painful dream, as incubus and somnambulism.

Onei'romancy, *n.* [Gr. *oneiros*, dream, and *manteia*, prophecy.] Divination or prophecy by dreams.

Oneiros'copist, *n.* An interpreter of dreams; a diviner by dreams.

Oneiros'copy, *n.* [Gr. *oneiros*, dream, and *skopein*, to view.] Interpretation of dreams.

One'ka, in *Minnesota*, a village of Washington co., abt. 20 m. N.N.E. of St. Paul.

Onekotan', or ONAKUTAN', one of the Kurile Islands, off the S. extremity of Kamtschatka, between the Pacific Ocean and the Sea of Okhotsk; Lat. 49° 24′ N., Lon. 155° E. Length 30 m., breadth 15 m.

Oneness, (*wun'ness,*) *n.* Singleness in number; individuality; unity.

Oneon'ta, in *New York*, a post-village and township of Otsego county, about 80 miles west south-west of Albany.

Oneo'ta, in *Minnesota*, a post-village and township of St Louis county, on Lake Superior, and on the N. Pacific R. R., abt. 5 m. S.W. of Du Luth.

On'erary, *a.* [Lat. *onerarius*, from *onus, oneris*, a load, a burden.] Fitted for carriage or burdens; comprising a burden.

On'erous, *a.* [Fr. *onéreux;* Lat. *onerosus*, from *onus, oneris.*] Burdensome; oppressive; heavy; as, an *onerous* duty.

On'erously, *adv.* In an onerous manner; so as to burden or oppress.

One'-sided, (*wun-,*) *a.* Having one side only; — hence, limited to one side; partial; as, to take a *one-sided* view of things.

(*Bot.*) Growing on one side of a stem only; as, *one-sided* flowers.

One'-sidedness, *n.* State of being one-sided; partiality; prejudice.

On'-going, *n.* Procedure; act of advancing or eventuating; as, the *on-goings* of every-day life.

On'gnent, *n.* A corrupt spelling of UNGUENT, *q. v.*

On'-hanger, *n.* One who hangs on or imitates another; a hanger-on; a toady.

Onion, (*un'yun,*) *n.* (*Bot.*) The common name of some species of the genus *Allium*, the most important of which is the *A. cepa.* It is a biennial plant, supposed to be native of Hungary. The root bears a tunicated bulb, compressed, or round, or oblong in figure. The scape, which appears the second year, is from 3 to 4 ft. high, straight, smooth, stout, bearing at top a large, round umbel of greenish-white flowers. It is universally cultivated for the kitchen, and its peculiar merits as a pot-herb are well known. Its culture has produced many varieties, and these have received numerous names, chiefly local. The European varieties Chibbal and Cibal are used as mild condiments; and *A. schænoprasum*, the Chives or Cives, whose leaves resemble rush-leaves, is much cultivated in this country for similar purposes.

On'ion-eyed, (*-id,*) *a.* With the eyes full of tears, as if by the use of a raw onion; lachrymose.

Onion (or WINOOSKI) **River,** (*un'yun,*) in *Vermont*, rises in Caledonia co., and flowing generally W., enters Lake Champlain from Chittenden co.

On'lon River, in *Wisconsin*, enters Sheboygan River in Sheboygan co.

On'ion Valley, in *California*, a post-village of Plumas co., abt. 17 m. S. by W. of Quincy.

Onirocrit'ic, *a.* Same as ONEIROCRITIC, *q. v.*

Onis'bo, in *California*, a post-village of Sacramento co., abt. 18 m. S. of Sacramento.

Onis'ens, *n.* (*Zoöl.*) A genus of tetradecapodan crustacea, having four antennæ, of which two are very short, and the other two long and slender. The tail is very short, but composed of six segments. To this genus belong the animals known as Sow-bug, Hog-louse, and Wood-louse, which are terrestrial and have the respiratory organs completely infolded by plates developed from the abdominal members, the anterior plates being perforated by a row of small holes, through which the air has access to the gills. They frequent damp situations, and are generally found under stones, in holes of walls, &c. They feed on decayed animal and vegetable matter.

On'-looker, *n.* A looker-on; a spectator.

On'-looking, *a.* Looking on or forward; observant; expectant.

Only, *a.* [A. S. *ænlic, anlic.*] Single; one alone; as, he is the *only* good man they have among them. — By itself; having no counterpart; distinct from others of its class and kind; as, he is his mother's *only* son. — Preëminent; surpassing all others; as, patriotism is his *only* virtue.

—*adv.* [A. S. *ænlice.*] Solely; singly; separately; in one manner or for one object alone.

"He to be loved, needs *only* to be known." —*Dryden.*

—Completely; utterly; wholly; entirely; thoroughly.

"Every imagination of his heart was *only* evil continually." *Gen.* vi. 5.

O'no, in *Illinois*, a village of Edgar co., abt. 120 m. E. of Springfield.

Onobry'chis, *n.* [Gr. *onos*, ass, and *brychien*, to devour.] (*Bot.*) A genus of plants, order *Fabaceæ. O. sativa*, the Sainfoin or Saintfoin, is a spreading perennial, resembling in many respects the French Honeysuckle (*Hedysarum*). It attains the height of 2 or 3 ft., with leaves of from 9 to 15 smooth acute leaflets, and spikes of beautiful flesh-colored flowers, striated with rose-red, on long stalks. It is native of Europe, and much cultivated there as a fodder-plant.

On'oclea, *n.* [Gr. *onos*, a kind of vessel, *kleio*, to close; alluding to the contracted thecæ.] (*Bot.*) A genus of ferns, order *Polypodiaceæ. O. sensibilis*, the Sensitive Fern, is common in low grounds, having fronds abt. 1 foot high, the barren ones broad, and somewhat triangular in outline.

Onol'ogy, *n.* [Gr. *onos*, ass, and *logos*, speech.] Senseless talk; insipid discourse; bosh.

On'omancy, *n.* [Gr. *onoma*, a name, and *manteia*, divination.] Divination by the letters of a name; onomatechny.

Onoman'tic, Onoman'tical, *a.* Predicted by names, or by letters composing a name.

Onomas'tic, *a.* [Gr. *onoma*, name.] (*Law.*) Belonging or having reference to a name or signature.

Onomas'ticon, *n.* [Gr. *onomastikon.*] An index of names or terms; a compendium of subjects with their names; a dictionary; a book of nomenclature.

Onomatech'ny, *n.* [Gr. *onoma*, name, and *technē*, art.] Foretelling by the letters of a name.

Onomatol'ogist, *n.* Same as ONOMANCY, *q. v.*

Onomatology, *n.* [Fr. *onomatologie;* from Gr. *onoma*, and *logos*, discourse.] A treatise on names, or the history of nomenclature.

Onom'atope, *n.* A word formed to resemble the sound made by the thing denoted.

Onomatopœia, (*-pe'ya,*) *n.* [Gr. *onoma*, a name, and *pireo*, I make.] (*Gram. and Rhet.*) The construction of a word with similarity in sound to that made by the thing denoted, as in *buzz, crash, roar.* — An imitative word.

Onomatopoet'ic, *a.* Constructed to resemble the sound of the thing denoted.

Onomat'opy, *n.* Same as ONOMATOPŒIA, *q. v.*

Onom'omancy, *n.* Same as ONOMANCY, *q. v.*

Onondaga, (*on-on-daw'ga,*) [Indian, swamp at the foot of the hill,] in *Michigan*, a post-township of Ingham co.; *pop.* abt. 1,900.

Ononda'ga, [Indian,] in *New York*, a lake in the central part of Onondaga co., covering an area of abt. 6 sq. m. The waters are impure, owing to the numerous salt springs in the vicinity. Hence, also, it is sometimes called Salt Lake.

—A central county; *area*, about 800 sq. m. *Rivers.* Seneca river, Chittenango, Onondaga, and Oneida creeks, besides Croso, Oneida, Onondaga, Otisco, and Skaneateles lakes. *Surface*, uneven; *soil*, generally fertile. *Min.* Gypsum water-cement, and great quantities of salt. *Cap.* Syracuse. *Pop.* (1897) about 162,200.

—A post-town and township of Onondaga co., about 132 m. W. by N. of Albany. *Pop.* (1897) 5,350.

Ononda'ga Creek, in *New York*, enters Onondaga Lake from the S.

Ononda'ga Valley, in *New York*, a post-village of Onondaga co., abt. 5 m. S. of Syracuse.

Ono'nis, *n.* (*Bot.*) The Rest-harrow, or Cammock, a genus of plants, order *Fabaceæ*, having a 5-cleft bell-shaped calyx, the standard of the corolla large and striated, the keel beaked, the pod turgid and few-seeded. There are many species, chiefly natives of Europe, and generally herbaceous or half-shrubby.

On'onwa, in *Iowa*, a village of Louisa co., abt. 12 m. S.W. of Muscatine.

Onop'ordum, or ONOPORDON, *n.* [Gr. *onos*, an ass, *perdo*, I break wind.] (*Bot.*) A genus of plants, order *Asteraceæ. O. acanthium*, the Cotton-thistle, is an European wayside weed, with broad, spring-edged leaves, white with cottony hairs, and large prickly flower-heads of a dull purple color.

On'set, *n.* A rushing or setting upon; a violent attack; an assault; a storming; the onslaught of an army upon an enemy; an attack of any kind.

On'setting, *n.* A rushing upon or assaulting: onset.

Onslaught, (*on'slawt,*) *n.* [A. S. *onslagen*, to strike against, to destroy.] Attack; onset; aggression; assault.

"By storm and *onslaught* to proceed." — *Hudibras.*

Onslow, (*onz'lo,*) a seaport-town of Colchester co., Nova Scotia, abt. 55 m. N. of Halifax.

Onslow, in *N. Carolina*, a S.E. co., bordering on the Atlantic Ocean; *area*, abt. 600 sq. m. *Rivers.* New and Whitlock rivers. *Surface*, level, and in many parts marshy; *soil*, not fertile. *Cap.* Jacksonville. *Pop.* (1890) 10,303.

Onslow Bay, in *North Carolina*, an inlet of the Atlantic Ocean, between Capes Fear and Lookout.

Onslow Court-House, in *North Carolina*, a vill., former cap. of Onslow co., abt. 145 m. S.E. of Raleigh.

Onstead (*on'sted*), *n.* A solitary farm-house; a homestead. (Prov. Eng.)

Onta'rio, a S. central co., in province of Ontario, bordering on Lake Ontario; *area*, about 851 sq. m. *Cap.* Whitby. *Pop.* (1897) 59,990.

Ontario, in *Illinois*, a post-village and township of Knox co., abt. 13 m. N. of Knoxville, and 10 m. N.N.E. of Galesburg.

Ontario, in *Indiana*, a post-village of La Grange co., about 32 m. E. of Elkhart.

Ontario, in *New York*, a W. central co.: *area*, about 674 sq. m. *Rivers.* Canandaigua Outlet, Mud and Flint creeks, besides several smaller streams, and Seneca, Canandalgua, and Honeoye lakes. *Surface*, undulating or hilly; *soil*, generally fertile, producing, on an average, more butter and wool than any other county of the State. *Min.* Iron, gypsum, and water-limestone. *Cap.* Canandaigua. *Pop.* (1890) 48,453.

—A post-town of Wayne co.

Onta'rio, in *Ohio*, a post-village of Richland co., abt. 8 m. W. of Mansfield

Ontario, (Lake,) the smallest and most E. of the five great lakes of N. America, in the St. Lawrence basin, partly belonging to Canada and partly to the State of New York; between Lat. 43° 10′ and 44° N., and Lon. 76° and 80° W. It is of an elongated, oval shape, 172 m. in length, by a maximum breadth (in the centre) of 60 m.; covering an area of abt. 5,400 sq. m. Its surface-level is abt. 334 feet below that of Lake Erie, and 231 feet above the tide-level of the St. Lawrence. Its depth is said to average 490 feet; but in some places it is upwards of 600 feet in depth, and it is navigable throughout its whole extent for vessels of the largest size. The St. Lawrence (under the name of the Niagara River) enters it near its S.W. and leaves it at its N.E. extremity, where it is much encumbered with small islands. Lake Ontario has many good harbors; and as it never freezes, except at the sides, where the water is shallow, its navigation is not interrupted like that of Lake Erie. It is, however, subject to violent storms and heavy swells. Toronto, Kingston, Newcastle, and Niagara are the principal towns on the British side; and Oswego, Genesee, and Sackett's Harbor on the American bank. This lake receives numerous rivers, including the Trent and Humber on its N., and the Black, Genesee, and Oswego from its S. shores. It communicates by the Genesee River and Oswego Canal with the Erie Canal, and, consequently, with the Hudson River and New York city; the Niagara River and the Welland Canal, at its S.E. extremity, unite it with Lake Erie, and the Rideau Canal connects it with the Ottawa at Ottawa city. Numerous sailing-vessels and steamers of large size navigate this lake, which is the centre of an extensive commerce. — A province of Canada, *q. v.*

Ontelau'nee, in *Pennsylvania*, a township of Berks co.

Onteniente, (*on'te-ne-ain'tai.*) a town of Spain, prov. of Valencia, on the Clariano, 35 m. N.W. of Alicante, and 47 m. S.S.W. of Valencia. *Manuf.* Woollen and linen fabrics, and paper. *Pop.* 9,508.

On'to, *prep.* On the top of; upon; — used in England as a provincialism; in the U. States colloquially.

Ontolog'ic, Ontolog'ical, *a.* [Fr. *ontologique.*] Belonging or having reference to ontology, or the science of being in general.

Ontolog'ically, *adv.* In the manner of ontology.

Ontol'ogist, *n.* [Fr. *ontologiste.*] One who considers the nature and qualities of being in general; a metaphysician.

Ontol'ogy, *n.* [Fr. *ontologie*, from Gr. *onta*, the things which exist, and *logos*, discourse.] That part of the science of metaphysics which investigates and explains the nature and essence of all beings.

Ontonag'on, in *Michigan*, a river rising in Ontonagon co., and flowing N., empties into Lake Superior at the town of Ontonagon.

—An extreme W. co. of the upper peninsula, having Lake Superior on the N., and Wisconsin on the S. and W. *Area*, about 1,342 sq. m. *Rivers.* Ontonagon, Presqu' Isle, and Montreal rivers. *Surface*, hilly or mountainous; *soil*, in some parts fertile. *Min.* Copper in great abundance. *Cap.* Ontonagon. *Pop.* (1894) 6,873.

—A town and township, cap. of the above co., on Lake Superior, at the mouth of the Ontonagon river, about 45 m. W. S. W. of Houghton. It is the principal depôt for the copper mines in that region. *Pop.* (1897) 2,250.

O'nus, *n.* [Lat.] The burden; as, the *onus* of an obligation.

Onus probandi. [Lat., burden of proving.] (*Law.*) The obligation of adducing evidence. The *onus probandi* is said to lie generally on that party who asserts the affirmative of the question in dispute, according to the rule, *ei incumbit probatio qui dicit, non qui negat.* It may be shifted, in many instances, from one litigant to another, by the establishment of a *primâ facie* case against a party.

Ont'wa, in *Michigan*, a township of Cass co.

On'ward, in *Indiana*, a post-village of Cass co.

On'ward, On'wards, *a.* [A.S. *onweard*, from *on*, in, into, and *weard*, direction.] Advanced, or advancing; progressive; as, an *onward* career.

—Leading forward to perfection; increased; improved.

—*adv.* Progressively; in advance; in a state of advanced progression; as, Time moves *onward.*

Onych'ia, *n.* [Gr. *onychium*; Lat. *onyx.*] (*Surg.*) A painful abscess near the nail. See WHITLOW.

Onyx, (*o'niks,*) *n.* [Lat.] (*Min.*) A variety of chalcedony, somewhat resembling agate. It is composed of alternating parallel bands of different colors, and was the stone used by the ancients for making cameos, the figures being cut in the white layers, while the darker portion formed the background of the design. Large numbers of these stones are brought from Oberstein in Saxony, and from Yemen, in Arabia; it is also found in the Isle of Skye, and in the amygdaloid of the Giant's Causeway in Ireland.

(*Surg.*) A small collection of matter. A minute abscess, formed between the cornea of the eye and the aqueous humor, and so named from being of the color and diminished shape of a man's nail.

Oo, a village of France, dept. Haute Garonne. It stands 10,000 feet above the sea, at the foot of a pass of the Pyrénées called the Col d'Oo, celebrated for its lake and picturesque cascade. *Pop.* 500.

Ooch, (*ootch,*) a town of N.W. Hindostan, prov. of Moultan, rajahship of Bhaulpoor, near the junction of the Chenanb and the Sutlej; Lat. 29° 11′ N., Lon. 70° 50′ E. *Pop.* 25,000.

Oojein, or **Oojain,** (*oo'ja-in,*) a city of Central India, prov. of Malwah, formerly cap. of Scindia's dominions, on the Siprah, a tributary of the Chumbul, 34 m. N.W. of Indore; Lat. 23° 11′ N., Lon. 75° 51′ E. It is about 6 m. in circumference, and fortified with a stone wall and towers. *Pop.* Unknown.

Oolite, (*o'o-lite,*) *n.* [Gr. *oon*, an egg, and *lithos*, stone.] (*Geol.*) A variety of limestone, so called from its being composed of small rounded grains, resembling the eggs or roe of a fish. Each grain has generally some minute fragment of sand as a nucleus, round which concentric layers of calcareous matter have accumulated. The term *roe-stone* is applied to it when the grains are very distinct and well rounded; and *pisolite*, or pea-stone (from Lat. *pisum*, a pea), when the grains are large and pea-like. In certain of the secondary strata of England, the marked occurrence of these oölites, or roe-stones, has given the name to the oölitic system, as now extended by modern geologists.

Oolitic System, *n.* [Now usually termed JURASSIC.] (*Geol.*) A formation which derives its name from the limestones of an oölitic texture developed in England, or from the Jura range of mountains, as exhibited typically on the continent of Europe. This system comprehends, in England, the whole of those peculiar limestones, calcareous sandstones, marls, shales, and clays, which lie between the chalk formation and the new red sandstone beneath. Where the system is perfect and complete, the argillaceous laminated limestone and shales, called the *Lias*, constitute the lowest group; the yellowish granular limestones, calcareous sandstones, sands, and clays, called *Oolite*, the middle group; and the grayish laminated clays, with subordinate layers of limestone, and flaggy, ferruginous sandstones, called the *Wealden*, the upper group. These three groups are so clearly defined, that they are sometimes treated as independent systems; and were it not for certain fossil as well as lithological resemblances which pervade them, this method would be preferable. Taking the three divisions, however, as constituting the *Oölitic system*, their subdivisions will be found exhibited in descending order in the following synopsis: — WEALDEN; consisting of: 1. *Weald Clay.* — Grayish laminated clays, containing concretions of iron-stone, thin layers of argillaceous limestone, and sandy ferruginous flags. 2. *Hastings Sands.* — Sands and sandstones, often ferruginous, with divisions of clay; beds of clay and sandy shale, more or less calcareous, with subordinate beds of limestone. OÖLITE; consisting of: 1. *Purbeck Beds.* — Estuary limestones alternating with sands and clays. 2. *Upper Oölite.* — Coarse and fine-grained oölitic limestones, with layers of calcareous sand and concretions; dark laminated clays, with gypsum and bituminous shale. 3. *Middle Oölite.* — Coarse-grained, shelly, and coralline oölite, with calcareous sands and grit; dark-blue clays, with subordinate clayey limestones and bituminous shale (*Oxford clay*); shelly calcareous grit, with blue clays underneath. 4. *Lower Oölite.* — Coarse shelly limestones; laminated shelly limestones and grits; sandy layers, and thick bedded blue clay (*Bradford clay*); thick-bedded oölite, more or less compact and sandy; flaggy grits and oölites; marls and clays, with soft marly limestone (*Fuller's earth*); calcareous freestone, irregularly oölitic, and yellow sand. LIAS; consisting of: 1. *Upper Lias.* — Thick beds of dark bituminous shale; beds of pyritous clay and alum shale; indurated marl or marlstone. 2. *Lower Lias.* — Dark laminated limestones and clays; bands of iron-stone; layers of jet and lignite; beds of calcareous sandstone. The organic remains of the oölitic system are all *mesozoic*, that is, belonging to the genera and species differing from those found in the lower rocks; and differing also, though less in general aspect, from those of the tertiary and present epochs. With the exception of the higher mammalia, nearly every existing order is represented in the *fauna* of the oölite; but the forms all died out at the close of the Chalk æra. The vegetation of the system is very varied; the highest orders, however, appear to be coniferous, no true example of an exogenous tree having yet been detected. The stems, fruits, and leaves of the *Cycadaceæ*, which are found in great abundance, form one of the most characteristic fossils of the system. The shells of the *Gryphæa*, so plentiful in the lias; innumerable species of *ammonites* and *belemnites;* the *insects* of the lias and wealden; the *pterodactyl;* the fresh and marine *turtles;* and, above all, *Ichthyosaurus, Plesiosauras, Pliosaurus,* and other gigantic reptiles are the prominent features of life. The system is not largely developed in the United States, though true Jurassic strata exist in the Sierra Nevada and Rocky mountains, as in the Black Hills and the Laramie mountains and in other localities. It is notable in Colorado for its remarkable reptilian remains. The beds consist of impure limestone, with layers of marl, overlying the gypsiferous marls and sandstones.

Oolitif'erous, *a.* [From *oölite*, and Lat. *ferre*, to bear.] Bearing or producing oölite.

Ool'ogist, *n.* One versed in oölogy.

Ool'ogy, *n.* [Gr. *ōon*, egg, and *logos*, discourse.] Ovicular science.

Oolong (*ōo'long*), *n.* (Written also *oulong.*) [Chin., green dragon.] A variety of black tea, brought from China.

Ool'tawah, in *Tennessee*, a post-village, cap. of James co., 15 m. E. by N. of Chattanooga.

Oo miac, Oo'mlak, *n.* A kind of boat used by the Esquimaux.

Ooly'sis, *n.* [Gr. *ōon*, an egg, and *lysis*, a setting free.] (*Bot.*) A term applied to monstrous ovular development.

Oonga, or **Ounga,** (*oon'ga.*) in *Alaska*, an island in the Pacific Ocean, off the S. extremity of the peninsula of Alaska; Lat. 55° 30′ N., Lon. 160° to 161° W.

Oonalas'ka, UNALASHKA, or OONIMAKI, in *Alaska*, an island in the N. Pacific Ocean, and the largest of the Aleutian group, lying abt. 20 m. off the S.W. extremity of the peninsula of Alaska; Lat. 53° 52′ N., Lon. 166° 32′ W. *Area*, abt. 1,500 sq. m. It is of volcanic origin, and the surface is rocky and mountainous, a volcano in the centre of the island rising to an elevation of 5,491 feet. The soil is in general barren, and the inhabitants (which are few) subsist by fishing.

Oo'sima, a small but populous island of Japan, off the S.E. coast of Niphon, in the Pacific Ocean. — A town on the E. coast of this island.

Oost, (*ōōst,*) *n.* See OAST.

Oostenau'la, in *Georgia*, rises in Gilmer co. and flowing S.W., joins the Etowah River in Floyd co. to form the Coosa River.

Oos'terhout, a town of Holland, prov. of N. Brabant, 5 m. N.E. of Breda; *pop.* 8,595.

Ooze, (*ōōz,*) *v. n.* [A.S. *wæs*, water, *wos*, juice.] To flow or issue gently; to percolate, as a liquid through the pores of a substance, or through small openings.

—*v. a.* To cause to percolate, or flow gently, as a liquid through the pores or small openings.

—*n.* A soft flow or issue, as of water; a spring; as, it is beginning to *ooze.* (*Prior.*) — A soft mud or slime; earth so wet as to flow gently, or easily yield to pressure. — The liquor of a tanner's vat.

Ooz'ing, n. Ooze; that which issues or oozes.

Oo'zy, *a.* Miry; containing soft mud; as, the *oozy* bed of a river.

Opac'ity, (*-pās-*) *n.* [Fr. *opacité*; Lat. *opacitas.*] Opaqueness; the quality of a body which renders it impervious to the rays of light; want of transparency. — Darkness; gloom; obscurity.

Opa'cous, *a.* [Lat. *opacus.*] Dark; obscure; opaque; not transparent; as, *opacous* bodies.

O'pah, *n.* (*Zoöl.*) The King-fish, *Lampris luna*, a large and beautiful fish, native of the Eastern seas, and weighing from 140 to 150 lbs. The body is of an oval form; the mouth small, without teeth; the dorsal, pectoral, and ventral fins very long, and falciform; and the shape of the tail lunate. The opah, whose colors are particularly rich and showy, is held sacred by the Japanese, who regard it as the peculiar emblem of happiness.

O'pal, *n.* [Fr. *opale*; Lat. *opalus*; Gr *opallios.*] (*Min.*) A precious stone, consisting principally of silica, with a small admixture of alumina; much valued as a gem, from the beautiful play of colors it exhibits, caused by an infinite number of minute pores or fissures existing in its mass.

Opalesce, (*ō-pal-es',*) *v. n.* To scintillate in variety of colors, like the opal.

Opales'cence, *n.* (*Min.*) The shining lustre of opal.

Opales'cent, *a.* Reflecting a pearly light from the interior.

O'paline, *a.* Pertaining to, or resembling opal.

O'palize, *v. a.* To transmute into opal, or some substance resembling opal.

O'pal-jas'per, *n.* (*Min.*) A variety of opal, resembling jasper, but softer, and containing iron.

Opaque, (*o-pāk',*) *a.* [Fr.; Lat. *opacus.*] Dark; obscure; gloomy. — Impervious to the rays of light; not transparent.

—*n.* Opacity; opaqueness.

Opaque'ness, *n.* The quality of being impervious to light; want of transparency; opacity.

Ope, *a.* [Abbreviated from *open.*] Open; as, "the door was *ope.*" — *Dryden.*

—*v. a.* and *v. n.* To open; to unclose: — used poetically.

Opel'ika, in *Alabama*, a city, cap. of Lee co., 20 m. N. W. of Columbus. *Pop.* (1897) 4,020.

Opelousas (*o-pe-loo'sas*), in *Louisiana*, a post-town, cap. of St. Landry parish, about 50 m. W. of Baton Rouge. *Pop.* (1897) 1,725.

Open, (*ō'pn,*) *a.* [A. S. *openian*, to open = Du. *open*; Ger. *offen.*] Not shut or closed; allowing access or admission; affording unimpeded ingress or egress; not obstructing motion; also, not locked up or covered over. — used in application to means of passage; as, an *open* door, window, path, &c. — Applied, also, to ways of communication or approach by land or water; as, an *open* port, an *open* sea, the *open* country. — Permissible to be read, used, enjoyed, visited, and the like; public; free to all comers; unrestricted in applicableness; exposed to the view or approach of any one; as, an *open* letter, an *open* prospect, an *open* court or meeting, or, to keep *open* house, that is, to exercise unbounded hospitality. — Expanded; not contracted, warped, or dwarfed; not drawn or shrunk together: as, an *open* flower, her arms were *open* to embrace him. — Frank; sincere; cordial; straightforward; candid; without reservation, duplicity, or disguise; applied to the manifestation of thought and feeling; as, an *open* heart. — Not concealed or hidden; clear; artless; undisguised; natural; apparent; prominent to view or observation; — applied to plans, methods, arrangements, devices, and the like.

"We are to lay *open* the treasures of the divine wisdom." *Burnet.*

—Not obstructed; clear of ice; not frosty; mild; moderate; as, *open* weather, the harbor continues *open*, the *open* Polar Sea, &c.

"An *open* winter portendeth a dry summer." — *Bacon.*

—Not settled, arranged, or adjusted; not closed or balanced; as, an *open* policy of insurance, he has an account *open* at his bankers. — Not clouded; not blinded, hoodwinked, or obscured; attentive; not averse to seeing: as, my eyes are *open* to his faults. — Not deaf or unwilling to hear; listening; hearkening; as, he is always *open* to a pitiful tale. — Free to be debated or discussed; not settled, established, or cleared up by a decision; as, an *open* question, an *open* argument. — Easily uttered or enunciated; as, an *open* vowel.

(*Mus.*) Applied to the string of a violin, guitar, &c., when not compressed with the finger; that is, when, without compression, it produces the very note to which it is tuned; — applied also to the note to be tuned.

O'pen, *n.* Clear space; unobstructed ground; as, the fox ran toward the *open.*

—*v. a.* To make open; to unclose or unbar; to remove any fastening from; as, to *open* a door, drawer, &c. — To break the seal of and unfold; as, to *open* a letter. — To lift or remove a covering from; as, to *open* a box. — To cut through; to lance; to perforate; as, to *open* a vein — To break, split, cleave, or rend; to divide; as, the ground is *opened* by heat. — To clear; to make by removing obstructions; to prepare for passage; as, to *open* a way. — To spread, enlarge, or expand; as, to *open* the hand. — To unstop; as, to *open* a bottle of wine. — To show; to make the first exhibition of; to interpret; to explain; to reveal; to disclose; as, to *open* a new country. — To communicate; to speak with reserve; — used reflexively; as, he *opened his* mind to me. — To enter upon or begin; to commence; as, to *open* the proceedings, to *open* fire upon the enemy, to *open* a correspondence.

"The cannon's *opening* roar."—*Byron.*

To open up, to lay open; to disclose; as, the controversy *opens up* a new field of thought.

—*v. n.* To unclose; to be unclosed or separated; as, the earth *opened.* — To come into view; to begin to appear; as, a fine prospect *opened* to our view. — To commence; to start; to begin; as, the Five-twenties *opened* at par.

(*Sport.*) To bark when sighting game; said of a dog.

O'pen-bill, *n.* (*Zoöl.*) A genus of birds belonging to the order of *Grallatores,* and allied to the Storks and Jabirus. The mandibles of their beak come in contact only at the base and tips, leaving a wide interval between their edges, at the medial portion; the fibres of the horny substance of the bill in this part appearing as if worn away. One species (*Anastomus oscitans*) is whitish, with black tail-feathers; another (*A. lamelliger*) is of a shining black, and remarkable for the stem of each of its feathers terminating in a narrow horny disc, which passes beyond the vane. They are natives of India.

Fig. 1992.
PONDICHERRY OPEN-BILL,
(*Anastomus oscitans.*)

Opener, (*o'pn-er,*) *n.* One who, or that which, opens.

Open-eyed, (*o'pn-īd,*) *a.* Watchful; vigilant.

O'pen-handed, *a.* Generous; liberal; munificent.

O'pen-hearted, *a.* Candid; frank; generous; impulsively cordial.

O'pen-heartedly, *adv.* Without reserve; with frankness or cordiality.

O'pen-heartedness, *n.* Liberality; frankness; sincerity; munificence; generosity.

O'pening, *n.* A breach; an aperture; a hole or perforation; a place admitting entrance, as a bay or creek. — Beginning; commencement; first appearance.

O'penly, *adv.* Publicly; not in private; without secrecy. — Plainly; evidently; without reserve or disguise.

O'pen-mouthed, *a.* Greedy; ravenous; clamorous.

O'penness, *n.* State or quality of being open; freedom from covering or obstruction; plainness; clearness; freedom from obscurity or ambiguity; freedom from disguise; expression of frankness or candor; mildness, as of the weather.

O'pen-tide, *n.* Open-time; — said of Spring, &c.

O'pen-work, *n.* Work filled with interstices, openings, or perforations.

O'pequan Creek, rises in Frederick co., Virginia, and flowing N.E. into W. Virginia, enters the Potomac River between Berkeley and Jefferson cos.

Op'era, *n.* [It., Sp., and Fr., from Lat. *opera,* work.] (*Mus.*) A musical drama, in which music forms an essential part, and not a mere accessory accompaniment. As in the higher drama, poetry supersedes the prose of ordinary life, so in the opera, with perhaps as great artistic right, the language of music is introduced at a considerable sacrifice of probability. The libretto or words are, in the modern opera, a peg on which to hang the music, rather than the music an accessory to the written drama. The component parts of an *O.* are *recitatives, duets, trios, quartettes, choruses,* and *finales,* accompanied throughout by an orchestra, and the whole is preceded by an instrumental *overture.* Recitative is declamation, which, in its succession of musical sounds and rhythm, strives to assimilate itself as much as possible to the accents of speech, and therefore does not entirely conform to musical rhythm. The accessories of scenic representation are also present, and a ballet (*q. v.*) is also frequently introduced. In some of the German *O.,* and in the French *opéra comique,* spoken dialogue without music takes the place of recitative. Among the different varieties of the *O.* enumerated are the grand *O.* or *opera seria,* of a dignified character; the romantic *O.,* embracing an admixture of the grave and lively; and the comic *O.,* or *opera buffa,* as well as many intermediate varieties. See MUSIC.

Op'era-glass, *n.* A short, single or donble telescope used in theatres; a lorgnette.

Op'era-hat, *n.* A compressible hat; a gibus; a crush-hat worn when attending the opera.

Op'era-house, *n.* A building for the performance of operas.

Operam'eter, *n.* [Lat. *opera,* works, and Gr. *metron,* measure.] A piece of machinery for registering the number of revolutions made by the shafts or wheels of mill-work.

Op'erance, Op'erancy, *n.* Act of operating; operation. (R.)

Op'erant, *n.* A person who operates; an operator. (R.)

Op'erate, *v. n.* [Fr. *opérer;* Lat. *operor, operatus,* from *opus, operis,* work, labor; akin to Ir. and Gael. *obair;* Armor. *ober,* work.] To work; to labor; to act; to exert power or strength, physical or mechanical. — To act or produce effect on the mind; to exert moral power or influence; — often preceding *on.*

"A plain convincing reason *operates on* the mind." — *Swift.*

(*Med.*) To take suitable or appropriate effect on the human system; as, aperient medicines *operate on* the stomach.

(*Surg.*) To perform some manual act in a systematic or methodical manner upon a human being, and usually with instruments, with a view to restore soundness or health; as an amputation, lithotomy, phlebotomy, and the like.

—To have agency; to produce any effect.

"Where causes *operate* freely, . . the effect will be contingent." *Watts.*

—*v. a.* To act; to effect; to cause; to produce by agency. To place or to continue in operation or action; to work; as, to *operate* a machine, to *operate* in the money-market.

Operat'ic, Operat'ical, *a.* Pertaining to the opera; resembling the opera.

Operation, (*-ā'shun,*) *n.* [Fr.; Lat. *operatio.*] Act or process of operating; agency; action of power or force, physical, moral, or mechanical; as manual *operation.* — Process; manipulation; method of working; mode of action; as, "medicinal drugs of rare *operation.*" — *Heylyn.* — Effect; series of acts produced by experiments; result brought about by a definite plan or method; as, military *operations.* — Eventuation; influence produced.

(*Surg.*) A methodical manipulative action, as of the hand with instruments.

(*Math.*) Something to be done; — generally some transformation to be made in quantities, which transformation is indicated either by rules or by symbols.

Op'erative, *a.* [Sp. *operativo.*] Having the power of acting; exerting force, physical or moral. — Having or exerting agency; active in the production of effects; efficacious.

—*n.* A laboring man; a workman; an artisan; one employed in manufacturing establishments.

Op'eratively, *adv.* In an operative manner.

Op'erator, *n.* He or that which produces an effect.

(*Surg.*) The person who performs some act upon the human body by means of the hand, or with instruments.

Oper'cular, Oper'culate, Oper'culated, *n.* (*Bot. and Zoöl.*) Furnished with a lid or operculum, as the capsules of mosses, or the gills of fishes, and the shells of certain gasteropods.

Oper'culum, *n.* [Lat. *operio,* I cover.] (*Bot.*) The lid of anything. The term is applied to the cap of the pitcher of *Nepenthes;* to the loose apex of such fruits as that of *Lecythis;* to the conical limb of the calyx of *Eucalyptus;* and to the body which closes up the sporecase of a moss.

(*Zoöl.*) The apparatus supported by four bones which protects the gills of fishes; also the horny or calcareous plate which closes the aperture of univalve shells; and the four calcareous pieces which defend the entrance to the tube of *Balanites* or bell-barnacles.

Operet'ta, *n.* [It.] (*Mus.*) A short musical drama of a light character.

Operose', *a.* [Sp. *operoso;* Lat. *operosus,* from *opera.*] Laborious; attended with labor; tedious; troublesome; elaborate.

Operose'ly, *adv.* In a laborious manner.

Operose'ness, *n.* The state of being laborious or operose.

Ophe'lia, *n.* [Gr., useful.] (*Bot.*) Sometimes called *Agatholes,* a genus of plants, order *Gentianaceæ. O. chirata* is the medicinal herb known as chiretta or chirayta, which is used by the natives of India as gentian is employed in Europe. The dried plant and root possess great bitterness, and are used to some extent in this country for the sake of their tonic properties.

Ophib'olus, *n.* (*Zoöl.*) A genus of serpents, family *Colubidæ,* distinguished by having the body thick, tail and head short, and eyes very small; color black, brown, and red, crossed by lighter. Baird and Girard mention nine species found in the U. States. *O. boylii,* of California, is black, with more than 30 broad, ivory-white transverse bands; length about 30 inches. The King-snake, *O. sayi,* of the Gulf States, is black above, each scale with a large yellow spot in the centre; length about 40 inches. The Thunder-snake, or Chain-snake, *O. getulus,* from New York to Mississippi, is black, crossed above by about 30 narrow lines bifurcating on the flanks; length 30 to 40 inches or more.

Ophir, (*ō'fẽr,*) an ancient country celebrated for gold. The ships of Solomon and of Hiram, king of Tyre, brought 450 talents of gold to Jerusalem, B. C. 1000. (1 *Kings* ix. 26–28, x. 11, and 2 *Chron.* viii. 17, 18, and ix. 10 and 21.) Jehoshaphat built ships at Tarshish to go to Ophir for gold, about B. C. 913 (1 *Kings* xxii. 48, and 2 *Chron.* xx. 36, 37). Gold from Ophir is also mentioned *Job* xxii 24, and xxviii. 16; *Psalms* xlv. 9; and *Isaiah* xiii. 12. Its position has not been ascertained, and Arabia, India, and Africa are contended for by different authorities. Josephus considers Malacca to be Ophir, and Sir Emerson Tennent supports this view. Purchas says Ceylon. But the discoveries made in 1868 of gold deposits on the eastern coast of Africa, and the remains of the ancient workings, give additional force to the ideas entertained by many that thereabouts was the locality of Ophir.

O'phir, in *California,* a township of Butte co.

Ophir, in *Illinois,* a post-township of La Salle co.

Ophir, in *Nevada,* a post-village of Washoe co., abt. 3 m. S. of Washoe City.

Ophicleide, (*of'i-klīd,*) *n.* [Gr. *ophis,* a serpent, and *kleis, kleidos,* a key.] (*Mus.*) The largest brass wind-instrument of the trumpet species, and forming the bass to that class of instruments. It consists of a conical tube nearly nine feet long, terminating in a bell, like the horn: in this tube are ten holes, all of which are stopped by keys; it has a mouthpiece exactly like that of the serpent, and its compass is from B, the third space below, to C, the fifth additional space above the staff.

Fig. 1993. OPHICLEIDE

Ophid'ians, *n. pl.* [Gr. *ophis,* a serpent.] (*Zoöl.*) An order of reptiles which includes all the serpentiform species of that class, corresponding to the *Amphibia serpentes* of Linnæus.

Ophiocar'yon, *n.* [Gr. *ophis,* a serpent; *koryon,* a nut.] (*Bot.*) A genus of plants, order *Sapindaceæ. O. paradoxum* is the Snake-nut tree of Demerara, so called from the large embryo of its seed resembling, in a remarkable degree, a coiled-up snake.

Ophioglossa'ceæ, *n.* (*Bot.*) The Adder's-tongues, an order of plants, alliance *Filicales.* DIAG. Ringless distinct, 2-valved sporecases, formed on the margin of a contracted leaf. They have erect or pendulous stems with a cavity in the middle, instead of pith, and two or three woody bundles placed round it in a ring. Below, the stalks of the leaves and the spike become blended together. Leaves with netted veins sometimes forked. Spores resembling fine powder. The plants of this order are most abundant in the islands of tropical Asia, occurring, however, in the W. Indies, and not uncommon in the temperate latitude of both worlds. *Ophioglossum vulgatum,* the common Adder's-tongue, has been used in medicine as a vulnerary, but it seems to possess that quality as little as the magical virtues once ascribed to it.

Fig. 1994. — ADDER'S-TONGUE (*Ophioglossum vulgatum.*)

Ophioglos'sum, *n.* [Gr. *ophis,* a serpent, *glossa,* a tongue.] (*Bot.*) The typical genus of the order *Ophioglossaceæ,* q. v.

Ophiol'ogy, *n.* [Gr. *ophis,* a serpent, and *logos,* a discourse.] (*Zoöl.*) That part of the science which treats of reptiles or serpents.

Ophiomor'phous, *a.* [Gr. *ophis,* and *morphe,* form.] Having the form of a serpent.

O'phir, (Mount,) an isolated mountain of the Malay peninsula, in Lat. 2° 30′ N., Lon. 102° 28′ E. *Height.* Nearly 6,000 ft. above the sea. Most of the gold obtained in the peninsula is found around its base.

O'phirville, in *California,* a village of Placer co., abt 3 m. W. of Auburn.

Ophisau'rus, *n.* (*Zoöl.*) See GLASS-SNAKE.

O'phite, *n.* (*Min.*) A synonym for serpentine, in consequence of its spotted appearance, like the skin of a snake. The name is also sometimes applied to green speckled porphyry.

Ophi'tes, *n. pl.* (*Eccl. Hist.*) An early sect of Christian heretics, who emanated from the Gnostics, so called from their worshipping the serpent that tempted Eve. They considered the serpent as the father of all the sciences, which, but for the temptation of our first parents, would never have been known.

Ophiu'chus, *n.* [Gr. *ophinchos,* holding a serpent.] (*Astron.*) See SERPENTARIUS.

Ophi'rys, *n.* (*Bot.*) A genus of plants, order *Orchidaceæ,* including the species *O. spifera,* the Bee-flower, or Gnat-flower.

Ophiu'roids, or **Ophiu'rans,** *n. pl.* (*Zoöl.*) An order of *Echinodermata* embracing forms which have the central disc very small in comparison to the size of the arms, and circular, and the arms starting off abruptly from its circumference. Locomotion is effected

by means of spines. Müller and Troschel divide the *O.* into 2 groups: the *Ophiuræ* (Fig. 1995), characterized by simple arms, and the *Euryalæ* (Fig. 975), by branched arms.

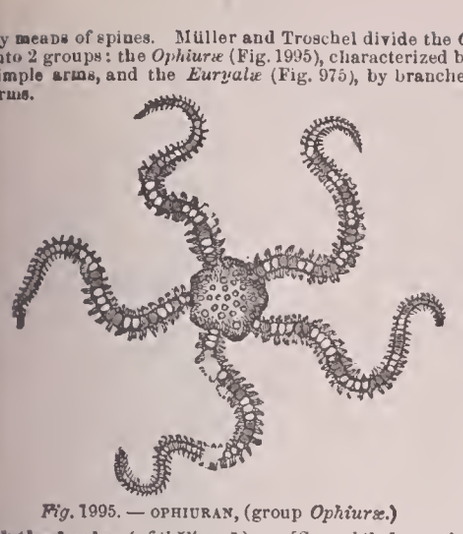

Fig. 1995. — OPHIURAN, (group *Ophiuræ.*)

Ophthal'mia, (*of-thăl'me-ă,*) *n.* [Gr. *ophthalmos*, the eye.] (*Med.*) Inflammation of the eye. Under this head may be included inflammation of all the various parts that enter into the formation of the eye. General ophthalmia is of very rare occurrence, the disease being in the great majority of cases confined to some one of the parts, and having a distinct name; as conjunctivitis, iritis, or corneitis, denoting inflammations of the conjunctiva, iris, or cornea respectively. The most frequent form of ophthalmia is inflammation of the conjunctiva, or white of the eye. It may be caused by the presence of any irritating body, and is frequently produced by cold, when it is known as catarrhal and ophthalmic. In it the eyes are bloodshot, the redness being produced by injection of the network of vessels which covers the white of the eye; the lids are swollen, with a good deal of smarting and itching, and a feeling as if there were sand or other foreign body in the eye. There is at first lachrymation, which is soon followed by the secretion of a thin muco-purulent discharge, which accumulates at the corners of the eyes. This is ordinarily a mild and manageable complaint, and may, in most cases, be got rid of by rest, a brisk purgative, and the occasional application of tepid water, or milk and water, to the eye. If the inflammation does not subside in a day or two, the eye may be bathed several times a day with a dilute solution of alum or of sulphate of zinc; and, in severe cases, blood-letting, either general, or more commonly local, by means of cupping-glasses, or leeches applied to the temples. A much more severe form of conjunctivitis is *purulent ophthalmia*, or, as it is frequently called, *Egyptian ophthalmia*, from its having been brought into France by the army returning from the expedition to Egypt during the wars of the first Napoleon. In this all the symptoms of the preceding are greatly aggravated. The conjunctiva is red and swollen, rising up like a wall round the cornea; the eyelids are tense, livid, and often enormously swollen; a copious secretion of muco-purulent matter is poured out, and there is a burning pain in the eye, with inability to bear the light. It requires prompt and decided treatment, as there is always great risk of permanent injury to the eye, from its tendency to produce thickening and granulation of the conjunctiva of the lids, or ulceration and sloughing. In the severer forms of the disease recourse must be had to bleeding, either general or by means of cupping-glasses or leeches, and purgatives, and the various other antiphlogistic means employed. The eye should be frequently cleansed with warm water, or a weak warm solution of alum or bichloride of mercury, and one or two drops of a weak solution of lunar caustic (from two to four grains to an ounce of water) should be let fall into the eyes once or twice a day. Infants of a few days old are often subject to a very severe form of inflammation of the conjunctiva, to which the name of *ophthalmia neo-natorum* (ophthalmia of new-born infants) has been given. In mild cases, bathing or cleansing the eye several times a day with a weak warm solution of alum may be all that is necessary; in severe cases a leech should be applied to the temples, purgatives administered, and a weak solution of nitrate of silver applied to the eye daily. *Strumous*, or *scrofulous ophthalmia*, occurs in children of scrofulous habit, and is chiefly remarkable for the extreme intolerance of light by which it is accompanied. The child keeps its head down, shelters his eye with his hand, and avoids the light. The eye itself presents little appearance of inflammation, merely a faint blush of redness; but in many cases little pustular elevations form upon the edges of the cornea. In such cases the treatment should be chiefly adapted to the constitutional disorder from which it springs. Pure air and exercise, mild aperients and tonics, especially bark and iodine, should be administered, and the general health carefully attended to. Slightly astringent lotions may also be applied to the eyes, and in the earlier stages a few leeches, or blisters behind the ears, are of great service. In *sclerotitis*, or inflammation of the sclerotica, when pure (but it is apt to be conjoined with inflammation of the conjunctiva, cornea, or iris), the redness of the eye is of a pink tint, forming, when most marked, a zone round the cornea, and gradually shading off towards the circumference of the eye. There is always considerable pain, of a dull, heavy kind, which often extends all round the orbit, or over the forehead, and is accompanied by an intolerance of light and a profuse secretion of hot tears. Warm fermentations are of service locally; besides which, a dose of calomel and opium at bedtime, followed by a purgative on the following morning, will generally remove the affection. In severe cases, blood-letting, and counter-irritation by means of blisters, are likewise necessary. The other forms of ophthalmia are much less common than the above, and their mode of treatment does not differ materially from that just given.

Ophthal'mic, *a.* Pertaining to the eye.

Ophthalmog'raphy, *n.* (*Anat.*) An anatomical description of the eye.

Ophthalmol'ogist, *n.* One versed in ophthalmology.

Ophthalmol'ogy, Ophthalmotol'ogy, *n.* [Gr. *ophthalmos*, the eye, and *logos*, discourse.] (*Anat.*) A treatise on, or description of the eye.

Ophthalmom'eter, *n.* [Gr. *ophthalmos*, eye, and *metron*, measure.] (*Anat.*) An instrument for measuring the capacity of the anterior and posterior chambers of the eye in anatomical experiments.

Ophthalmop'tosis, *n.* [Gr. *ophthalmos*, and *ptosis*, a fall.] A protrusion of the whole globe of the eye.

Ophthal'mos, *n.* [Gr., an eye.] (*Photography.*) A new instrument for taking photographic views of scenery. It consists of a camera, provided with mechanical contrivances for automatically uncovering and covering the lens and exposing the plate. The *O.* is attached to a small balloon, and is sent up without an operator, and at any required height, it is asserted, takes a picture of the surface of the earth beneath it, with all the bearings of the compass accurately marked.

Ophthal'moscope, *n.* [Gr. *ophthalmos*, eye, and *skopeïn*, to view.] (*Med.*) An instrument which, by reflecting the light on the retina, enables the condition of the interior of the eye to be appreciated.

Ophthal'moscopy, *n.* [Gr. *ophthalmo*, and *skopeo*, to behold.] (*Med.*) The art of judging of the temper, &c., of a person, by examining his eyes. — The art of judging of health or disease by inspection of the eye.

Ophthal'my, *n.* (*Med.*) See OPHTHALMIA.

O'piate, *n.* [Fr. *opiat*, from Lat. *opium.*] (*Med.*) Primarily, a medicine of a thicker consistence than syrup, prepared with opium; — hence, any medicine that contains opium, or has the quality of producing sleep or repose; a narcotic.

—That which produces rest or inaction; that which quiets uneasiness.

—*a.* Inducing sleep; soporiferous; somniferous; narcotic. — Causing rest or inaction.

—*v. a.* To lull to sleep; to subject to the influence of an opiate.

O'piated, *a.* Mixed with opiates; under the influence of opiates.

Opif'erous, *a.* [Lat. *ops*, help, *fero*, to bear.] Bringing help.

Opine', *v. a.* To think of or about.

Opin'iative, *a.* Stiff in a preconceived notion, or opinion. — Imagined; not proved; founded on mere opinion.

Opin'iatively, *adv.* Conceitedly; in an opiniative manner.

Opin'iativeness, *n.* The state of being opiniative.

Opinion, (*o-pin'yun,*) *n.* [Fr.; Lat. *opinio*, *opinionis*, from *opinor*, to suppose, deem, believe, think; akin to Hind. *pindar*, Pers. *pundar*, opinion.] Sentiment; notion; persuasion; belief; that which is opined; settled judgment in regard to any point of knowledge or action; the judgment which the mind forms of any proposition, statement, theory, or event, the truth or falsehood of which is supported by a degree of evidence that renders it probable, but does not produce absolute conclusiveness or certainty. — The judgment which the mind forms of persons or their qualities; particularly, favorable judgment; estimation. — Sentence; judgment; censure. (R.)

(*Law.*) The formal decision of judgment given by a judge, arbitrator, or other legal referee or counsellor, officially called upon to consider and determine the merits of a case of difficulty or dispute.

Opin'ionate, Opin'ionated, *a.* Stiff in opinion; firmly or unduly adhering to one's own opinion; obstinate in opinion.

Opin'ionately, *adv.* Stubbornly; obstinately.

Opin'ionative, *a.* Unduly attached to one's own opinions; fond of preconceived notions.

Opin'ionatively, *adv.* With undue fondness for one's own opinions; stubbornly.

Opin'ionativeness, *n.* Obstinacy; excessive attachment to one's own opinions.

Opin'ioned, *a.* Conceited; attached to a particular opinion.

Opin'ionist, *n.* [Fr. *opinioniste.*] One fond of his own notions.

Opisthot'onos, *n.* (*Med.*) A violent spasm of the muscles of the back; a convulsion by which the patient is bent backwards like a bow, the body resting on the back of the head and the heels, a perfect arch being formed beneath. One of the spasmodic contortions of *tetanus*, or rigid spasm.

Opium, (*o'pe-um,*) *n.* [Gr. *opos*, juice.] (*Chem.*) The inspissated juice of a species of poppy (*Papaver somniferum*), originally a native of the East, but now naturalized throughout most of Europe. The best *O.* is procured by making longitudinal incisions in the green capsules, which contain a prodigious number of seeds. The incisions are made during the evening, and the milky juice which exudes is allowed to remain for 24 hours to acquire consistence, when it is removed, and the process repeated. The period of sowing this poppy is in the autumn, when the seeds are the only object, and at the end of the following July, or beginning of August. The root of the plant is annual, and gives out a stem from two to four feet in height, which is glaucous. The flowers are terminal, white or light grey, and three or four inches in diameter. *O.* is the most energetic of narcotics, and one of the most valuable of all medicines. In procuring relief from pain at all times, it is invaluable: it is an efficient remedy in cholera, spasmodic affections, convulsions, tetanus, neuralgia, &c. It is most commonly used for the purpose of procuring sleep; but its habitual use is attended with very pernicious effects. A full dose is exhilarating; but if taken in large quantities, it produces dangerous and fatal results. *Laudanum* is a liquid preparation of *O.* made with alcohol, and its effects on the human system are similar to those of *O.* The principal countries in which *O.* is prepared are India, Turkey, and Persia. Indian *O.* is of three kinds, of which the chief are Patna, grown in the provinces of Bahar and Benares, the former of which is most esteemed; the third kind, produced in the province of Malwa, is still less esteemed than that of Benares. The best-esteemed *O.*, however, is that obtained from Turkey. The *O.* of commerce is in masses of different sizes. It is rather hard, brown in color, and possesses a bitter, acrid, and nauseous taste. Its odor is characteristic, and when heated in the air it kindles, but does not burn readily. Its analysis shows that it contains acidulous meconate of morphia, extractive matter, mucilage, fecula, resin, fixed oil, caoutchouc, a vegeto-animal substance, débris of vegetable fibres, occasionally a little sand, together with a white crystalline salt of *O.*, known as *nicotine.*

Opium alkaloids. The *morphine*, *codeine*, *paparverine*, *narcotine*, *thebaine*, *narceine*, and *meconine*, all of which form well-marked salts with the acids. *O.* also contains *meconic* and *thebolactic* acids. These principles are very fully described in Miller's "Elements of Chemistry," Part III., to which the student is referred. They are extracted from opium by a very simple process. They exist in the raw drug as difficultly crystallizable meconates. Chloride of calcium is, therefore, added to the aqueous solution, by which means the more easily crystallizable hydrochlorates of the bases are formed in the liquid, and meconate of lime is precipitated. From the clear solution the hydrochlorates of morphine and codeine crystallize first, leaving the others dissolved in the mother-liquor. The morphine and codeine salts are separated by solution in water, to which excess of ammonia is added. This throws down the morphine, the hydrochlorates of codeine and ammonia remaining in solution. Morphine is the only base which demands an extended notice. It is found in opium in combination with meconic acid. In the pure alkaline state it crystallizes in short rectangular prisms, soluble in 1,000 parts of cold and 400 of boiling water. The solution has an intensely bitter taste, and turns yellow turmeric-paper to a deep brown. Boiling alcohol dissolves it abundantly; but it is insoluble in ether. Morphine is a powerful sedative, and is much used in medicine, either in the form of hydrochlorate, acetate, sulphate, or citrate; the first-named being the most frequently used. The other bases have no very extended use either in pharmacy or manuf.

Opobal'sam, *n.* [Gr. *opos*, juice, and *balsamos*, the balsam-tree.] The balm of Gilead. See BALSAMODENDRON.

Opodel'doc, *n.* (*Pharmacy.*) A term invented and formerly applied by Paracelsus to a plaster for all external injuries; but in modern usage it signifies a liniment made by dissolving soap in alcohol, with the addition of camphor and volatile oils.

Opor'to, or PORTO, an important city and seaport of Portugal, on the Douro, 2 m. from its mouth, 174 m. N.E. of Lisbon; Lat. 41° 8′ N., Lon. 8° 37′ W. Situated on a steep declivity on the right bank of the river, the appearance of *O.* from the sea is picturesque and imposing; but this general and pleasing distant appearance, however, is materially altered on a closer inspection, when the actual narrow, crooked, and dirty character of the streets and lanes, constituting a large part of the town, are investigated by a progress over the city. *O.* possesses many churches and convents, but no monument worthy of a special notice. There are 4 colleges, an academy of navigation and commerce, a school of medicine and surgery, and other literary and scientific institutions. *Manuf.* Silk, cotton, woollen and linen fabrics, ropes, tobacco, soap; also, ship-building. The harbor within the bar across the mouth of the Douro can only be entered by large vessels at high water. Owing to her situation, *O.* is the emporium for a large portion of Portugal, and has an extensive commerce. The principal export is a red wine called Port, produced on the banks of the Douro. The climate is generally damp and foggy; in winter the cold is very severe, but in summer the winds from the E., S., and W. moderate the intensity of the heat. *O.* occupies the site of the ancient *Portus Cale*, from which the name Portugal is derived. It was taken and sacked by the French in 1805.

Opos'sum, *n.* (*Zoöl.*) See DIDELPHIDÆ.

Opos'sum Creek, in *Pennsylvania*, enters the Conewago Creek in Adams co.

Op'peln, a town of Prussian Silesia, on the Oder, 51 m. S.E. of Breslau. *Manuf.* Linen, leather, ribbons, and earthenware. *Pop.* 10,223.

Oppenheim, (*op'pen-hime,*) in *New York*, a post-township of Fulton co.

Op'pidan, *n.* [From Lat. *oppidum*, a town.] An appellation given to those students of Eton College, England, who board in the town, and not in college.

Op'pido, a town of S. Italy, prov. of Reggio, 14 m. N.E. of Reggio; *pop.* 6,210.

Oppo'nency, *n.* [L. Lat. *opponentia.*] The opening of an academical disputation; the proposition of objections to a tenet; an exercise for a degree.

Oppo'nent, *a.* [Lat. *opponens.*] Opposite; adverse; opposing.

—*n.* An adversary; an antagonist; one who opposes; — particularly, one who opposes in controversy, disputations, or argument.

Opportune', *a.* [Fr. *opportun;* Lat. *opportunus.*] Present at a proper time; convenient; fit; suitable.

Opportune'ly, *adv.* Seasonably; at a time favorable for the purpose.

Opportune'ness, *n.* The condition or quality of being opportune or timely.

Opportu'nity, *n.* [Fr. *opportunité*; Lat. *opportunitas.*] Fit or convenient time; time or occasion favorable for the purpose; suitable time, combined with other favorable circumstances.

Oppos'able, *a.* Capable of being opposed.

Oppose', *v. a.* [Fr. *opposer;* Lat. *oppono, oppositus* — *ob,* and *pono,* to set, to place.] To set or place against; to set or place before, over against, or opposite; to place in front of. — To put into antagonism or opposition, with a view to counterbalance or counteract, and thus to place as an obstacle to prevent effect intended, or to effect unlooked-for results; to act or set against; — with an object, either direct or indirect. — To resist, either by physical agency, by argument, or other means; to act against; — with a direct object. — To act against or strive with, as a competitor; as, to *oppose* a rival in love. — To resist strenuously; to check effectually.

"I am too weak to *oppose* your cunning."—*Shaks.*

—*v. n.* To act adversely; — with *against.* (R.) — To object or act against controversially, or in disputation.

Oppos'er, *n.* One who opposes; an opponent in party, in principle, in controversy, or in argument; one who acts in opposition; one who resists; an antagonist; an adversary; an enemy; a rival.

Op'posite, (*-zit.*) *a.* [Fr.; Lat. *oppositus.*] Placed in front; facing each other; standing or situated in front. — Adverse; repugnant. — Contrary.

(*Bot.*) Said of leaves, &c., when placed over against each other. A stamen is said to be opposite a petal when it stands before it, as in the flower of buckthorn (Fig. 1996). — *Grey.*

Fig. 1996.

—*n.* An adversary; an enemy; an antagonist.—That which is opposed or contrary.

Op'positely, *adv.* In front; in a situation to face each other. — Adversely; against each other.

Op positeness, *n.* State of being opposite or contrary.

Oppositifo'lious, *a.* [Lat. *oppositus* and *foliosus.*] (*Bot.*) Opposite a leaf, as the tendrils of vitis and the peduncles of phytolacca.

Opposi'tion, *n.* [Fr.; Lat. *oppositio,* from *oppono.*] Situation so as to front something else; a standing over against; contrariety. — Attempt to check, restrain, or defeat. — Obstacle; resistance; that which opposes.

(*Pol.*) The collective body of opponents of the ministry or administration.

(*Astron.*) The aspect of two bodies when diametrically opposite to each other. Thus, the moon, or a planet, is said to be in opposition with the sun when it passes the meridian at midnight.

Opposi'tionist, *n.* One who belongs to the party opposing the administration.

Oppos'itive, *a.* [Fr. *oppositif.*] That may or can be put in opposition.

Oppress', *v. a.* [Lat. *opprimo, oppressus,* from *ob,* and *premo,* to press.] To press down; to depress; to load or burden with unreasonable impositions; to treat with unjust severity, rigor, or hardship; to overpower; to overburden. — To sit or lie heavy on; as, to *oppress* the stomach with too much food.

Oppres'sion, *n.* [Fr.; Lat. *oppressio.*] The act of oppressing; the imposition of unreasonable burdens; cruelty; severity. — State of being oppressed or overburdened; misery. — Hardship; calamity. — Depression; dulness of spirits; lassitude of body; a sense of heaviness or weight in the breast, &c.

Oppres'sive, *a.* [Fr. *oppressif.*] Unreasonably burdensome; unjustly severe.—Tyrannical; grievous; onerous — Heavy; overpowering; overwhelming.

Oppres'sively, *adv.* In a manner to oppress; with unreasonable severity.

Oppres'siveness, *n.* The quality of being oppressive.

Oppress'or, *n.* [Lat.] One who imposes unjust burdens on others; one who harasses others with unjust laws or unreasonable severity.

Oppro'brious, *a.* [Lat. *opprobriosus.*] Reproachful and contemptuous; scurrilous; abusive. — Blasted with infamy; despised; rendered hateful.

Oppro'briously, *adv.* With reproach mingled with contempt; scurrilously.

Oppro'briousness, *n.* Reproachfulness mingled with contempt; scurrility.

Oppro'brium, *n.* [Lat., from *ob,* and *probrum,* a shameful or reproachful act.] Reproach mingled with contempt or disdain; disgrace; ignominy; infamy.

Oppugn, (*op-pūn'*) *v. a.* [Sp. *opugnár;* Lat. *oppugno,* from *ob,* and *pugno,* to fight.] To fight or contend against; to attack; to oppose; to resist.

Oppug'nancy, *n.* Opposition; act of oppugning.

Oppug'nant, *n.* An opponent; a person who oppugns. (R.)

—*a.* Hostile; opposing.

Oppugna'tion, *n.* Resistance; opposition.

Oppugner, (*op-pūn'er,*) *n.* One who opposes or attacks; that which opposes.

Ops. (*Myth.*) A name of CYBELE, *q. v.*

Opsiom'eter, *n.* [Gr. *opsis,* sight, and *metron,* measure.] (*Optics.*) An instrument for measuring the extent of the limits of distinct vision in different individuals, and consequently for determining the focal lengths of lenses necessary to correct imperfections of the eye.

Op'tative, *a.* [Fr. *optatif;* Lat. *optativus,* from *opto, optatus,* to wish.] Expressive of a desire or wish.

—*n.* (*Gram.*) That mood or form of the verb in which wish or desire is expressed.

Op'tatively, *adv.* In an optative manner.

Op'tic, *n.* An organ of sight; an eye.

Op'tic, Op'tical, *a.* [Fr. *optique;* Gr. *optikos.*] Relating or pertaining to vision or sight. — Relating to the science of optics.

Optic nerves. (*Anat.*) The nerves of vision, or the second pair of cerebral nerves, each optic nerve terminating in the *retina* or camera of the eye, the disc at the back of the ball on which all objects are reflected.

Op'tically, *adv.* By optics or sight.

Optician, (*op-tish'an,*) *n.* [Fr. *opticien.*] A person skilled in the science of optics. — One who makes or sells optical glasses and instruments.

Op'tics, *n. sing.* [From Gr. *optomai,* to see.] That branch of science which treats of the nature and properties of light; of the changes which it undergoes in its qualities or in its course when passing through bodies of different kinds and shapes, when reflected from their surfaces, or when passing near them; of the structure of the eye, and the laws of vision; and of the construction of those instruments in which light is the chief agent. (For an account of the nature and general properties of light, see LIGHT; and for its physiological action, see EYE.) Like the early history of all the sciences cultivated by the ancients, that of optics is veiled with obscurity; it would appear, however, that soon after the art of glass-making was discovered, lenses and spheres of glass were used as burning-glasses. By referring to the article upon LIGHT, the reader will observe a slight sketch of the history of this science, and also a definition of the two hypotheses on which the propagation of light is accounted for, — the hypothesis of *emission,* and the hypothesis of *undulation.* In this article it is our intention to treat of optics principally as a mathematical science, without regard to either theory, merely tracing by mathematical calculation the results of certain experimental laws. From a bright object light emanates in all directions, and this light may be conceived to be made up of *rays.* By the term *ray* we intend to express the smallest quantity of light which can proceed in any direction; and we reason concerning rays as if they were geometrical lines. In the same way an object, in order to be a source of light, must be of finite, though it may be of very small dimensions; thus, a bright point, which is a source of light, is considered as a geometrical point. Any substance which allows the transmission of light through it is called a *medium;* and light can proceed either through a medium or in vacuum. A *pencil* of rays is an assemblage of rays proceeding from a luminous point. In form, pencils are considered conical, and the axis of the cone is called the *axis of the pencil.* A conical pencil may consist either of convergent or of divergent rays, — if the rays are proceeding from some source of light towards a point, the pencil is convergent, and divergent when the rays are proceeding from a luminous point. If rays are parallel, the pencil is neither convergent nor divergent. The direction of a ray of light proceeding in a uniform medium or in vacuum is rectilinear; but when it is incident on the surface of a medium, it is generally divided into three parts. One portion is reflected according to a regular law, and is called the *reflected ray;* another portion enters the medium according to a regular law, and forms the *transmitted or refracted ray;* a third portion is *scattered,* that is, reflected in all directions, without any regular law. It is the third portion which renders objects visible. There is also a certain portion of light besides the reflected, refracted, and scattered portions, which is *absorbed* by the medium. In the case of polished metallic surfaces, the reflected ray is the only one which sensibly exists; and generally the relative intensities of the reflected and refracted rays vary with the circumstance of the incidence, and also with the nature of the medium. The angle which a ray of light falling upon a plane surface, makes with the line perpendicular to the surface, or the *normal,* is called the *angle of incidence,* and the angles which the reflected and the refracted rays respectively make with the same line are called the *angles of reflection and refraction.* When a ray is incident on a curved surface, it is reflected or refracted in the same manner as if it fell upon the plane which touches the surface at the point of incidence; and the angles of incidence, reflection, and refraction, are those which the incident, reflected, and refracted ray, respectively, makes with the normal to this plane. The following are the laws of reflection: — First, *the incident and reflected rays lie in the same plane with the normal at the point of incidence, and on opposite sides of it.* Second, *the angles of incidence and reflection are equal.* And the following are the laws of refraction: — First, *the incident and refracted rays lie in the same plane with the normal at the point of incidence, and on opposite sides of it.* Second, *the sine of the angle of incidence bears to the sine of the angle of refraction a ratio dependent only on the nature of the media between which the refraction takes place, and on the nature of the light.* The true law of refraction was discovered by Willebrod Snell, professor of mathematics at Leyden, in 1613. The discovery was at first erroneously attributed to Descartes. According to the second law of refraction mentioned above, if we call the angle of incidence, ϕ, and that of refraction ϕ', we shall have $\sin \phi = u \sin. \phi'$, where u is a quantity independent of the angles of incidence and dependent only on the nature of the media and light. Thus it will have one value for refraction from a vacuum into glass, and another from glass into water, &c.; it will also have one value for blue light, another for red, and so on. The quantity u is called the *refractive index,* and is greater than 1, when refraction takes place from vacuum into a medium, and, as a general rule, is greater than 1 when the refraction is from a rarer to a denser medium, and less than 1 when the opposite is the case. These laws may be deduced from actual observation by the following experiment, and may be made susceptible of considerable accuracy if proper precautions be taken. Take a rectangular card, and let its opposite sides be bisected by

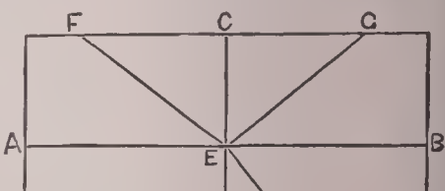

Fig. 1997.

the lines A E B, C E D. Then immerse the card perpendicularly in water as far as the line A B, and place it in such a position that a very small beam of sunlight, admitted through an opening in a shutter of a darkened room, may be incident along the line F E, on the surface of the water E. A portion of this ray will then be observed to be reflected in a direction such as E G; and in measuring C F, C G, they will be found to be equal; hence it will be seen that the angles F E G, G E C, are equal; and it is manifest that F E, C E, and G E, are in the same plane, as they are all in the plane of the card. Again, the ray E H, transmitted through the water, is the refracted ray, which is also manifestly in the same plane with F E and D E. If, also, the lines C F and D H be measured from different angles of incidence, and C E and H E computed from them, it will be found that the ratio C F : E F :: D H : E H, is the same, whatever be the direction of the ray. The ratio will not, however, be the same if another fluid be substituted for water, or if the color of the light be altered. The names of *prisms* and *lenses* have been given to those transparent bodies which are most useful in optical experiments and in the construction of optical instruments. The different forms of lenses will be found described in the article upon LENS. A prism is a solid piece of glass having three plane surfaces, which are called its refracting faces, the light passing through any two of them. One of the most remarkable and interesting phenomena connected with refraction by prisms is the total reflection which takes place within the transparent medium. The light is far more brilliant than that obtained from polished silver, which gives more reflected light than any other metal. The phenomenon of total reflection may be seen by filling a tumbler with water and holding it above the head, so as to see the image of a candle reflected from the lower side of its surface when at rest. Diamonds and precious stones, and cut-glass ornaments, are often cut so as to return to the eye the light that has undergone total reflection. Another remarkable effect produced by refraction of prisms, is the proof that white light is a *compound element.* The constituent parts or colors, which compose white light are seven in number, — red, orange, yellow, green, blue, indigo, and violet. The received doctrine of colors depends on the different refrangibility of the rays of light. White light is decomposed into its seven component parts when it is allowed to pass through a prism. A beam of parallel rays is admitted through a small aperture in a window-shutter, and suffered to fall on one side of a prism, through which it passes under peculiar conditions. It does not pass in its original path, but is refracted unequally in its transit; and on leaving the prism it diverges, and casts upon a screen an oblong figure, called the prismatic spectrum, with curved extremities, divided into seven unequal breadths, each breadth occupied by a distinct and separate color. The order of the colors, taking them from the bottom of the spectrum, is as we have given it above, — the red rays being least refrangible and the violet most; and the refractions of the intermediate colors increasing from the red upwards. (See SPECTRUM.) White light is considered to be composed of at least three primary colors, — red, blue, and yellow; and any one of these is complementary to the other two. Thus, when the eye is strongly impressed with one color, it becomes, by some physiological action, pre-eminently fitted to see and appreciate the complement of that color. For instance, if the eye be fixed upon a bright *red* wafer for some time, and then suddenly directed towards a sheet of plain white paper, a spectral image of the wafer will be seen of a *green* color; green being the complementary color of red. Orange is the complementary color of blue, and purple of yellow.

Op'timacy, *n.* The nobility; the body of nobles. (R.)

Op'timate, *a.* Pertaining to the nobility. (R.) —*n.* The principal person in a city or state; a person of noble rank.

Optime, (*op'ti-mē,*) *n.* [Lat. *optimus*, the best.] A term applied in the University of Cambridge, England, to those who hold, next after the wranglers, the highest rank as mathematical scholars. There are two classes, *senior optimes* and *junior optimes*.

Op'timism, *n.* [Fr. *optimisme*, from Lat. *optimus*, best, supl. of *bonus*.] The opinion or doctrine that everything in nature is ordered for the best, or adapted to produce the greatest good.

Op'timist, *n.* One who holds the opinion that all things are ordered for the best.

Optim'ity, *n.* The state of being best.

Option, (*op'shun,*) *n.* [Fr.; Lat. *optio*, from *opto*, to wish, to desire.] The power of choosing; the right of choice or election. — The power of wishing; wish. — Election; preference.

(*Stock Exchange.*) A percentage given for the *option* of putting or calling, *i. e.* selling or buying stock in time-bargains at a certain price.

Op'tional, *a.* Left to one's wish or choice; depending on choice or preference. — Leaving something to choice

Op'tionally, *adv.* With the privilege of choice; in an optional manner.

Optom'eter, *n.* [Fr. *opticomètre.*] (*Optics.*) An instrument for measuring the focal distance of the eye, or the distance at which a minute object is distinctly seen. As the distance varies in respect of different individuals, the instrument is applicable to the purpose of determining the focal length of spectacles required for myopic or presbyopic eyes.

Op'ulence, *n.* [Fr., Lat. *opulentia*, from *opulens*, fruitful.] Wealth; riches; affluence.

Op'ulency, *n.* The same as OPULENCE. (R.)

Op'ulent, *a.* [Lat. *opulens, opulentis*, rich, abounding in means.] Having a large estate or property; wealthy; affluent; rich.

Op'ulently, *adv.* Richly; with abundance or splendor.

Opuntia, (*o-pun'she-a,*) *n.* [From *Opuntis* (*opis*), a city of Locri, near which it flourished.] (*Bot.*) A genus of plants, order *Cactaceæ*. They are shrubby plants, with articulated branches, the joints usually broad and flattened, with fascicles of prickles regularly arranged upon the surface. *O. vulgaris*, the Prickly Pear, or Indian Fig (Fig. 66), is a curious fleshy plant, native in rocky and sandy places, in America and the S. of Europe. It is often cultivated, and is formed by a series of thick fleshy leaves, growing from the tip or sides of each other, and armed with orange-colored spines. The flowers come forth from the edge of the joints, large, bright yellow, and succeeded by a smooth, crimson, edible fruit. The fruit of *O. tuna* is of a fine carmine color, and has been employed as a water-color. *O. cochinellifera*, the Cochineal Fig or Nopal plant (Fig. 637), is cultivated in Mexico and other parts for the nourishment of the cochineal insect.

Opus'cle, Opus'cule, *n.* [Lat. *opusculum*, dim. of *opus*, work.] A little work.

Opus'culum, *n.* [Lat.] An opuscle; a small work.

Oquaka, (*o-kwa'ka.*) in *Illinois*, a post-village, cap. of Henderson co., abt. 132 m. N.W. of Springfield.

Or, *conj.* [A.S. *oththe, outher*; Ger. *oder*: Lat. *aut*] A disjunctive particle that marks an alternative, and frequently corresponds with *either*; as, you may come *either* to-morrow or the next day. It also frequently connects a series of words or propositions, denoting a choice of either; as, you may love me, *or* hate me, or treat me with indifference. — In poetry, *or* is sometimes used for *either*.

"*Or* to conceal or else to tell." — *Cowley.*

Or is, again, often employed to signify an alternative of definitions or explications of the same thing in different terms; as, a parallelogram is a right-lined, quadrilateral figure, *or* a figure whose opposite sides are parallel, and consequently equal.

Or. A termination in Latin substantives, denoting an agent, as in *actor, debtor*. It is attached to many words of English origin, as in *assessor*. In general, however, *or* is annexed to Latin words, and *er* to those of English parentage.

Or, *n.* [Fr.; from Lat. *aurum*, gold.] (*Her.*) One of the metals employed in blazoning.

Or'ach, *n.* (*Bot.*) See ATRIPLEX.

Oracle, (*or'a-kl,*) *n.* [Fr.; Lat. *oraculum*, from *oro*, to speak.] (*Antiq.*) The answer given by heathen deities to those who consulted them. The name was also applied to the sacred place where these answers were communicated. The credit of oracles was so great that no business of any importance was undertaken without consulting some oracle; and their answers were generally given in dark and ambignous phrases, so that they might be interpreted to correspond with whatever happened. The responses were given by the priest or priestess of the god, and they frequently consisted of incoherent words uttered in a state of delirium or divine inspiration. Sometimes they were given by signs; as the movement of leaves or the murmuring of the waters of a fountain. Responses were usually given in Ionic hexameters; but on account of the scandal to which their metrical defects occasionally gave rise, they were subsequently given in prose. Apollo was regarded as the great oracular deity, Jupiter being less frequently consulted. The Greeks had no fewer than twenty-two oracles for the consultation of this deity, the most famous being at Delphi. The most important oracles of Jupiter were at Olympia in Elis, and Dodona in Epirus, at both of which he only sent signs for men to interpret. In Italy there were no oracles where the priests spoke by inspiration. The Romans had not recourse to oracles so much as the Greeks. They trusted more to augury and the Sibylline books. The principal Roman oracles were those of Faunus, in the grove of Albunea, and on the Aventine Hill where the inquirer received his answer in sleep in prophetic visions; those of Fortuna, where the responses were given by lot; and that of Mars, which in early times existed at Tiora Matiene, and at which the revelation was given through a woodpecker. By degrees these mysterious deliverances lost their hold upon the public faith. The skeptical few had always secretly ridiculed them as the offspring of subtle, unscrupulous priests; but the politicians looked upon them with favor, as a means of advancing their interests, and not unfrequently directed the responses. Aristophanes made them objects of raillery; Demosthenes accused the Pythia of favoring Philip; and Cato of Utica disdained to interrogate Jupiter Ammon. The early Christians attributed the predictions of the oracles to the agency of demons; and Eusebius and others affirmed that they became silent at the birth of Christ; the reason assigned being that Christ then put an end to the power of Satan upon the earth. The Urim and Thummim, and the Bath Kôl (literally daughter of the voice, echo) of the Jews, have been supposed by some critics to resemble the heathen oracles.

Or'acle, *v. n.* To utter oracles.

Orac'ular, *a.* [Lat. *oracularius.*] Uttering oracles; pertaining to an oracle. — Resembling an oracle. — Having or pretending to have the authority of an oracle; positive; authoritative; magisterial. — Obscure; ambiguous, like the oracles of pagan deities.

Orac'ularly, *adv.* In the manner of an oracle; authoritatively; positively.

Orac'ularness, *n.* The quality of being oracular.

Orac'ulous, *a.* Uttering oracles; resembling oracles. (R.) — Positive; authoritative; dogmatical. — Obscure; ambiguous.

Orac'ulously, *adv.* In the manner of an oracle.

Orac'ulousness, *n.* The state of being oracular.

O'ral, *a.* [Fr. and Sp.; from Lat. *os, oris*, the mouth.] Pertaining to the mouth; uttered by the mouth, or in words; spoken, not written; as, *oral* testimony.

O'rally, *adv.* By mouth; in words, without writing.

Oran, (*o-ran',*) a town of Algeria, cap. of a province of same name, 209 m. by rail, W.S.W. of Algiers, at the foot of a hill called the Peak of St. Croix. *Pop.* (1897) 55,500.

Orange, (*or'anj,*) *n.* [Fr.] (*Bot.*) See CITRUS.

—*a.* Pertaining to an orange; of the color of an orange.

Orange, (PRINCE OF.) See WILLIAM III.

Orange, (*or'anj,*) a town of France, dept. of Vaucluse, on the Meyne, a tributary of the Rhone, 5 m. E. of the Rhone, and 12 m. N. of Avignon. *Manuf.* Linen, serge, and paper. It is noted for its Roman antiquities, the principal of which are a triumphal arch and a theatre. *O.* was formerly the cap. of a small principal city, which gave the title of *Princes of Orange* to the family now occupying the throne of Holland. The king of Holland, however, merely retains the title, the town and principality having been ceded to France by the treaty of Utrecht in 1713. *Pop.* (1897) 12,240.

Orange, in *Connecticut*, a post-town and township of New Haven co. *Pop.* (1897) 4,640.

Orange, in *Florida*, an E. central co. of the peninsula; *area*, about 1,566 sq. m. *Rivers.* St. John's river, Oklawaha, and many smaller streams. *Surface*, level, undulating, and abounding in lakes. Noted for its abundant and delicious oranges. *Cap.* Orlando. *Pop.* (1897) 14,500.

Orange, in *Indiana*, a S. by W. co.; *area*, about 400 sq. m. *Rivers.* Patoka and Lost rivers, and Salt creek. *Surface*, level, or pleasantly diversified; *soil*, fertile. *Min.* Carboniferous limestone. *Cap.* Paoli. *Pop.* (1890) 14,678.

—A post-township of Fayette co.

Orange, in *Massachusetts*, a post-township of Franklin co., about 70 m. N.W. of Boston. *Pop.* (1895) 5,361.

Orange, in *New Hampshire*, a township of Grafton co.

Orange, in *New Jersey*, a city of Essex co., about 3 m. N.N.W. of Newark. *Pop.* (1895) 22,792.

Orange, in *New York*, a S.E. co., adjoining New Jersey; *area*, about 791 sq. m. *Rivers.* Hudson, Walkill, and Shawangunk rivers. *Surface*, much diversified, the Shawangunk Mountain traversing the W. part of the co.; *soil*, generally fertile, but better adapted to grazing, and the produce of the dairies are justly celebrated. *Min.* Iron, marble, limestone, and sandstone. *Caps.* Newburgh and Goshen. *Pop.* (1897) 104,400.

Orange, in *North Carolina*, a N. central co.; *area*, about 380 sq. m. *Rivers.* Neuse, Eno, and Newhope rivers. *Surface*, undulating; *soil*, fertile. *Cap.* Hillsborough. *Pop.* (1890) 14,948.

Orange, in *Pennsylvania*, a township of Columbia co.

—A post-village of Luzerne co.

Orange, in *Texas*, an E.S.E. co., adjoining Louisiana; *area*, 390 sq. m. *Rivers.* Sabine and Neches rivers; Sabine lake at the S. extremity. *Surface*, level; *soil*, fertile. *Prod.* Hides, cotton, and wool; lumber and shingles. *Cap.* Orange. *Pop.* (1897) about 23,000.

—A city, cap. of above co., on Sabine river and So. Pac. R.R., 271 m. E. of Austin; has large lumber and cotton interests; the city is surrounded by immense forests of pine and cypress, which supply nearly a score of saw and shingle mills, employing some 2,000 to 3,000 hands *Pop.* (1897) 5,500.

Orange, in *Vermont*, an E. co., adjoining New Hampshire; *area*, 659 sq. m. *Rivers.* Connecticut river and several branches of White river. *Surface*, diversified, mountainous in N.W. *Min.* Iron, slate, granite, &c *Cap.* Chelsea. *Pop.* (1897) 19,900.

Orange, in *Virginia*, a N.E. central co.; *area*, 360 sq. m.; watered by Rapidan and North Anna rivers. *Surface*, hilly; *soil*, fertile. *Cap.* Orange. *Pop.* (1890) 12,814.

—A post-village, cap. of above co., on Ches. & Ohio, Southern, and P., F. & P. R. Rs., 85 m. S.W. of Washington, D. C. *Pop.* (1897) 620.

Orange, in *Wisconsin*, a village and township of Juneau co.

Orange, or **Gariep,** a river of South Africa, rising near Lat. 29° S., Lon. 30° E., and after a N.W. course of about 1,000 m., falling into the Atlantic, Lat. 28° 30′ S., Lon. 16° 30′ E.

Orangeade, (*or-enj-ād',*) *n.* A beverage made of orange-juice, in a manner corresponding to lemonade.

Orangeat, (*or-an-zhat',*) *n.* [Fr.] Candied orange-peel. — Orangeade.

Or'angeburg, in *Kentucky*, a post-village of Mason co., abt. 8 m. S.E. of Maysville.

Orangeburg, in *Mississippi*, a village of Marion co., abt. 80 m. S. by E. of Jackson.

Orangeburg, in *South Carolina*, a S. central district; *area*, about 1,400 sq. m. *Rivers.* Congaree, North and South Edisto, and Santee rivers. *Surface*, moderately diversified; *soil*, generally fertile. Large quantities of lumber and turpentine are procured annually from the pine forests. *Cap.* Orangeburg. *Pop.* (1890) 49,373.

—A fine town, cap. of above co., on Atl. Coast Line and S.C. & Ga.R.Rs., 51 m. S. of Columbia. *Pop.* (1897) 3,450

Orange Free State, a republic of Dutch origin in South Africa, lying between the Vaal and Orange Rivers, and in contact on the north with the Transvaal or South African Republic, and on the west with the diamond district of Griqualand West, some of the diamond mines being on its territory. On the east are the Drakenberg Mountains. The country is a plateau, from 3000 to 5000 feet high, and is principally devoted to pastoral pursuits, it containing much magnificent pasture land. The area is estimated at 41,500 sq. miles, the white population at over 60,000. Grain is grown; horses, cattle, sheep, goats, and ostriches are raised; coal and diamonds are mined. The capital is Bloemfontein. This country was settled by the Boers who emigrated from Cape Colony, and part of whom settled the Transvaal territory. Great Britain laid claim to it in 1845, but acknowledged its freedom in 1854. In 1899 its people joined those of the Transvaal in their war with Great Britain, and lost their independence in 1902. See SOUTH AFRICAN REPUBLIC.

O'rang-ou'tang, O'rang-u'taug, *n.* (*Zoöl.*) A monkey belonging to the *Simiadæ*, and the only species of the genus *Simia*. This animal, *Simia satyrus* (Fig. 1998), is about five feet high, and is covered with coarse, red hair. Its facial angle is 30°; the face is bluish, and the hind thumbs are very short compared with the toes In Borneo, its native name is *Mias*, and

Fig. 1998. — ORANG-OUTANG, (*Simia satyrus.*)

it is abundant in the S. and W. districts, in low swampy grounds. In his march through the virgin forest, the mias may be seen walking deliberately along the

branches in an erect attitude. Choosing a place where the branches of an adjacent tree intermingle, he seizes the smaller twigs, pulls them towards him, grasps them together with those of the tree he is on, and having so formed a kind of bridge, swings himself forward, and seizing hold of a thick branch with his long arms, is in an instant walking along to the opposite side of the tree. He never jumps, or even appears to hurry himself, and nevertheless moves as quickly as a man can run along the ground beneath. These animals sleep on trees, in a kind of nest they make on leafy branches weaved together, but seldom use the same nest more than once or twice. They do not appear to live in society, though a male and female may occasionally be seen, accompanied by half-grown young ones. They live exclusively on fruits, of which some, that they seem fond of, are intensely bitter.

Or'ange-leaf, (Oil of,) *n.* See CITRUS.

Or'angeman, *n.*; *pl.* ORANGEMEN. (*Hist.*) One of a society instituted in Ireland, in 1795, to uphold the ascendency of the Protestant religion, and for the discouragement of Catholicism. It was dissolved in 1835 at the instance of the House of Commons, but was revived in 1845, and is still extensively diffused throughout the British Islands and Canada. It has office-bearers, a secret organization, distinctive colors (blue and orange), Serious riots took place during processions of the order in New York (1871) and Belfast (1880 and 1886), and numerous minor disturbances have occurred elsewhere.

Or'ange-root, *n.* (*Bot.*) See HYDRASTIS.

Or'angery, *n* [Fr. *orangerie.*] A kind of gallery, in a garden or parterre, for preserving orange-trees during the winter season. An *O.* is distinguished from a conservatory by its having an opaque roof, while that of the latter is glazed. The name is also given to a plantation of orange-trees.

Or'ange-tawny, *a.* Of a color resembling an orange; of a color between yellow and brown.

—*n* A color resembling that of an orange.

Or'ange-wife, *n.* A woman who sells oranges.

Or'ange Springs, in *Virginia*, a post-village of Orange co., abt. 104 m. N.N.W. of Richmond.

Or'angetown, or ORANGE, in *New York*, a township of Rockland co.

Or'angeville, in *Indiana*, a post-village of Orange co., abt. 8 m. N.W. of Paoli.

Orangeville, in *Michigan*, a township of Barry co.; *pop.* abt 500.

Orangeville, in *New York*, a post-township of Wyoming co.

Orangeville, in *Ohio*, a post-village of Trumbull co., abt. 7 m. E. by S. of Cleveland.

Orangeville, in *Pennsylvania*, a post-village of Columbia co., abt. 80 m. N.N.E. of Harrisburg.

Ora'tion, *n.* [Lat. *oratio*, from *oro*, *oratus*, to speak.] A speech or discourse composed according to the rules of oratory, and spoken in public; a discourse pronounced on a special occasion; an harangue.

Or'ator, *n.* [Lat.] A public speaker; a person who pronounces a discourse publicly on some special occasion, as on the celebration of some memorable event; an eloquent public speaker.

(*Law.*) The party who files a bill in chancery.

(*Eng Universities.*) The principal, and in many cases the only ostensible, agent for the university in all those matters of form which are merely external.

Orato'rial, *a.* Oratorical; pertaining or belonging to oratory, or to an orator

Orato'rially, *adv.* In an oratorial manner

Orato'rians, or CONGREGATION OF THE ORATORY. (*Eccl. Hist.*) A society for the exercise of devotion with religious study, was founded in Italy by St. Philip Neri (July 21, 1515–May 26, 1595) in 1550, and called the Order of the Holy Trinity. It received the public approval of Gregory XIII. in 1577. It took the name of the Congregation of the Priests of the Oratory of Jesus, and the rule framed by the Fathers was approved by Paul V., Feb. 21, 1612. The name is derived from the chapel or oratory built by Neri at Florence. The French society of Fathers of the Oratory of the Holy Jesus was instituted by Petsr de Berulle in 1613. Dr. Newman introduced the Congregation into England in 1847.

Orato'rical, *a.* Pertaining to an orator or to oratory; rhetorical; becoming an orator.

Orato'rically, *adv.* In a rhetorical manner.

Orato'rio, *n.* [Ital.] (*Mus.*) A kind of musical drama, consisting of airs, recitatives, duets, trios, choruses, &c. The text is usually derived from some Scriptural subject; as, for instance, that of the "Messiah," of the "Creation," and of "Elijah." The origin of the oratorio is somewhat obscure. The most probable account is that which attributes its invention to St. Philip Neri, who, in 1540, organized, at the new chapel at Rome, certain musical performances, consisting of poems on sacred subjects, sung by first-rate singers, accompanied by the best instrumentalists, for the purpose of attracting large congregations, and of creating a zeal for religion. Though a somewhat profane method of effecting so sacred a purpose, it was entirely successful, and these performances, which at first were only poems in four parts, were, in less than half a century after the death of Neri, in 1593, developed into those splendid compositions called by moderns oratorios. Italy, although the birth-place of the oratorio, has produced very few of any note. The Germans, on the contrary, excel in this species of composition: as a proof of this, it is only necessary to mention the names of S. Bach, Haydn, Beethoven, Mozart, and, greatest of all, Handel.

—An oratory; a place of worship.

Orato'riously, *adv.* In an oratorious manner.

Or'atory, *n.* [Fr. *oratoire;* Sp. and It. *oratorio;* Lat. *oratoria*, from *orator*, an orator.] (*Eccl. Arch.*) The name given by Christians to certain places of religious worship. In early Christian writers, the term is frequently applied to churches in general; but afterwards it came to be confined to private chapels, or places of worship set up for the convenience of private families, yet still depending on the parochial churches, and differing from them in being strictly only places of prayer, and not for celebrating the communion.

(*Rhetoric.*) The art of speaking well, or of speaking according to the rules of rhetoric, in order to persuade; exercise of eloquence; rhetoric. See RHETORIC.

Or'atress, Or'atrix, *n.* A female orator.

Oravic'za, a town of the S.E. of Hungary, county of Krasso, 53 m. S.S.E. of Temesvar; *pop.* 5,000.

Orb, *n.* [Fr. *orbe;* Lat. *orbis.*] A hollow or solid body of round form; a sphere; a globe. — One of the celestial spheres. — The eye, as luminous and spherical. — An orbit; a circle described by the revolution of a celestial body. — A period; revolution of time. — A wheel; any rolling body.

—*v. a.* To surround; to encircle; to form into a circle or sphere.

Orb, a town of Bavaria, circle of Lower Franconia, on the Orb, 42 m. N.W. of Würzburg. *Manuf.* Paper; and it has salt mines and mineral springs. *Pop.* 4,600.

Orb, or **Orbe,** a river of France, dept. of Herault, rising near Roumières, and, after a S. course of 60 m, flowing into the Mediterranean, 7 m. below the Canal du Midi.

Orbey, (*or-ba'*,) a town of France, dept. of Haut-Rhin, 14 m. W.N.W. of Colmar. *Manuf.* Cotton, glass, and earthenware. *Pop.* 5,600.

Orbed, (*orbd,*) *a.* Formed into a circle or round shape; round; circular.

Or'bic, Or'bical, *a.* Spherical.

Orbic'ular, *a.* [Fr. *orbiculaire;* L. Lat. *orbicularis*, from *orbiculus*, a small disc.] Circular; spherical; globe-shaped.

Orbic'ularly, *adv.* In a circular manner or form; spherically.

Orbic'ularness, *n.* The state of being orbicular.

Orbic'ulate, *n.* A figure whose horizontal section is circular, and vertical section oval.

Orbic'ulate, Orbic'ulated, *a.* Made or being in the form of an orb; rounded; circular.

(*Bot.*) Circular, or nearly circular, as the leaves of Pyrola.

Orbic'ulus, *n.* (*Bot.*) A thick, solid mass covering over the ovarium and adhering to the stamens. *Lindley.*

Orbiso'nia, in *Pennsylvania*, a post-borough of Huntingdon co., about 81 m. W. of Harrisburg.

Or'bit, *n.* [Lat. *orbita*, from *orbis*, a sphere: Fr. *orbite.*] (*Astron.*) The path which any celestial body describes by its proper motion. The *O.* of all the planets and satellites are ellipses; and recent discoveries seem to show that the orbits of double stars, which revolve about each other, are curves of the same kind. Some comets have been supposed to move in parabolic or hyperbolic orbits.

(*Anat.*) The bony cavity in which the eyeball is imbedded. Each *O.* in man is formed by seven bones — the frontal, maxillary, jugal, lachrymal, ethmoid, palatine, and sphenoid. The number of orbital bones, and the portion and degree of circumscription of the *O.*, vary much in lower vertebrates.

(*Zoöl.*) In Crustacea, that portion of the carapace in crabs and lobsters (*Decapoda*) to which the eye is attached, and the groove into which the eye and its peduncle are retracted. — In Ornithology, this term is applied to the skin which surrounds the eye; this is generally bare of feathers, for the facility of its movements, but especially so in the parrot tribe and the heron.

Or'bital, Orbitar, *a.* Pertaining to an orbit, or to the orbit of the eye.

Orc, Or'ca, *n.* [Lat. *orca.*] (*Zoöl.*) A name of the Grampus. See DELPHINIDÆ.

Orcades, (*ôr'ka-dēēz.*) (*Anc. Geog.*) Ancient writers represent this group, at the extreme N. of Britannia, to consist of between 30 and 40 small islands, supposed to be the modern Orkney and Shetland Islands, *q. v.*

Orca'dian, *a.* (*Geog.*) Belonging, or pertaining to the Orkney Islands.

Orcagna, ANDREA, (*or-kan'yā.*) a corruption of L'ARCAGNOLA, one of the greatest of the early Italian painters, combined in his works the severity and grandeur of Giotto, with the softness and tenderness of Simone and the Lorenzetti. He was great also as a sculptor and architect. Few of his frescoes have escaped the ravages of time and the restorer, so that they have now little attraction except for art-students. His greatest works were, the frescoes in the choir of Santa Maria Novella, hopelessly damaged soon after their completion; frescoes of the *Last Judgment*, *Paradise* and *Hell* in the Strozzi chapel; altar-piece in the same chapel, executed in 1357; and as sculptor and architect, the Tabernacle of the church of Or San Micheli, completed in 1359. *O.* executed a mosaic for the cathedral of Orvieto in the following year. The great frescoes of *The Triumph of Death*, *The Last Judgment*, and *Hell*, in the Campo Santo of Pisa, are attributed to him by Vasari, whose assertion is stoutly controverted on internal evidence by recent critics D. at Florence, in or before 1376

Or'chal, *n.* (*Chem.*) The same as ARCHIL, *q. v.*

Or'chard, *n.* [A. S. *ortgeard.*] An inclosure or assemblage of fruit-trees, especially of apple-trees, peach-trees, &c.

Or'charding, *n.* The cultivation or care of orchards.

Or'chard Grass, *n.* (*Bot.*) See DACTYLIS.

Orchella, (*or-chel'ya,*) an island of Veneznela, in the Caribbean Sea, abt 80 m. N.W. of Tortuga; Lat. 11° 50' N., Lon 66° 14' W. It has an area of abt. 15 sq. m., with a low surface and arid soil.

Orchel'la-weed, *n.* (*Bot.*) A species of lichen, genus *Roccella*. See ARCHIL.

Orchestra, Orchester, (*or'kes-tra,*) *n.* [Gr. *orchestra*, from *orcheomai*, to dance.] That part of a theatre between the stage and the audience, where, among the Greeks, the chorus danced. — In modern theatres, that part of the building appropriated to the musicians. — The body of performers in the orchestra, or the collective mass of instruments employed.

Orchestral, (*or'kes-tral,*) *a.* Pertaining to an orchestra; suitable for, or performed by, an orchestra.

Orchestra'tion, *n.* (*Mus.*) Same as INSTRUMENTATION, *q. v.*

Orchida'ceæ, *n.* [From Lat. *orchis.*] (*Bot.*) The Orchid family, an order of plants, alliance *Orchidales*. DIAG. Irregular gynandrous flowers and parietal placenta. — They are herbaceous plants or shrubs, always perennial, occurring all over the world, except in the very coldest regions, or those where everlasting dryness reigns. The *O.* are distinguished by the peculiar form which one piece of the perianth (*labellum*, or *tip*) assumes in many cases, so as to cause the flower to resemble some insect, reptile, or bird; by its pollen cohering in grains or waxy masses; and by its 1-celled inferior ovary. The orchids are remarkable for the singularity, beauty, and fragrance of their flowers; and new species or varieties are highly prized by horticulturists. Vanilla (Fig. 1211) is the most important commercial product of this order, which includes 394 genera and about 3,000 species.

Fig. 1999. — ORCHIS MORIO.
(*a*, Parts of the flowers.)

Orchida'ceous, Orchid'eous, *a.* (*Bot.*) Belonging to the order *Orchidaceæ*.

Or'chidales, *n. pl.* (*Bot.*) An alliance of plants, class *Endogens*. DIAG. 1 to 3 stamens, and seeds without albumen. The alliance is divided into 3 orders, viz.: BURMANNIACEÆ, ORCHIDACEÆ, and APOSTASIACEÆ, *q. v.*

Or'chil, Or chilla, *n.* The same as ARCHIL, *q. v.*

Orchis, (*or'kis,*) *n.* (*Bot.*) The typical gen. of the ord. *Orchidaceæ*. The roots of several species, as those of *O. mascula* and *O. morio* (Fig. 1999), when dried, form the European or indigenous *salep*. That prepared from the first-named species is said to be the best. Salep contains the principle called *bassorin*, and a little starch; it possesses similar properties to those of starchy and mucilaginous substances generally. *O. spectabilis*, the Showy orchis, is a pretty little plant found in shady woods and among rocks.

Or'cine, *n.* [Fr.] (*Chem.*) A white crystalline substance found in the lichens used for the preparation of archil and litmus. It crystallizes in 6-sided prisms, which are very soluble both in water and alcohol. Exposed to air and light, orcine turns red. *Form.* $C_{14}H_8O_4$.

Ordain', *v. a.* [It. and Lat. *ordinare*, to set in order, from *ordo.*] To dispose; to arrange; to regulate; to establish in a particular office or order; — hence, to invest with a ministerial function or sacerdotal power. — To appoint or decree; to establish; to institute. — To constitute; to set apart for an office.

Ordain'able, *a.* Capable of being ordained or appointed.

Ordain'er, *n.* One who ordains, appoints, or invests with sacerdotal powers.

Ordain'ing, *a.* Investing with sacerdotal functions; establishing; appointing.

Ordain'ment, *n.* Act of ordaining. (R.)

Ordeal', *n.* [A. S. *ordael*, from *or*, great, and *dele*, judgment.] A manner of trial practised in the Middle Ages, being founded upon the belief of an actual interposition of God to free the innocent and condemn the guilty. Hence it received the name of *Judicium Dei* (God's judgment). Perhaps the earliest trace of this practice is to be found in the "waters of jealousy," mentioned in the book of *Numbers* (ch. v.), which the Hebrew women suspected of incontinency were required to drink as a test of their innocence. It appears to have been practised also by the ancient Greeks; for in the *Antigone* of Sophocles, a person suspected by Creon of a misdemeanor, declares himself ready to "handle hot iron and to walk over fire;" and Grotius gives many instances of water-ordeal in Bithynia, Sardinia, and other places. The ordeals common in Europe in the Middle Ages were of two kinds, viz., fire and water; the former being chiefly confined to persons of high rank, the latter to the common people. Fire-ordeal was performed either by taking up in the hand unhurt a piece of red-hot iron, or else by walking barefooted and blindfolded over nine

SOCIETY EMBLEMS.

1 MASTER MASON.
2 ROYAL ARCH MASON.
3 KNIGHT-TEMPLAR.
4 THIRTY-SECOND DEGREE OF FREEMASONRY.
5 MYSTIC SHRINE.
6 IMPROVED ORDER OF RED MEN.
7 INDEPENDENT ORDER OF ODD FELLOWS.
8 KNIGHTS OF MALTA.
9 KNIGHTS OF PYTHIAS.
10 KNIGHTS OF THE GOLDEN EAGLE.
11 ROYAL ARCANUM.
12 ORDER OF SPARTA.
13 BENEVOLENT PROTECTIVE ORDER OF ELKS.
14 ANCIENT ORDER OF UNITED WORKMEN.
15 AMERICAN LEGION OF HONOR.
16 KNIGHTS OF MACCABEES.
17 PATRIOTIC ORDER SONS OF AMERICA.
18 JUNIOR ORDER UNITED AMERICAN MECHANICS.
19 INDEPENDENT ORDER OF FORESTERS.
20 HEPTASOPH.
21 LEAGUE OF AMERICAN WHEELMEN.
22 ANCIENT ORDER OF HIBERNIANS.
23 BROTHERHOOD OF RAILROAD TRAINMEN.
24 CATHOLIC TOTAL ABSTINENCE UNION OF AMERICA.
25 CHRISTIAN ENDEAVOR.

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red-hot ploughshares laid lengthwise at unequal distances. If the party escaped unhurt, he was adjudged innocent; but if not, as without collusion was usually the case, he was condemned as guilty. The water-ordeal was performed either by plunging the bare arm up to the elbow in boiling water, and escaping unhurt thereby, or by casting the person suspected into a river or pond of cold water; and, if he floated without swimming, it was evidence of his guilt; but if he sunk, he was acquitted. The judicial combat or duel was a very common mode of appealing to heaven, in Germany, in early times. The *corsued*, or consecrated bread and cheese (*panis ordeaceus*), was the ordeal to which the clergy commonly appealed when accused of any crimes. If the culprit swallowed the bread and cheese freely, he was declared innocent; but if it stuck in his throat, he was pronounced guilty. A decree of the fourth Lateran council (1215) was issued, declaring against any trial by ordeal, as being the work of the devil.

—Severe trial: elaborate scrutiny.

Ordeal, *a.* Of, or pertaining to the trial by ordeal.

Or'der, *n.* [Fr. *ordre*; Lat. *ordo*, a regular series.] Regular disposition, or methodical arrangement, or established sequence or succession: as of material things, like the accounts in a ledger; of intellectual abstractions, like the heads of a sermon; of periods of time, or events, or the like

"*Order* is Heaven's first law."—*Pope.*

—Proper state or condition; normal or befitting state; becoming appearance; as, we found everything in *order*. — Established method or rule of proceeding; settled mode of operation; fixed manner of usage: custom; fashion.—Regular government, authority, or discipline; favorable condition resulting from conformity with established law; public tranquillity; general quietude; as, to preserve *order*. — Authoritative direction; precept; mandate; injunction; special rule; as, a judicial *order*, he issued strict *orders* not to be disturbed.—That which prescribes a stated course of regulation, rule of government, or method of procedure; adherence to the point in discussion; according to established rules in debate; regularity: as, the standing *orders* of a legislative body.—Necessary provision or care; preparatory measures.

"I take *order* for my own affairs."—*Shaks.*

—A commission to effect purchases or furnish goods or wares; a written command to pay money; a free pass, as to a place of public entertainment; as, a money-*order*, an *order* for groceries, an *order* to the pit of a theatre.—A regular row or series; a rank; a grade; particularly, a rank or class in the community; a division of persons occupying the same social status; — hence, a privileged grade of men; as, the higher *orders* of society.

(*Her. and Eccl.*) The word *order* is applied to an aggregate of conventual communities comprehended under one rule, or to the societies, half military, half religious, out of which the institution of knighthood sprang. Religious orders are generally classified as *monastic*, *military*, and *mendicant*.—See KNIGHTHOOD, and MONACHISM.

(*Eccl.*) An ordinal.

(*Arch.*) A system or assemblage of parts subject to certain uniform established proportions, regulated by the office which each part has to perform. There are 5 classical orders, distinguished by the base, capital, and entablature of their columns, — viz., the *Tuscan*, the *Doric*, the *Ionic*, the *Corinthian*, and the *Composite*. See ARCHITECTURE and COLUMN.

(*Zool.*) The subdivision of a class, characterized by a complication of the general plan of structure Orders are further divided into *families*, and the families into *genera*, which are again subdivided into *species*.

(*Bot.*) A division inferior to *class*, but superior to *family*, and comprising those genera which, though varying in some respects from each other, have the essential characters alike. Thus mustards, turnips, radishes, and cabbages, all belong to different genera, but they all agree in their general structure, and are hence included in the order *Brassicaceæ*. The orders are the most important of all associations in botany, and on their accuracy and distinctness botanists have bestowed the highest degree of attention. The term *natural order* is used to express genuine relationship, in distinction to artificial grouping.

(*Math.*) A term frequently used synonymously with *degree*. Thus the order of a curve or surface is the same as the degree of its equation.

(*Mil.*) A *general order* is the command or bulletin which a commanding officer issues to the forces of his command — An *order of battle* is the plan or disposition of troops preparatory to the strategic manœuvres incidental to a general engagement.

(*Pal.*) In legislative bodies, one method of superseding a question already proposed to the House is by moving "for the *order of the day* to be read." This motion, to entitle it to precedence, must be for the order generally, and not for any particular order; and, if this is carried, the orders must be read and proceeded on in the course in which they stand. But it can be in its turn superseded by a motion "to adjourn."

Or'der, *v. a.* To set or place in order; to methodize; to reduce to systematic rules; to adjust, with reference to a definite result. — To subject to system or method in management or execution; to conduct; to dispose; to regulate. — To command; to direct: to give an order to; as, he was *ordered* off about his business. — To ordain; to admit to holy orders; to receive into the fold of the Christian ministry.

—*v. n.* To give command, direction, or instruction.

Or'derable, *a.* Capable of being ordered, or of receiving orders.

Or'derer, *n.* One who gives orders; one who methodizes or regulates.

Or'dering, *n.* Disposition; distribution; management.

Or'derless, *a.* Without order or regularity; disorderly.

Or'derliness, *n.* State of being orderly or methodical; regularity.

Or'derly, *a.* Methodical; regular; systematic. — Observant of order or method; well-regulated. — Performed in good order; not tumultuous; according to established method; not unruly; not inclined to break from inclosures; peaceable; as, an *orderly* march. — Being on duty; as, an *orderly* officer, or officer of the day.

—*adv.* Methodically; according to due order; regularly; according to rule.

—*n.* (*Mil.*) A non-commissioned officer, who accompanies a superior officer, for the purpose of bearing orders, or to render other services.

Or'ders, (Holy,) *n. pl.* (*Eccl.*) In the Roman and Greek churches, a sacrament by which ministers are specially set apart for the service of religion, and are regarded as receiving a certain religious consecration, or, at least, designation for their office. While some of the reformed churches altogether deny the distinction of ranks in the ministry, none of them admits more than three ranks, of *bishop*, *priest*, and *deacon*. But in the Roman and Greek churches, a further classification exists. In the Roman Church, a distinction is made between the major (or holy) orders and the minor orders. The major orders are the classes of bishops, priests, and deacons. A fourth rank of sub-deacons is generally regarded as one of the major orders, but its functions closely resemble in their nature and their degree those of the deacon. The minor orders in the Roman Church are four in number — those of *door-keeper*, *reader*, *exorcist*, and *acolyte*. To none of these orders is any vow of celibacy annexed. Some of their functions had their origin in the peculiar religious condition of the early church. Preparatory to the receiving of these orders, candidates are initiated in what is called the *tonsure*, which consists in the cutting off of the hair, as a symbol of separation from the world and its vanities — a rite which appears also as one of the ceremonies of the religious profession. The tonsure, however, is not reckoned as an order; it is but a distinguishing characteristic of a class. In the Roman Catholic Church, the sacrament of orders is held to produce an indelible character, and therefore to be incapable of being forfeited and of being validly repeated. This, however, applies only to the holy orders.

Or'dinal, *a.* [Fr.; Lat. *ordinalis*, from *ordo*, *ordinis*.] Noting order of succession; as, the *ordinal* numbers, first, second, third, &c.

—*n.* A number noting order; as, first, second, &c. — A book containing the ordination service, as prescribed in the Anglican Church.

Or'dinalism, *n.* The quality of being ordinal. (R.)

Or'dinance, *n.* [Fr. *ordonnance*, from Lat. *ordino*.] A law, rule, prescript, or command of a sovereign or superior. This term, now almost obsolete in England, has been sometimes applied in America to acts of regulation of Congress, as the *ordinance* of the 13th July, 1787, or the government of the North-Western Territory, and more usually to the laws of a corporation; as, the *ordinances* of the city of Philadelphia.

(*Eccl.*) An established rite, such as baptism, the Lord's supper, &c.

Or'dinand, *n.* [Lat. *ordinandus*.] A person about to be ordained.

Or'dinant, *n.* The person who ordains.

Or'dinarily, *adv.* Primarily; according to established rules or settled method; commonly; usually; generally; customarily; habitually.

Or'dinary, *a.* [Lat. *ordinarius*, from *ordo*, *ordinis*, order.] According to established rules; methodical; regular; customary. — Of common rank; not distinguished by superior excellence.

—Common; usual; as, the *ordinary* routine of life. — Plain; not handsome; as, of *ordinary* form or figure. — Interior; of little merit; as, an *ordinary* writer.

—*n.* (*Common Law.*) One who has ordinary or immediate jurisdiction, in matters ecclesiastical, in any place. In this sense, archdeacons are ordinaries; but the term is more frequently applied to the bishop of a diocese, who, of course, has the ordinary ecclesiastical jurisdiction, and the collation to benefices within such diocese. An archbishop is the ordinary of the whole province, having power to visit and receive appeals from interior jurisdictions. The Roman Catholic writers on canon law call the Pope *ordinary of ordinaries*.

(*Navy.*) The establishment of the shipping not in actual service. An *ordinary seaman* is one not qualified to take the helm or sail the ship.

—A settled establishment. (R.) — A restaurant or dining-room where meals are served at one fixed price.

(*Her.*) That portion of the shield comprised between straight or other lines. It is the simplest species of bearing, usually comprising, when charged, one-third, and when uncharged, one-fifth of the field. Many of the most ancient escutcheons known contain no other bearing, although in others, also of great antiquity, the ordinary itself is charged with some device. Morgan says, "the plainer the coat, the nearer antiquity; and fields full of charge are empty of honor." The nine honorable ordinaries (Fig. 2000) are: the (1) *Chief*, (2) *Pale*, (3) *Scotcheon*, (4) *Bar* (containing one-fifth of field), (5) *Fess* (containing one-third of field), (6) *Bend*, (7) *Chevron*, (8) *Cross*, (9) *Saltier*, and in French heraldry (10) the *Bordure*; but a number of others are in use, as the *Chevronel*, or couple-close, half the size of the Chevron; *Closet*, half the size of the Bar; *Barrulet*, half the size of Closet; *Bendlet*, half the width of Bend; *Garter*, one-third; *Ribbon*, one-fourth; and the *Cost*, of same size, *couped*. *Baton* (*m*) and the *Bend sinister* are marks of bastardy. *Pallet*, half the size of Pale. *Party per pale* (*a*), a line dividing shield vertically; *Lozenge*

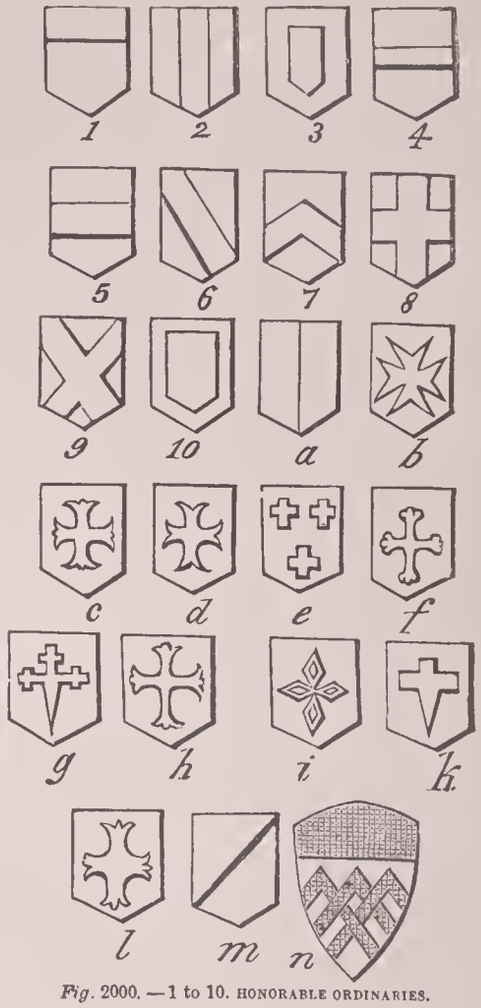


Fig. 2000. —1 to 10. HONORABLE ORDINARIES.

a, Party per pale: *b*, Cross of St. John; *c*, Cross paton; *d*, Cross moline; *e*, Cross humettee; *f*, Cross bottonee; *g*, Cross crosslet fitchee, *h*, Cross flory; *i*, Cross nicascle; *k*, Cross fitchee; *l*, Lozenge fleury; *m*, Baton; *n*, Arms of Cleborne (A. D. 1237).

fleury (*l*), and various forms of crosses. A Fess removed to the upper part of the escutcheon is termed a Chief, and is deemed an honorable augmentation. When a Border is used as a *difference* (as in English heraldry, to distinguish one branch or part of a family from another of the same stem), it should run *under* the Chief, but *over* all other ordinaries. When more than two Chevronels are borne, they are interlaced or braced, as in the ancient scutcheons of De Cleborne (*n*, Fig. 2000), and the Lords Fitzhugh.

Or'dinate, *a.* [Lat. *ordinatus*, from *ordino*, from *ordo*, *ordinis*, order.] Regular; methodical.

—*n.* (*Geom.*) The distance of any point of a curve from the axis of abscisses measured on another line called the *axis of ordinates*, or on a line parallel to this axis.—*Worcester.* — See ABSCISS and CO-ORDINATE.

Or'dinately, *adv.* In a regular, methodical manner. (R.)

Ordina'tion, *n.* [Fr., from Lat. *ordinatio*; *ordino*, *ordinare*, to set in order, to ordain.] The act of ordaining. — The state of being ordained or appointed; established order or tendency consequent on a decree.

(*Eccl.*) The act of conferring holy orders or sacerdotal power in the Christian ministry. See ORDERS (HOLY).

Or'dinative, *a.* [Lat. *ordinativus*.] Indicating or signifying order; giving order. (R.)

Ordnance, (*ord'nans,*) *n.* (*Mil.*) A term applied generally to all kinds of heavy artillery used in war, as cannon, mortars carronades, howitzers, &c. It is probable that the name was derived from the *compagnies d'ordonnance*, or Francs archers, instituted by Charles VII. of France in 1448. The forms and methods of field and siege artillery have received so many developments of late years, and are even now progressing so rapidly, that it is impossible to do justice to the Science of Artillery within the limits of an article. In conformity with the general plan of this work, the subject has been treated under CANNON, GUN, RIFLE, &c., and also in various articles applying to the more recent ordnance in use. It is, therefore, proposed to limit this article to Gatling's machine-gun, which is an improved form of the ribaudequin or organ gun of the 15th century, and of which the *mitrailleuse* of the French is only a modification. Dr. J. R. Gatling, born in N C in 1818, conceived in 1861 the idea of the revolving battery gun which bears his name, and the first was made in 1862. Fig. 2001 represents

the 16-barrel gun, inch caliber, an improvement of the Gatling battery, which was patented in 1865. The adjustable plug at B provides a method of removing the locks without taking the gun apart. The knob at C is a cocking device by which the snapping of the gun when in revolution is controlled at will. This improvement enables a raw hand to receive his instruction in the use of the gun without requiring it to be discharged. To increase the effectiveness of the engine as a battery, a carriage-bed having a lateral motion, sweeping the sector of a circle of 12 degrees, has been adopted. This permits the distribution of the fire to cover more than 500 yards of an enemy's front. The mechanical simplicity of the Gatling gun is its distinguished merit. This improved battery is described as follows: "The gun consists of 6 rifle-barrels of 58-100th inch calibre; each barrel is firmly connected to a breech-piece by a screw of one inch in length. The breech-piece is composed of one solid piece, which is made secure to a shaft 1¾ inches in diameter. The barrels are inserted in the breech-piece around the shaft on a parallel line with the axis of said shaft, and held in their proper position by a muzzle-piece bored by the same gauge as the holes for the breech-piece, for the reception of the barrels. The breech-piece is also bored in the rear end for the reception of the locks, on a parallel line with the barrels, each barrel having its own independent lock revolving simultaneously, so that in case one lock or barrel becomes disabled, those remaining can be used effectively. Between the locks and the barrels is a receptacle for the charges on a parallel line with the locks and barrels. As the entire gun revolves, the charges find their way through a hopper (A), fed from cases containing any given number, instantaneously. The breech-piece contains the locks, and is entirely protected by a heavy casing of gun-metal made fast to a wrought-iron frame resting on trunnions, 1½ in. In

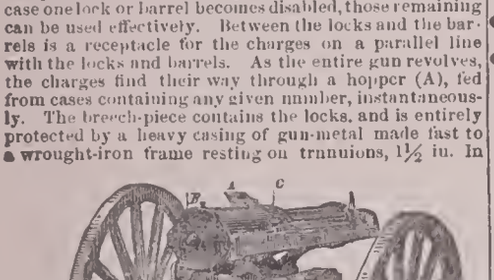


Fig. 2001. — THE GATLING BATTERY-GUN.
(The original Mitrailleuse.)

diameter. It is screwed to the frame by 4 bolts. Inside this casing is attached an inclined ring which the hammers of the locks ride as the gun revolves, until coming to the point of line of fire, when the discharge takes place. The locks are composed of 3 pieces and 1 spiral spring, and are entirely protected from dust or any injury. The gun is mounted, as other field-pieces, with limber attached." While the Gatling gun has, at most, but 10 barrels, the Belgian mitrailleur has 37, and also the French mitrailleuse, largely used in the Franco-German War. This may be several single barrels, or a cylinder with that number of bores. The other essential difference between the American and the European gun is in the feed, which in the latter is an hexagonal plate having 37 perforations, into which the cartridges are thrust. This plate is dropped into the space between the breech-action and the rear cavities of the barrels. The final operation of forcing the cartridges through the plate into the barrels — obviously necessitating great mechanical accuracy, as the axes of 37 cartridges are to be made parallel to the axes of as many barrels — is the work of a lever. Each barrel of the mitrailleuse has likewise its individual lock, but the locks are stationary in the breech, while the barrels are revolving. The lock feature of the Gatling gun is especially admirable. Entirely concealed and protected, it is not liable to external damage. It revolves with its battery, and by another and reciprocal motion it is constantly about its mission; either by a forward action adjusting the cartridge, and discharging its barrel, or, by an opposite, retiring the metallic case after a fire. Thus, in a 10-barrel piece, 5 barrels are all the time being automatically loaded, while the remainder are consecutively firing. Should any accident occur to the lock — and it can only occur through default of the lock itself—all guns of the Gatling class are constructed upon the assembling or interchangeable principle, and a new lock can be arranged in its place in less than a minute. The feeding operation is, in connection with the lock, a distinct merit of this gun. The cases, thin compartments of tin or galvanized metal, are placed in the hopper by one man, and caught by the carrier, are conveyed into a position to leave the cartridges, of which each case contains 24, one by one in their respective chambers. In the meantime the man on the other side works the crank seen in the cut, which revolves the series of barrels. Ordinary practice has demonstrated that one man can refill the cases as they pass out emptied, while the other is discharging the gun, and thus there is no necessary intermission of firing. The difference between the Gatling and the mitrailleuse is that the former discharges but one barrel, but keeps up the discharge continuously, while the latter empties itself at one discharge and then has to be loaded again. The guns first employed fired 100 bullets per minute, but the newer types are able to discharge ten times that number, and can be worked with a slight swaying motion, so as to spread the bullets over a limited space. Gatling guns were first used in the American Civil War, and have been employed in all the important wars since that period. The Hotchkiss resembles the Gatling in having a revolving motion, while the Nordenfeldt and the Gardner machine-guns have a horizontal series of barrels which may be discharged and reloaded with great rapidity. The Maxim automatic machine-gun differs from the above in having but one barrel, which is kept cool by an outer case containing water. In this gun the force of recoil is utilized to act on ingenious mechanical appliances by which the old cartridge is dropped out and a new one brought forward in position for firing. Thus it may be made to fire continuously with great rapidity until the supply of cartridges is exhausted, while a new series of cartridges can be instantly supplied. See GUN, MACHINE AND RAPID-FIRE.

Or'donnance, *n.* [Fr.] (*Fine Arts.*) The proper disposition of figures in a picture, or of the parts of a building, or of any work of art.

Or'donnant, *a.* Arranging; serving or tending to dispose in proper order.

Or'dure, *n.* [Fr.; It. *ordura;* Lat. *sordidus,* dirty, *sordes,* dirt, filth.] Dung; excrement; manure.

Ore, *n.* [A. S. *ora,* ore, metal.] (*Metall.*) The mineral body from which a metal is extracted. Metals exist in the ores in one of the four following states: I. In a metallic state, and either solitary or combined with each other; in the latter case forming alloys. 2. Combined with sulphur, forming sulphides or sulphurets. 3. Combined with oxygen, forming oxides. 4. Combined with halogens and acids, forming chlorides, bromides, carbonates, phosphates, &c., which generally go by the name of *metallic salts.* The ores which contain the useful metals constitute masses in rocks of different kinds, or are distributed in lodes, veins, nests, concretions, or beds, with stony and earthy admixtures, the whole or parts of which become the objects of mineral exploration. These stores occur in different geological formation. The strata of gneiss and mica slate, and the limestones of the carboniferous period, are in Europe, especially rich in the ores of the various metals. See IRON MANUFACTURE, MINING, SMELTING, &c.

O'read, *n.* [Gr. *oreias,* from *oros,* mountain.] (*Myth.*) A mountain-nymph.

Orebro, a town of Sweden, cap. of a prov. of same name, on the W. of Lake Hielmar, 100 m. W. of Stockholm. *Manuf.* Woollen cloth and hosiery. *Pop.* 8,383.

Or'egon, a N. W. State of the American Union, bounded N. by the State of Washington, E. by that of Idaho, S. by Nevada and California, and W. by the Pacific Ocean. It lies between 42° and 46° N. Lat., its greatest extent from N. to S. being 275 m., and from E. to W. 350 m., embracing an area of 96,030 sq. m., or 61,459,200 acres. The extent of the coast line is about 300 m., and presents chiefly a bold, iron-bound shore, with few good harbors.—*Gen. Desc.* The State may properly be divided into two distinct parts, so far as relates to climate and agricultural capacities, viz.: the *Eastern* and *Western,* lying respectively on the E. and W sides of the Cascade Mountains, which extend from the N. to the S. boundary. The Coast Range of mountains, commencing at the Bay of San Francisco, extends N. through the States of California and Oregon. In this State they consist of a series of highlands running at right angles with the coast, with valleys and rivers between, the numerous spurs having the same general direction as the highlands. — *Western Oregon,* the portion of the State first settled, embraces about 31,000 sq. m., or 20,000,000 acres, being nearly one-third of the area of the whole State, and contains the greater preponderance of population and wealth. Nearly the whole of this large extent of country is valuable for agriculture and grazing; all the productions common to temperate regions may be cultivated here with success. When the land is properly cultivated, the farmer rarely fails to meet with an adequate reward for his labors. The fruits produced here, such as apples, plums, pears, quinces, and grapes are of superior quality and flavor. Large quantities of apples are annually shipped to the San Francisco market, where they usually command a higher price than those of California, owing to their finer flavor. The valleys of the Willamette, Umpqua, and Rogue rivers are included within this section of the State, and there is no region of country on the continent presenting a finer field for agriculture and stock-raising, because of the mildness of the climate and depth and fecundity of the soil. Farmers make no provision for housing their cattle during winter, and none is required; although in about the same latitude as Maine, on the Atlantic, the winter temperature corresponds with that of Savannah, Ga. From Nov. to May, the rainy season prevails; frequent showers occur till Feb., when a clear season often continues for several weeks, followed again by frequent rains until about the 1st of May; between the latter month and Nov. rain falls in sufficiency to prevent drought, thick mists occasionally occurring during this period. The summer may, on the whole, be considered dry, yet seldom to such a degree as to injure crops. The *O.* farmer W. of the Cascades rarely realizes the necessity of irrigation. These valleys presented to the early immigrants an unbroken forest of magnificent evergreens, and to those who had not beheld the mammoth trees of California these must have appeared of giant growth; among them the fir-tree shoots up to the height of 250, but often attaining 300 ft., with trunks 4 to 5 ft. in diameter. The value of this timber has been recognized by the establishment of numerous saw-mills at various points on the coast, and on the Willamette river, for cutting and preparing lumber for market, and there is an active lumber trade between Port Orford, Coos Bay, and other ports in the State, and San Francisco. The timber, on account of its immense size and superior quality, is peculiarly valuable for ship-building. Among other prominent forest-trees found in this locality are the Oregon cedar, sugar-pine, western yellow pine, and fragrant white cedar. Throughout these extensive mountain forests, there are numerous tracts lying sufficiently level for cultivation, but lands producing timber of such valuable qualities, and in such extraordinary quantities, should be preserved as timber lands throughout all time. These forests are capable of producing 1,000,000 feet of lumber to the acre. Upon the Coos and Coquille rivers, in the Coast Range, the land has been cleared, and its fertility found extraordinary, it producing all kinds of grain and vegetables in abundance. The soil and climate in the Rogue river valley, in the S. W. part of the State, are admirably adapted to the culture of the grape, which culture is rapidly increasing. That section of the State extending from the Cascades to Snake river, termed *Eastern Oregon,* has a much drier climate than the region W. of the Cascades, and is more subject to extremes of heat and cold; the major part of the soil is not available for tillage, yet furnishes an extensive scope for grazing. Along the Columbia river, in the valley of the Umatilla and Walla-Walla rivers, the soil is highly fertile, and the agricultural capacity excellent. Many thriving settlements, with extensive improvements in manufactures and agriculture, exist in this portion of the State. In the great valley of the John Day river, also bordering on the Columbia, are some of the oldest settlements in the State, extending a distance of nearly 100 m. in length along the prairie bottoms of the river. The larger portion of this valley, as well as that of the Des Chutes, is fit for grazing only, but for this purpose is excellent. Much of E. Oregon is thinly peopled, from its lack of fertility, though there are fertile valleys along the streams and near the lakes, while at the northern extremity, near the base of the Blue Mountains, the land is rolling and highly fertile. The most densely peopled portion of the State is the Willamette Valley, 150 m. long and 30 to 70 wide, and extremely fertile throughout. In the valleys of the Grande Ronde, Powder, Burnt, Malheur, and Owyhee rivers, near the E. frontier, are situated large tracts of tillable land. The soil is of good quality, and agriculture thrives. Many varieties of garden vegetables are said to succeed better in some of these valleys than in the Willamette, on account of the higher temperature of the summer. Timber is less abundant in E. Oregon than W. of the Cascades; on the slopes and summits of the Blue Mountains, and in various spurs and ridges which traverse this division of the State, are found the cedar, fir, hemlock, pine, and other varieties of forest-trees.—*Rivers, &c.* The Columbia, Willamette, Snake river, and Clark's Fork are the four principal navigable streams, and are successfully traversed by steamboats. The first named, forming the chief part of the N. boundary of the State, and one of the largest and most important rivers on the continent, has for its principal affluent Lewis Fork, and passes through some of the grandest and most picturesque scenery in the world. The fir-covered summits of the Cascade Range on either side, with massive rocks thousands of feet high rising from its surface, with Mounts Rainier, Baker, Hood, and St. Helen's, from 10,000 to 15,000 feet high, in the distance, piercing the clouds with their snow-capped peaks, present a scene of unsurpassed sublimity and magnificence. The Willamette flows into the Columbia, and the Umpqua and Rogue rivers into the Pacific Ocean. A railroad has been constructed around the Cascades at a point on the river some 60 m. E. of the mouth of the Willamette; the rapids here are similar to those of Niagara below the Falls, and obstruct navigation for a considerable distance. At the Dalles, 45 m. above this point, the river is again impeded by rapids for a distance of 15 m., around which is railroad communication. A canal was begun past the rapids of the Cascades in 1876 and finished in 1896. It is 3,000 feet long, being cut through a spur of rock. The upper gates of the lock are claimed to be the largest lock-gates in the world. This great achievement has opened the river for navigation to the Dalles, where it is proposed to pass the obstructions by a boat railway. From the latter point the river is passable to vessels for a distance of 160 m. to White Bluffs, or 300 m. to the ocean. Snake river empties into the Columbia about 12 m. N. of old Fort Walla-Walla, and is navigable as high as Lewiston in Idaho, a distance of 160 m. The Willamette is navi-

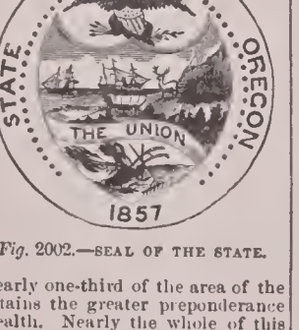
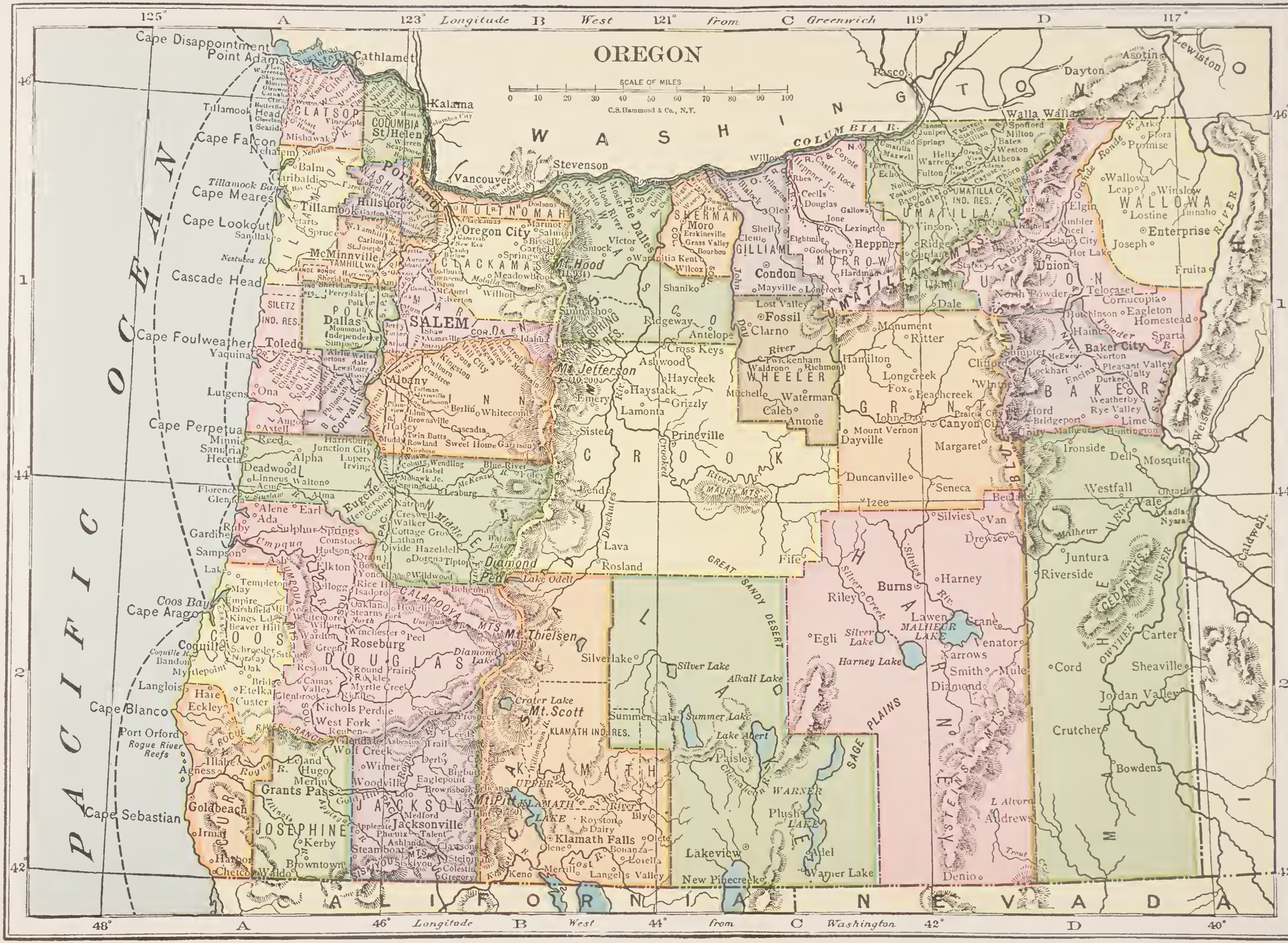


Fig. 2002.—SEAL OF THE STATE.


OREGON
SCALE OF MILES
0 10 20 30 40 50 60 70 80 90 100
C.S.Hammond & Co., N.Y.
125° A 123° Longitude B West 121° from C Greenwich 119° D 117°
48° A 46° Longitude B West 44° from C Washington 42° D 40°
46° 44° 42°
1 2
PACIFIC OCEAN
WASHINGTON
CALIFORNIA
NEVADA
IDAHO
COLUMBIA R.
SNAKE RIVER
CLATSOP
COLUMBIA
TILLAMOOK
WASHINGTON
MULTNOMAH
CLACKAMAS
YAMHILL
POLK
MARION
LINCOLN
BENTON
LINN
LANE
DOUGLAS
COOS
CURRY
JOSEPHINE
JACKSON
KLAMATH
LAKE
CROOK
WASCO
SHERMAN
GILLIAM
MORROW
UMATILLA
UNION
WALLOWA
BAKER
GRANT
WHEELER
HARNEY
MALHEUR
SILETZ IND. RES.
WARM SPRING IND. RES.
UMATILLA IND. RES.
KLAMATH IND. RES.
Portland
SALEM
Oregon City
Astoria
Tillamook
McMinnville
Dallas
Albany
Corvallis
Eugene
Roseburg
Grants Pass
Jacksonville
Klamath Falls
Lakeview
Burns
The Dalles
Pendleton
La Grande
Baker City
Canyon City
Prineville
Heppner
Condon
Fossil
Moro
Enterprise
Union
Vale
Toledo
Coquille
Goldbeach
Vancouver
Walla Walla
Kalama
Cathlamet
Stevenson
Pasco
Dayton
Asotin
Lewiston
Cape Disappointment
Point Adams
Tillamook Head
Cape Falcon
Cape Meares
Cape Lookout
Cascade Head
Cape Foulweather
Cape Perpetua
Coos Bay
Cape Arago
Cape Blanco
Port Orford
Rogue River Reefs
Cape Sebastian
Mt. Hood
Mt. Jefferson
Mt. Thielsen
Mt. Scott
Mt. Pitt
Diamond Peak
Crater Lake
CALAPOOYA MTS.
BLUE MTS.
MAURY MTS.
STEENS MTS.
CEDAR MTS.
SISKIYOU MTS.
ROGUE RIVER RANGE
GREAT SANDY DESERT
SAGE PLAINS
MALHEUR LAKE
Harney Lake
Silver Lake
Summer Lake
Lake Abert
Alkali Lake
WARNER LAKE
UPPER KLAMATH LAKE
OWYHEE RIVER
Deschutes R.
John Day R.
Grande Ronde R.
Malheur R.

OREGON.

Land surface, Sq. m. 94,560
Water surface, Sq. m. 1,470
Pop. 1900 ...413,536
White.... 394,582
African.....1,105
Indian.....4,951
Chinese ...10,397
Japanese .. 2,501
Native-born, 347,788
Foreign-born, 65,748
Males. ...232,985
Females..180,551

COUNTIES.

Baker .....D 1
Benton.....A 1
Clackamas... B 1
Clatsop .....A 1
Columbia .....A 1
Coos .....A 2
Crook .. ..C 1
Curry .....A 2
Douglas .....A 2
Gilliam.....C 1
Grant .....C 1
Harney.....C 2
Jackson .....B 2
Josephine.....A 2
Klamath.....B 2
Lake..... .....C 2
Lane .....B 2
Lincoln .....A 1
Linn .....B 1
Malheur.. ....D 2
Marion .....B 1
Morrow .....C 1
Multnomah....B 1
Polk..... .....A 1
Sherman.....C 1
Tillamook ....A 1
Umatilla .....D 1
Union .....D 1
Wallowa .....D 1
Wasco .....B 1
Washington ..A 1
Wheeler .....C 1
Yamhill.....A 1

CITIES-TOWNS

Pop.	Thousands.	
90	Portland...	B 1
8	Astoria.....	A 1
5	Baker City..	D 1
4	Pendleton...	D 1
4	Salem	B 1
3	The Dalles..	B 1
3	Oregon City	B 1
3	Eugene.. ..	A 1
3	Albany	A 1
2	La Grande ..	D 1
2	Ashland... '.	B 2
2	Grants Pass	A 2
1	Corvallis	A 1
1	Medford.....	B 2
1	Roseburg ...	A 2
1	McMinnville	A 1
1	Marshfield ..	A 2
1	Dallas	A 1
1	Heppner	C 1
1	Forest Grove	A 1

Pop.	Hundreds.	
9	Hillsboro ...	A 1
9	Cottage Grove	A 2
9	New Berg ...	A 1
9	Union	D 1
9	Lebanon	B 1
9	Independence	A 1
8	Tillamook ..	A 1
8	Woodburn..	B 1
8	Huntington	D 1
8	Milton	D 1
7	Lakeview ...	C 2
7	Coquille.....	A 2
7	Athena... .	D 1
6	Brownsville.	B 1
6	Silverton ...	B 1
6	Prineville ...	C 1
5	Jacksonville	B 2
6	Bandon	A 2
6	Weston	D 1
6	Monmouth..	A 1
6	Elgin.....	D 1
5	Burns	C 2
5	Mt. Angel...	B 1
5	Myrtlepoint.	A 2
5	Rainier	B 1
5	Junction City	A1
5	Harrisburg.	A 1
4	Klamath Falls	B 2
4	Ontario.....	D 1
3	Enterprise...	D 1
3	Canby	B 1
3	Oakland	B 2
3	Lafayette....	A 1
3	Springfield.	B 1
3	Scio City	B 1
3	Canyon City	C 1
3	Philomath...	G 1
3	Moro	C 1
3	Stayton	B 1
3	Wasco	C 1
3	Sheridan....	A 1
3	Toledo	A 1
2	Halsey	A 1
2	Amity.....	A 1
2	Fossil.	C 1
2	Gardiner....	A 2
2	John Day....	D 1
2	Jefferson...	B 1
2	Falls City ...	A 1
2	Adams	D 1
2	St. Helen ..	B 1
2	Newport	A 1
2	Beaverton ..	B 1
2	Antelope....	C 1
2	Cornelius ...	A 1
2	Granite	D 1
2	Wallowa	D 1
2	Joseph	D 1
2	Condon.....	C 1
2	Gervais	B 1
2	Ione.....	C 1
2	Florence.. ..	A 2
2	Prairie City	D 1
2	Hubbard ...	B 1
2	Bay City	A 1
1	Drain	A 2
1	Seaside.....	A 1
1	Myrtle Creek.	A2
1	Empire	B 2
1	Summerville	D 1
1	Sodaville....	B 1
1	Carlton.... .	A 1
1	Riddles	A 2
1	Vale.....	D 2
1	Dundee	A 1
1	Longcreek...	C 1
1	Aurora.....	B 1
1	Beaver.....	A 2
1	Goldbeach..	A 2
1	Sherwood..	B 1
1	Tangent	A 1
1	Vernonia ...	A 1
1	Waterloo....	B 1
1	Nehalem	A 1

gable to Eugene City, 200 m. The obstacle to free navigation was a fall of 40 feet at Oregon City; here a portage was required; a canal with locks is now in operation. Vast quantities of delicious salmon of many varieties formerly abounded in the Columbia and its tributaries, forming an important article of commerce, but the supply has been greatly decreased through the use of destructive fishing apparatus. The sturgeon fisheries have been nearly ruined. Steps are being taken to restore the salmon fisheries by the aid of artificial fertilization, but in this work *O.* is behind California and Washington. The shad and oyster have been successfully planted, and the former prolific fisheries of the State may, in the end, be reproduced. The salmon make a fall and spring run from the ocean, penetrating most of the Oregon rivers to the smaller branches from which they flow, and stem the powerful current of the Columbia for more than 1,000 m.—*Min.* The mineral resources of the State, though not so extensively prospected as those of adjacent States and Territories, are both extensive and valuable, and will, doubtless, at some future time, form a prominent source of wealth. Placer mining has been carried on extensively and profitably in the S. counties since 1852, and the mines of John Day and Powder rivers have yielded several millions of dollars since their discovery, in 1860. A great mining canal, said to be the largest yet made, is under construction in S. Oregon for the purpose of developing the gravel deposits along the Rogue river, the lack of available water preventing the development of the rich mineral beds of this region. It is proposed to use the canal also for irrigation. Hydraulic mining is also employed in the extreme east of the State, while quartz mining is pursued in several localities. Silver is nearly coextensive with gold, and copper and lead frequently accompany silver. Cinnabar is mined in Josephine co. Douglas co. possesses the most extensive deposit of nickel ore yet found in America, while iron exists in considerable abundance. Of the other minerals may be named agate, chalcedony, carnelian, and jasper. Coal also exists in various localities.—*Soil, Agric., &c.* The soil in the valleys of the Willamette, the Umpqua, and Rogue rivers is very rich and deep, resting upon a substratum of clay retentive of the elements of fertility. Large portions of these valleys are open prairie, just rolling enough for the requirements of agriculture. All the products common to temperate regions, whether of the field, orchard, or garden, can be cultivated with the highest degree of success. The chief products of field husbandry are wheat, oats, barley, rye, hay, maize, buckwheat, flax, hemp, sorghum, pease, beans, millet, broom-corn, pumpkins, and potatoes; of the garden, turnips, squashes, tomatoes, cabbages, onions, cucumbers, gourds, beets, carrots, and parsnips; and of the orchard, apples, pears, plums, cherries, apricots, quinces, peaches, and grapes. Many of these productions are of giant growth, and superior quality and flavor. The yield of wheat is frequently 40 and 50 bushels per acre, and when the land is properly cultivated it never fails, and in no part of the Union can equally remunerative crops be cultivated, year after year, with less labor or trouble. As to the hardier fruit, no country could produce finer. The trees come into bearing several years earlier than is usual in the Atlantic States, and a failure in the crop is rarely known. The Willamette valley is more exposed to the sea-breezes than the more sheltered bottoms of the Umpqua and Rogue rivers, and the nights are too cool for corn and the peach to thrive well. Rogue river valley being more sheltered than the valleys to the N. of it, appears admirably suited to the grape. Indian corn and sorghum also succeed better here than in other portions of W. Oregon. The State may be summed up as peculiarly a crop-raising and fruit-growing region, though by no means wanting in valuable mineral resources. Possessing a climate of unrivalled salubrity, abounding in vast tracts of rich arable lands, heavily timbered throughout its mountain ranges, watered by innumerable springs and streams, and subject to none of the drawbacks arising from the chilling winds and seasons of aridity which prevail further S., it is justly considered the most favored region on the Pacific slope as a home for an agricultural and manufacturing population. Of the most recent industries may be mentioned the cultivation of the sugar-beet, which is being developed. Wheat, however, is the leading product of the State, its annual crop being about 12,000,000 bushels, and steadily increasing. Millions of fruit trees fill the orchards of the State, the lands best suited to them being the valleys and foot-hills. But these are of great extent, and the richness of the soil and mildness of the climate make the State highly productive. Oregon prunes are the largest and finest in the world, apples are very fine and prolific, cherries are of great size, and pears, peaches, and grapes are very successfully cultivated. Great quantities of fruit, both green and dried, are annually exported. In E. Oregon, as the bunch grass is disappearing and the cattle decreasing, the pursuits of agriculture and horticulture are being stimulated. In the central and southeast parts of the State the rainfall is insufficient for crops, and irrigation is here necessary for farming, but in the northern section of E. Oregon sufficient rain falls, and agriculture is a promising pursuit. Sheep are raised in large numbers, *O.* possessing more than 2,500,000 of these animals, and having an annual wool clip of 20,000,000 lbs. (over 6,000,000 lbs. of washed wool). Cattle are also abundant, and the yearly yield of butter and cheese amounts to from three to four million pounds.—*Commerce, &c.* The navigable rivers and railroads of the State, and its ocean ports, facilitate internal and external trade, which is of considerable importance. There are numerous lines of railroad, of which several connect the State with the East and South, while steamboats run on all the navigable streams. The industrial interests of the State, aside from agriculture and mining, are largely confined to fruit and fish preservation, the salmon pack in 1896 being 567,537 cases, worth $2,530,206. In 1890 the fishery product was only $817,928. The total value of products of manufacture in the last census year was $41,432,174.—*Pol. Div.* The State is divided into 32 counties, as follows:

Baker,	Douglas,	Lane,	Sherman,
Benton,	Gilliam,	Lincoln,	Tillamook,
Clackamas,	Grant,	Linn,	Umatilla,
Clatsop,	Harney,	Malheur,	Union,
Columbia,	Jackson,	Marion,	Wallowa,
Coos,	Josephine,	Morrow,	Wasco,
Crook,	Klamath,	Multnomah,	Washington,
Curry,	Lake,	Polk,	Yamhill.

Chief towns, &c. The principal centers of trade and population are Portland, East Portland, Salem (State cap.), Astoria, Albina, Albany, Oregon City, Baker, Lagrande, Pendleton, Ashland, Corvallis, Roseburg, Marshfield City, Grant's Pass, and McMinnville. The government is similar to that of the other States of the Union. The governor and the senators are elected for 4 years, and the representatives for 2 years. The judiciary consists of a chief justice and 3 associate judges of the Supreme Court, who are chosen in districts for 6 years, the oldest, or the one having the shortest time to serve, acting as chief; their number may be increased, providing it does not exceed 5, until the population of the State is over 100,000, and never exceed 7. The Supreme Court is simply a tribunal of appeals. Each justice holds a circuit court with both original and appellate jurisdiction, the terms being so arranged that a court shall sit twice a year in each co. The State returns 2 senators and 1 member to the House of Representatives in the National Congress.—*Educ., &c.* Liberal donations of land have been made by the State government for educational purposes, and an ample fund for the development of public schools is thus made available. There are normal schools at Weston, Monmouth, Ellensburg, Ashland, and Drain, an agricultural college at Corvallis, and a number of higher institutions of learning, including the State University at Eugene, the Willamette University at Salem, the Pacific University at Forest Grove, the Portland University, Corvallis College, McMinnville College, and various academies and private schools. The public schools have about 100,000 enrolled pupils, and property valued at $2,988,312.—*Finances.* *O.* is practically out of debt, the net State debt in 1890 being only $1,685, while the total debt, including cities and counties, was but $2,479,860. The assessed valuation of property in 1896 was $143,345,967.—*Hist.* The name Oregon was long applied to all the territory claimed by the U. S. on the Pacific coast, extending from Lat. 42° to 54° 40′ N. By the treaty of 1846, a boundary line was fixed between Great Britain and the United States; that portion S. of Lat. 49°, watered by the Lower Columbia and its affluents, the Lewis and Clark rivers, and the Willamette, being ceded to the U. S., and the country N. of Lat. 49°, including the valley of the Upper Columbia, with right of navigating the Columbia from its mouth, and the whole basin of Fraser river, to Great Britain. The discovery of the Columbia river, in 1792, was succeeded by an exploration under Capts. Lewis and Clark, 1804–5. In 1808 the Missouri Fur Company established trading-posts in the country; and, in 1811, the American Fur Company (presided over by J. J. Astor) founded a settlement at the mouth of the Columbia, and named it *Astoria.* In 1839, the emigration of Americans commenced overland by way of the South Pass, and the territory continued to receive settlers yearly until 1848, when the California "gold-fever" attracted a large quota of her citizens away. In 1850, however, the land-donation law, passed by Congress, had the effect of registering 8,000 citizens in Oregon, which was formally organized as a Territory, Aug. 14, 1848. On March 2, 1853, Washington Territory was formed out of the N. half of *O.* Nov. 5, 1857, a State Constitution was adopted; and Feb. 14, 1859, the State was admitted into the Union by Act of Congress under the Constitution previously ratified. From 1845 till 1855, a desultory warfare was kept up with the Indian aborigines, and a resumption of the same occurred in 1858, and again in 1872–73 (Modoc War). *Pop.* (1890) 313,767; (1900) 413,536.

Or'egon, in *California*, a township of Butte co.

Oregon, in *Illinois*, a city, cap. of Ogle co., about 176 m. N. by E. of Springfield, on Rock river, and the Chicago and Iowa R.R. *Pop.* (1897) 1,740.

Oregon, in *Indiana*, a post-township of Clarke co.

Oregon, in *Iowa*, a township of Washington co.

Oregon, in *Michigan*, a post-township of Lapeer co.

Oregon, in *Missouri*, a S. co., adjoining Arkansas; *area*, about 780 sq. m. *Rivers.* Eleven Points and Spring rivers, besides numerous smaller streams. *Surface*, diversified; *soil*, fertile. *Cap.* Alton. *Pop.* (1890) 10,467. —A post-village and township, cap. of Holt co., about 210 m. N.W. by W. of Jefferson City. *Pop.* (1897) 1,045.

Oregon, in *New York*, a village of Chautauqua co., about 20 m. S. of Dunkirk.

Oregon, in *Ohio*, a township of Lucas co. —A village of Seneca co., about 10 m. N.W. of Tiffin. —A post-village of Warren co., now called Oregonia.

Oregon, in *Pennsylvania*, a township of Wayne co. —A post-village of Lancaster co., 7 m. N.N.E. of Lancaster city.

Oregon, in *Wisconsin*, a post-village and township of Dane co., about 12 m. S. of Madison.

Or'egon City, in *Oregon*, a city, cap. of Clackamas co., formerly the seat of the Territorial government, on the Willamette river, about 50 m. below Salem. It has abundant water power. *Pop.* (1897) 3,740.

Oregon House, in *California*, a post-village of Yuba co., abt. 23 m. N.E. of Marysville.

O'rel, Or'lov, Or'lof, a govt. of European Russia, S. of Kaluga and Tula, between Lat. 51° 50′ and 54° N., Lon. 33° and 39° E.; *area*, 16,780 sq. m. The surface is undulating and the soil fertile. *Rivers* Desne, Sosna, and Oka. *Prod.* Corn, hemp, flax, honey, timber, and cattle. *Min.* Iron, copper, nitre, and millstones. *Pop.* 1,533,619.

Orel, cap. of the above govt., on the Oka; Lat. 52° 57′ 58″ N., Lon. 35° 57′ 15″ E. *Manuf.* Cotton and linen fabrics. It is the entrepôt of the commerce between Russia, Little Russia, and the Crimea. *Pop.* 34,973.

Orellaña, Francisco, b. at Truxillo, in Spain, early in the 16th century, accompanied Pizarro to Peru in 1531. Ambitious of adventure, he set out to explore the continent of South America, eastward from Peru; passed down a branch of the Amazons into that vast river, and thence to the sea; thus being the first European navigator of the Amazons. His accounts of the marvellous country he had crossed induced Charles V. to authorize him to settle colonies there, and he returned for that purpose in 1549, but d. soon after his arrival.

O'renburg, a city of Russia in Europe, cap. of a govt. of same name, on the Ural river, 727 m. by rail E.S.E. of Moscow. It is important for its commerce with Central Asia, via the railroad to Samarcand. *Pop.* 56,000. The government is 73,794 sq. m. in area. *Pop.* 1,380,794.

Oreodaph'ne, *n.* (*Bot.*) A gen. of plants, ord. *Lauraceæ.* Several yield valuable timber; thus, *O. exaltata* yields the Sweet-wood; *O. fœtens*, the Til of the Canaries; and an unknown species, the Stinkwood of Demerara.

Oreog'raphy, *n.* [Gr. *oros*, a mountain, and *graphein*, to describe.] The science of mountains.

Orestes, (*o-res'tees.*) One of the heroes of antiquity; the son of Agamemnon and Clytemnestra, the brother of Clysothemis, Electra, and Iphygenia, is represented as the avenger of his father, and the deliverer of his sister, through the murder of his mother. His history is the subject of several celebrated dramas by Æschylus, Sophocles, and Euripides.

Or'fah, Oorfa, Ourfa, or Urfa, a fortified town of Asiatic Turkey, 78 m. S.W. of Diarbekr; Lat. 37° 8′ N., Lon 38° 5′ E. It is well built, and has a considerable trade with North Syria and Mesopotamia. It is supposed to be the site of the "Ur of the Chaldees," mentioned in Scripture. *Pop.* 30,000.

Orfila, Mateo José Bonaventura, (*or'fē-la.*) a French physician of Spanish parentage, and the founder of the science of toxicology, b. at Mahon, in Minorca, 1787. In 1813 he published his *Treatise on Poisons*, which placed him among the best French chemists, and led to his election as member of the Academy of Medicine, and correspondent of the Institute. In 1819 he became professor of medical jurisprudence; in 1831 he was elected dean of the faculty of medicine. His most important works were *Elements of Chemistry, applied to Medicine and the Arts; Treatise on Legal Medicine*, in four volumes, which is the greatest work on medical jurisprudence extant; and *Lectures upon Legal Medicine.* D. 1853.

Or'ford, in *New Hampshire*, a post-village and township of Grafton co.

Orfordville, in *Wisconsin*, a post-village of Rock co., abt 12 m. W.S.W. of Janesville.

Or'gal, *n.* (*Chem.*) Same as Argal, *q. v.*

Or'gan, *n.* [Fr. *organe;* Lat. *organum* · Gr. *organon*, from *ergo*, to do work.] (*Physiol.*) A natural instrument of action, or operation by which some process necessary to the perfect economy of the living animal is carried on; such as the organ of circulation, the heart; of respiration, the lungs; of digestion, the stomach; of sensation and perception, the brain, etc. In anatomy, whatever part of the animal system performs a function or executes a duty, is called an organ; thus, the glands that secrete the saliva, so necessary as a solvent to the food and an adjunct of digestion, are called the salivary organs; those that assist in the secretion of the salts generated and absorbed by the body, as the kidneys, are known as the *renal organs;* and that which performs the duty or function of eliminating bile from the refuse blood on its way back to the heart, is called the *biliary organ;* while the cartilages and fibrous threads situated at the top of the trachea or windpipe, and anatomically called the pharynx, are known as the *organs of voice.*

(*Organism.*) This derivative from the word organ has been applied to the body as a whole, being referred by Linnæus to all forms of life, whether animal or vegetable, all of which he classed under the general term *Organisata*, while we constantly speak of them in their complete state as *organisms*, while applying the term *organ* to their larger, well-defined, and integrated parts, and employing the word *organic* to designate their internal activities and the products thence arising. The old conception of an organism as a collection of organs with fixed functions, and working together like the parts of a machine, is disappearing before the doctrine that it is the protoplasm existing in all parts of the body—Huxley's "basis of life"—which is the source of all the vital activities. The doctrine that there is a vital distinction between the chemical products of the action of the organs and those of inorganic chemistry has similarly disappeared before the discovery that many of these products could be obtained in the laboratory, and the term "organic chemistry" is now usually confined to the chemistry of carbon compounds, however produced. See Organic.

(*Musical.*) See Section II.

Or'gandie, Or'gandy, *n.* [Fr. *organdi.*] A species

of muslin or cotton fabric, of great lightness and transparency.

Organ'ic, Organ'ical, *a.* Pertaining to an organ or its functions; consisting of organs, or containing them. — Produced by the organs. — Instrumental; acting as instruments of nature or art to a certain end.

Organic Analysis. (*Chem.*) The connection between organic chemistry and animal and vegetable physiology is so great, that it has been the aim of nearly every chemist of eminence to endeavor to perfect, as far as possible, the means of resolving organic compounds into their component parts. This branch of analysis has, therefore, now arrived at a very great state of perfection. Begun by Gay-Lussac and Thénard, and improved by Berzelius, Dumas, Bunsen, and, above all, by Liebig, the process has reached a degree of precision scarcely to be equalled by any other branch of physical investigation. Organic substances contain all, or some, of the four elements, carbon, hydrogen, oxygen, and nitrogen. The operations of organic analyses consequently have for their end the quantitative determination of these elements. It has been found in practice that the easiest way of determining the amount of carbon and hydrogen in a body is to supply it, while in a state of combustion, with sufficient oxygen to convert the former element into carbonic acid, and the latter into water. This is effected by mixing a known weight of the substance with oxide of copper or chromate of lead, and transferring the mixture to a tube of hard glass closed at one end. The other end communicates with a tube containing chloride of calcium, to absorb the water, and a set of bulbs half filled with solution of caustic potash, to retain the carbonic acid. Heat is applied to the tube by means of a gas or charcoal furnace; and when the combustion is completed, the tube containing the chloride of calcium and the potash-bulbs are weighed, the increase of weight giving the amounts of water and carbonic acid formed, from which the proportions of hydrogen and carbon are easily calculated. Should the substance contain nitrogen, it is heated with hydrate of soda and quicklime in excess, and the resulting gases conducted through hydrochloric acid, the amount of ammonia formed giving the proportion of nitrogen. The weight of the nitrogen, hydrogen, and carbon, deducted from the original weight of the substance, gives the oxygen. Should saline matter be present, it is determined by calcining a known quantity of the body. Chlorine, bromine, iodine, sulphur, and phosphorus are, if present, determined in the ordinary manner. The apparatus necessary for organic analysis is very expensive, a first-rate balance being an indispensable adjunct. For a complete account of the apparatus required, and the methods to be pursued, the student is referred to Liebig's *Handbook of Organic Analysis.*

Organic and Inorganic Chemistry. The division of chemistry into organic and inorganic is more arbitrary than real. The line of demarcation between the two becomes every day more and more indefinite. Many distinguished chemists have attempted to define the difference between the two branches of the science. Laurent calls organic chemistry "the chemistry of carbon;" Liebig, "the chemistry of compound radicles." The researches of modern chemists prove that the combination and decomposition of members of each division are regulated by precisely the same laws; both animal and vegetable compounds being now formed in the laboratory, that have hitherto had a purely organic origin. (See SYNTHESIS.) In his *Manual of Chemistry*, Dr. Odling wisely breaks down the barrier at once, and considers organic and inorganic compounds under the same head, it being impossible to separate them when they are arranged in a typical series. The distinction between *organic* and *organized* bodies is often lost sight of by writers. It will, therefore, perhaps, be as well to define it. Organic compounds are those that have an amorphous or crystalline structure, and a definite composition: such as sugar, quinine, and acetic acid. They may, in certain cases be obtained by the direct synthesis of their components from inorganic bodies. They are often spoken of as the proximate principles of plants and animals. Organized bodies are such as possess a rounded vesicular or fibrous structure, which, when once destroyed, cannot be restored, and form part of the system of the living animal or vegetable body. Starch, lignin, and cellulose, may be adduced by examples. They cannot be formed by synthesis of their components, being the result of vital assimilation. Organic compounds may, however, be formed from them by substitution; such as pyroxylin, xyloidin, and others. See CHEMISTRY.

Organic Bases. (*Chem.*) The name applied to compounds containing nitrogen united with other elements having a more or less alkaline reaction, and capable of forming neutral salts with ammonia. They are generally divided into two classes: 1. Bases obtained by artificial means, such as aniline, ethylamine, &c.; and, 2. bases existing naturally in vegetable or animal substances as, for instance, quinine, strychnine, morphine, kreatine, &c. The researches of Hofmann, Wurtz, Cahours, and others, into the artificial organic bases, seem to indicate that no alkaline base can exist without either nitrogen, or one of the nitrogen group of substances, entering into its composition; and that all bases, including those existing ready formed in the plant, are founded on the ammonia type. Aniline, for instance, has been proved to consist of ammonia, in which one atom of the hydrogen is replaced by an atom of phenyl; and it seems highly probable that quinine, strychnine, &c., &c., are also ammonias in which one or more of the equivalents of hydrogen are replaced by unknown complex atoms.

Organic Disease. (*Med.*) Any structural affection of an organ, such as enlargement, ulceration, thickening or any other injury permanent or likely to interfere seriously with the function of the organ.

Organic Laws. (*Pol.*) The name given to laws directly concerning the fundamental parts of the constitution of a state. *Fundamental* laws are merely declaratory, containing the principles or theory of government, while organic laws are such which apply those principles to the actual condition of society by positive enactment, and add the sanction of punishment.

Organic Radicles (*Chem.*) An organic radicle is a group of elements, whether or not isolable, which may be transferred from one compound to another in exchange for one or more atoms of hydrogen or its representatives. They are divided into two principal classes, — those, like ethyl, tetryl, &c., which have electro-positive properties, and form bases; and those, like acetyl, formyl, &c., which have electro-negative properties, and form acids. Liebig was the first to apply this theory to the explanation of the composition of the alcohols and organic acids; and although his views on the subject were at first vigorously combated, they afterwards received the strongest confirmation from the researches of innumerable experimenters. The first of the alcohol radicles isolated was acetyl; others soon followed, and we daily hear either of the isolation of radicles known to exist theoretically, or of the formation of new groupings acting as such. The theory of compound radicles has been applied with great success to the explanation of the composition and properties of numerous compounds belonging to organic chemistry. Thus the peculiar compound formed by the direct combination of chlorine and nitric oxide is regarded as the chloride of azotyl, NO_2Cl, the grouping NO_2, azotyl, acting as a metallic radicle: a view confirmed by the existence of at least two sulphates of azotyl. Of late years an important series of compounds, termed the organo-metallic radicles, has been discovered; cacodyl may be taken as the type of them. They are mostly formed by the union of a metal with one of the alcohol radicles, and act in combination precisely in a similar way to the metallic elements. See CACODYL and ZINC METHYL.

Organ'ically, *adv.* With organs; with organical structure or disposition of parts. — By means of organs.

Organ'icalness, *n.* State of being organical.

Organ'icism, *n.* (*Med.*) The doctrine of the localization of disease, or which refers it always to a material lesion of an organ.

Organif'ic, *a.* Forming organs.

Organism, *n.* [Fr. *organisme.*] Organical structure.

Or'ganist, *n.* [Fr. *organiste.*] (*Mus.*) One who plays on the organ.

Organizabil'ity, *n.* Capability of being organized.

Or'ganizable, *a.* That may be organized.

Organiza'tion, *n.* Act or process of organizing, or of forming organs or instruments of action; act of forming or arranging the parts of a compound or complex body in a suitable manner for use or service; act of distributing into suitable divisions, and appointing the proper officers, as an army or government. — Structure; form. — Suitable dispositions of parts which are to act together in a compound body.

Organize, *v. a.* [Fr. *organiser*; Gr. *organizō*, *organoō*.] To form with suitable organs. — To construct so that one part may co-operate with another; to distribute into suitable parts, and appoint proper officers over, that the whole may act as one body.

(*Mus.*) To sing in parts.

Or'gan-loft, *n.* The loft where an organ stands.

Organ'ogen, *n.* [Gr. *organon*, an organ, and *genein*, to produce.] (*Chem.*) A term applied to the four substances, hydrogen, oxygen, nitrogen, and carbon.

Organogen'esis, *n.* [Gr. *organon*, and *genesis*, birth.] (*Bot.*) The gradual formation of an organ from its earliest stage.

Organog'eny, *n.* [Gr. *organon*, an instrument, and *geneao*, to beget.] A description of the organs of a living body.

Organograph'ic, Organograph'ical, *a.* That relates to organography.

Organog'raphist, *n.* One who describes the organ of an animal or of a plant.

Organog'raphy, *n.* [Gr. *organon*, an organ, and *graphein*, to describe.] (*Nat. Hist.*) The description of organs of animals, or the structure of plants.

Organol'ogy, *n.* [Gr. *organon*, and *logos*, discourse.] (*Physiol.*) That branch of physiological science which specially treats of the different organs of animals, but more particularly those of the human species. — *Maunder.* — Phrenology; craniology.

Or'ganon, Or'ganum, *n.* [Gr. and Lat.] (*Phil.*) A word nearly synonymous with *method*, and implying a body of rules and canons for the direction of the scientific faculty, either generally or in reference to some particular department: as the *Organon* of Aristotle, and the *Novum Organum* of Bacon.

Organoplas'tic, *a.* [Gr. *organon*, and *plassein*, to form.] That possesses the faculty of reproducing the tissues or organs of living bodies.

Organos'copy, *n.* [Gr. *organon*, and *scopeo*, to behold.] Same as PHRENOLOGY, *q. v.*

Or'gan-pipe, *n.* (*Mus.*) The pipe of a musical organ.

Or'gan-stop, *n.* (*Mus.*) The stop of a musical organ, or a collection of pipes, under a general name.

Or'ganzine, *n.* [Fr. *organsin.*] (*Manuf.*) A name applied to silk which, after having been first wound off from the cocoons into hanks, is then placed on a winding-machine, which reels off the hanks on to wooden reels. These are then placed on spindles, and the fibres of each are made to pass through a minute orifice and small brush, which together clean the thread and remove any knots or projections from it, throwing it at the same time into hanks again. Then the threads of two hanks are taken, and again reeled off, this time on to one hank, being twisted together *to the left*; then two of these double reels are taken, and the ends being laid together, are twisted *to the right.* These operations, consisting of winding, cleaning, throwing, and twice-twisting and doubling, constitute *organzine silk.*

Orga'os, (Serra dos.) a mountain ridge of Brazil, traversing the provinces of Rio de Janeiro, São Paulo, and Santo Catharina. Maximum height, 3,800 ft.

Or'gasm, *n.* [Gr. *orgasmós*, from *organ*, to feel an ardent desire.] (*Med.*) A strong desire or impulse for something; state of excitement and turgescence of any organ whatever; erethism.

— Immoderate excitement or emotion.

Orgeat, (*or'zhal,*) *n.* [Fr.] A sweetened emulsion of almonds, usually flavored with a few bitter almonds and a little orange-flour water. Mucilage of gum-arabic is also sometimes added. It is both used as an agreeable syrup to mix in certain drinks, or medicinally as a mild demulcent.

Orgues, (*orgz,*) *n pl.* [Fr., *pl.* of *orgue*; from Lat. *organum.*] (*Fort.*) Long and thick pieces of wood shod with iron and suspended each by a separate rope over a gate so as to be ready to be let fall and stop it up upon the approach of an enemy. The term also denotes a number of gun-barrels, so joined that they may be discharged all at once; these are sometimes used to defend breaches.

Or'gy, *n ; pl.* ORGIES, (*ōr'jiz.*) [Gr. *orgia*, any religious performances.] A name originally applied to all sacrifices with certain ceremonies; afterwards given especially to the mysteries of Dionysius (Bacchus); then extended to the mysteries in general; and now applied to scenes of drunkenness and debauchery. (Commonly used in the plural).

Oriehal'ceous, *a.* [Gr. *oros*, a mountain, and *chalkos*, brass.] (*Geol.*) Having a lustre between that of gold and brass.

O'riel, O'riol, *n.* (*Mediæval Arch.*) A projection from a building, or a recess within it, such as a closet, a window (Fig. 2003), or a private chamber, usually screened off to form an oratory. This name is often erroneously given to the bay-window of a hall for the side-board; hence, *oriel-window*, which is retained to this day.

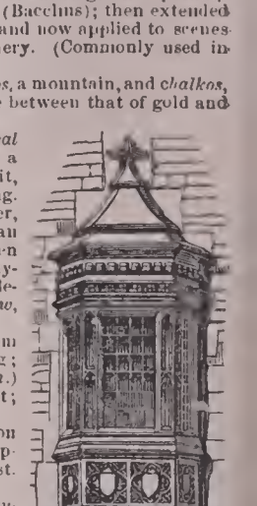


Fig. 2003.
(From Vicar's Close, Wells, England.)

O'rient, *a.* [Lat. *oriens*, from *orior*, *oriri*, to rise.] Rising; as, "the *orient* sun." (*Milton.*) — Eastern; oriental. — Bright; shining; glittering.

—*n.* The part of the horizon where the sun rises or first appears in the morning; the east. — The countries of Asia.

—*v. a.* [Fr. *orienter.*] (*Surveying.*) To mark the situation or bearing of a place with regard to the four cardinal points.

O'rient, in *Maine*, a post-township of Aroostook co. — In *Iowa*, a p. o. of Adair co.

O'rient, in *New York*, a post-village of Suffolk co., about 100 m. E. by N. of New York city.

Orien'tal, *a.* [Lat. *orientalis.*] Eastern; pertaining to the east or orient. — Situated in the east, particularly in or about Asia; proceeding from the east.

—*n.* A native or inhabitant of some eastern part of the world, — particularly an Asiatic.

Orient'alism, *n* A term applied to doctrines or idioms of the Asiatic nations.

Orient'alist, *n.* An inhabitant of the eastern parts of the world. — One versed in eastern languages and literature.

Orient'alize, *v. a.* To conform to Oriental manners and customs.

Orienta'tion, *n.* An eastern direction or aspect. — The act of placing a church so as to have its chancel point to the east.

Orienta'tor, *n.* An instrument used for the orientation of a church.

Orifice, (*or'i-fis,*) *n.* [Fr.; Lat. *orificium*, from *os*, *oris*, a mouth, and *facio*, *facere*, to make.] The mouth or aperture of a tube, pipe, or other cavity; any opening or perforation.

Or'iflamme, (*-flăm.*) *n.* [From Lat. *aurum*, gold, and *flamma*, flame.] (*French Hist.*) It was formerly the custom of all Catholic churches of any note to possess a flag or banner; and the one belonging to the abbey of St. Denis was called the *oriflamme*, from its color, being a piece of red taffeta fixed on a golden spear, and cut into three points, each of which was adorned with a tassel of green silk. When Louis le Gros marched against the emperor Henry V., in 1124, he took this banner to accompany him in his expedition; and from that time, during nearly three centuries, the French monarchs were in the habit, on the commencement of a war, of receiving this banner with great ceremony from the hands of the abbot of St. Denis, to whom, at the conclusion of hostilities, it was returned. It is said to have been borne for the last time by Louis XI., at the battle of Montlhery, July 16, 1465.

Orig'anum, *n.* [Gr. *oreiganon*, from *oros*, a mountain,

gaudeo, I delight.] (*Bot.*) A genus of plants, order *Lamiaceæ*. *O. vulgare*, the common or wild Marjoram, is found in limestone and chalky districts. This yields a stimulant acrid oil, sold in the shops as oil of thyme.

Fig. 2004.
1, Sweet Marjoram (*Origanum majorana*); 2, Common Marjoram (*Origanum vulgare*).

There are three kinds cultivated as garden herbs, namely, — *O. majorana* (the Sweet or Knotted Marjoram), *O. onites* (the Pot Marjoram), and *O. heracleoticum* (the Winter Sweet Marjoram). They are all similar in properties.

O'rla, a town of S. Italy, prov. of Terra di Otranto, 21 m. N.E. of Taranto; *pop* 6,403.

Or'igen, a father of the Church, and one of the most learned ecclesiastical writers, was born at Alexandria, A. D 185, of Christian parents, who early instructed him in religious knowledge and in the sciences. At the age of 17 he lost his father, who was beheaded for his profession of Christianity Origen had now recourse to the teaching of grammar for the support of himself, his mother, and brothers; but this occupation he relinquished on being appointed catechist, or head of the Christian school of Alexandria. In this situation, he distinguished himself by the austerity of his life; and taking the Scriptures in the most rigid sense, he went so far as to put in practice the passage of the gospel, "There be some who have made themselves eunuchs for the kingdom of heaven" From Alexandria he went to Rome, where he began his famous *Hexapla*, an edition of the Hebrew Bible with five Greek versions of it. At the command of his bishop he returned to Alexandria, and was ordained. Soon after this, he began his *Commentaries on the Scriptures*. His great talents and popularity exposed him to the jealousy of the bishop, whose persecutions at length drove him from his native country, and for a long period made him a wanderer. Origen is supposed to have died at Tyre about the year 254. St. Jerome styles Origen "a man of immortal genius, who understood logic, geometry, arithmetic, music, grammar, rhetoric, and all the sects of the philosophers, so that he was resorted to by many students of secular literature, whom he received chiefly that he might embrace the opportunity of instructing them in the faith of Christ." The allegorical mode employed by Origen in interpreting the Holy Scriptures led, however, to violent controversies in the 4th century; but many of his errors are said to be owing to heretical interpolations of his writings. Among the errors of the *Origenists*, who pretended to draw their opinions from the works of Origen, are, that the souls of men were pre-existent; that our Saviour's soul was united to the Word before his conception; that after the resurrection the bodies of men will have a spherical form, and not, as at present, be erect; that the punishment of devils and of the damned will continue only for a time; and that in future ages Christ will be crucified for the salvation of devils, as he has already been for that of man. This heresy spread for a time widely in Egypt, Spain, and other countries. They were condemned by the second council of Constantinople, 553.

Origen'ians, *n. pl.* (*Eccl. Hist.*) See ORIGEN.

Or'igenism, *n.* (*Eccl. Hist.*) The doctrines attributed to Origen, (*q. v.*)

Or'igin, *n.* [Fr. *origine;* Lat. *origo, originis*, from *orior, oriri*, to rise.] The first existence or beginning of anything; beginning. — That from which anything primarily proceeds; source; cause; root; foundation

Orig'inable, *a.* That may be originated.

Orig'inal, *n.* [Fr., from L. Lat. *originalis.*] Origin; source; cause. — First copy; archetype; model; that from which anything is transcribed or translated, or from which a likeness is made by the pencil, press, or otherwise. — An eccentric or peculiar person. (Colloq.)

(*Fine Arts.*) A work not copied from another, but the work of the artist himself. When an artist copies his own work, it is called a *duplicate*.

(*Law.*) An authentic instrument of something, and which is to serve as a model or example to be copied or imitated. — (*a.*) First, or not deriving authority from any other source; as, *original* jurisdiction, *original* writ, *original* bill, and the like.

—*a.* Pertaining to the origin of being. — First in order; preceding all others; primitive; pristine. — Having the power to originate new thoughts or combinations of thought.

Original sin. (*Theol.*) The first sin that the first man committed; — also, the imputation of it to his posterity, or that depravity of nature which is its consequence.

Orig'inalist, *n.* One who is original, or forms original ideas.

Original'ity, *n.* [Fr. *originalité.*] Quality or state of being original; the power of originating or producing new thoughts, or uncommon combinations of thought.

Orig'inally, *adv.* Primarily; from the beginning or origin. — At first; at the origin. — By the first author.

Orig'inalness, *n.* The quality or state of being original.

Orig'inant, *a.* Tending to originate; taking first existence.

Orig'inary, *a.* [Lat. *originarius.*] Productive: causing existence. — Primitive; that which was the first state.

Orig'inate, *v. a.* To give origin to; to cause to be; to bring into existence; to produce what is new.

—*v. n.* To take first existence; to have origin.

Origina'tion, *n.* [Lat. *originatio.*] Act of originating, or of bringing or coming into existence; first production. — Mode of production or bringing into being.

Orig'inative, *a.* Originating; possessing power to originate or bring into existence.

Orig'inatively, *adv.* In an originative manner.

Orig'inator, *n.* A person who originates or commences

Orihua, (*o're-wa,*) one of the Sandwich group of Islands.

Orihuela, (*or-e-wa'la,*) a town of Spain, prov. of Valencia, on the Segura, 14 m. E.N.E. of Murcia, and 98 m. S.S.W. of Valencia. It is situated in a fertile country called the "Garden of Spain," *Manuf.* Silk, linen, hats, and brandy. *Pop.* 18,000.

Orihu'la, in *Wisconsin*, a post-township of Winnebago co.

Oril'lon, *n.* [Fr., a little ear.] (*Fort.*) A rounded or angular projection at the shoulder of a bastion for the purpose of covering the guns in the flanks.

Orinoco, (*o-re-no'ko,*) [Ind., "coiled serpent,"] a large and important river of S. America. It rises on the W. slope of the Parima Mountains, in Venezuela, abt. lat. 3° 30′ N., Lon 64° W., and afterwards turning round with a circular sweep, it holds a N. course, when, being joined by numerous large rivers from the E. ridge of the Andes, it becomes swelled to an immense size, and runs E. to the Atlantic Ocean, which it enters by several mouths, in Lat. 8° 40′ N., Lon. 61° W During the rainy season it inundates the immense plains through which it flows, during the highest flood to an extent of from 80 to 90 m. Its delta commences about 100 m. from the coast. It is computed that the river has 50 outlets into the ocean, only 7 of which are navigable, but not for vessels of any great burden. The grand mouth of the *O.* is formed by Cape Barima to the S.S.E., which is in Lat. 8° 54′ N., and the island of Cangrejos, lying W.N.W. of the cape. They are 25 m. from each other, but the breadth of the navigable part of the passage is not quite 3. The depth of water on the bar, which lies a little farther out to sea than the cape, is, at ebb, 17 ft. Near the Andes are the Falls of *Maypures* and *Atures*, hitherto much over-estimated. The annual swell of the *O.* commences in April and ends in Aug., and its basin has an area estimated at 252,000 sq. m. Its banks are clothed with dense forests, which, like the waters, abound with animal life. The *O.* is joined by 436 rivers and upwards of 2,000 streams. Its principal affluents are the Ventuari, Caura, and Paragua or Paraba, from the right, and the Guaviare, Meta, Arauca, and Apure from the left.

Fig. 2005.
PEASANT OF ORIHUELA.

O'riole, *n.* [Fr. *oriol.*] (*Zoöl.*) The common name of Insessores birds composing the genus *Icteria*, family *Icteridæ*. The BALTIMORE ORIOLE, *q. v.*, may be taken as the type of this genus.

Ori'on, (*Myth.*) A celebrated Greek giant and hero, and the reputed son of Hyrieus of Hyria, in Bœotia. So immense was his size, that when he waded through the deepest seas he was still a head and shoulders above the water; and when he walked on dry land, his stature reached the clouds. Once on a time he came to Chios, in the Ægean Sea, where he fell in love with Æro or Merope, daughter of Œnopion. He cleared the isle of wild beasts, and brought their skins as presents to his sweetheart; but her father always put off their marriage; whereupon *O.*, one day giving way to passion (while under the influence of wine), sought to take the maiden by force. Œnopion now called upon Dionysus (Bacchus) for help, who put out the eyes of the inebriate lover. *O.*, however, recovered his sight in Lemnos, by following the advice of an oracle, and returned to Chios to take vengeance on Œnopion. Not finding him, he went to Crete, where he spent the rest of his life hunting in company with Artemis (Diana). The cause and manner of his death are differently related. (See DIANA.) After his death he was placed with his hound in heaven, where, to this day, the following constellation bears his name

(*Astron.*) One of the ancient constellations found by Ptolemy. The equinoctial passes nearly through its centre, and it is situated in the S. hemisphere with respect to the ecliptic. Four of the seven stars constituting the constellation are situated in the middle of it, in a straight line. Two of these are of the first magnitude; namely, Betelguese or Beltegeux, in the right shoulder, and Rigel in the left foot. In the middle of the square are three stars of the second magnitude, which form what is called the belt of Orion. The constellations which surround Orion are Eridanus, Canis Major, Gemini, Auriga, and Taurus. Near the sword-scabbard, round the star marked θ, is a remarkable nebula, and within the constellation are thousands of small stars, which are only visible by powerful telescopes.

O'rion, in *Illinois*, a twp. of Fulton co.

O'rion, in *Michigan*, a post-township of Oakland county.

O'rion, in *Minnesota*, a township of Olmstead co.

Oris'kany, in *New York*, a creek flowing into the Mohawk in Oneida co. — A post-village of Oneida co., abt. 7 m. N.W. of Utica.

Oris'kany Falls, in *New York*, a post-village of Oneida co., abt. 18 m. S.W. of Utica.

Orismol'ogy, *n.* [Fr. *orismologie*, from Gr *orismos*, a marking out as a boundary, and *logos*, a discourse] That branch of natural history which relates to the technical terms of science; an explanation of technical terms: terminology.

Orison, (*or'i-zon.*) *n.* [Fr. *oraison;* Lat *oratio*, from *oro, orare*, to speak, to pray.] A prayer or supplication; — used chiefly in poetry.

Oris'sa, a prov. of Hindostan, wholly included in the presidencies of Bengal and Madras, between Lat. 18° and 23° N., Lon. 83° and 87° E., having N the provs. of Bengal and Bahar, W., Gundwanah; S., the river Godavery; and E., the Bay of Bengal *Area*, 28,000 sq m The shore is low and sandy, and the interior is composed of rugged hills and jungles, in which the atmosphere is pestilential. *Princ pal towns.* Cuttack, Juggernaut, and Balasore. *Pop.* Estimated at 4,500,000

Orista'no, a town of Italy, island of Sardinia, div. of Cagliari, at the mouth of the Tirsi, in the Bay of Oristano, 55 m N.N.W. of Cagliari It has a large trade in corn, salt, salt fish, and wine. *Pop.* 10,000

Oriza'ba, a town of Mexico, abt 70 m. W S W of Vera Cruz; *pop.* 16,000. About 25 m. to the N is the volcanic peak of Orizaba, *height*, 17,380 feet.

Ork'ney and Shet'land (or **Zet'land**) **Islands,** an archipelago off the N coast of Scotland. These islands, the anc. *Thule*, lie in two groups, and form a co. of Scotland. The Orkneys (anc. *Orcades*), the most S. group, are separated from the co. of Caithness by the Pentland Frith, 6 m. in breadth: Lat. bet. 58° 44′ and 59° 24′ N., Lon. bet. 2° 25′ and 3° 20′ W There are 49 in number, the principal of which is Pomona, and 22 of the smaller are uninhabited. *Area*, 2,448 sq. m. The *Shetland* or *Zetland Isles* (anc. *Ultima Thule*), the most N group, are separated from the Orkneys by a channel 48 m. wide; Lat between 59° 52′ and 60° 50′ N., Lon. 0° 44′ and 1° 44′ W *Area*, 5,388 sq. m. They number 117, of which 87 are uninhabited. The principal is Mainland. The E. and N. coasts are generally low, while the W. coasts are elevated, terminating in bold, steep cliffs. The soil is generally poor. *Clim.* Varied, and unhealthy. *Prod.* Wheat, oats, barley, potatoes, and turnips. Large numbers of cattle, horses, and sheep are reared; the Shetland horses, or "Shelties" (as they are called), are celebrated. The fisheries, however, are the chief object of pursuit, the islands being periodically visited by vast shoals of herrings, besides cod and other species of white fish. *Min.* Copper and iron. *Manuf* Unimportant, principally plaiting straw, hosiery, and gloves. *Chief towns.* Kirkwall in Orkney, and Lerwick in Shetland. *Pop.* 64,055.

Orl, Or'let, Or'lo, *n.* [O. Fr.; N Fr. *ourlet;* L. Lat *orlum*, dim. of *ora*, border.] (*Arch.*) A fillet under the ovolo of a capital. — Also, the plinth in the base of a column or pedestal.

Or'land, in *Illinois*, a post-township of Cook county.

Or'land, in *Indiana*, a post-village of Steuben co., abt. 10 m. N.W. of Angola.

Or'land, in *Maine*, a post-village and township of Hancock co., abt. 55 m. N.E. by E. of Augusta.

Or'lando, (*Legendary Hist.*) [*Spanish Roldan*]. See ROLAND.

Or'lando, in *Florida*, a city, cap. of Orange co., on S., F. & W. and Fla. Cent. & P. R.Rs., 90 m. S. of Palatka. *Pop.* (1897) 3,050.

Orle, *n.* (*Her.*) One of the ordinaries.

Orléans, an ancient dukedom, and titular name borne by the princes of the blood-royal of France, of which there are two lines: — 1. The first line has given the following names to history: — LOUIS I. of France, Duke d'Orléans, second son of Charles V., B. 1371, became regent in consequence of the mental incapacity of his brother, Charles VI., 1393, and was murdered by his cousin, the Duke of Burgundy, 1407. This event was the source of the bloody feud between the houses of Orléans and Burgundy CHARLES, son of the preceding, Duke d'Angoulême in his father's lifetime, taken prisoner at the battle of Agincourt, a while attempting the conquest

of the Milanese, which he claimed in right of his mother, 1465. He left a son, Louis II. of Orleans, who, in 1498, succeeded to the crown as Louis XII. — Between the first and second houses we find Jean Baptiste Gaston, third son of Henri IV. and Marie de Medici, b. 1608, created Duke d'Orléans 1626, and noted for his intrigues during the reign of his brother, Louis XIII. He was banished to Blois by Mazarin in 1652, and d. there 1660. — 2. The second house of Orléans commences with Philippe I., second son of Louis XIII. and Anne of Austria, b. 1640, received the title of Orléans on the death of his uncle, Gaston, 1660, and the next year married his cousin, Henrietta Anne, daughter of Charles I. of England. After the death of this princess, he married Elizabeth of Bavaria, of whom his successor was born; d. 1701. Philippe II., b. 1674, succeeded to the title of the preceding 1701, and became the celebrated Regent d'Orléans after the death of Louis XIV. He was educated in profligacy by the abbé Dubois, and, though endowed with brilliant talents, brought the kingdom to the verge of an insurrection (see Law); d. suddenly, 1723. Louis, son and successor of the latter, b. 1703, was distinguished for his accomplishments as a universal scholar and linguist. He d., after passing his life in a literary and religious retirement, 1752. Louis Philippe, son and successor of Louis the preceding, b. 1725, was lieutenant-general in the Flemish wars, and governor of Dauphiné. He was a man of taste and a lover of literature, and d. generally regretted, 1785. Louis Joseph Philippe, son of the last-named, surnamed *Philippe Égalité*, b. 1747, known by the title of Duke de Chartres, during the lifetime of his father, was an object of contempt to the French court for his cowardice. He joined the revolutionary party against the court; became a member of the national assembly; voted for the death of Louis XVI., and was nevertheless condemned to suffer death himself by the revolutionary tribunal, which sentence was executed in 1793. His son and successor became King of the French under the name of Louis Philippe, *q. v.* See Paris, Comte de.

Orléans, (The Bastard of.) See Dunois.

Orléans, (*or'le-ans.*) a city of France, cap. of the dept. of Loiret, on the Loire, 34 m. N.E. of Blois, and 65 m. S.W. of Paris, was the former cap. of the old province of *Orléannais*, which now forms the greater part of the depts. of Loiret, Eure-et-Loir, and Loir-et-Cher. It is situated in a rich and fertile country, and is surrounded by pleasantly-shaded boulevards. Its cathedral is one of the finest specimens of Gothic architecture in France. *O.* contains 3 monuments in honor of Joan of Arc, the finest of which, an equestrian statue, was erected in 1855. (See Fig. 1443.) Near the city is the Forest of Orleans, consisting of 94,000 acres, planted with oak and other valuable trees. *Manuf. O.* is chiefly celebrated for its vinegar, which is the best in France. *O.*, the *Genabum* of the Romans, was afterwards named *Aurelianum*, from Marcus Aurelius, who rebuilt it in the 2d century. It was besieged by the English in 1428–29, who were obliged, through the efforts of Joan of Arc, to retire. In 1563, it was also besieged by the Duke de Guise, who was assassinated under its walls by Poltrot de Mere. *Pop.* (1897) 63,600.

Or'leans, in *California*, a prosperous post-township of Humboldt co.

Orleans, in *Illinois*, a post-village of Morgan co., about 8 m. E. of Jacksonville.

Orleans, in *Indiana*, a post-village and township of Orange co., about 15 m. S. of Bedford, on the Louisville, New Albany & Chicago R. R.

Orleans, in *Iowa*, a village of Appanoose co., about 13 m. W. of Bloomfield.

—A township of Winneshiek co.

Orleans, in *Louisiana*, a southeast parish; *area*, about 187 square miles. *Rivers.* Mississippi river and some smaller streams, while Lake Pontchartrain washes it on the N. and Lake Borgne on the E. *Surface*, level and low, being mostly below the level of the Mississippi; *soil*, all along the river and in certain other parts, exceedingly fertile. *Cap.* New Orleans. *Pop.* (1897) 280,000.

Orleans, in *Maryland*, a village of Alleghany co., about 24 m. E. by S. of Cumberland.

Orleans, in *Massachusetts*, a post-township of Barnstable co. *Pop.* (1895) 1,219.

Orleans, in *Michigan*, a post-township of Ionia co.

Orleans, in *Missouri*, a post-village of Polk co., about 120 m. S.W. of Jefferson City.

Orleans, in *New York*, a N.W. co., bordering on Lake Ontario; *area*, about 399 sq. m. *Rivers.* Oak Orchard, Johnson's and Sandy creeks. *Surface*, diversified, but for the most part level; *soil*, generally fertile. *Min.* Bog iron ore, sulphur and salt springs. *Cap.* Albion. *Pop.* (1897) 31,850.

Orleans, in *Oregon*, a village of Linn co., about 11 m. S.W. of Albany.

Orleans, in *Vermont*, a N. co., adjoining prov. Quebec; *area*, about 728 sq. m. *Rivers.* Lamoille and Missisippi rivers, and Black, Barton, and Clyde creeks, besides a portion of Lake Memphremagog and several smaller lakes or ponds. *Surface*, uneven, and in the E. and W. parts mountainous; *soil*, generally fertile. *Cap.* Newport. *Pop.* (1897) 22,364.

Orleans, in *Virginia*, a post-village of Fauquier co., about 112 m. N. by W. of Richmond.

Orleans, Isle of, an island of prov. Quebec, in the St. Lawrence river, about 5 m. below Quebec. It is about 20 m. in length by 6 m. in breadth; *area*, 120 sq. m.

Or'lo, *n.* (*Arch.*) See Oal.

(*Mus.*) A kind of Spanish wind-instrument.

Orloff (*or'lof*), a celebrated Russian family, founded under Peter the Great by Ivan Orel, one of the archers, or *strelitzes*, who, when that body was destroyed, saved his life by his cool courage, and became an officer and a noble. The most celebrated of his descendants were: — Gregory, a Russian general and political intriguer, who greatly promoted the elevation of his mistress, Catherine II., to the throne. Being disappointed in his hope of sharing the crown with her, and declining a private marriage, he was supplanted by a new favorite, and d. insane 1783. He had one son by the empress, named Bobrinski. — Alexis, his brother, and fellow-conspirator, was a man of gigantic stature and strength, and is said to have strangled the emperor Peter with his own hands. He was a favorite of Catherine, and was married to the Princess Tarakanoff, daughter of the empress Elizabeth; d. 1808. — Grégory Vladimirowitz, a nobleman of the same family, a. 1778, and bearing the title of Count Orloff, was distinguished for his patronage and culture of letters. He was author of *Historical, Political, and Literary Memoirs of Naples*, and *History of the Arts in Italy*; d. 1826. — Michael, son of the above Alexis, b. 1785, served in the Russian army against Napoleon I., and went to Paris with the allies in 1814. — Alexis, brother of the preceding, b. 1787, distinguished himself as a diplomatist and statesman under Nicholas, and d. 1861.

Or'lop, *n.* [Du. *overloop*, from *over*, and *loopen*, to run.] (*Naut.*) The lower deck of a ship of the line; or that, in other vessels, on which the cables are stowed.

Ormoin', *n.* [Fr. *or-moulu*, from *or*, gold, and *moulu*, from *moudre*, to grind.] An alloy in which there is less zinc and more copper than in brass, that it may present a nearer resemblance to gold. It is used for the ornamentation of furniture. In many cases a gold lacquer is applied to heighten the color of the alloy; but in some instances the native color of the metal is preserved after being properly brought out by means of sulphuric acid. Furniture ornamented with ormolu came into fashion in France in the reign of Louis XV., and was long in favor among the wealthy and the great. Even at the present time it retains its attraction with many of the rich virtuosi.

Orms'kirk, a town of England, co. of Lancaster, 11½ m. N.N.E. of Liverpool, and 180 m. N.W. of London. *Manuf.* Silks, cottons, mats, and rope. *Pop.* 6,426.

Or'muz, (anc. *Ozyris,*) an island situated at the mouth of the Persian Gulf, in Lat. 27° 12′ N., Lon. 56° 25′ E. It is 12 m. in circumference, and belongs to the Imaum of Muscat. The harbor is sheltered on 3 sides, and it has a good anchorage. Its town, now decayed, was formerly of great importance.

Or'muzd, (*Persian Myth.*) The beneficent deity of the Zoroastrian religion as it is set forth in the Zendavesta. According to this system (Dualism), Ormuzd, the principle of light and purity, created six immortal spirits, then twenty-eight subordinate spirits, and lastly the souls of men, while Ahriman, the opposing evil principle, produced six evil angels with sundry subordinate demons. These are all engaged in a ceaseless conflict, which is to end with the triumph of Ormuzd, when Ahriman will acknowledge his supremacy, and all creatures shall be delivered from the dominion of evil.

Or'nament, *n.* [Fr. *ornement*; Lat. *ornamentum*, from *orno*, *ornare*, to adorn.] That which adorns or embellishes; something which, added to another thing, renders it more beautiful to the eye; embellishment; decoration; additional beauty.

—*v. a.* To adorn; to embellish; to deck; to decorate; to make beautiful; to furnish with embellishments.

Ornament'al, *a.* Serving to ornament, adorn, or decorate; giving additional beauty; embellishing.

Ornament'ally, *adv.* In such a manner as to add embellishment.

Ornamenta'tion, *n.* The art of ornamenting, or state of being ornamented. — Ornament; that which embellishes or ornaments; decoration.

Or'namenter, *n.* He who, or that which, ornaments.

Or'namentist, *n.* One engaged or employed in ornamentation.

Or'nate, *a.* [Lat. *ornatus.*] Adorned; embellished; decorated; splendidly furnished or equipped.

Or'nately, *adv.* In an ornate manner.

Or'nateness, *n.* State or quality of being ornate.

Orne, (*orn,*) a small river of France, rising near Leez, dept. of Orne, and flowing into the English Channel after a course of 86 m.

Orne, a dept. in the N.W. of France, between Lat. 48° 12′ and 48° 48′ N., Lon. 1° E. and 1° W., having N. the depts. of Calvados, and Eure; E., Eure, and Eure-et-Loire; S., Sarthe and Mayenne; and W., Manche; *area*, 2,500 sq. m. The surface is diversified, and the soil fertile along the banks of the rivers. *Rivers.* Orne, Dive, Vie, Sarthe, Mayenne, and Huine. Agriculture is backward. *Prod.* Oats, hemp, flax, and potatoes. Cattle and sheep are extensively reared, and the horses are considered the best in France. *Min.* Iron, manganese, and porcelain clay. *Manuf.* Metallic and linen goods, needles, pins, wire, paper, glass, beet-root sugar, &c. *Chief towns.* Alençon (the cap.), Argentan, Domfront, and Mortagne. *Pop.* 414,618.

Ornith'ic, *a.* [Gr. *ornithos*, a bird.] Belonging, or having reference to birds; as, *ornithic* fossils.

Ornith'ichnite, *n.* [Gr. *ornithos*, and *ichnos*, track.] (*Pal.*) The foot-mark of a bird on a stone. Some of these are very remarkable, as proving the existence of birds at very remote periods; for instance, at the early epoch of the new red sandstone formation.

Ornithichnol'ogy, *n.* [Gr. *ornithos*, bird, *ichnos*, track, and *logos*, treatise.] (*Pal.*) That branch of science which relates to ornithichnites.

Ornithodel'phia, *a.* Having reference, or pertaining to animals resembling the ornithorhynchus.

Ornithog'alum, *n.* [Gr. *ornithos*, and *gala*, milk; why so called is not obvious.] (*Bot.*) A genus of plants, order *Liliaceæ*. They are perennial herbs; leaves radical; scape naked, racemose or corymbose. *O. umbellatum*, the Star of Bethlehem, is a handsome plant from England, but naturalized in this country. Flowers few, in a kind of loose corymb; petals and sepals white, beautifully marked with a longitudinal green strip on the outside.

Ornithoidich'nite, *n.* [Gr. *ornithos*, *eidos*, form, and *ichnos*, track.] (*Pal.*) A fossil foot-mark resembling that of a bird.

Ornith'olite, *n.* [Gr. *ornithos*, bird, and *lithos*, stone.] (*Pal.*) The fossil remains of a bird.

Ornitholog'ic, Ornitholog'ical, *a.* [Fr. *ornithologique.*] Pertaining, or having reference to ornithology.

Ornithol'ogist, *n.* [Fr. *ornithologiste.*] A person who is skilled in ornithology, or in the natural history of birds, who understands their form, structure, habits, and uses: one who describes birds.

Ornithol'ogy, *n.* [Fr. *ornithologie*; Gr. *ornis*, *ornithos*, a bird, and *logos*, discourse.] (*Zoöl.*) The science which teaches the natural history and arrangement of birds; or, to use the definition of Cuvier, of vertebrated oviparous animals, with a double circulation and respiration, organized for flight. The sub-division of this class of birds is by no means so clearly indicated by either external or anatomical characters as that of mammals, and the system of *O.* presents, in consequence, great discrepancy. See Bird.

Ornith'omancy, *n.* [Gr. *ornithos*, and *manteia*, prophecy.] Among the ancients, a kind of divination practised by means of birds, their flight, &c.

Or'nithon, *n.* [Gr. *ornithōn.*] A building or receptacle for the safe-keeping of birds.

Ornith'opus, *n.* (*Bot.*) The Bird's-foot, a genus of ornamental plants, order *Fabaceæ*, sub-order *Papilionaceæ*, deriving both its popular and its botanical name from the resemblance of its curved pods to birds'-claws the leaves are pinnate, with a terminal leaflet.

Ornithorhynchus, (*-rink'us,*) *n.* [Fr. *ornithorhynque*, from Gr. *ornithos*, and *rynchos*, beak.] (*Zoöl.*) The Duck-bill, a genus of mammals, order *Monotremata*, characterized by the form of the mouth, which resembles the bill of a duck (Fig. 244). It is about two feet long, and is peculiar to the fresh-water rivers and lakes of Australia and Tasmania. It constitutes, in common with the Echidna (*q. v.*), the lowest of the mammals, and resembles the reptiles in laying eggs. The two milk glands, which unite it with the mammalia, open upon a flat bare patch of skin.

Orobanchaceæ, (*o-ro-ban-kai'se-e,*) *n.* [Gr. *orobos*, vetch, and *anchō*, I strangle.] (*Bot.*) The Broom-rape family, an order of plants, alliance *Gentianales.* Diag. No stipules, simple stigmas at the end of a manifest style, parietal placentæ, and didynamous flowers. They are fleshy herbs growing parasitically on the roots of other plants. The stems are scaly without any true green leaves. The order contains 12 genera and 116 species. See Epiphegus.

Oro'bus, *n.* (*Bot.*) A genus of plants, order *Fabaceæ*. They are perennial herbs, chiefly native of Europe. *O. tuberosa*, the Bitter-vetch, with other species, afford good food for cattle. The tubers have a sweet taste, resembling that of liquorice, and are sought after by children;

Fig. 2006. — bitter-vetch, (*Orobus tuberosus.*)

they are also bruised and steeped in water in some parts of the Highlands of Scotland, to make a fermented liquor. They are well-flavored and nutritious when boiled or roasted.

Orographic, (*-graf'ik.*) **Orograph'ical,** *a.* Belonging or having relation to orography.

Orog'raphy, *n.* [Gr. *oros*, mountain, and *graphein*, to depict.] An account of, or treatise on, mountains.

Orolog'ical, *a.* [Fr. *orologique.*] Relating to a description of mountains.

Orol'ogist, *n.* One who describes mountains.

Orol'ogy, *n.* [Fr. *orologie*, from Gr. *oros*, mountain, and *logos*, doctrine.] The science treating of the description of mountains.

O'rouge, *n.* [Fr., a fine sort of mushroom.] The *Agaricus Cæsareus*, one of the best and handsomest of fungi, celebrated among the Romans under the name of *Boletus*.

Oro'no, in *Iowa*, a small village and township of Muscatine co., about 15 m. W. by S. of Muscatine. *Pop.* of township (1897) 580.

Orono, in *Maine*, a post-township of Penobscot co. *Pop.* (1897) 2,810.

Oron'oco Station, in *Minnesota*, a post-village in Oronoco township of Olmsted co., about 10 m. N. by W. of Rochester. *Pop.* of township (1897) 895.

Orou'oko, in *Michigan*, a township of Berrien co.; *pop* abt. 1,249.

Orou'tes, [Arab. *El-Assay*, "the rebellious,"] a river of Asiatic Turkey, in N. Syria, rising on the E. side of the mountain Anti-Libanus, near the village of El-Ras, and after a W.N.W. course of 240 m., falling into the Mediterranean 40 m. N. of Latakia.

Orontia'ceæ, *n. pl.* (*Bot.*) The Orontiad, or Sweet-flag family, an order of plants, alliance *Juncales*. DIAG. Spadiceous flowers, and an axile embryo with a lateral cleft. — They are herbs, with broad entire or deeply divided leaves, which, however, are occasionally sword-shaped and equitant. Some of them are stemless, others scramble over trees, to which they adhere by creeping-roots; a few are aquatic. Fruit baccate. Seed usually with a fleshy or mealy albumen. The plants of this order are found in cold, temperate, or tropical climates. See ACORUS The order includes 13 genera and 70 species.

Orosha'za, a town of E. Hungary, co. of Bekes, 27 m. S.W. of Bekes; *pop.* 10,000.

Orota'va, a town of the Canary Islands, on the N. coast of Teneriffe, below the peak. Its harbor is bad. *Pop.* 8,500.

O'rotund, *n.* [Lat. *os, oris*, mouth, and *rotundus*, round.] A mode of intonation proceeding directly from the larynx, and giving that ringing or musical sound which forms the highest perfection of the human voice.

—*a.* Characterized by distinct and smooth articulation, or musical intonation; — said of the human voice.

O'roville, in *California*, a town, cap. of Butte co., abt. 75 m. N. of Sacramento.

Or'pah. (*Script.*) The Moabitess, Naomi's daughter-in-law, who remained with her people and gods, when Ruth followed Naomi and the Lord. (*Ruth* i. 4–14.)

Orphan, (*or'fun,*) *n.* [Fr. *orphelin*; Gr. *orphānos*, orphaned, without parents: Lat. *orbus*, bereaved.] A child who is bereaved of father or mother, or both.

—*a.* Bereaved of parents.

—*v. a.* To reduce to a state of orphanage.

Or'phanage, Or'phanhood, Or'phanism, *n.* State or condition of being an orphan.

Orphaned, (*or'fănd,*) *a.* Bereft of parents or natural protectors.

Or'phanet, *n.* A young orphan. (R.)

Or'phanhood, Or'phanism, *n.* Same as ORPHANAGE. *q. v.*

Or'phan's Island, in *Maine*, at the entrance of Penobscot River, opposite Bucksport.

Orphe'an, *a.* [Lat. *Orphēus*; Gr. *Orpheios.*] Relating or pertaining to Orpheus, the mythological poet and musician; as, *Orphean* melodies.

Orphe'us. [Gr.] (*Myth.*) According to the common story, a son of the Thracian river Æsgrus and the muse Calliope. His power of moving inanimate things by music, the share he bore in the Argonautic expedition, his descent into the Shades to recover his wife Eurydice, and his death by the violence of the Thracian women, are well known.

Or'phic, *a.* Having reference to Orpheus; Orphean.

Orphrey, (*ôr'frey,*) *n.* [Fr. *orfroi.*] (*Eccl.*) An ornamented band pertaining to sacerdotal vestments.

Or piment, *n.* [From Lat. *aurum*, gold, and *pigmentum*, a color.] (*Chem.*) The commercial name for the ter-sulphide of arsenic. It is the coloring ingredient in the pigment known as King's-yellow.

Or'pin, *n.* (*Paint.*) A yellow color, of various degrees of intensity, approaching also to red.

Or'pine, *n.* (*Bot.*) See SEDUM.

Or'rach, *n.* (*Bot.*) Same as ORACH, *q. v.*

Or'rery, *n.* [Named after the Earl of *Orrery.*] (*Astron.*) A machine for representing to children the motions and relative magnitudes and distances of the bodies composing the solar system. The orrery, once regarded as important, is now relegated to the position of a toy, it being impossible to get correct ideas concerning the sizes and distances of the planets, in the words of Sir John Herschell, "by drawing circles on paper, or, still worse, from those very childish toys called orreries." They are of some utility, however, in giving a general idea of the way in which the planets move.

Or'rington, in *Maine*, a post-township of Penobscot co. *Pop.* (1897) 1,450.

Or'ris-root, *n.* (*Bot.*) See IRIS.

Orrs'town, in *Pennsylvania*, a post-borough of Franklin co., about 10 m. S. of Chambersburg.

Orrs'ville, in *Georgia*, a village of Gwinnett co.

Orr'ville, in *N. Carolina*, a village of Mecklenburg co.

Orrville, in *Ohio*, a post-village of Wayne co., on the Penna. and 3 other R. Rs. *Pop.* (1897) 1,980.

Orsi'ni, a celebrated Roman family, the rivals of the Colonna, who lived during the Middle Ages. The first Orsini known became cardinal in 1145; his nephew, Matthew Orsini, was Prefect of Rome in 1153; Gaetano Orsini was made Pope in 1277, under the name of Nicholas III. Another of the family was elected Pope in 1724, with the title of Benedict XIII. The family has had many cardinals and distinguished personages among its members.

Ort, *n.*; *pl.* ORTS. [Dan. and Frls. *orte.*] A fragment; a shred; any refuse or rejected part; — generally employed in the plural.

Or'ta, a lake of N. Italy, in Piedmont, div. of Novara, 6 m. W. of Lago Maggiore, into which it discharges its surplus waters. *Ext.* 8 m. long, and 1½ wide.

Orthez, or **Orthes,** (*or'tai,*) a town of France, dept. of Basses-Pyrenees, on the Gave de Pau, 24 m. N.W. of Pau. *Manuf.* Woollen stuffs, brass and iron wire, and copper-wares. *Pop.* 6,724.

Or'thite, *n.* [Gr. *orthos*, straight.] (*Min.*) A variety of Allanite, which occurs massive, and also in long, thin, acicular crystals. It is of a blackish-gray color, and either opaque or only slightly translucent when reduced to thin splinters.

Orthoceer'ate, *n.* [Gr. *orthos*, and *keras*, horn.] A family of Cephalopods, with chambered siphoniferous shells which are straight, or are continued straight after commencing with a greater or less curvature, thus resembling a horn.

Or'thoclase, *n.* [Gr. *orthos*, and *klasis*, fracture.] (*Min.*) Common or Potash Felspar. A silicate of alumina and potash; but a portion of the potash is frequently replaced by lime, soda, magnesia, &c. It occurs in crystals which are generally white, reddish-white, or grayish, and translucent. Potash Felspar enters into the composition of many rocks, and is one of the ordinary ingredients of granite.

Or'thodox, *a.* [Fr. *orthodoxe*; late Gr. *orthodoxos.*] Having or holding a right opinion or doctrine; sound in the Christian faith; believing the original doctrines taught in the Holy Scriptures; — opposed to *heterodox*, or *heretical*. To the Roman Catholic, he only is orthodox who believes that which the Church enjoins; and all others are heterodox.

Or'thodoxal, *a.* Relating to, or testifying, orthodoxy.

Orthodox'ical, *a.* Orthodox; in a manner in accordance with, or evincing, orthodoxy.

Or'thodoxly, *adv.* With soundness of faith; in an orthodox manner.

Or'thodoxy, *n.* [Gr. *orthodoxia* — *orthos*, straight, and *doxa*, opinion, notion, from *dokeō*, to think, to suppose; akin to Hindoo *dekhna*, to suppose.] Right opinion, doctrine, or belief; soundness in the Christian faith. — Accordance with genuine scriptural doctrines; orthodoxness; as, the *orthodoxy* of a creed.

Orthodrom'ic, *a.* [Gr. *orthos*, and *dranein*, to run.] Belonging or relating to orthodromy.

Or'thodromy, *n.* [Fr. *orthodromie.*] Art or operation of sailing on a great circle.

Orthoëp'ic, Orthoëp'ical, *a.* Pertaining, or having reference to orthoëpy.

Orthoëp'ically, *adv.* In an orthoëpical manner.

Or'thoëpist, *n.* One versed in orthoëpy; one who pronounces words correctly, or who is well skilled in pronunciation.

Or'thoëpy, *n.* [Gr. *orthoepeia* — *orthos*, right, and *epos, epeos*, a word. See EPIC.] Right speech or pronunciation; the art of uttering words with preciseness and propriety; correct pronunciation of words.

Or'thogon, *n.* [Gr. *orthos*, right, and *gōnia*, angle.] (*Geom.*) A rectangular figure.

Orthog'onal, *a.* [Fr.; Lat. *orthogonius.*] Right-angled; rectangular.

Orthog'onally, *adv.* Perpendicularly; at right angles; as, a circle projected *orthogonally*.

Orthog'rapher, *n.* One versed in orthography, or the correct spelling of words, according to common usage.

Orthograph'ic, Orthograph'ical, *a.* Belonging, or having reference to orthography, or the correct spelling of words; correctly spelled; written with the proper letters; as, *orthographical* rules.

(*Geom.*) Relating or pertaining to right lines or angles.

O. projection. The projection of points on a plane by straight lines at right angles to the plane.

Orthograph'ically, *adv.* According to the rules of proper spelling; in an orthographical manner. — In the manner of an orthographic projection.

Orthog'raphist, *n.* Same as ORTHOGRAPHER, *q. v.*

Orthographize, (*or-thog'ra-fīz,*) *v. n.* To spell words correctly. (R.)

Orthog'raphy, *n.* [Gr. *orthographia* — *orthos*, right, and *graphō*, to write.] The art, practice, or operation of writing words correctly, or with the proper letters, according to common usage. — That part of grammar which treats of the nature and properties of letters, and the proper method of spelling words; the practice of spelling or writing words with the correct letters.

(*Arch.*) A geometrical representation of an elevation or section of a building.

Orthomet'ric, *a.* (*Crystallog.*) With the axes at right angles to one another; — said of crystals.

Orthom'etry, *n.* [Gr. *orthos*, and *metron*, measure.] The act, art, practice, or laws of correct versification.

Orthoped'ic, Orthoped'ical, *a.* (*Med.*) Pertaining or relating to the cure of diseases of the feet.

Orthop'edist, *n.* (*Med.*) One who cures diseases or deformities of the feet.

Orthop'edy, *n.* [Gr. *orthos*, straight, and *pais*, gen. *paidos*, a child.] (*Med.*) That part of the science which has for its object to prevent and correct deformities in the bodies of children. Generally used, however, with a more extensive signification, to embrace the correction or prevention of deformities at all ages.

Orthophony, (*or-thŏf'o-ne,*) *n.* [Gr. *orthos*, straight, and *phonē*, voice.] The art of correct utterance or proper articulation.

Orthopnœ'a, Or'thopny, *n.* [Gr. *orthos*, and *pneim*, to breathe.] (*Med.*) A difficulty of breathing, which is increased by any deviation from the erect posture.

Orthop'tera, *n. pl.* [Gr. *orthos*, and *pteron*, wing.] (*Zoöl.*) A sub-order of insects embracing those whose wings lie straight along the top and sides of the back, the upper ones being somewhat thick and opaque, and sometimes slightly overlapping, and the under ones larger, thin, and folded in plaits like a fan. They do not undergo a complete transformation in coming to maturity, but the young are constantly active, feeding and growing, and differ from the adults only in size, and in having only the rudiments of wings, and in frequently changing their skins. At length, having shed their skins for the sixth and last time, they come forth perfect insects, without having passed through the inactive phase of the pupa state.

Fig. 2007. — COCKROACH, (*Blatta Orientalis.*)

Orthop'teran, *n.* (*Zoöl.*) One of the orthoptera.

Orthop'terous, *a.* Belonging to, or presenting the characteristics of, the order *Orthoptera*.

Orthorhom'bic, *a.* [Gr. *orthos*, straight, and *rombos*, rhombus.] (*Crystallog.*) Same as TRIMETRIC, *q. v.*

Or'thostyle, *n.* [Gr. *orthos*, straight, and *stylos*, pillar.] (*Arch.*) A straight range of columns.

Orthot'omous, *a.* [Gr. *orthos*, straight, and *temnein*, to cleave.] (*Crystallog.*) Having two cleavages at right angles with each other.

Orthot'ropal, Orthot'ropous, *n.* [Gr. *orthos*, straight; *tropo*, I turn.] (*Bot.*) A term applied to ovules in which the nucleus is straight and has the same direction as the seed to which it belongs, the foramen being at the end most remote from the hilum.

Orthot'ypous, *a.* [Gr. *orthos*, straight, and *typos*, figure.] (*Crystallog.*) With a perpendicular cleavage: — said of crystals.

Or'tive, *a.* [Late Lat. *ortivus*, from *orior, ortus*, to rise.] Having reference to the time or act of rising, as of a star; eastern; orient; as, the *ortive* amplitude of a planet.

Ort'ler, or **Ort'eler,** the loftiest mountain of the Tyrol, and of the Austrian empire, situated in the Rhætian Alps, 10 m. S. of Glarus. *Height*, 12,811 ft.

Fig. 2008. — ORTLER-SPITZ.

Or'tolan, *n.* [Fr.; It. *ortolano.*] (*Zoöl.*) See PLECTROPHANES.

Orto'na, a town of Italy, prov. of Abruzzo Citeriore, on the Adriatic, 8 m. N. of Lanciano, and 11 m. E. of Chieti; *pop.* 11,862.

Or'tyx, a genus of birds, family *Perdicidæ*, distinguished by having the bill stout, head without a crest, and the tail short. The Quail, *O. Virginianus* (sometimes called Colin), of the U. States, E. of the High Central Plains (Fig. 2009), is ten inches long, the wing nearly four and three quarter inches; prevailing color above, brownish-red; the under parts white, tinged with brown before, and marked with obtusely V-shaped spots of black; the head is beautifully marked with pure white and black. The female has the white markings of the head replaced by brownish-yellow, and

Fig. 2009. — AMERICAN QUAIL, (*Ortyx Virginianus.*)

the black wanting. In New England, New York, and westward, this bird is called the Quail; but in Pennsylvania and southward it is called the Partridge. Its clear whistle is composed of three notes, the first and last of equal length, the first being loudest. The nest is built near a tuft of grass; eggs ten to eighteen, pure white. The Mountain Quail, *O. pictus* (Fig. 2010), of the mountain ranges of Oregon and California, is ten and a half inches long, and the wing five inches.

Fig. 2010.
CALIFORNIA QUAIL.
(*Ortyx pictus.*)

Oruro, (*o-roo'ro.*) a town of Bolivia, abt. 100 m. N.W. of Sucre; *pop* 5,000.

O'rus. (*Myth.*) Same as HORUS, *q. v.*

O'rust, an island of Sweden, in the Cattegat, 28 m. N.W. of Gothenburg; length, 14 m., breadth, 10 m.; *pop.* unascertained.

Or'val, *n.* (*Bot.*) *Lamium orvala,* an odoriferous meadow-plant, genus *Lamium,* q. v.

Orvie'tan, *n.* An antidote for poison, said to have been invented by a mountebank of Orvieto in Italy.

Orvieto, (*or-ve-a'to.*) a town of central Italy, prov. of Perugia, at the junction of the Paglia and Chiane rivers, 11 m. N.E. of the Lake of Bolsena, and 59 m. N.W. of Rome. It stands on an isolated rock, and contains numerous palaces. *Pop.* 12,955.

Or'well, a river of England, co. of Suffolk, rising near Felsham, and flowing E. joins the Stour, to form the harbor of Harwich.

Or'well, in *New York,* a town of Oswego co., celebrated for a fine cataract, called *Salmon River Falls,* which forms an unbroken cascade of 107 feet.

Or'well, in *Ohio,* a post-township of Ashtabula county, abt. 46 m. E. of Cleveland.

Or'well, in *Pennsylvania,* a post-townsbip of Bradford co.

Or'wigsburg, in *Pennsylvania,* a post-borough of Schuylkill co., abt. 9 m. S.E. of Pottsville.

Oryc'teropus, *n.* [Gr. *oryctes,* a digger, and *pous,* a foot.] (*Zoöl.*) A genus of edentate mammals, the AARD-VARK, *q. v.*

Oryctog'raphy, Oryctol'ogy, *n.* [Gr. *oryktos,* fossil, and *graphein,* to write.] (*Pal.*) That branch of natural history which treats of the description of fossils and minerals.

(*Min.*) The nomenclature, classification, and description of minerals.

Oryx, *n.* (*Zoöl.*) The long-horned Antelope, or Gemsbok, of central and southern Africa, a species of Antelope, as large as the stag, with straight, slender, round, and pointed horns, 2 or 3 feet long, with the lower third obliquely annulated.

Oryza, (*o-ri'za,*) *n.* (*Bot.*) A genus of plants, order *Graminaceæ,* including the Rice-plant. See RICE.

Oryzop'sis, *n.* [Named from its resemblance (*opsis*) to the genus *Oryza.*] (*Bot.*) A genus of plants, order *Graminaceæ. O. asperifoli,* the Mountain Rice, is very common in woods in the Northern States. Leaves green through winter; caryopsis white, about as large as rice, farinaceous.

O. S. An abbreviation of *Old Style.* See Calendar.

Os, *n.; pl.* OSSA. [Lat.] (*Anat.*) A bone.—Also, the mouth

Osage, (*o-zazh',*) in *Illinois,* a post-village of Franklin co., abt. 50 m. S. of Centralia.

—A township of La Salle co.

Osage', in *Iowa,* a city and township, cap. of Mitchel co., on the Ill. Cent. and N. & W. R.Rs., 17 m. N.N.W. of Charles City. *Pop.* (1895) 2,509.

Osage, in *Kansas,* an E. county; *area,* about 720 sq. m. *Rivers.* Osage river and several of its affluents. *Surface* diversified; *soil,* fertile. *Min.* Coal in large quantities. *Cap.* Lyndon. *Pop.* (1895) 24,818.

—A township of Miami co.

Osage, in *Missouri,* a S.E. central co.; *area,* about 586 sq. m. *Rivers.* Missouri, Osage, Gasconade, and Marais rivers. *Surface,* uneven; *soil,* fertile. *Cap.* LIBERTY. *Pop* (1890) 13,080.

—A village of Crawford co., abt. 91 m. S.E. of Jefferson City.

Osage Orange. *n.* (*Bot.*) See MACLURA.

Osage River rises in Wabaunsee co., Kansas, and flowing generally S.E. into Missouri, turns to the N.E., and after a tortuous N.E. course of over 400 m., enters the Missouri river between Osage and Cole cos. Total length, about 500 m. Navigable for 200 m.

Osages, *n. pl.* [Fr., from Algonquin *onosash,* bone men.] A tribe of North American Indians, of the Sioux or Dacotah family. By treaty with the U. S., in 1825, the tribe was located on a tract of land of 7,564,000 acres in area, lying in the present State of Kansas. They continued, however, troublesome, combining depredations upon the whites with their pursuit of the chase, and were therefore removed to a reservation in the north of the Indian Territory. They are about 1,200 in number.

Os'born, in *Iowa,* a village of Howard co., about 25 m. N.W. of Decorah.

Osborn, in *Missouri,* a post-village of De Kalb co., about 29 m. E. of St. Joseph.

Osborn, in *Ohio,* a post-village of Greene co., about 10 m. N.E. of Dayton. *Pop.* (1897) 760.

Osborn, in *Wisconsin,* a township of Outagamie co.

—A village of Rock co., about 28 m. S.E. of Madison.

Os'born's Hollow, in *New York,* a post-village of Broome co., abt. 130 m. W. by S. of Albany.

Os'car I., (JOSEPH FRANÇOIS BERNADOTTE,) KING OF SWEDEN AND NORWAY, b. in Paris, 1799, was the only son of the celebrated French general Bernadotte, who became king of Sweden under the title of Charles XIV. He succeeded his father in 1844. He tried to deliver his kingdom from the overwhelming influence of Russia, and was very popular. But a constitutional disease of liged him, Sep. 25, 1857, to resign in favor of his elder son, Chas., as regent (aft. Charles XV.) D. 1860.

Oscar II. son of O. I. B. 1829, suc. his bro. Chas. XV. 1872

Osceo'la, a chief of the Seminole Indians, b. in Florida abt. 1813, was the son of an Indian trader called Powell. In 1835, while on a visit to Fort King, his wife was claimed as a slave, as being the daughter of a fugitive slave-woman, and carried off as such. *O.* resolved upon vengeance, and some months afterwards, finding Gen'l Thompson outside of the fort, killed him and 6 other whites in his company, Dec. 28, 1835. Such was the beginning of the second Seminole War, during which *O.* defeated the U. S. troops in several engagements. On Oct. 23, 1837, while holding a conference under a flag of truce with Gen. Jessup, near St. Augustine, he was treacherously seized and kept in confinement at Fort Moultrie till his death, in 1838.

Fig. 2011.—OSCEOLA.

Osceola, in *Arkansas,* a post-town, cap. of Mississippi county.

Osceola, in *Florida,* a S.E. central co.; *area,* 1,758 sq. m. *Cap.* Kissimee. *Pop.* (1897) 3,500.

Osceola, in *Illinois,* a post-township of Stark co.

Osceola, in *Iowa,* a post-village and township, cap. of Clarke co., about 40 m. S. by W. of Des Moines.

—A township of Franklin co.

Osceola, in *Michigan,* a N.W. central co. of the lower peninsula; *area,* about 580 sq. m. *Rivers.* Muskegon river, and numerous smaller streams. *Surface,* diversified; *soil,* fertile. *Cap.* Hersey. *Pop.* (1894) 16,470.

—A township of Livingston co.

Osceola, in *Missouri,* a post-village, cap. of St. Clair co., about 132 m. W.S.W. of Jefferson City

Osceola, in *New York,* a post-township of Lewis co. *Pop.* (1897) 610.

Osceola, in *Ohio,* a post-village of Crawford co., about 70 m. N. of Columbus. Now spelled OCEOLA.

Osceola, in *Pennsylvania,* a post-borough and township of Tioga co., about 20 m. N. of Wellsborough.

Osceola, in *Wisconsin,* a township of Polk county.

Osceo'la Centre, in *Michigan,* a village of Livingston co., abt. 50 m. N.W. by W. of Detroit.

Osceo'la Mills, in *Wisconsin,* a post-village, cap. of Polk co., abt. 27 m. N. of Hudson.

Oschatz, (*o'shats,*) a town of N. Germany, in Saxony, 31 m. E.S.E. of Leipsic. *Manuf.* Woollen cloth and yarn. *Pop* 6,000.

Oschersleben, (*osh'ers-la-ben,*) a town of Prussian Saxony, on the Bode, 19 m. W.S.W. of Magdeburg.; *pop.* 4,000.

Os cillancy, *n.* State of oscillating, or making a see-saw kind of motion.

Os'cillate, *v. n.* [Lat. *oscillo, oscillatum,* to swing—*ob,* or *obs.* and ancient *cillo,* to move.] To move to and fro, or backwards and forwards; to swing; to vibrate, as a pendulum;—hence, to fluctuate between expressed limits.

Oscillating engine. (*Mach.*) A marine engine with a vibrating cylinder, having the piston-rod connected to the crank, and the cylinder supported by the trunnions projecting from the sides at or near the centre, cast hollow, and connected to the steam and eduction pipes

Oscillation, (*os-sil-la'shun,*) *n.* [Fr., from Lat. *oscillatio.*] (*Mech. and Phys.*) The vibration or reciprocal ascent and descent of a pendulous body. The problem of oscillation, in its widest sense, includes most of those which occur in astronomy, optics, &c. To their average motions, the moon and planets add small oscillations about their mean places; the tides consist of oscillations of the ocean, about the uniform spheroid, which, if it were not for the action of the heavenly bodies, would be carried round in the daily rotation of the earth; the phenomena of light are supposed to result from oscillations in an elastic ether; those of sound from oscillations in the air, &c. In general language, however, the problem of oscillation refers only to the purely theoretical part of the problem of the pendulum. (See PENDULUM.) The *centre of oscillation* is that point in a vibrating body in which, if all the matter of the body were collected into it, the vibrations would be performed in the same time as before. The *axis of oscillation* is a straight line passing through the point of suspension, parallel to the horizon.

Os'cillative, *a.* Having a tendency to oscillate; oscillatory; vibratory.

Oscillato'ria, Oscilla'ria, *n. pl.* (*Bot.*) A genus of wild plants, order *Confervaceæ.* They are composed of cylindrical filaments, (see Fig 663,) inclosed singly in tubular cellulose sheaths, open at the ends, from which the filaments emerging wave backwards and forwards. For a time they were held to be organized bodies, but are now generally admitted to belong to the vegetable kingdom.

Os'cillatory, *a.* [Fr. *oscillatoire.*] Moving backward and forward, like a pendulum: swinging; oscillative: vibratory; as, *oscillatory* motion.

Os'cines, *n. pl.* (*Zoöl.*) A sub-order of *Insessores* birds, comprising the true singing-birds, such as have the larynx provided with five pairs of peculiar muscles, which are used in the production of song.

Os'citancy, *n.* Act of yawning or gaping—Morbid tendency to slumber; drowsiness; lethargic dulness.

Os'citant, *a.* [Fr., from Lat. *oscitare.*] Yawning; gaping.—Drowsy; extremely sleepy; lethargic; sluggish.

Os'citantly, *adv.* In an oscitant manner; gapingly; drowsily; sluggishly.

Os citate, *v. n.* [From Lat. *os,* the mouth, and *citare,* to accelerate.] To yawn: to gape with drowsiness.

Oscita'tion, *n.* [Lat. *oscitatio.*] Act of gaping or yawning from sleepiness.

Os'co, or OSEGOW, in *Illinois,* a post-township of Henry co. *Pop.* (1897) 964.

Os'culant, *a.* [Lat. *osculans,* from *osculari,* to kiss.] Closely connecting or embracing;—applied to caterpillars and other creeping things.

(*Nat. Hist.*) Intermediate between two groups; as, *oscalant* genera.

Os culate, *v. a.* [Lat. *osculor, osculatus,* from *osculum,* a little mouth, a kiss, from *ōs, ōris,* the mouth.] To salute with the mouth; to kiss.

(*Geom.*) To come in contact with;—said of two curves.

—*v. n.* To kiss: to kiss one another.

(*Geom.*) To touch by coming in contact—said of curves.

Oscula'tion, *n.* [Fr.; Lat. *osculatio,* a kissing.] The act of kissing.

(*Geom.*) The contact of one curve with another, when at the point of contact they have each the same curvature for the major number of consecutive points in common.

Os'culatory, *a.* [Fr *osculatoire.*] Kissing; pertaining or having relation to kissing; as, "the *osculatory* ceremony."—*Thackeray.*

(*Geom.*) Susceptible of osculation; relating to, or having the properties of, an *osculatrix.*

O. circle. (*Geom.*) The circle whose contact with a given curve is of the second order. It coincides with the circle of curvature.

O plane, to a curve of double curvature, a plane passes through three successive points of the curve.

O. sphere, to a line of double curvature, a sphere passing through four successive points of the curve.

Os'culatrix, *n.* (*Geom.*) A curve which has a higher order of contact with a given curve, at given points, than any other curve of the same kind.

Os'cule, *n.* [Fr.; from Lat. *osculum,* a small mouth.] A small bi-labiate orifice.

Ose'ro, an island of Austria, near the island of Cherso, in the Adriatic. *Ext.* 16 m. long and four broad. *Pop.* 3,000.

Os'good, in *Indiana,* a post-town of Ripley co., about 52 m. W. of Cincinnati, O.

Oshaku'ta, in *Wisconsin,* a village of Columbia co., about 30 m. N. of Madison.

Osh'awa, a town and port of entry of Ontario co., prov. of Ontario, 33 m. E. of Toronto.

Oshawa, in *Minnesota,* a thriving post-township of Nicollet co., about 6 m. S.W. of St. Peter. Intersected by the Chicago & Northwestern R.R.

Osh'kosh, in *Wisconsin,* a city, cap. of Winnebago co., at the mouth of Fox river, abt. 75 m. N.N.E. of Madison. This city, before its almost total destruction by fire, April 2, 1875, was a well-built place, doing a flourishing trade in lumber and manufactures. *Pop.* (1895) 26,947.

Oshtemo, or OSTEMO, in *Michigan,* a post-village and township of Kalamazoo co., abt. 6 m. S.W. of Kalamazoo.

Osier, (*ō'zher.*) *n.* (*Bot.*) See SALIX.

O siery, Osier-holt, *n.* A place where osiers are cultivated.

Osi mo, a town of Central Italy, prov. of Ancona, 8½ m. S.S.W. of Ancona. It has a trade in silk and corn. *Pop.* 5,200.

Osi'ris, (*Egyptian Myth.*) One of the chief divinities, the brother and husband of Isis, and together with her the greatest benefactor of Egypt. After visiting the greater part of Europe and Asia, he found on his return his own subjects excited to rebellion by his brother Typhon, by whose hand he was killed. His principal office, as an Egyptian deity, was to judge the dead, and to rule over that kingdom into which the souls of the good were admitted to eternal felicity. The characters of Osiris, like those of Isis, who was thence called Myrionymus, or "with 10,000 names," were numerous. He was that attribute of the deity which signified the divine goodness; and in his most mysterious and sacred office, he was superior to any even of the Egyptian gods; for, as Herodotus observes, though all the Egyptians did not worship the same gods with equal reference, the adoration paid to Osiris and Isis was universal. He was styled the *Manifester of Good,* as having appeared on earth to benefit mankind; and after falling a sacrifice to Typhon, the evil principle (which was at length overcome by his influence after his leaving the world), he "rose again to a new life," and became the "judge of mankind in a future state."

Oskaloo'sa, in *Iowa,* a town and township, cap. of Mahaska co. *Indus.* Coal mining and very extensive manufacturing. *Pop.* (1895) 8,551.

Oskaloosa, in *Kansas,* a post-village and township

cap. of Jefferson county, about 25 miles W.S.W. of Leavenworth.

Oskau'sas, in *Wisconsin*, a village of Columbia co., nbt. 9 m. S. of Portage City.

Os'ma, (anc. *Osmus,*) a river of Bulgaria, European Turkey, which after a course of 100 m. joins the Danube at Nicopolis.

Os'man. See OTHMAN.

Os'manli, *n.*; *pl.* OSMANLIS. [From *Osman*, founder of the Ottoman Empire of the East.] A Turkish functionary; also, a denomination for a native Turk.

Os'mazome, *n.* [Gr. *osme*, smell, and *zomos*, broth.] (*Chem.*) An obsolete name given by Thenard to the extractive matter of muscular fibre, which gives the peculiar smell to broiled meat, and flavor to broth and soup. It has been proved that *O.* is a mixture of several substances.

Os'melite, *n.* (*Min.*) A silicate of lime, with soda, potash, and a small quantity of oxide of iron, found in their radiating prismatic concretions of a grayish-white color, at Niederkirchen on the Rhine. The name is derived from the peculiar argillaceous odor given out by it when breathed upon.

Os'mia, *n.* (*Zoöl.*) See APIDÆ.

Os'miate, *n.* (*Chem.*) A salt composed of osmic acid and a base.

Os'mic Acid, *n.* (*Chem.*) See OSMIUM.

Os'mious Acid, *n.* (*Chem.*) The teroxide of osmium, OsO_3.

Os'mite, *n.* (*Chem.*) A compound of osmious acid with a base.

Os'mium, *n.* [From Gr. *osmē*, odor.] (*Chem.*) One of the platinum group of metals, found in platinum residues. It differs from its congeners by its analogy with the arsenic and antimony group. There are four oxides of osmium known, of which the highest acts as an acid. Osmic acid is volatile and very poisonous, violently attacking all mucous membranes. The metal itself is said to be the heaviest substance in nature. It has been used to some considerable extent for tipping the points of gold pens, for which its unusual hardness admirably adapts it. The presence of even a minute quantity of osmium in gold greatly increases its hardness. *Equiv.* 195. *Symbol*, Os.

Osmom'eter, *n.* [Gr. *ōsmos*, impulse, and *metron*, measure.] An instrument for determining the amount of osmotic action.

Osmorrhi'za, *n.* [Gr. *osme*, perfume, *riza*, root, from its aromatic root.] (*Bot.*) A genus of plants, order *Apiaceæ*. They are perennial herbs; leaves alternately divided, with the umbels opposite; involucre few-leaved; involucels 4–7-leaved; flowers white. *O. longistylis*, the Sweet Cicely, is a leafy plant found in woods from Canada to Virginia, having a branching fleshy root of an agreeable, spicy flavor. *O. brevistylis*, the Short-styled Cicely, is another species similar in appearance, but destitute of the anise-like flavor of Sweet Cicely.

Os'mose, *n.* [Gr. *ōsmos*, from *ōthein*, to push.] (*Chem.*) A kind of molecular attraction; an uninterrupted communication is produced between two fluids of different densities, when placed on opposite sides on an animal membrane, or unglazed earthen-ware. See ENDOSMOSE, and EXOSMOSE.

Osmot'ic, *a.* Belonging, or having reference to, or partaking of, the property of osmose; as, *osmotic* force.

Os'munda, *n.* (*Bot.*) A genus of ferns, order *Polypodiaceæ*. The species *O cinnamomea*, the Cinnamon-colored Fern, is among the largest of our ferns growing in swamps and low grounds. The fertile fronds resemble spikes, 1 to 2 ft. long, and an inch wide. Leaflets all fertile, erect, with segments covered with fruit in the form of small, roundish capsules, appearing under the microscope, half to 2-cleft.

Os'naburg, or **Os'nabrück,** a walled town of Prussia, prov. of Hanover, on the Hase, a tributary of the Ems, 83 m. S.W of Hanover. The treaty of Westphalia was concluded in 1648 in its town-hall. *Manuf.* Woollen cloth, tobacco, paper, leather, and soap. It has a considerable trade, particularly in coarse linen cloths, known in the trade under the name of *Osnaburgs*. *Pop.* 16,160.

Os'naburg, in *Ohio*, a post-village and township of Stark county, abt. 125 m. N. of Columbus. Coal, iron ore, and limestone, are abundant.

Oso'lo, in *Indiana*, a township of Elkhart county.

Osor'no, in *Chili*, a river which rises in a lake of its own name, and flowing N.W., enters the Pacific Ocean abt. 34 m. S.S.W. of Valdivia. — A ruined town on the above river, abt. 45 m. S.

Osphresiology, (*os-frē-ze-ol'o-jy,*) *n.* [Gr. *osphresis*, olfaction, and *logos*, treatise.] (*Med.*) A treatise on, or description of, olfaction and odors.

Osprey, Ospray, (*os'pre.*) *n.* [A corruption of Lat. *ossifraga*, the bone-breaker.] (*Zoöl.*) The Fish-hawk, a numerous species of birds, belonging to the *Falconidæ*. Its general characters are as follows: — Beak strong, short, rounded, and broad, the cutting edge being nearly straight; nostrils of an oblong-oval form, and placed obliquely; wings long, the second and third quill-feathers the longest; legs short and muscular; tarsi short, covered with reticulated scales; toes five, nearly equal in length, with the outer toe reversible; and all covered with strong, curved, sharp claws; the under surface of the toes being covered with small pointed scales. It generally dwells near the sea-shore, on account of its living nearly exclusively on fish; and it is found in considerable abundance in N. America, particularly on Long Island, N. Y. It catches its prey by sailing at a considerable altitude above the surface of the water, and when it perceives it, suddenly darts down and bears it off in its claws with triumph. It measures about 22 in. in length. The beak is black, the eye blue, and the irides yellow; the top of the head and neck is white, shaded with brown; the whole upper surface of the body brown, with the ends of the primary feathers of the wings black; the under surface of the body white, and the tail brown. It builds its nest on high trees or rocks, or about old ruins near the sea, or by the margins of lakes and rivers; and it lays three eggs, which are about two inches long, and are blotched and spotted over with reddish spots. During the period of incubation the male watches near, and supplies the wants of the female, catching fish for her, so that she should not be obliged to leave the nest. The parent birds feed the young until they are perfectly able to fish and provide for themselves.

Os'sa, a celebrated mountain of Greece, in Thessaly, immediately N. of Mount Pelion, and bounding, with the opposite chain of Olympus, the vale of Tempe.

Os'sabaw, in *Georgia*, an island of Bryan co., at the mouth of the Ogeechee River.

Ossawat'tomie, in *Kansas*, a post-village and township of Miami co. Here John Brown resided, to whom a monument was unveiled in 1877.

Oss'eans, or **Pis'ces Os'sei.** [Lat., bony fishes.] (*Zoöl.*) A primary division of the class of fishes, including all those which have a true bony skeleton.

Os'selet, *n.* [Fr.; from Lat. *os, ossis*, bone.] (*Farriery.*) A hard excrescence found growing on the inner side of a horse's knee, among the small bones.

Os'seo, in *Michigan*, a post-village of Hillsdale co., abt. 5 m. E. of Hillsdale.

Osseo, in *Minnesota*, a post-village of Hennepin co., abt. 14 m. N.N.W. of Minneapolis.

Osseo, in *Wisconsin*, a post-village of Trempealeau co., abt. 55 m. N. of La Crosse.

Osseous, (*os'sē-us*, or colloq. *ōsh'us,*) *a.* [Lat. *osseus*, from *os, ossis.*] Bony; consisting or composed of bone; resembling or having the properties of bone; as, an *osseous* formation.

O. breccia. (*Geol.*) A breccia in which are found bones of extinct animals. See BRECCIA.

Ossian, (*os'shan,*) a mythical Gaelic hero and bard, is said to have lived in the 3d cent., and to have been the son of Fingal, a Caledonian hero, whom he accompanied in various military expeditions. His name has derived its celebrity from the publications of Macpherson, who, about 1760, gave to the world, as the *Poems of Ossian*, a remarkable series of ballads, on the deliverance of Erin from the haughty Swarm, king of Lochlin, by Fingal. They have been translated into all the European languages, and please by their delineation of the scenery of the Highlands, picturesque expressions, bold but lovely images and comparisons, and tender, melancholy tone. See MACPHERSON, and GAELIC LANGUAGE AND LITERATURE.

Os'sian, in *Indiana*, a post-village of Wells co., abt. 11 m. N. of Bluffton.

Ossian, in *Iowa*, a post-town of Winneshiek co., about 40 m. W. by N. of McGregor.

Ossian, in *New York*, a post-village and township of Livingston co. *Pop.* (1897) 1,010.

Ossicle, (*ōs'sī-kl,*) *n.* [Lat. *ossiculum*, dimin. of *os, ossis.*] A small bone.

Ossic'ulated, *a.* Small-boned.

Ossif'erous, *a.* [Fr. *ossifère*, from Lat. *os, ossis*, and *ferre*, to bear.] Containing bone; furnishing bone.

Ossif'ic, *a.* [Fr. *ossifique.*] Possessing power to ossify, or change fleshy and membranous substances into bone.

Ossifica'tion, *n.* [From Lat. *os*, bone, and *facio*, to make.] (*Physiol.*) The formation of bone. — In the growth of the skeleton of man and the higher animals, this process goes on naturally, and it occurs in the reproduction of new bones after the destruction or loss of old ones. *O.* also occurs as an unnatural or morbid process, and is observed in several tissues of the body. It occurs most frequently in the cartilages of the ribs, where the process is almost constantly going on in advancing years. Bone begins to form in the cartilages of the ribs after the fiftieth year; but in some cases it commences between the ages of thirty and forty. The cartilages of the windpipe are next to those of the ribs in their liability to become osseous. *O.* of the movable joints never occurs. The disease called *ossification of the heart* is not an affection of the proper substance of that organ, but of its valves, in which earthy matter is sometimes deposited; thus rendering them stiff and unyielding. This substance is composed of carbonate and phosphate of lime, as bone is; but its particles have no definite arrangement.

Os'sifrage, *n.* [Lat. *ossifraga — os, ossis*, a bone, and *frango, fractus*, to break.] (*Zoöl.*) An obsolete name of the young of the Sea-eagle or Bald-eagle, *Haliætus pelagicus*.

Ossif'ragous, *a.* Bone-breaking; serving to fracture bones.

Os'sify, *v. a.* [Lat. *os*, and *facio*, to make.] To convert into bone; to change from a soft animal substance into bone, or into a substance of a hardness resembling bone. — *v. n.* To become bone; to be converted from soft matter into a condition of bony hardness or ossification.

Os'sining, in *New York*, a township of Westchester co.

Os'sin River, in *Wisconsin*, enters Rock River in Dodge co.

Ossipee, in *New Hampshire*, a lake of Carroll co., abt. 8 m. N.E. of Winnipiseogee Lake; *area*, abt. 25 sq. m. — A river which rises in Ossipee Lake, and flowing E. into Maine, enters the Saco River from York co. — A mountain on the line between Carroll and Grafton cos., abt. 18 m. W. of Ossipee Lake. — A post-village and township, cap. of Carroll co., abt. 45 m. N.N.E. of Concord.

Ossiv'arous, *a.* [Fr. *ossivore*; Lat. *os, ossis*, and *vorare*, to devour.] Feeding on bones; as, *ossivarous* animals.

Ossuary, (*ōs'shu-a-rў,*) *n.* [Fr. *ossuaire*; Lat. *ossuarium*, from *os.*] A charnel-house; a repository for the bones of the dead.

Ostashkov', or **Ostaschkow',** a town of European Russia, govt. of Tver, on Lake Salig, 104 m. W.N.W. of Tver. *Manuf.* Leather and soap; and has salt and spirit magazines, and ship-building docks. *Pop.* 9,000.

Ostend', a fortified sea-port town of Belgium, prov. of W. Flanders, on the North Sea, 14 m. N.W. of Bruges, and 27 m. E.N.E. of Dunkirk. The harbor is large and commodious, but large ships can only enter at high water. *Manuf.* Rope, sail-cloth, and refined sugar, and salt. The cod and herring fisheries are carried on to a considerable extent. It is celebrated for the long and obstinate siege it sustained against the Spaniards from 1601 to 1604, when it finally capitulated after a loss of 50,000 men to the garrison, and 80,000 to the besiegers. *Pop.* (1897) 26,550.

Os'tend, in *Ohio*, a village of Washington co., about 16 m. E. by N. of Marietta.

Os'tend, in *Pennsylvania*, a village of Clearfield co., about 22 m. N.N.W. of Altoona.

Ostensibil'ity, *n.* State or quality of being ostensible.

Osten'sible, *a.* [Fr.; from Lat. *ostendo, ostensus — ob*, and *tendo*.] That may be shown; proper or necessary to be shown. (R.) — Plausible: colorable; appearing; seeming; shown, declared, or avowed; as, an *ostensible* motive, an *ostensible* excuse.

Osten'sibly, *adv.* In appearance; in a manner that is declared or pretended; as, he acted *ostensibly* for the benefit of others.

Osten'sive, *a.* [Sp. *ostensivo.*] Exhibiting; showing; presenting.

Osten'sively, *adv.* In an ostensive manner; by way of public exposition.

Os'tent, *n.* [From Lat. *ostendere*, to show.] Manner; mien; air; demeanor; as, "a sad *ostent.*" (*Shaks.*) — Show; token; manifestation; exemplar; as, "fair *ostents* of love." (*Shaks.*) — A portent; an omen; anything ominous.

Ostenta'tion, *n.* [Fr., from Lat. *ostentatio.*] Outward show or appearance; ambitious or vainglorious display; pompous parade; vulgar or pretentious pageantry; — usually in an invidious and deprecative sense; as, the *ostentation* of a parvenu, or vulgar person made suddenly rich.

Ostentations, (*-tā'shus,*) *a.* Given to ostentation; fond of display from motives of vulgar vanity; boastful; fond of parading one's endowments or belongings to another in an advantageous or pompous light; as, an *ostentatious* man. — Exhibiting ostentation or vainglorious parade; intended for empty or pompous display; pretentious; showy; gaudy; as, an *ostentatious* manner or mode of living.

Ostenta'tiously, *adv.* With vain and pretentious display; boastfully; in an ostentatious manner.

Ostenta'tiousness, *n.* State, quality, or condition of being ostentatious; pomposness; pretentious or vainglorious display; boastfulness.

Osteocol'la, *n* [Gr. *osteon*, bone, and *colla*, glue.] (*Min.*) A cellular calc tufa, formed of incrustations of carbonate of lime around the stalks and leaves of reeds and other marsh-plants, — derives its name from a supposed power favoring the formation of callus in fractures of bone.

Osteog'eny, *n.* [Gr. *osteon*, and *genein*, to produce.] Formation or development of bone.

Osteog'raphy, *n.* [Gr. *osteon*, and *graphein*, to describe.] Same as OSTEOLOGY, *q. v.*

Os'teolite, *n.* [Gr. *osteon*, bone, and *lithos*, stone.] (*Pal.*) A petrified or fossil bone.

Osteolog'ic, Osteolog'ical, *a.* [Fr. *osteologique.*] Belonging, or having reference to a description of the bones.

Osteolog'ically, *adv.* After the manner of osteology.

Osteol'ogist, Osteol'oger, *n.* One learned in osteology.

Osteology, (*os-te-ōl'o-jy,*) *n.* [Fr. *osteologie*; Gr. *osteon*, a bone, and *logos*, treatise.] A discourse or treatise on the bones; that branch of anatomy which describes the bones and their uses.—See ANATOMY, and BONE.

Osteopath', *s.* The same as osteopathist (q. v.)

Osteopath'ic, *a.* Of or belonging to osteopathy.

Osteopath'ically, *adv.* In an osteopathic manner.

Osteop'athist, *n.* One who believes in or practices osteopathy.

Osteop'athy.—[*osteon*, a bone, *pathos*, suffering]. A theory and practice of healing without the use of drugs, discovered in 1874 by Andrew Taylor Still, M.D., then of Baldwin, Kansas, and afterward practiced and taught by him at Kirksville, Mo., where he founded a school in 1892. The basic principle of the system depends upon *skeletal adjustment* (hence the name) by a scientific manipulation in order to bring about organic and glandular activity, an unimpeded flow of blood and lymph, and a normal vibration of nerve energy throughout the body. There are now about four thousand practitioners in the United States and foreign countries. The science has received legislative recognition and protection in twenty-three states, and there are ten established colleges where it is taught through a three-years' course of study, to a student body only second in numbers to any other school of therapeutics.

Osteoplas'ty, *n.* [Gr. *osteon*, and *plassein*, to form.] (*Surg.*) An operation by which the total or partial loss of a bone is remedied.

Osteopteryg'ions, *a.* [Gr. *osteon*, and *pteryx*, fin.] With bones in the fins; acanthopterygious.

Osteot'omy, *n.* [Gr. *osteon*, and *tomē*, a cutting.] (*Anat.*) That branch of practical anatomical science which has reference to the dissection of bones.

Os'terode, a town of Prussia, prov. of Hanover, on the Söse, a tributary of the Leine, 49 m. S.S.E. of Hanover. *Manuf.* Woollen and cotton goods, table linen, &c. *Pop.* 6,000.

Os'tia, an anc. city of Italy, now a village, at the mouth of the Tiber, 16 m. W.S.W. of Rome. It was formerly an important fort and naval station of Rome, but is now 3 m. distant from the sea.

Os'tiary, *n.* Same as ÆSTUARY, *q. v.*

Os'tic, *a.* [From Algic *oshtegwon*, a head.] Belonging, having reference to, or designating the language of the Tuscaroras, Iroquois, Wyandots, Winnebagoes, and a part of the Sioux Indians.

Ost'ler, *n.* Another spelling of HOSTLER, *q. v.*

Ost'lery, *n.* Same as HOSTELRY, *q. v.*

Ost'men, *n. pl.* [From Dan. *öst*, *östen*, the East.] Eastmen; — a name anciently given to the Danish settlers in Ireland.

Ostracean, (*-trā'shan,*) *n.* [From Gr. *ostreion*, oyster.] (*Zoöl.*) One of the *Ostreidæ*, or Oyster family.

Os'traeism, (*-sizm,*) *n.* [Fr. *ostracisme;* Gr. *ostrakismos*, from *ostrakon*, a shell.] (*Greek Hist.*) A judgment of the Athenian people, by which they were in the habit of condemning to ten years' exile citizens whose wealth and power seemed to them to have reached an extent dangerous to the common liberty. When it appeared necessary to have recourse to this expedient, a space in the Forum was inclosed by wooden balustrades, having as many doors (10) as there were tribes in the republic; and when the appointed time had come, the citizens of each tribe entered by their own door, and threw into the midst of the open space a shell, or piece of baked clay in the form of one, on which was written the name of the citizen whom it was proposed to banish. The archons and senate presided over the assembly, and counted the votes, and if as many as six thousand were in favor of the banishment of the accused, he had to leave the city within the space of ten days. No disgrace, however, was considered to attach to banishment by *O.*, which was never inflicted as a punishment for crime. — Hence, expulsion; banishment; exile from society.

Os'tracize, (*-sīz,*) *v. a.* [Gr. *ostrakizō.*] To banish by means of ostracism; — hence, to expel; to exile; to taboo; to put under the ban of society.

Os'tranite, *n.* (*Min.*) A grayish or clove-brown zircon, found in Norway.

Ostreaceous, (*-ā'shus,*) *a.* [From Lat. *ostrea*, oyster.] Pertaining, or having reference to an oyster, or to a shell; shelly.

Os'trich, *n.* [Fr. *autruche.*] (*Zoöl.*) The largest of known birds, type of the order of *Cursores*, and more especially of the family *Struthionidæ*, termed by the Persians, Arabs, and by the Greeks, the "Camel-bird," distinguished not only for its great size, but for the beauty and value of its plumage, presents the following characteristics: The true, or African *O.*, *Struthio camelus* (Fig. 335), is from 7 to 9 feet high from the top of its head to the ground; the head, which is small, and the neck, which is long, are destitute of feathers, being clothed only with a few scattered hairs; the bill is straight and depressed. The feathers of the body are blackish; those on the wings and tail white, sometimes marked with black. The thighs are as bare as the head and neck, and the legs hard and scaly. The most distinguishing features of the *O.* are the shortness of its wings, which are furnished with spurs, and the peculiar arrangement of their feathers, which utterly unfit the bird for flight. The bird appears to have been known from the earliest times; it was forbidden in the Old Testament as an article of food, and was much prized by the gourmands of the Roman empire. The African *O.* frequents the burning sands of that continent in large flocks. The female lays from 10 to 12 eggs, several times a year, in a hole in the sand, and broods over them only in the night, leaving them to be acted on by the sun during the hottest part of the day. As fashion has set a high value on certain feathers in the back or tail of the *O.*, it is frequently hunted, but is caught with difficulty, as by the aid of his wings he is able to run far more swiftly than the fleetest horse. The Arabs and Moors have two methods by which they are enabled to come up with them. In the one case, one of the hunting party pursues the bird, which always runs in a circuitous direction, as long as possible, and then the chase is taken up by another on a fresh horse, and so on, until the bird is worn down. The other method is, for a hunter to cover himself with an *O.*-skin, and thus be enabled to approach the flock sufficiently near to surprise it. The *O.*, in a tame state, and probably also when wild, is apt to swallow with the greatest voracity such indigestible substances as iron, nails, stones, and bits of rag or leather; and is even, in one instance, said to have swallowed leaden bullets hot from the mould without any apparent inconvenience.—The American *O.*, or Nandon, *Rhea Americana*, chiefly found on great plains in the Argentine republic, is much smaller than the preceding, and particularly distinguished by having 3 toes, all armed with nails. Its plumage, which is of a uniform gray, is almost valueless.

Ostriferous, *a.* Consisting of, or producing oysters.

Ostrog', a town of Russian Poland, govt. of Volhynia, on the Gorin, 100 m. W. of Zhitomeer; *pop.* 6,500.

Os'trogoths, *n. pl.* (*Hist.*) The name given to the eastern Goths, as distinguished from the Visigoths, or western Goths. The *O.* inhabited the countries on the Black Sea up to the Danube. See GOTHS.

Os'trya, *n.* [Gr. *ostreon*, a scale; in allusion to the conspicuous sacs (not scales) of the fertile aments.] (*Bot.*) A genus of plants, order *Corylaceæ*. They are small trees, found throughout the U. States. *O. Virginica*, the Hop-hornbeam, Iron-wood, or Lever-wood, is 25 or 30 ft. high. Its bark is remarkable for its fine, narrow longitudinal divisions. Leaves about twice as long as wide. The fruit is similar in appearance to hops, suspended from the ends of the branches, consisting of membraneous, imbricated sacs, containing each a flower. The wood is very white, hard and strong, and much used for levers, &c.

Fig. 2012.
HOP-HORNBEAM.
(*Ostrya Virginica.*)

Ostu'ni, a town of S. Italy, prov. of Terra di Otranto, 24 m. W.N.W. of Brindisi; *pop.* 6,000.

Oswaldwhistle, (*os'wald-wis'el,*) a town of England, co. of Lancaster, 4 m. from Blackburn. *Manuf.* Cotton spinning. *Pop.* 8,000.

Oswa'yo, in *Pennsylvania*, a post-township of Potter co., on Oswayo Creek.

Oswa'yo Creek, rises in McKean co., in Pennsylvania, and flowing N. into New York, enters the Alleghany River in Chattaraugus co.

Oswe'go, in *Illinois*, a post-village and township, former cap. of Kendall co., about 45 m. W.S.W. of Chicago. *Manuf.* Brooms, carriages, and windmills.

Oswe'go, in *Indiana*, a post-village of Kosciusko co., about 113 m. N. of Indianapolis.

Oswe'go, in *New York*, a river rising in the N.W. part of the State. It pursues a general E. course of about 24 m., and enters Lake Ontario from Oswego co.

—A N.W. co., bordering on Lake Ontario; *area*, about 962 sq. m. It is washed by Oneida, Oswego, and Salmon rivers, and contains Oneida Lake. *Surface*, undulating, or nearly level; *soil*, generally fertile. *Min.* Iron, sandstone and salt. *Pop.* (1890) 71,883.

—A city, port of entry, and cap. of the above co., on the Oswego River, at its entrance into Lake Ontario, about 170 m. W.N.W. of Albany; Lat. 43° 28′ N., Lon. 76° 35′ W. Oswego is finely situated, and commands an extensive trade. The city is regularly laid out, with wide, handsome streets crossing each other at right angles, and contains many fine public and private edifices. The Oswego River has a fall of 34 feet within the city limits, affording an immense hydraulic power for manufacturing purposes, which branch of industry has increased greatly of late years, and with its commerce constitutes *O.* one of the most important cities on our N. frontier. *O.* was established by the French as a trading-post soon after the settlement of Quebec. It was taken by the English in 1724, retaken by the French under Montcalm, and finally surrendered to the English again, who kept possession of it until the War of Independence. It is defended by Fort Ontario. *Pop.* (1897) 22,300.

Oswe'go Tea, *n.* (*Bot.*) See MONARDA.

Os'westry, a town of England, co. of Salop, 191 m. N.W. of London; *pop.* 5,414.

Osyman'dias, an Egyptian king, and the first monarch who founded a library, reigned at Thebes about 2100 B. C.

Otacous'tic, *a.* [Fr. *otacoustique*, from Gr. *ous*, *ōtos*, ear, and *akoustikos*, pertaining to the sense of hearing. See ACOUSTIC.] Facilitating or promoting the sense of hearing; as, an *otacoustic* instrument.

Otacous'tic, Otacous'ticon, *n.* An acoustic instrument, as an ear-trumpet.

Otaheite, (*o'ta-he'te.*) See TAHITI.

Otal'gia, Otal'gy, *n.* [Gr., from *ous*, *ōtos*, ear, and *algos*, pain.] (*Med.*) Ear-ache.

Otal'gic, (*-jik,*) *n.* (*Med.*) A remedy for the ear-ache.

Ota'ria, *n.* [From Gr. *ous*, *ōtos*, ear.] (*Zoöl.*) The Otary, a genus of seals having external ears.

Ote'go, in *New York*, a creek flowing into the Susquehanna River from Otsego co.

—A post-village and township of Otsego co., about 25 m. S.S.W. of Cooperstown.

Other, (*ŭth'ẽr,*) *pron.* and *a.* [A.S.; Goth. *anthar*; Lat. *alter;* Sansk. *antara*, other.] Not the same; different; noting something besides; additional; not identical; second of two.

"A distaff in her *other* hand she had." — *Spenser.*

—Not this, or these; not this, but the contrary; opposite; as, the *other* side of a question, the *other* side of the continent.

(NOTE. *Other* forms a correlative adjective or adjective pronoun, and is generally employed in contrast with *this*, *some*, *one*, &c.; or elliptically, with a noun expressed or implied. It is also often expressed with the indefinite article as one word, *another*; is again used with *each*, denoting an action or relation of reciprocal meaning; and occasionally applied in an elliptic sense for *other person* or *other thing*, in which case it may take plural action. It is, also, frequently used for *otherwise.*)

The other day, not long ago; at a certain time past, not distant, but indefinite; as, I saw him *the other day.*

Oth'ergnise, *adv.* Of another kind or way; in another manner; — frequently, in modern parlance, corrupted to *otherguess.*

Oth'erness, *n.* State, quality, or condition of being other, different, or the contrary; separateness; alterity.

Oth'erwise, *adv.* [*Other*, and *wise*, way, manner.] In a different or contrary way or manner; by other causes; in other respects.

"Men seldom consider God *otherwise* than in relation to themselves." — *Rogers.*

Oth'man, or OSMAN, founder of the Ottoman empire, was one of the emirs who, on the destruction of the empire of the Seljukides, became independent chiefs. Joined by other emirs, he invaded the Eastern empire in 1299, and made himself master of Nicæa, Iconium, and other towns. He took no other title than Emir, but ruled with absolute power, not without justice and moderation. D. at a great age, 1326. — A *second*, of the same name, was the 16th Ottoman sultan, reigned 1618–1622, and was strangled. — A *third*, who was the 25th sultan, reigned 1754–1774.

Oth'man, IBN-AFFAN, son-in-law of Mohammed, succeeded to Omar as 3d caliph, 644. He was murdered by Mohammed, son of Abu-bekr, 656.

Oth'niel, (*Script.*) Son of Kenaz, and first judge of the Israelites, delivered them from the tyranny of the king of Mesopotamia, and ruled them in peace 40 years. (*Judg.* i. 13; iii. 9, 10.)

O'tho, MARCIUS SALVIUS, a Roman emperor, was B. at Rome, A. D. 32. After Nero's death, he attached himself to Galba, but that emperor having adopted Piso as his heir, *O.* excited an insurrection, murdered Galba and Piso, and ascended the throne in 69. He was opposed by Vitellius, who was supported by the German army, and, in a battle between the two rivals near Bedriacum, *O.* was defeated, upon which he slew himself, after reigning three months.

O'tho I., emperor of Germany, called the *Great*, B. 923, was the eldest son of Henry the Fowler, and crowned king of Germany in 936, at the age of 14. He carried on war with the Huns, and drove them from the West; made Bohemia his tributary; deprived the duke of Bavaria of his estates, and then had to encounter the resistance of the great chieftains of the empire, aided by the king of France. He afterwards aided the same king against his revolted vassal, Hugh the Great, defeated the Danes, and again invaded Bohemia. He was then engaged for ten years in war with the Hungarians, and finally defeated them at Leck. Berenger having usurped the title of emperor of Italy, *O.* entered Rome, where he was crowned emperor by John XII. That pontiff afterwards leagued with Berenger, on which *O.* caused him to be deposed, and put Leo VIII. in his place, in 963. On the emperor's return to Germany, the Romans revolted and imprisoned Leo; for which *O.* again visited Rome, which he besieged, and restored Leo. He next turned his arms against Nicephorus, emperor of the East, whose army he defeated. John Zimisces, the successor of Nicephorus, made peace with *O.*, who D. in 973.

OTHO II., surnamed the *Bloody*, B. 951, succeeded Otho I., his father, 973. His mother, Adelaide, opposed his accession, her party proclaiming Henry, the duke of Bavaria, emperor. *O.* expelled his mother from the court, defeated Henry, repulsed the Danes and Bohemians, and afterwards marched into Italy to expel the Saracens, but fell ill at Rome, where he D. 983.

OTHO III., B. 980, succeeded Otho II., his father, 983. The empire was administered during his minority by his grandmother Adelaide, conjointly with the archbishop of Cologne. At the age of 16 he assumed the reins of government, and went to Italy, which was in a state of confusion, owing to the opposition of different popes. Otho having reëstablished order, returned into Germany, and made Boleslas king of Poland. He was obliged again to pass into Italy to quell a revolt, but died soon afterwards. D. 1002.

OTHO IV., called the *Superb*, was the son of Henry, duke of Saxony, and chosen emperor in 1208. He was excommunicated by the Pope for seizing the lands which the Countess Matilda bequeathed to the Holy See. In 1212 the princes of the empire elected Frederic king of Sicily, in the room of Otho, who, after struggling against his rival until 1215, resigned his crown to him, and retired to Brunswick. D. 1240.

O'tho, KING OF GREECE, 2d son of Louis I., king of Bavaria, was B. at Salzburg, 1815. At 17 years of age he was invited by the Greeks to become their monarch, and this proposition being acceded to by the govts. of Great Britain, France, and Russia, in a treaty concluded in London in May, 1832, *O.* was accordingly declared king of Greece in Jan., 1833, and, in June, 1835, on his attaining the age of 20, he assumed the reins of government. *O.*, however, soon became unpopular with his subjects, owing to his selection of Bavarians as his cabinet advisers, and, also, to the strong pro-German sympathies he continually manifested. After a stormy and inglorious reign of 30 years, *O.* abdicated the throne, Oct. 20, 1862, and fled the country, the latter being then in a state of insurrection against the royal authority. D. in Bavaria, 1867.

Otho, in *Iowa*, a post-village and township of Webster co., abt. 8 m. S.S.E. of Fort Dodge.

Oth'rys, (Mount,) a mountain-chain forming the N. frontier of Greece, Lat. 39° N., Lon between 21° and 23° E., and connected E. with the Pindus chain. Height varying between 4,000 and 6,000 feet.

Otiose, (*ō'shi-os,*) *a.* [Lat. *otiosus*, from *otium*, leisure.] Idle; unemployed; being at rest, ease, or leisure.

O'tis, JAMES, an American lawyer and publicist, B. 1724. After graduating at Harvard College he commenced the practice of law at Plymouth, Mass., in 1748, whence he shortly after removed to Boston, where he got into lucrative business. In 1760 *O.* was engaged in the famous case of the "writs of assistance," and successfully de-

fended the merchants against the British govt. His powerful speech was circulated far and wide, and in the language of John Adams, "American independence was then and there born." The next year he was elected to the legislature, and, on June 6, 1765, he introduced a motion advising the calling of a congress of delegates from the several colonies. The motion was adopted, and in Oct. of that year, the Stamp Act Congress met in New York, of which body *O.* was an active member. In 1770 he retired to the country for his health, and was deranged nearly all the rest of his life. In 1783, while standing at the door of his house, he was killed by a stroke of lightning.

O'tis, *n.* (*Zoöl.*) The Bustards, a genus of large Cursores birds, peculiar to the dry, grassy plains of Europe, Asia, and Africa, and belonging to the *Struthionidæ* or Ostrich family. Bustards are birds of hulky form, with long necks and long naked legs; the toes, three in number, all directed forward, short, united at the base and edged with membrane; the wings rather rounded; the hill of moderate length, straight, or nearly so. The Great *B.* (*Otis tarda*) is the largest of European birds, the male sometimes weighing nearly 30 lbs. The anatomy of the male exhibits a remarkable peculiarity in a large bag or pouch, capable of holding several pints, the entrance to which is between the under-side of the tongue and the lower mandible. The use of this bag is unknown; but it has been conjectured to be for conveying water to the females and young, in wide arid plains. The Great *B.* feeds indiscriminately on animal and vegetable food. Its flesh is highly esteemed for its flavor. It is polygamous. No difficulty is found in taming it, but all attempts to reduce it to a state of true domestication have hitherto failed, from its not breeding in the poultry-yard.

O'tis, in *Maine*, a post-township of Hancock co., 18 m. S.E. of Bangor.

Otis, in *Massachusetts*, a post-township of Berkshire co. 22 m. S.S.E. of Pittfield.

Otis, in *Minnesota*, a township of Yellow Medicine co.—A post-township of Waseca co.

Otis'co, in *Michigan*, a post-township of Ionia co. Traversed by Flat river.

Otisco, in *Minnesota*, a post-township of Waseca co., about 30 m. S. by W. of Faribault.

Otisco, in *New York*, a small lake of Onondaga co., abt. 4 m. E. of Skaneateles Lake.—A post-township of Onondaga co.

O'tisfield, in *Maine*, a post-township of Cumberland co.

O'tisville, in *New York*, a post-village of Orange co., abt. 85 m. N.W. of New York city.

Oti'tis, *n.* [Gr. *ous, ōtos*, ear.] (*Med.*) Inflammation of any part of the organ of hearing.

O'tium, *n.; pl.* OTIA. [Lat.] Rest; leisure; as, '*otium* cum dignitate,' (ease with dignity.)

Ot'ley, a town of England, co. of York, on the Wharfe, 9½ m. N.W. of Leeds. In the vicinity are cotton, worsted, and woollen mills; also, tanning and malting works. *Pop.* 5,000.

Otoc'onite, *n.* [Gr. *ous, ōtos*, ear, and *konis*, dust.] (*Med.*) A calcareous deposit found in the sacs of the vestibule of the ear.

Oto-, Ot-. An initial compounding element, derived from the Gr. *ous* (gen. *ōtos*), the ear.

O'toe, in *Nebraska*, an E.S.E. co., adjoining Iowa; *area*, about 609 sq. m. *Rivers.* Missouri and Little Nemaha rivers. *Surface*, undulating; *soil*, very fertile. *Min.* Limestone, and salt in abundance. *Products.* Wheat, corn, live stock, &c. *Cap.* Nebraska City. *Pop.* (1890) 25,403.

Otog'raphy, *n.* [Gr. *ous, ōtos*, ear, and *graphein*, to describe.] That branch of anatomical science which describes the ear.

O'tolite, *n.* [Gr. *ous, ōtos*, the ear, and *lithos*, stone.] (*Zoöl.*) A calcareous concretion found in the labyrinth, or internal ear, of fishes, and fish-like amphibia.

Otol'ogy, *n.* [Gr. *ous, ōtos*, ear, and *logos*, discourse.] A treatise on the ear; that branch of anatomy which has reference to the ear.

Otop'athy, *n.* [Gr. *ous, ōtos*, ear, and *pathos*, suffering.] (*Med.*) A diseased condition of the ear.

Otoque, (*o-to'ka,*) an island of the U. S. of Colombia, in the Bay of Panama; Lat. 8° 30′ N., Lon. 80° 20′ W.

Otot'omy, *n.* [Gr. *ous, ōtos*, ear, and *tomē*, an incision.] (*Anat.*) Dissection of the ear; that branch of anatomical science having relation to the dissection of the aural organs.

Otran'to, (DUKE OF.) See FOUCHÉ.

Otran'to, a seaport-town of S. Italy, prov. of Terra di Otranto, on the Strait of Otranto, 24 m. S.E. of Lecce. Under Napoleon I. it gave the title of *duke* to Fouché. *Pop.* 4,500.

Otranto, in *Iowa*, a post-twp. of Mitchell co.

Otranto, (Cape,) on the STRAIT OF OTRANTO, a channel connecting the Adriatic with the Mediterranean Sea; Lat. 40° 8′ N., Lon. 18° 29′ E. Length of strait, 80 m.; width, 44 m.

Otranto, (Terra di,) a prov. in the S.E. extremity of Italy, having E. the Adriatic, and W. the Gulf of Taranto, forming the "heel of the Italian boot"; *area*, 2,883 sq. m. *Cap.* Lecce. *Pop.* 447,982.

Otsda'wa, in *New York*, a post-village of Otsego co.

Otse'go, in *Illinois*, a village of Lake co., about 42 m. N.N.W. of Chicago.

Otsego, in *Indiana*, a township of Steuben co.

Otsego, in *Iowa*, a village of Fayette co.

Otsego, in *Michigan*, a post-village and township of Allegan co., about 14 m. N.N.W. of Kalamazoo. Traversed by the Kalamazoo river. *Manuf.* Flour and saw mills, furniture, &c. *Pop.* (1897) 1,950.

Otse'go, in *Minnesota*, a post-town of Wright co., about 28 m. S.W. of St. Anthony. *Pop.* (1897) 1,010.

Otsego, in *New York*, a lake of Otsego co., about 60 m. W. of Albany. It covers an area of about 15 sq. m., and forms the source of the Susquehanna river.

—An E. central co.; *area*, about 956 sq. m. *Rivers.* Unadilla and Susquehanna (E. Branch) rivers, and Butternut, Otsego, and Shenevas creeks, besides Canaderaga and Otsego lakes. *Surface*, hilly and broken; *soil*, in some parts fertile. *Min.* Iron, sandstone, limestone, and marble. *Cap.* Cooperstown. *Pop.* (1897) 52,330.

—A township of the above co.

Otsego, in *Ohio*, a post-village of Muskingum co., abt. 73 m. E. of Columbus.—A village of Wood co., abt. 20 m. S.S.W. of Toledo.

Otsego, in *Wisconsin*, a post-village and township of Columbia co., abt. 15 m. S.E. of Portage.

Otse'lic, in *New York*, a river rising in Madison co., and flowing S.W. into the Tioughniogo River from Broome co.

—A post-township of Chenango co.

Ot'tar, Ot'to, *n.* See ATTAR OF ROSES.

Ot'tawa, or GRAND RIVER, an important river of British N. America. Rising abt. Lat. 48° 30′ N., Lon. 80° W., it flows a general S.E. course between Upper and Lower Canada to Lake of the Two Mountains (an expansion of the Ottawa River), a distance of abt. 800 m. During this course it receives many large rivers, as Rouge River, Riviere du Lièvre, Gatineau, Madawaska, Bonne Cher, Petewahweh, and Manwagemon. It also traverses or expands into considerable lakes, as Grand and Temiscaming lakes. Owing to numerous rapids and cataracts, some of which are 12 m. in length, navigation is much impeded. Rafting, however, is extensively carried on.

Ottawa, a S. W. co. of prov. of Quebec; *area*, abt. 31,500 sq. m. *Rivers.* Ottawa, Gatineau, Petit, Nation, and Lièvre. *Cap.* Hull.—A city, cap. of the Dominion of Canada, and seat of justice of Carleton co., on the Ottawa river, about 110 m. N.N.E. of Kingston. The scenery about *O.* is picturesquely grand, the streets are wide, and the govt. buildings handsome. It was founded in 1827, and called Bytown; incorporated as a city in 1854, and soon after selected as the seat of govt. of Canada. *O.* has extensive trade, especially in lumber, flour, and iron; has several fine schools and seminaries. *Pop.* (1897) 46,210.—In *Illinois*, a city, cap. of La Salle co., on Fox river, about 84 m. W.S.W. of Chicago. It has an active trade, chiefly in bread stuffs, and numerous manufactories. Rich deposits of coal exist in the vicinity.

Ottawa, in *Iowa*, a village of Clarke co.

Ottawa, in *Kansas*, a N. cent. co.; *area*, about 720 sq. m. *Rivers.* Solomon Fork of Kansas river, and many less important streams. *Surface*, undulating; *soil*, fertile. *Cap.* Minneapolis. *Pop.* (1895) 10,424.

—A city, the cap. of Franklin co., about 25 m. S. of Lawrence. *Pop.* (1897) 7,310.

Ottawa, in *Michigan*, a W. co. of the lower peninsula, bordering on Lake Michigan; *area*, about 800 sq. m. *Rivers.* Grand river, and Crockery creek. *Surface*, undulating; *soil*, very fertile. *Cap.* Grand Haven. *Pop.* (1894) 39,075.

Ottawa, in *Minnesota*, a post-village and township of Le Sueur co., about 6 m. S. of Le Sueur.

Ottawa, in *Ohio*, a small river flowing into Maumee Bay of Lake Erie from Lucas co.—A N. by W. co. bordering on Lake Erie; *area*, about 311 sq. m. *Rivers.* Portage and Sandusky rivers, and Toussaint creek. *Surface*, nearly level; *soil*, fertile. *Cap.* Port Clinton. *Pop.* (1890) 21,974.

—A post-village, cap. of Putnam co.

Ottawa, in *Wisconsin*, a post-village and township of Waukesha co., abt. 30 m. W. by S. of Milwaukee.

Ottawa Centre, in *Michigan*, a village of Ottawa co., abt. 22 m. W.N.W. of Grand Rapids.

Ot'ter, *n.* [A. S., D., and Ger.; Icel. *otr;* Fr. *lontre;* Lat. *lutra*; Sansk. *udra.*] (*Zoöl.*) A genus of carnivorous animals, *Lutra*, family *Mustelidæ*. In many particulars they resemble weasels, martins, and polecats; but in other respects they differ from them. They have long

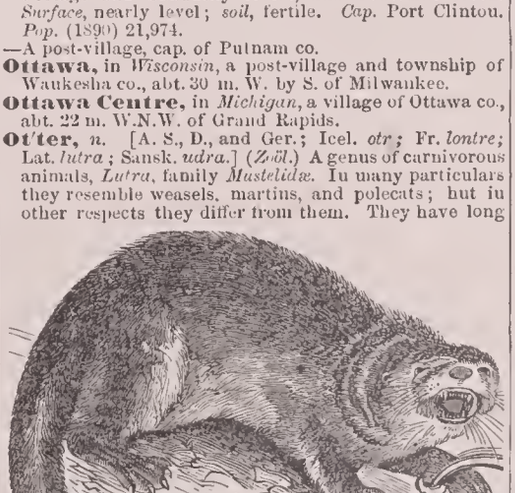


Fig. 2013.—AMERICAN OTTER, (*Lutra Canadensis.*)
(Copied from Tenney's *Manual of Zoölogy.*)

flexible bodies, low on the legs; their heads are compressed, and their tongues a little rough; but they differ chiefly from the animals just alluded to, by having their feet webbed and adapted to swimming, and their tails flattened horizontally. They are excellent swimmers, and feed almost entirely upon fish, which they frequently destroy wantonly, when they do not need it for food. The otter is found in many countries widely distant from each other, and they differ in some particulars, according to the climate which they inhabit; the otters of India, for instance, having the hair very rough, while, in Kamtschatka, the covering of the otter is very soft and fine. But the coverings of *O.* of all countries have more resemblance to each other than those of land animals, being all grayish-brown, more or less dark on the upper part of the body, and generally white or whitish under the throat. The fur of all of them has the property of the feathers of diving-birds, in not becoming wetted; and *O.* of all species reside in burrows, forming the entrance of their holes under water, and working upwards, making a small orifice for the admission of air in the midst of some neighboring bush. The period of gestation is about nine weeks, and the litter consists of four or five. They make their appearance about April, and the mother drives them from the nest to shift for themselves about May.—The European, or common *O.*, is about 2 feet in length to the insertion of the tail, which is 16 inches long; it is brown above, and whitish around the lips, on the cheeks, and beneath. The American *O.*, which is found in the rivers of North America as well as those of the South, is rather larger than the European *O.*, and is distinguished by having merely a margin of naked skin around the nostrils, instead of the distinct naked muzzle of the latter. It is also more social than most of the *O.*, small troops of this species inhabiting the same places of the rivers, and several females taking up their abode and producing their young in the same nest.—The Sea-Otter (*Enhydra marina*), which is found on the north-western coasts of North America and the shores of Kamtschatka, and is much larger than the other *O.*, is about 3½ feet long in the body; the tail, however, is shorter in proportion, and not exceeding 15 inches. The general color is a beautiful maroon brown, but the head, neck, and under part of the fore-legs are brownish silver-gray. Its skin is accounted the finest of all furs both in texture and durability, and a single one often brings, in the markets of China and Japan, as much as twenty pounds. As an inhabitant of the sea, it approximates to the seal in its habits, and in some degree in its structure; the hind-legs are shorter than in the common *O.*, and brought nearer to each other; the toes are shorter, and the claws shorter by the webs extending nearly to their points; and at the same time the fore-feet are but ill-adapted for walking. It frequents sea-washed shores during the winter, living on fish, crustacea, and sea-weed, and in summer ascends the rivers and enters the fresh-water lakes; salt or fresh water being indifferent to the *O.* as an element to perform his operations. In former times, otter-hunting was a sport greatly in fashion in England, and is still occasionally practised. The *O.*, if procured young, may be tamed and taught to catch fish for its master; but the natural fierceness of the animal makes this a difficult task.

Ot'ter, in *Iowa*, a township of Warren co.

Otterburn, a township of England, co. of Northumberland, 20 m. N.N.W. of Hexham. About half a mile from the village is an obelisk marking the spot where Earl Douglas fell in the battle of Chevy Chase, in 1388.

Ot'ter Creek, in *Illinois*, a post-village and township of Jersey county, about 38 miles N.N.W. of St. Louis, Missouri.

Otter Creek, in *Indiana*, enters the Wabash River from Vigo county.—A township of Ripley county.—A township of Vigo county.

Otter Creek, in *Iowa*, a township of Jackson county.—A township of Linn county.—A township of Lucas county.—A township of Tama county.

Otter Creek, in *Vermont*, rises in Bennington co., and flowing N.N.W. abt. 80 m., enters Lake Champlain from Addison co.

Otter Peaks, or PEAKS OF OTTER, in *Virginia*, two summits between Bedford and Botetourt cos., abt. 30 m. W. by N. of Lynchburg. *Height*, 4,200 ft. (See Fig. 159.)

Otter River, in *Virginia*, rises on the E slope of the Blue Ridge, in Bedford co., and flows S.E. into the Staunton River from Campbell co.

Otter Tail, in *Minnesota*, a N.W. central co.; *area*, about 2,200 sq. m. *Rivers.* Red River of the North and Leaf river, besides many less important streams and numerous lakes, of which latter Otter Tail lake, in the center of the co., is the largest. *Surface*, diversified; *soil*, very fertile. *Prod.* Wheat, rye, oats, live stock, &c. *Cap.* Fergus Falls. *Pop.* (1895) 39,453.

Otter Village, in *Indiana*, a village of Ripley co., abt. 50 m. W. of Cincinnati, Ohio.

Ot'terville, in *Missouri*, a post-village of Cooper co., abt. 50 m. W.N.W. of Jefferson City.

Ot'tery St. Mary, a town of England, co. of Devon, on the Otter, 11½ m. N.E. of Exeter. *Manuf.* Silk, woollen cloth, serges, and ropes. *Pop.* 4,500.

Ot'to, in *Illinois*, a post-village of Fulton co., abt. 57 m. S. by E. of Knoxville.—A township of Kankakee county.

Ot'to in *Michigan*, a post-township of Oceana county.

Ot'to in *New York*, a post-township of Cattaraugus county. *Manuf.* Cheese, flour, and woollens.

Ot'to in *Pennsylvania*, a township of McKean county.

Ot'tocar II., king of Bohemia, surnamed *The Conqueror*, united the kingdoms of Bohemia, Austria, and Styria, in 1253, and protested against the election of Rudolph

of Hapsburg. Placed under the ban of the empire in 1275, he lost Austria, and perished at the battle of Marchfeld, 1278.

Ot'tokee, in *Ohio*, a post-village, former cap. of Fulton co., about 125 m. N. W. of Columbus.

Ot'toman, *a.* [Fr., from *Othman*, *Othoman*, or *Osman*, the founder of the Turkish empire.] Belonging, having reference to, or derived from the Turkish empire; as, the *Ottoman* Porte.

—*n.*; *pl.* OTTOMANS.) A Turk; a native or inhabitant of the Ottoman empire. See TURKEY.

—[Fr. *ottomane*.] Originally, a sort of thick stuffed mat used in Turkey; now specifically applied to a kind of stuffed sofa, or bergére, without a back.

Ot'trelite, *n.* (*Min.*) A hydrated silicate of alumina, and of the protoxides of iron and manganese.

Otts'ville, in *Pennsylvania*, a post-village of Bucks co., abt. 112 m. E. of Harrisburg.

Ot'tumwa, in *Iowa*, a city, cap. of Wapello co., on the Des Moines River, abt. 75 m N.W. of Keokuk. It is finely located, contains many handsome edifices, and is thriving rapidly. *Pop.* (1895) 16,761.

Ot tumwa, in *Kansas*, a post-village of Coffey co., abt. 25 m. E.S.E. of Emporia.

Otumba, (*o-toom'ba,*) a village of Mexico, abt. 35 m. N.E. of the city of Mexico.

Ot'way, THOMAS, an English dramatic writer, B. at Trotten, Sussex, 1651. His tragedy of *Venice Preserved* is his best work. D. 1685.

Ot'way, (Port,) a haven of S. America, on the W. coast of Patagonia, abt. 15 m. N.E. of Cape Tres Montes; Lat. 46° 49′ 30″ S., Lon 75° 18′ 15″ W.

Ouachi'ta City, in *Louisiana*. See WASHITA CITY.

Oubliette, (*oo̅-ble-et',*) *n.* [Fr., from *oublier*, to forget.] A dark and secret dungeon, with an opening only at the top, intended for persons condemned to perpetual imprisonment, or private death by starvation or madness; as, the *oubliettes* of the Spanish Inquisition.

Ouch, *n.* [Fr. *oche*, or *hoche*, a notch.] A bezil or socket in which a gem is set. — A carcanet of gold.

Oude, Oudh, (*owd,*) a prov. and former kingdom of British India, between Lat. 26° and 28° N. Lon. 79° and 83° E.; having N. Nepaul, E. the prov. of Bahar, S. Allahabad, and W. Delhi and Agra. *Area*, 25,300 sq. m. The surface is level, and the soil very fertile. The climate is dry, and subject to extremes of heat and cold. *Rivers.* The Ganges, Goggra, Goomtee, and Sye, are the principal. *Prod.* Wheat, barley, rice, sugar, indigo, opium, &c. *Manuf.* Cotton cloth, coarse woollen blankets, paper, glass, gun-powder, fire-arms, &c. The kingdom of *O.* came under British protection in 1765, and in 1856 was formally annexed to the British provs. in India after the deposition of the king. The annexation, made in violation of treaty engagements, caused much discontent among the population, and gave rise in a great measure to the great Indian Mutiny, a large portion of the Sepoys being natives of *O.* *Chief towns.* Lucknow (the cap.), Fyzabad, Oude, Baraitche, and Pertaubghur. *Pop.* (1897) 12,990,400.

Oude, or AYODHYA, a town of the above prov., and the former cap. of the kingdom of Oude, on the river Goggra, 74 m. E. of Lucknow; Lat. 26° 48′ N., Lon. 82° 4′ E. It is large, and greatly venerated by the Hindoos, but it is now mostly in ruins.

Oudenarde, or AUDENARDE, a town of Belgium, prov. of E. Flanders, on the Scheldt, 14 m. S.S.W. of Gheut. *Manuf.* Cotton, woollen, and linen fabrics. Here, in 1708, the French were defeated by the allies, under the Duke of Marlborough and Prince Eugene. *Pop.* 8,540.

Oudinot, CHARLES NICOLAS, (*oo-de-no',*) Duke of Reggio and Marshal of France; B. at Bar-sur-Ornain, 1767. He entered the army when nineteen years of age, and when the revolution broke out held the rank of captain. He embraced the popular cause, and rising to the rank of general, accompanied Massena into Italy as one of his staff-officers, in 1799. His fortunes from this time were linked with those of Napoleon till the capitulation of Paris, March 31, 1814, when he became a Bourbonist. In that character he headed the army that invaded Spain in 1823, and was resident at Madrid some months as governor. He succeeded Marshal Moncey as governor of the Invalides 1842, and D. 1847.

Ou'fa, Oo'fa, or **U'fa,** a river of European Russia, rising in the Ural Mountains and after a S.W. course of 400 m., joining the Belaia at Ufa.

Ou'fa, Oo'fa, or **U'fa,** a town of Asiatic Russia, cap. of the govt. of Orenburg, at the junction of the Ufa and the Belaia, 200 m N. of Orenburg, Lat. 54° 42′ N., Lon. 56° 18′ E. *Pop.* 6,000.

Ought, (*awt,*) *n.* Same as AUGHT, *q. v.*

Ought, (*awt,*) *v. imp, pp.*, or *aux.* (Originally, the *pret.* and *pp.* of OWE, and used likewise in the present tense as a verb formed upon them.) Should; is proper, fit, or necessary;—used in an impersonal sense; as, he *ought* to pay his debts.

(NOTE. *Ought* is now almost wholly used as an anxiliary verb, denoting propriety, congruity, fitness, expediency, moral incumbency, &c., in the action or condition prescribed by the governing verb.)

Oui-dire, (*we-der'.*) [Fr.] Hearsay; a rumor.

Ouis'titi, *n.* (*Zoöl.*) See JACCHUS, and MARMOSET.

Oulorrhagy, (*oo-lor'rā-jē,*) *n.* [Gr. *oulon*, the gum, and *ragē*, a bursting forth.] (*Med.*) Hemorrhage from the gums.

Ounce, (*ouns,*) *n.* [Fr. *once*; Sp. *onza*; Lat. *uncia.*] A denomination of English weight. In troy weight the ounce is the twelfth part of the pound, and weighs 480 grains. In avoirdupois weight the ounce is the sixteenth part of the pound, and equal to 437½ grains troy.

(*Zoöl.*) The *Leopardus uncia*, a medium-sized cat of the Old World, smaller than the leopard, inhabiting the mountainous regions of Asia, and distinguished by black spots on a gray ground.

Our, *possess. pron.* [A. S. *ure.* See *I.*] Pertaining, or belonging to us; as, *our* native country. (*Ours* [A. S. *ures*, which is primarily the possessive case of *our* (A. S. *ure*),] is never used as an adjective, but as a substitute for the adjective and the noun to which it belongs; as, your house is on a plain; *ours* is on a hill.) "Tom Burke of *Ours*," (*i. e.*, our regiment.) — *Lever.*

Ouranog'raphy, *n.* Same as URANOGRAPHY, *q. v.*

Our'ga, or **Ur'ga,** a city of Mongolia, cap. of the Khalkas country, on the Tula, a tributary of the Orkhon, on the grand route from Kiakhta to Pekin, 165 m. S.S.E. of Kiakhta; Lat. 48° N., Lon. 108° E. It is the seat of the Kootooktoo, or deified Lama of the Mongols. *Pop.* 6,000.

Ourol'ogy, Ouros'copy, *n.* [Gr. *ouron*, urine, *legein*, to speak, and *skopein*, to inspect.] Inspection of urine, with regard to a diagnosis of disease.

Ou'ro Pre'to, a city of Brazil, cap. of the prov. of Minas-Geraes, abt. 200 m. N.N.W. of Rio de Janeiro. It was founded in 1699, and received the name of *Villa Ricu* on account of the rich gold mines in the vicinity, which are now nearly exhausted. *Pop.* 7,000.

Ours, *possess. pron.* See OUR.

Ourself', *pron.*; *pl.* **Ourselves'.** [*Our* and *self.*] We; us; not others;—added to *we*, by way of emphasis or opposition, and used chiefly in the plural. — Myself; — used reciprocally, and added after *we* and *us*, and also, sometimes, used without either for *myself*, in the regal style only; as, "*We ourself* will follow." — *Shaks.*

Ouse, (*o̅o̅z,*) *n.* and *v.* Same as OOZE, *q. v.*

Ouse, a river of England, co. of York, formed by the junction of the Swale and Ure, and after a S.E. course of 60 m., unites with the Trent to form the æstuary of the Humber. It is navigable for large vessels 45 m., or to York. — OUSE, (GREAT,) rises near Brackley, co. of Northampton, and after a N.E. course of 160 m., two-thirds of which is navigable, enters the Wash at Lynn Regis. — OUSE, (LITTLE,) or BRANDON RIVER, falls into the Great Ouse, at the junction of the river Stoke, and the New Bedford and Wisbeach Canal.

Ouse, a river of prov. of Ontario, flowing into Lake Erie at Sherbrooke.

Ousel, Ouzel, (*o̅o̅'zl,*) *n.* [A. S. *osle.*] (*Zoöl.*) A name common to several species of birds of the Thrush family. See TURDIDÆ.

Ous'ley's Bar, in *California*, a town of Yuba co., abt. 110 m. N.N.E. of Benicia.

Oust, *n.* Same as OAST, *q. v.*

Oust, (*owst,*) *v. a.* [O. Fr. *oster*; Fr. *ôter*, to remove; Provençal *ostar*, to take away; probably from L. Lat. *haustare*, frequent. of Lat. *haurire*, *haustum*, to draw out. See EXHAUST.] To remove; to take away; to vacate; as, "wager of law *ousted*." — *Hale.*

—To eject; to dispossess; to expel; to turn ont.

"The clergy were deprived and *ousted* by Act of Parliament." *Lesley.*

Ouster, (*owst'er,*) *n.* Disseizin: dispossession; ejectment; a putting out of holding or occupancy; as, "*ouster* of the freehold." — *Blackstone.*

Out, *adv.* [A. S. *ût*, *ûte*; D. *uit*; Ger. *aus*; Sansk. *ut*, upwards.] Without; on the outside; on the exterior, or beyond the limits of any inclosed place or fixed line; — opposed to *in* or *within*; — used, specifically, in multifarious senses; as, abroad; not at home; as, he is *out* of town; — a colloquialism for *gone out.*—In a state of discovery or revelation; as, the mystery is *out*, that is, has *come out*, is disclosed. — Not in hiding, concealment, secrecy, or confinement; as, "Nature's custom holds . . . the woman will be *out*." — *Shaks.*

—In a state of exhaustion or destitution; in a condition of being extinguished or effaced; with loss or deficiency; in want, debt, or difficulty; as, my money is *out*, the light is *out*, his eyes are *out.*—Not in office or employment; as, to be *out* of work.—Abroad, or not at home; in public; as, the troops were *out* to-day. — To the end; wholly; entirely; completely; as, the day wore *out.*

"The tale is long, nor have I heard it *out*." — *Dryden.*

—Loudly; forcibly; without restraint; in an open or free manner; as, to laugh *out*, to call *out*, to throw *out.* — In an error or embarrassment; mistaken; in a wrong or faulty position or opinion.

"You are mightily *out* to take this for a token of esteem." *L'Estrange.*

—Not in the hands of the owner; as, land *out* on lease. — At a loss; in a puzzle; perplexed; bewildered.

"I have forgot my part, and I am *out*." — *Shaks.*

—Uncovered; denuded of garments; with clothes torn; wanting shelter; as, a coat *out* at elbows, pants *out* at the knees, to be shut *out.*

(NOTE. *Out* is extensively used as a prefix to compound words, all more or less having reference to the sense of issuing, extending, separating, drawing from, and the like, or of any limit of restraint or inclosure; also, implying excess, or the doing to a greater degree or in a better manner than.)

Out and out, wholly; completely; thoroughly; without check or reservation; as, he is *out and out* a good fellow. — *Out of*, from; — a phrase generally considered as a preposition, and employed to denote an infinite variety of relations: as, derivation; origin; source; as, waters spring *out of* the earth, he finds amusement *out of* trifles. — Exclusion; dismission; absence; dereliction; departure; as, *out of* place, *out of* favor, *out of* fashion. — Neglect of due attention or proper observance; as, he cannot be talked *out of* his purpose. — Extravagance; irregularity; exorbitance; unusual deviation from a customary rule, standard, or regulation; as, this is *out of* order, he goes *out of* his way to find faults. — Disorder; divergence from a normal or proper state or condition; as, the violin is *out of* tune, his digestion is *out of* tone. — Consequence; effect; result;—indicating the motive, cause, or reason; as, this was done *out of* spite, I will grant it *out of* charity. — Quotation or citation from an original; — in the same sense as *from*; as, that passage is *out of* Byron. — State of being absent, or away from, or not within; as, he is *out of* the country. — Liberation; emancipation; rescue; salvation; as, to be delivered *out of* trouble. — State of exceeding the limits of, or of being beyond; as, *out of* reach, *out of* sight, *out of* mind. — Excess; extreme measure or degree; — corresponding with *beyond*; as, she was frightened *out of* her wits. — Exhaustion; deprivation; loss; collapse; as, to be *out of* breath from running, to be *out of* funds. — *Out of frame* (vulgarly, *out of sorts*), not in natural or proper condition; unwell; deranged; disordered; irregular; as, he is *out of sorts* after too much wine. — *Out of hand*, at once: forthwith; on the moment; without delay; as, to get work done *out of hand.* — *Out of one's time*, having reached majority or maturity; past one's minority or apprenticeship; as, next week I am *out of my time.* — *Out of print*, no longer purchasable; not in the market, all previous copies having been disposed of; as, the book is *out of print.* — *Out of season*, not in season; at an unsuitable or improper time; as, oysters are *out of season* from April till September, a joke *out of season.* — *Out of temper*, in ill-temper: peevish; morose; irritated; as, a little thing puts her *out of temper.* — *Out of trim*, not in seafaring condition: dismantled; improperly stowed, fitted, or rigged, — said of a ship; hence, not having the usual power, disposition, or aptitude; as, I felt *out of trim* for work — *Out of tune*, dissonant; discordant; harsh; inharmonious, as the sound of a musical instrument; — hence, ruffled; annoyed; distempered; not having a usual equanimity of mind or manner; as, I found him *out of tune.* — *Out of twist*, or *winding*, even; not having a winding or twist; — used in application to surfaces in mechanism. — *Out of wind*, exhausted of breath; in a panting state; as, he was *out of wind* after the first round. (Colloq.) — *Out to out.* (*Carp.*) From exterior to exterior, including all dimensions; — used in reference to measurements. — *Out upon you, out upon it*, away with you; away with it, — terms of opprobrium or contempt.

Out, *n.* He who, or that which, is without;—specifically, one who is not in office; — opposed to *in*, *q. v.* — A nook or corner; an open place or space around or outside of; — principally applied in the phrase *ins* and *outs.* See IN.

(*Printing.*) An omission made in setting up copy.

To make an out. (*Print.*) To omit something in setting up type from copy.

—*v. a.* To put out; to eject; to expel; to drive away from by expulsion. (B.)

"The members . . . were counted deserters, and *outed* of their places in Parliament." — *King Charles I.*

—*interj.* Away! hence! begone! off! — used as an exclamation of command, and expressive also of abhorrence or contempt.

"*Out*, damned spot! *out*, I say." — *Shaks.*

Outagamie (*oo-ta-ga-mee'*), in *Wisconsin*, an E. co.; *area*, about 640 sq. m. *Rivers.* Fox and Wolf rivers. *Surface*, mostly level; *soil*, moderately fertile. *Cap.* Appleton. *Pop.* (1895) 44,404.

Outact', *v. a.* To exceed or go beyond in acting.

Outar'gue, *v. a.* To surpass in argument.

Outbab'ble, *v. a.* To surpass or exceed in prattling talk; as, one woman *outbabbles* another.

Outbal'ance, *v. a.* To outweigh; to exceed in weight, effect, or consequential result.

Outbar', *v. a.* To bar out; to shut out by a bar or barriers.

Outbat'ter, *v. a.* To ontdo in battering, as in a siege.

Outbeg', *v. a.* To surpass in begging.

Outbel'low, *v. a.* To bellow louder than.

Outbid', *v. a.* (*imp.* OUTBADE.) To bid higher than; to go beyond in the offer of a price.

Outbid'der, *n.* A person who outbids another.

Outblaze', *v. a.* To transcend in blazing.

Outbleat', *v. a.* To surpass in bleating.

Outbloom', *v. a.* To bloom in greater perfection than.

Out'blown, *a.* Inflated or distended with wind.

Outblush', *v. a.* To blush brighter or deeper than.

Out'board, *n.* (*Naut.*) That which is not on shipboard; — opposed to *inboard*; as, *outboard* cargo.

Out'born, *a.* Foreign; exotic; not native-born.

Out'bound, *a.* Proceeding from one port to another abroad or distant; — said of a ship.

Outbow', *v. a.* To surpass in bowing.

Outbowed, (*-bōd',*) *a.* Bowed, bent, or curved outward; convex.

Outbrag', *v. a.* To exceed in bragging: to gasconade.

Outbrave', *v. a.* To exceed in heroic dash or bravery. — To bear down by insolent conduct. — To surpass in splendid appearance.

Outbrazen, (*-brā'zn,*) *v. a.* To bear down with an impudent or brazen face.

Out'break, (*-brāk,*) *n.* A breaking or bursting forth; eruption; outburst.

"The flash and *outbreak* of a fiery mind." — *Shaks.*

Out'breaker, *n.* A wave dashing upon the rocks; a breaker.

Out'breaking, *n.* That which makes an eruption.

Outbreathe', *v. a.* To weary by having better breath. — To cause to go forth, as breath.

"That sign of last *outbreathed* life." — *Spenser.*

—*v. a.* To breathe out; to exhale.

Outbribe', *v. a.* To surpass or go beyond in bribing.

Outbring', *v. a.* To bring or bear out; to produce.

Outbud', *v. n.* To sprout forth.
Outbuild, (*-bild'*,) *v. a.* To exceed in building; to surpass in permanence of building.
Out'-building, (*-bild-ing*,) *n.* An out-house or building detached from, and belonging to, a farm or country-house.
Outburn', *v. a.* or *v. n.* To exceed in burning.
Out'burst, *n.* A bursting or breaking out; an eruption; an explosion; as, an *outburst* of passion or anger.
Outcant', *v. a.* To surpass in canting, ranting, or playing a Puritanical part.
Out'cast, *n.* One who is cast out, ejected, or expelled; a castaway; an exile; one driven from home or country. —*a.* Thrown away; cast out; rejected as useless.
Outcheat', *v. a.* To cheat to a greater extent than another; to dupe.
Out-clear'ance, *n.* (*Com.*) Clearance from, or out of, a port, as of a ship or cargo.
Outclimb, (*-klīm'*,) *v. a.* To surpass in climbing.
Out'come, (*-kŭm*,) *n.* That which comes out of, or follows as a necessary consequence of something else; issue; result; effect.
Outcompass, (*-kŭm'pas*,) *v. a.* To exceed the compass, limits, or bounds of.
Out'-court, *n.* An exterior court.
Outcraft', *v. a.* To exceed in craft or cunning.
Out'crier, *n.* One who cries out or proclaims; a herald or public crier.
Out'crop, *n.* (*Geol.*) The intersection of the plane of any bed or stratum with the surface of the earth at any place. The various stratified rocks being almost without exception inclined at an angle more or less considerable to the horizon, they must cut it at some line. This may either form a kind of cliff if the bed is hard, or may be a depression and covered by vegetable soil if soft and decomposable. In the latter case it can only be detected by removing the surface, unless indeed a change in the soil itself is effected by the change in the underlying rock.
—*v. n.* (*Geol.*) To come forth to the surface of the ground; —said of strata; as, *outcropping* quartz.
Out'cry, *n.* A loud or vehement cry; a cry or ejaculation of distress. —Clamor; public vociferation, indicative of opposition or hatred.

"A loud and universal *outcry* against ingratitude."— *Swift.*

—A public sale; an auction; a vendue. (R.)
Outdare', *v. a.* To venture beyond; to surpass in hardihood or daring.
Outdaz'zle, *v. a.* To exceed in dazzling.
Outdo', *v. a.* To perform more perfectly than another; to transcend; to excel; to surpass.

"An impostor *outdoes* the original."— *L'Estrange.*

Out'door, *a.* Extraforaneous; being without the house or building; as, *outdoor* sports.
Out'doors, *adv.* Out of doors; abroad; not inside the house.
Outdraw', *v. a.* To draw, extract, pull, or force out.
Outdream', *v. a.* To dream beyond.
Outdrink', *v. a.* To surpass in drinking.
Outdwell', *v. a.* To dwell or remain beyond.

"He *outdwells* his home."— *Shaks.*

Out'er, *a.* (*comp.* of OUT.) Being farther out than something else; exterior; being on the outside; external; —opposed to *inner;* as, the *outer* gate.
Out'erly, *a.* Toward the outside. (R.)
Out'ermost, *a.* (*superl.* from OUTER.) Being farthest out, or on the extreme external part; remotest from the midst; —correlative to *innermost.*
Outface', *v. a.* To look out of countenance; to brave, by putting a good face on; to resist or bear down by impudence or effrontery.

"We 'll *outface* them and outswear them too."—*Shaks.*

Out'fall, *n.* A fall or current of water. —A tiff; a falling out; a disagreement; a quarrel. (Used as an English provincialism.)
Outfawn', *v. a.* To surpass in fawning or servile adulation.
Outfeast', *v. a.* To excel in feasting.
Outfeat', *v. a.* To surpass in the performance of a feat.
Out-field, *n.* (*Agric.*) In Scotland, arable land which bears a succession of crops without being manured. (See IN-FIELD.)—In Scotland, a field lying at some distance from the farm-house.
Out'fit, *n.* A fitting out, as of a ship for a voyage; expenses incurred, or articles used in preparing and furnishing a ship for a voyage. — Equipment; means, money, or supplies furnished for a journey or expedition; —hence, an allowance of expenses allotted for the performance of any special duty involving travel or residence abroad.
Out'fitter, *n.* One who furnishes supplies and equipments for a voyage or journey.
Outflank', *v. a.* (*Mil.*) To extend the flank of one army beyond that of another.
Outflash', *v. a.* To surpass in scintillating or flashing.
Outflat'ter, *v. a.* To excel in flattering.
Out'flow, *n.* An efflux; a flowing out; ebb; as, the *outflow* of the tide.
—*v. n.* To ebb; to flow out.
Outfly', *v. a.* To surpass in flying.
Outfool', *v. a.* To go beyond in folly.
Outfrown', *v. a.* To frown down.
Outgaze', *v. a.* To see farther than. (R.)
Outgen'eral, *v. a.* To exceed in generalship; to acquire advantage over by superior military skill.
Outgive', *v. a.* To surpass in giving.
Outgo', *v. a.* (*imp.* OUTWENT; *pp.* OUTGONE.) To advance before in going; to go beyond or faster than. — To surpass; to excel. — To circumvent; to overreach.
—*v. n.* To go out; to terminate.

Out'go, *n.* That which goes out; expenditure; cost; outlay; — correlative to *income.*
Out'goer, *n.* One who goes out, leaves, or departs.
Out'going, *n.* Act or state of going out. — Outgo; expenditure; that which goes ont; outlay. — Closing part; end; limit; extreme; — hence, the entire or complete thing.
Outgriu', *v. a.* To surpass in grinning.
Out'ground, *n.* Ground lying at a distance.
Outgrow', *v. a.* To surpass or exceed in growth. — To grow too great or too old for; as, to *outgrow* one's clothes, to *outgrow* a woman's liking.
Out'growth, *n.* Excessive development of growth; enlargement beyond reasonable limits. — That which has grown out of anything; offshoot; progeny.
Out'-guard, *n.* (*Mil.*) An outlying guard; a picket; a patrol; — hence, any defensive arrangement placed at a distance from the main body.
Outgush', *v. n.* To gush or flow out or forth.
Out'haul, *n.* (*Naut.*) A rope used on shipboard for hauling out the clue of a boom-sail.
Out-Her'od, *v. a.* To exceed in resemblance the cruelty of Herod; — hence, to surpass; to go beyond in any excess of evil or obliquity.

"It *out-Herods* Herod."— *Shaks.*

Ont'-house, *n.* Same as OUT-BUILDING, *q. v.*
Out'ing, *n.* Act of going out, or taking the air. — That which goes out; an emission; an exudation; an evacuation. — In some districts of England, a junket or feast given by an apprentice to his friends on the occasion of his completing his time.
Outjest', *v. a.* To overpower by jesting.
Outjug'gle, *v. a.* To excel in juggling or legerdemain.
Out'jut, *n.* That which juts out or projects from anything.
Outknave, (*-nāv'*,) *v. a.* To surpass in knavery.
Outla'bor, Outla'bour, *v. a.* To exceed or excel in laboring.
Out'landish, *a.* [A. S. *utlændise; out* and *land.*] Foreign; exotic; not native; as, *outlandish* curiosities; — hence, vulgar; uncouth; rude; rustic; barbarous; not in harmony with popular tastes or usage; as, *outlandish* behavior.
Outlast', *v. a.* To last longer than; to go beyond in duration.
Outlaugh, (*-lăf'*,) *v. a.* To outdo in laughing. — To laugh down; to discomfit by laughing.
Out'law, *n.* [A. S. *utlaga, ûtlah: out,* and *law.*] One excluded from the benefit of the law, or deprived of its protection.
—*v. a.* [A. S. *utlagian.*] To deprive of the benefit and protection of the law; to proscribe; to make alien.

"He that is drunken is *outlaw'd* by himself."— *Herbert.*

—To set aside from legal jurisdiction; to deprive of legal force; as, to *outlaw* a claim.
Out'lawry, *n.* (*Eng. Law.*) An exclusion from the protection of the law, so that an outlaw cannot bring actions, &c., and his property is forfeited to the crown, although with respect to real property the forfeiture does not in some cases extend beyond his own life. An outlaw is, however, still entitled to the protection of the criminal law. Outlawry may be inflicted as a punishment (in criminal cases) for non-appearance to an indictment, or (in civil cases) for absconding after judgment, leaving the judgment debt unpaid. In the U. S., outlawry in civil cases is unknown, and the criminal cases are very rare, if, indeed, there be any.
Outlay', *v. a.* To lay out; to open to view; to expose.
Out'lay, *n.* A laying out or expending. — Cost; expenditure; outgo; that which is laid out or expended; as, a large *outlay* of capital.
Outleap', *v. a.* To outdo in leaping; to pass beyond by leaping.
—*n.* Sally; flight; escape. (R.)

"Youth must have some liberty, some *outleaps.*" — *Locke.*

Outlearn, (*-lĕrn'*,) *v. a.* To surpass or outdo in learning.
Out'let, *n.* An exit; a passage outward; a way of egress; the pluce or means by which anything escapes or is discharged.

"Hysterics, the *outlet* of a woman's fury."— *Colton.*

Outlet', *v. a.* To let free; to emit; to exude.
Out'licker, *n.* [Ger. *auslieger.*] (*Naut.*) A small boom jutting out astern from the poop.
Outlie', *v. a.* To surpass in lying.
Out'-lier, *n.* One who is non-resident in the place or district with which his duty or vocation connects him. (*Geol.*) The name given to a portion of stratified rock remaining in its place in an isolated position after the part of the rock that once connected it with the main deposit has been removed by denudation. An out-lier is thus in advance of the general crop of the stratum to which it belongs.
Out'line, *n.* The exterior line; the line or contour by which a figure is defined outwardly. — The first sketch or draught of a figure; the naked delineation of an object. — Hence, the first general sketch or draught of any scheme, enterprise, or design.
—*v. a.* To draw the exterior line or contour of. — To sketch; to draught; to delineate; to draw in outline.
Outlin'ear, *a.* Forming an outline; pertaining, or having reference to, or being in outline.
Outlive, (*-līv'*,) *v. a.* To live longer than; to survive. — To outlive to better purpose.
Outliv'er, *n.* One who outlives; a survivor.
Outlook', *v. a.* To face down; to browbeat.

"To *outlook* conquest, and to win renown."— *Shaks.*

—*n.* [Fr *vigie.*] A looking out; vigilant watch. — The place where one is placed on the look-out; a watch-tower; a semaphore. — Prospect gained by looking out; view; sight.

Outlustre, (*-lus'tr*,) *v. a.* To surpass in effulgence, lustre, or brightness.
Out'lying, *a.* Lying out or on the exterior; being on the exterior or frontier; as, *outlying* pickets. — Lying or being at a distance from the main body or design; remote; far removed.

"We have taken all the *outlying* parts of the Spanish monarchy."— *Addison.*

Outmanœuvre, (*-ū'vr*,) *v. a.* To outdo in manœuvring.
Outman'tle, *v. a.* To mantle more than. (R.)
Out-march', *v. a.* To pass in marching; to march so as to leave behind; as, "the horse *out-marched* the foot." — *Clarendon.*
Outmeasure, (*-mezh'ur*,) *v. a.* To exceed in measure, extent, or capacity.
Out'most, *a.* Outermost; most remote or distant from the middle; farthest outward.
Outmount', *v. a.* To mount above.
Outname', *v. a.* To exceed in naming.
Out'ness, *n.* Separateness; remoteness; state of being out or beyond. — Externality; objectivity; having existence with space or spatial relations; materiality.
Outnoise', *v. a.* To outdo in noisiness.
Outnum'ber, *v. a.* To exceed in number; to be numerically greater than.
Out-of-door', *adv.* In the open air; outdoor: extraforaneous; not being within a building or place of shelter; as, *out-of-door* exercise.
Out-of-doors', *adv.* Outdoors.
Out-of-the-way, *a.* Singular; unique; remarkable; strange; unusual; different from the ordinary way, method, manner, usage, or fashion; —used colloquially; as, an *out-of-the-way* kind of person, an *out-of-the-way* mode of acting.
Out-par'amour, *v. a.* To exceed in keeping mistresses or concubines. (R.)

"He *out-paramoured* the Turk."— *Shaks.*

Out'-parish, *n.* An outlying parish; a parish lying without the walls of a city, or the confines of a civic or territorial jurisdiction.
Out'part, *n.* A part distant from the main or centre part; as, the *outparts* of a diocese.
Outpass', *v. a.* To pass beyond; to pass and go forward in advance.
Out-patient, (*-pā'shĕnt*,) *n.* A patient who receives medical relief from a hospital, while resident outside its walls.
Outpeer', *v. a.* To surpass or excel; to outvie.
Out-pensioner, (*-pen'shon-r*,) *n.* In England, a pensioner belonging to a royal hospital, as Greenwich or Chelsea, who has full liberty to fix his residence where he pleases.
Outpoise, (*-poise'*,) *v. a.* To overbalance; to outweigh.
Out'porch, *n.* An outer porch, or entrance-gate.
Out'port, *n.* A sub-port within the jurisdiction of a chief custom house; a harbor, haven, or port somewhat distant from the chief port or centre of commercial business; as, Jersey City is an *outport* of New York.
Out'post, *n.* (*Mil.*) A body of men posted beyond the main guard; so called because being without the bounds or limits of the camp.
Outpour', *v. a.* To effuse; to emit in a mass or volume; to discharge or send forth in a stream.
Outpray', *v. a.* To exceed in prayer or supplication.
Outpreach', *v. a.* To surpass or outvie in preaching.
Outquench', *v. a.* To extinguish; to put out.
Out'rage, *v. a.* [Fr.; It. *oltraggio*; L. Lat. *ultragium* — Lat. *ultra*, beyond, exceeding, and *agere*, to act.] To exceed in rage. (R.) — To do extreme violence or injury to; to treat with exceeding violence or wrong; to abuse by rude or insolent language; to injure by rough, coarse treatment of whatsoever kind.
—*v. n.* To perpetuate an outrage; to commit an excess.
—*n.* Excessive abuse or injury done to a person or thing; injurious or rude violence offered to persons or things; wanton mischief; gross detriment.
Outrageous, (*-rā'jŭs*,) *a.* [It. *oltragiose*; Fr. *outrageux.*] Committing or comprising an outrage; enormous; atrocious; exceeding reason, decency, or all bounds of moderation; violent; furious; exorbitant; tumultuous; turbulent; as, *outrageous* villainy, *outrageous* abuse, to pay an *outrageous* price for an article, &c.
Outra'geously, *adv.* In an outrageous manner; with great violence; furiously; excessively.
Outra'geousness, *n.* State or quality of being outrageous; fury; violence; enormity; excess.
Outrance, (*oo'trŏngs*,) *n.* [Fr.] The last extremity; as, a combat *à l'outrance*, that is, a combat to the death.
Out-rank', *v. a.* To precede in rank; to be of higher rank than.
Out-raze', *v. a.* To raze to utter demolition.
Outré, (*ōō-trā'*,) *a.* [Fr., from *outrer*, to magnify, from Lat. *ultra.*] Singular; grotesque; bizarre; being out of the ordinary kinds of persons or course of things; extravagant; peculiar; as, to make an *outré* appearance.
Out-reach', *v. a.* To reach beyond; to extend further than a certain limit.
Out-reason, (*-rē'zn*,) *v. a.* To surpass in reasoning.
Out-reckon, (*-rĕk'n*,) *v. a.* To surpass in computation; to exceed in reckoning.
Outrecuidance, (*ōō-trŭh-kwē-dŏngs'*,) *n.* [Fr., from *outré*, beyond, and *cuider*, to think.] Inordinate presumption. (R.)
Outreign, (*-rān'*,) *v. a.* To reign longer than; to reign through the whole of.
Outremer, *n.* [Fr.] The name given in France to the fine pulverized portions of lapis-lazuli used by painters.
Out-ride', *v. a.* To pass or get beyond in riding; to ride faster than.

—To travel about; to go out riding, whether in a vehicle or on horseback.

Out'ride, *n.* A riding out; an excursion; a ride, or place for riding out.

Out'rider, *n.* One who rides about on horseback; — specifically, a mounted servant or lacquey who attends a carriage or cavalcade.

Outrig'ger, *n.* (*Naut.*) A kind of boom or spar projected over the sides, &c. of a vessel, for extending ropes and sails, and the like purposes; also, a boat carrying such; as, to row an *outrigger*.

Out'right, (*-rīt',*) *adv.* Straightway; directly; immediately; at once; without delay; as, the last was hanged *outright*. — Utterly; completely; wholly; entirely; as, he laughed *outright*.

Outring', *v. a.* To ring louder than.

Outri'val, *v. a.* To surpass in excellence; to outdo in importance or esteem.

Outroar', *v. a.* To exceed in roaring.

Outro'mance, *v. a.* To surpass or outdo in romantic character.

"Their real sufferings *outromanced* the fictions of many." *Fuller.*

Out'-room, *n.* An outer room; an exterior apartment; an ante-room.

Outroot', *v. a.* To extirpate; to eradicate.

Outrun', *v. a.* To exceed or go beyond in running; to leave behind in progress; as, the flight of a bullet *outruns* the eye. — To exceed; as, to *outrun* one's income.

To outrun the constable, to spend more than one is able to pay (Used colloquially.)

Outrush', *v. a.* To rush out with some degree of force; to issue forth hurriedly or expeditiously

Outsail', *v. a.* To pass by or leave behind in sailing; as, we *outsailed* the chase, and brought her to.

Outscent, (*-sent',*) *v. a.* To smell stronger than, or overpower in odor. (R.)

Outscold', *v. a.* To scold or browbeat more than.

Outscorn', *v. a.* To despise; to scrneh by open contempt.

Outscour'ing, *n.* That which is scoured or washed out.

Outsell', *v. a.* (*imp.* and *pp.* OUTSOLD.) To exceed in the prices of articles sold. — To surpass in amount of sales. - To fetch, or realize, a higher price.

Out'sentry, *n.* (*Mil.*) A vidette; an out-guard; a picket who guards the approach to any place.

Out'set, *n* Beginning; commencement in any business or undertaking; as, the *outset* of life.

Out'-settler, *n.* One who settles in a place remote from others.

Outshine', *v. a.* To excel in lustre, attraction, or excellence.

—*v. n.* To emit luetre; to shine out or forth with brilliance; as, "bright *outshining* beams."—*Shaks.*

Outshoot', *v. a.* To shoot farther than. — To shoot beyond; — hence, to get in advance.

"Some men are resolved never to *outshoot* their forefathers' mark." — *Norris.*

Outshut', *v. a.* To shut out; to exclude.

Out'side, *n.* The side or part of a thing that is outermost; the exterior; the external surface; the part, end, or side which forms the surface or superficies; superficial appearance; external man.

"His vanities were but the *outside* of the Roman Brutus." *Shaks.*

—The part or place that lies without or beyond a limit or inclosure; as, the *outside* of a house or apartment.—Utmost; the ultimate limit as to number, quantity, extent, degree, and the like; as, fifty dollars is the *outside* of my offer — The person who, or thing which, is without; — hence, an *outside* passenger of a vehicle, as distinguished from one who is *inside*; as, the mail-coach carried twelve *outsides*. (Used in England.)

—*a.* On the outside; external; exterior; superficial; consisting in outward appearance; as, *outside* show.

Out'sider, *n.* One unconnected with the party, clique, concern, business, &c. spoken of; one having no interest or kindred feeling with what is going on.

Outsin', *v. a.* To sin beyond others.

Outsing', *v. a.* To excel in singing.

Outsit', *v. a.* To sit longer than the time permitted.

Outskip', *v. a.* To evade by retreat.

Out'skirt, *n.* Border; frontier; confine; suburb; outpost; as, the *outskirts* of a city or country.

Outsleep', *v. a.* To sleep longer than.

Outslide', *v. n.* To advance or progress by sliding.

Outsoar', *v. a.* To soar above or beyond.

Outsound', *v. a.* To surpass in sound

Outspar'kle, *v. a.* To sparkle exceedingly.

Outspeak', *v. a.* To speak more, oftener, longer, or louder than.

Outspeed', *v. a.* To excel in speed or rapidity of motion.

Out'spend, *n.* Outlay; expenditure; disbursement. (R.)

Outspin', *v. a.* To spin out; to run through; to finish.

Outsport', *v. a.* To outdo in sporting.

"Let's teach ourselves not to *outsport* discretion."—*Shaks.*

Outspread, (*-spred',*) *v. a.* To extend; to spread out; to diffuse.

Out'spread, *a.* Expanded; extended; diffused; circulated.

Outspring', *v. a.* To issue or spring forth.

Outstand', *v. n.,* (*imp.* and *pp.* OUTSTOOD.) To project or jut out forward from the main body. — To stand or linger behind the proper time; — hence, to be unpaid, as a debt or obligation.

—*v. a.* To withstand; to resist steadily. (R.) — To stand beyond the specified time.

Out'standing, *a.* Projecting outward. — Remaining unpaid; not collected; as, *outstanding* debts.

Outstare', *v. a.* To stare out of countenance; to browbeat; to face down with impudence or effrontery.

"I would *outstare* the sternest eyes that look."—*Shaks.*

Out'starting, *a.* Starting out; as, *outstarting* eyeballs.

Outstep', *v. a.* To exceed or pass beyond; as, to *outstep* the bounds of propriety.

Outstorm', *v. a.* To excel in storming.

Out'-street, *n.* A street in the outskirts or suburbs of a town; a street beyond the walls of a city.

Outstretch', *v. a.* To stretch or spread out; to enlarge; to expand; as, with *outstretched* arms.

Outstride', *v. a.* To surpass in striding or progressing.

Outstrip', *v. a.* To outrun; to outgo; to advance beyond; to make greater speed than; to leave behind; as, he *outstripped* all competitors.

Outsuffer, *v. a.* To surpass in the endurance of suffering.

Outswear', *v. a.,* (*imp.* and *pp.* OUTSWORE.) To overpower by swearing.

Outsweet'en, *v. a.* To exceed in sweetness or mellifluousness.

Outswell', *v. a.* To overflow; to swell over.

Out-talk, (*-tawk',*) *v. a.* To overpower by talking; to outdo in speech.

Out-tell', *v. a.* To exceed in telling; to tell, count, or compute more than.

Out'-term, *n.* An external or superficial thing, occurrence, or remark.

Out-throw', *v. a.* To throw out or beyond.

Out-toil', *v. a.* To toil to a greater degree than another.

Out-tongue', *v. a.* To beat down by talk or clamor.

Out-trav'el, *v. a.* To exceed in travelling; to journey more than.

Out-twine', *v. a.* To disentangle; to extricate; to unfold or unfasten; — opposed to *entwine*, (q. v.)

Outval'ue, *v. a.* To transcend in price; to exceed in value or estimation.

Outven'om, *v. a.* To exceed in poison.

"Slander's tongue *outvenoms* all."—*Shaks.*

Outvie', *v. a.* To exceed in vying with, or in rivalry; to surpass.

Outvil'lain, *v. a.* To exceed in villainy.

Outvote, *v. a.* To exceed in the number of votes given and declared; to defeat by a plurality of suffrage.

Outwalk, (*wawk',*) *v. a.* To leave behind in pedestrianism; to walk faster than.

Out'wall, *n.* The exterior wall of a building or fortification. — Superficial aspect or appearance. (R.)

Out'ward, *a.* [A. S. *útweard*, or *útoweard* — *út*, out, and *weard*, towards.] External; exterior; outer; forming the superficial part; — in contradistinction to *inward*; as, an *outward* appearance, an *outward* garment. — Adventitious; extrinsic.

"An *outward* honour for an inward toil."—*Shaks.*

—Tending to the outer or exterior part.

"The fire will force its *outward* way."—*Dryden.*

—*n.* External form; exterior; outer appearance; as, "a fair *outward*." (*Shaks.*) (R.)

—*adv.* Toward the outer parts; tending or directed toward the exterior or external surface. — Seaward; to some foreign clime or region from some port or country; as, a ship bound or cleared *outward*.

Out'ward-bound, *a.* Bound outwardly, or to foreign parts, as a ship; — opposed to *homeward-bound*.

Out'wardly, *adv.* Externally; in an outward manner; on the outside; — opposed to *inwardly*; — hence, apparently; seemingly; superficially; not intrinsically; as, some men are *outwardly* religious, and find it profitable.

Out'wards, *adv.* See OUTWARD.

Outwatch', *v. a.* To exceed in watching.

Out'way, *n.* A by-way; a roundabout passage out.

Outwear, (*-wār',*) *v. a.* To last longer than; to exceed in duration. — To pass irksomely or tediously; as, to *outwear* the night.

Outwea'ry, *v. a.* To fatigue; to tire out.

Outweep', *v. a.* To weep longer than another.

Outweigh, (*-wā',*) *v. a.* To exceed in weight or gravity of substance. — To preponderate in value, interest, influence, or importance.

"Your truth to him *outweighs* your love to me." — *Dryden.*

Outwent', *imp.* of OUTGO, *q. v.*

Outwhore, (*-hōr',*) *v. a.* To surpass in lewdness or lechery.

Outwing', *v. a.* To outstrip in flying; to move faster on the wing.

Outwit', *v. a.* To surpass in wit or wisdom; to outdo in design or stratagem, craft or subtlety; to defeat or impair by superior sagacity or ingenuity; to overreach; to get the best of.

Outwork, (*-wurk',*) *v. a.* (*imp.* OUTWORKED (*-wurkt*), or OUTWROUGHT (*-rawt*); *pp.* OUTWROUGHT.) To surpass in the performance of work or labor.

Out'work, *n.* (*Fortif.*) Any work or sectional part of a fortress which is erected without the outer wall, within or beyond the moat or principal ditch.

Outworth', *v. a.* To exceed in worth, value, or estimation.

Outwrite, (*-rīt',*) *v. a.* To write better, quicker, or longer than.

Outza'ny, *v. a.* To surpass in buffoonery or tomfoolery.

Ouviran'dra, *n.* (*Bot.*) A genus of plants, order *Juncaginaceæ*. *O. fenestralis*, the Lattice-leaf. Lace-leaf, Water-yam, or Ouvirandrano, is a native of Madagascar, and grows in running streams. Its flowers are in forked spikes. The leaves are very curious, the blads resembling lattice-work or open needle-work of a most regular pattern. The whole appearance of the plant is very beautiful. It grows very well in hot-house aquaria.

Ouviran'dra'no, *n.* (*Bot.*) See OUVIRANDRA.

Ouze, (*ōōz,*) *n.* and *v.* Same as OOZE, *q. v.*

Ouzel, (*ōōz'l,*) *n.* (*Zoöl.*) See TURDIDÆ.

O'va, *n. pl.* [From Lat. *ovum.*] (*Arch.*) Egg-shaped ornaments carved on the contour of the ovolo, or quarter-round, and separated from each other by anchors and arrow-heads.

O'val, *a.* [Fr. *ovale*; Lat. *ovalis*, from *ovum*, egg, the shape of an egg; akin to Gr. *ōōn*. See EGG.] Of the shape, form, or figure of an egg; resembling the longitudinal appearance of an egg. — Oblong and curvilinear, bounded by a curve-line returning to itself; elliptical. (*Bot.*) Elliptical in a great degree.

—*n.* (*Math.*) Any curve, or isolated branch of a curve, which returns into itself.

Oval'bu'men, *n.* [Lat. *ovum*, egg, and Eng. *albumen.*] The albumen or white of an egg; — in contradistinction to the serum of the blood.

Oval'iform, *a.* [Eng. *oval* and *form.*] Egg-shaped; having one of two perpendicular sections circular, and the other oval.

O'vally, *adv.* In an oval form; so as to be oval.

O'val-shaped, (*-shāpt,*) *a.* Oval.

Ova'rial, Ova'rian, *a.* Pertaining to the female ovaries.

Ovariot'omy, *n.* [Gr. *oarion*, ovary, and *tome*, incision.] (*Surg.*) The operation for removing the ovary.

Ova'rious, *a.* Consisting of eggs. (R.)

O'vary, *n.* [Fr. *ovaire*; Sp. *ovario*; Low Lat. *ovaria*, from Lat. *ovum*, egg; Gr. *oarion*, dim. of *ōon*, egg.] (*Bot.*) That part of the *pistil*, or central organ of a flower, which contains the rudimentary seeds or ovules. These rudimentary seeds are attached to a projection on the walls of the ovary, called the *placenta*. The ovary is said to be *compound* when it is composed of two or more ovaries combined together; it is said to be *simple*, when it constitutes the lower part of a simple pistil, or of one of the carpels of an apocarpous pistil. (See CARPEL and PISTIL.) The ovary, whether simple or compound, may be either adherent to the calyx, or free from it. In the former case, as in the Myrtle, it is *inferior* or *adherent*, and the calyx is *superior*; in the latter, as in the Lychnis, it is *superior* or *free*, and the calyx *inferior*. See PLACENTA.

Fig. 2014.

a, Ovary, to one side of which are attached numerous ovules. d.—b, Style; c, Stigma.

(*Anat.* and *Physiol.*) The ovaries are the organs in which the ova are formed in oviparous animals. By analogy, the name has been given to two ovoid bodies which, in women, are placed on each side of the uterus, between the Fallopian tube and round ligament. They are composed of a very close, spongy texture (stroma), and of small vesicles (*folliculi Graafiani*), filled with a clear fluid; these vesicles contain ovules, which detach themselves from the ovary before and after fecundation, and are carried into the cavity of the uterus by the Fallopian tube.

O'vate, O'vated, *a.* [Lat. *ovatus.*] Shaped like an egg. (*Bot.*) Presenting the shape of a section of an egg; as, an *ovate* leaf

O'vate-acu'minate, *a.* (*Bot.*) Having a form intermediary between ovate and cylindraceous; ovato-acuminate.

O'vate-ob'long, Ova'to-ob'long, *a.* (*Bot.*) Having a form intermediary between ovate and oblong.

O'vate-cylindraceous, (*-drā'shus,*) *a* (*Bot.*) Having a form intermediary between ovate and cylindraceous; ovato-cylindraceous

O'vate-lan'ceolate, *a.* (*Bot.*) Having a form intermediary between ovate and lanceolate.

O'vate-sub'ulate, *a.* (*Bot.*) Having a form intermediary between ovate and subulate.

Ovation, (*-vā'shun.*) *n.* [Lat. *ovatio*, from *ovo*, *ovatus*, to celebrate an ovation, from *ovis* = Gr. *ois.*] (*Rom. Hist.*) A lesser sort of triumph among the ancient Romans, in which sheep were sacrificed instead of bullocks. Ovations were granted when the success was not brilliant enough to justify a triumph; or when the war was not completely ended by it, as in the case of Marcellus (*Livy* xxvi. 21); or if the enemy were not honorable, as in the servile war with Spartacus, &c.

—Hence, a manifestation of popular applause; acclaim paid to one who is a public favorite.

Ova'to-acu'minate, *a.* (*Bot.*) Same as OVATE-ACUMINATE, *q. v.*

Ova'to-cylindra'ceous, *a.* (*Bot.*) See OVATE-CYLINDRACEOUS.

Ova'to-rotun'date, *a.* (*Bot.*) Roundly ovate; having a form intermediary between that of an egg and a sphere.

Ov'ealty, Ov'elty, *n.* (*Law.*) See OWELTY.

Oven, (*ŭv'n.*) *n.* [A. S. and Ger. *ofen*; Icel. *ofn.*] A furnace; a place arched over with brickwork or masonry for baking, heating, or drying anything. — An apparatus for roasting, baking, or drying; as, a Dutch *oven*.

Ov'en-bird, *n.* (*Zoöl.*) The Golden-crowned Thrush, *Sciurus aurocapillus*, of N. America E. of the Missouri, belonging to the *Sylvicolidæ*, or Warbler family.

O'ver, *prep.* (In poetry often contracted to *o'er.*) [A. S. *ofer*; D. and Dan. *over*; Ger. *über*; Lat. *super*; Ir. *ór*; Gr. *huper.*] Across; from side to side; — denoting a passing above or on the surface of a thing; as, to sail *over* a lake, to reach *over* a table. — Above, in place, or position; — correlative of *below*; as, the sky is *over* us. — On the entire surface; through the whole extent; as, money is money all the world *over*. — Above, — denoting superiority in excellence, value, or dignity.

"Young Pallas shone conspicuous o'er the rest." — *Pope.*

—Above in power or authority; — implying the right or power of controlling or governing: —opposed to *under*.

"I will make thee ruler *over* many things." — *Matt.* xxv. 23.

—During the whole time; from first to last; as, we have food enough to last *over* winter. — With care, watchfulness, concern for; with circumspection in regard of; as, to keep guard *over* one. — Above the top of; covering; as, the river has risen *over* its banks.

O'ver, *adv.* From side to side; across; as, a plank a foot *over*, that is, a foot in diameter. — In transit; from one to another by passing; as, to hand *over* valuables into safekeeping. — On the opposite side; as, he went *over* to the enemy. — From one place or country to another, by passing; as, to go *over* the Atlantic. — Above the top; as, measure brimming *over*.—Beyond a limit; more than the quantity specified.

"The ordinary soldiers had all their pay, and a month's pay *over*." *Hayward.*

—Throughout; completely; from first to last; as, to discuss a topic *over* again. — (NOTE. *Over*, *off*, *out*, and adverbs of the like character, are frequently employed predicatively with the sense and application of adjectives, corresponding in this respect with the adverbs of place, *here*, *there*, *everywhere*, *anywhere*, *nowhere*; as, the proceedings were *over*, his coat was *off*, the proprietor was *out*.)

Over again, once more; with repetition.—*Over against*, in front; opposite; as, on the wall *over against* the door. —*Over and above*, besides; beyond what is intended or limited; as, *over and above* the price agreed on. — *Over and over*, once and again; repeatedly; continuously; as, make them do it *over and over* till they are perfect. — *To give over*, to cease from; as, *to give over* grumbling. To look upon as in a hopeless condition; as, the doctors have *given* him *over*.

O'ver, *a.* Upper; covering; enclosing; — principally employed in composition; as, an *over*-coat, *over*-shoes, &c.

Overabound', *v. n.* To be superabundant.

Overact', *v. a.* To act or perform to excess; as, he *overacted* his part.

—*v. n.* To act more than is just or necessary.

Overaction, (*-ăk'shun,*) *n.* Exaggerated performance; excessive action.

Overag'itate, *v. a.* To agitate beyond expediency.

O'veralls, *n. pl.* A kind of loose leggings or trousers worn over others to keep them from becoming soiled.

Overanxiety, (*-ang-zī'e-te,*) *n.* State or condition of being overanxious; morbid or excessive anxiety or concern.

Overanxious, (*-ank'shus,*) *a.* Excessively anxious.

Overanxiously, (*-ank'shus-ly,*) *adv.* With excess of anxiety.

Overarch', *v. a.* To cover with an arch; to arch over.

—*v. n.* To bend or hang over, like an arch.

Overawe', *v. a.* To keep too much in awe; to curb or restrain by awe, dread, or other superior influence.

Overaw'ful, *a.* Unduly or excessively reverential; overawed.

Overbal'ance, *v. n.* To weigh down; to preponderate in weight, value, or importance

—*n.* Excess or preponderance in weight, value, or importance; something more than an equivalent; as, the *overbalance* of probability.

Overbar'ren, *a.* Barren to utter unproductiveness.

Overbear', *v. a.* (*imp.* OVERBORE; *pp.* OVERBORNE.) To bear over or down; to overpower, overwhelm, or subdue; to repress; to conquer; to domineer over; as, *overborne* by numbers.

—*v. n.* To bear issue, fruit, or progeny to excess.

Overbear'ing, *a.* Haughty; dictatorial; dogmatical; imperious; domineering; tyrannical; disposed or tending to repress or subdue by insolence or effrontery; as, an *overbearing* man.

Overbear'ingly, *adv.* In an overbearing manner; dictatorially; haughtily; dogmatically.

Overbeck, FRIEDRICH, (*o'ver-bek,*) the founder of the modern German religious school of painting, b. at Lübeck, in 1787; went to Rome in 1810, embraced the Roman Catholic faith, and made that city his residence. His best fresco is the *Miracle of Roses of St. Francis*, in the church at Assisi. His best known oil-paintings are the *Entrance of Christ into Jerusalem*, and *The Descent from the Cross*, at Lübeck.

Overbend', *v. a.* (*imp.* and *pp.* OVERBENT.) To bend or stretch to excessive tension.

—*v. n.* To bend over.

Overbid', *v. a.* To bid more than an equivalent.

—*v. n.* To bid beyond or more than.

Overblow', *v. n.* (*imp.* OVERBLEW; *pp.* OVERBLOWN.) To be past its violence; to blow over.

(*Naut.*) To blow with such violence as not to admit of topsails being set.

—*v. a.* To blow away; to scatter, as clouds before the wind.

"This cloud of sorrow 's *overblown*." —*Dryden.*

Overblown', *a.* Expanded beyond the usual size or degree; as, an *overblown* woman, an *overblown* rose.

Overboard', *a.* (*Naut.*) Out of a ship or from on board; over the board or deck; as, to heave cargo *overboard*.

Overboil', *v. a.* To boil unduly or more than is necessary.

Overbold', *a.* Excessively bold; bold to effrontery; impudently; unduly; presumptuous.

Overbold'ly, *adv.* In an overbold manner; with effrontery; impudently.

Overbook'ish, *a.* Unduly addicted to the perusal of books; excessively bookish.

Overboun'teous, *a.* Bounteous to an injudicious or extravagant degree.

Overbreed', *v. a.* To breed more than is necessary.

Overbrim', *v. a.* To fill so as to surge over the brim.

Overbrimmed, (*-brimd',*) *a.* Having a brim of unusual size, as a hat.

Overbrow', *v. a.* To beetle or hang over like a brow.

Overbuilt, (*-bilt',*) *a.* Built over. — Built to an extent more than is profitable or necessary; having too many buildings; as, an *overbuilt* part of a town.

Overbulk', *v. n.* To weigh down or oppress by bulk. (R.)

Overburden, (*bŭr'dn,*) *v. a.* To burden unduly; to load with too great weight; as, an *overburdened* horse, an *overburdened* conscience.

Overbur'densome, *a.* Burdensome to excess.

Overburn', *v. a.* To burn more than is needful.

—*v. n.* To burn unduly.

Overbusy, (*-bĭz'y,*) *a.* Too busy; officious; meddlesome.

Overbuy, (*-bī',*) *v. a.* To buy at too dear a rate.

Overcan'opy, *v. a.* To cover as with a canopy.

Overca'pable, *a.* Capable to an excessive degree; — preceding *of*; hence, prone to; as, *overcapable of* criticism.

O'vercare, *n.* Unwonted care, concern, or anxiety.

Overcare'ful, *a.* Careful to excess.

Overcark'ing, *a.* Overanxious; too full of concern.

Overcar'ry, *v. a.* To carry too far, to urge beyond proper limits.

Overcast', (*imp.* and *pp.* OVERCAST,) *v. a.* To cloud; to dim; to darken; to cover with gloom.

"Our days of age are sad and *overcast*." —*Raleigh.*

—To rate or compute too high; to cast at too high a figure. —To sew over and over.

Overcatch', (*imp.* OVERCAUGHT,) *v. a.* To overtake; to catch up with.

Overcau'tious, *a.* Cautious to an extreme; prudent to excess.

Overcau'tiously, *adv.* Cautiously to an excessive degree.

Overchange', *n.* Too frequent change; fickleness.

Overcharge', *v. a.* To charge or load to excess; to overload; to cloy; to burden; to oppress; to surcharge. — To crowd; to fill to excess; to load too full.

"Our language is *overcharged* with consonants." —*Pope.*

—To charge too much; to enter in an account more than is just; — applied to persons.

(*Mil.*) To load with too great a charge, as a gun.

—*v. n.* To make excessive charges.

—*n.* An excessive load, weight, or burden. — An excessive charge, as of a gun. — A charge in an account of more than is just.

Overclean', *v. a.* To clean to excess.

Overclimb, (*-klīm',*) *v. a.* To climb over.

Overcloud', *v. a.* To cover or overspread with clouds.

Overcloy', *v. a.* To fill to satiety.

O'vercoat, *n.* An upper coat; a top coat; a great-coat.

Overcold', *a.* Cold to excess.

Overcolor, Overcolour, (*kŭl'er,*) *v. a.* To color too highly; as, an *overcolored* picture or description.

Overcome, (*kŭm'*) *v. a.* To be victorious over, as foes; to overpower; to vanquish; to conquer; to subdue; to surmount.

—*v. n.* To gain the advantage or superiority.

Overcom'ingly, *adv.* Victoriously; with advantage or superiority.

Overcon'fidence, *n.* Excess of confidence.

Overcon'fident, *a.* Confident to an unlimited degree.

Overcon'fidently, *adv.* With too much confidence.

Overcorn', *v. a.* To corn to excess.

Overcost'ly, *a.* Unduly costly; extravagantly dear or expensive.

Overcount', *v. a.* To reckon or rate above the true value.

Overcov'er, *v. a.* To cover wholly or completely.

Overcred'ulous, *a.* Credulous to a pitch of fatuity.

Overcrow', *v. a.* To crow over, as in triumph; to assume airs of superiority over.

Overcun'ning, *a.* Cunning to excess; ingenious to a degree.

Overcu'rious, *a.* Curious or nice to excess.

Overdare', *v. a.* and *n.* To dare too much; to be too daring

Overdate', *v. a.* To date beyond the proper period; to render antiquated.

Overdel'icate, *a.* Nice to a fault; dainty to excess.

Overdelight'ed, *a.* Delighted beyond expression.

Overdight, (*-dīt',*) *a.* Covered over.

Overdil'igent, *a.* Diligent to excess.

Overdo', (*imp.* and *pp.* OVERDONE,) *v. a.* To cause to do too much. — To harass; to fatigue; to oppress by much labor or exertion.

"Nature much oftener *overdoes* than underdoes." —*Grew.*

—To boil, bake, or roast too much; as, *overdone* meat.

Overdose', *v. a* To give too many or too large doses to.

—*n.* An excessive dose; as, an *overdose* of medicine.

Overdraw', *v. a.* (*imp.* OVERDREW; *pp.* OVERDRAWN.) To draw beyond the proper limits; to draw beyond one's credit or funds; as, to *overdraw* one's account at a bank To paint too highly; as, an *overdrawn* description.

Overdress', *v. a.* To dress to excess; to adorn too much, or more than is consonant with good taste; as, an *overdressed* woman.

Overdrink', *v. a.* and *n.* To drink to excess, or more than is good for one.

Overdrive', *v. a.* and *n.* To drive too hard.

Overdrown', *v. a.* To saturate or drench to excess; to moisten excessively.

Overdry', *v. a.* To dry to excess.

O'verdue, *a.* Due beyond the proper time; past the time of payment; as, an *overdue* bill of exchange.

Overdye, (*-dī',*) *v. a.* To dye too much or too deeply.

Overeager, (*ē'gr,*) *a.* Too eager; too impetuous or vehement in wishing.

Overea'gerly, *adv.* With excessive eagerness.

Overea'gerness, *n.* Excess of eagerness.

Overearnest, (*-ĕr'nest,*) *a.* Too earnest.

Overear'nestness, *n.* Excess of earnestness.

Overeat', *v. a.* and *n.* To eat beyond sufficiency.

Overel'egant, *a.* Elegant to excess.

Overes'timate, *v. a.* To estimate too highly.

—*n.* An estimate too highly rated.

Overexcit'ed, *a.* Too much excited.

Overexcite'ment, *n.* Excess of excitement.

Overex'quisite, *a.* Unduly exquisite, fastidious, or exact.

Over-fatigue', (*-tēēg,*) *n.* Exhaustion from fatigue.

—*v. a.* To weary out; to fatigue to excess.

Overfeed', *v. a.* (*imp.* and *pp.* OVERFED.) To feed to excess or repletion.

O'verfield, in *Pennsylvania*, a township of Wyoming co.

Overfierce', *a.* Excessively fierce.

Overfill', *v. a.* To surcharge; to fill to excess.

Overflak'kee, an island of the Netherlands, prov. of S. Hollaud, between two arms of the Rhine, the Haringvliet and Flakkee, at their entrance into the North Sea. It is 25 m. long, and 7 m. broad.

Overfloat', *v. a.* To inundate; to overflow. (R.)

Overflourish, (*flŭr'ish,*) *v. a.* To make excessive flourish of.

Overflow', *v. a.* (*imp.* and *pp.* OVERFLOWED.) To flow or spread over, as water; to inundate; to flood; to cover with water or other fluid; to fill beyond the brim.

"New milk that *overflows* the pails." — *Dryden.*

—To cover as with numbers; to overwhelm: to overpower.

—*v. n.* To flow or run over; to swell and run over the brim or banks. — To exuberate; to abound; as, *overflowing* plenty.

O'verflow, *n.* An inundation; also, superabundance.

Overflowing, *n.* Exuberance; copiousness.

—*a.* Abundant; copious; exuberant.

Overflow'ingly, *adv.* Exuberantly; copiously.

Overflush', *v. a.* To flush to excess.

Overflut'ter, *v. a.* To flutter over.

O'verflux, *n.* Exuberance; excess of abundance. (R.)

Overfly', *v. a.* (*imp.* OVERFLEW; *pp.* OVERFLOWN.) To cross by flight.

Overfond', *a.* Fond to excess.

Overfond'ly, *adv.* In an overfond manner.

O'verforce, *n.* Excessive or violent force. (R.)

Overfor'ward, *a.* Forward to excess.

Overfor'wardness, *n.* Too great forwardness; officiousness; presumptuousness.

Overfree', *a.* Free to excess; liberal or familiar to a fault.

Overfree'ly, *adv.* With too great freedom.

Overfreight, (*-frāt',*) *v. a.* To burden too heavily; as, to *overfreight* a ship.

Overfre'quent, *a.* Too frequent.

Overfrieze, (*-frēz',*) *v. a.* To overlay, as with a frieze.

Overfruit'ful, *a.* Producing superabundant crops.

Overfull', *a.* Too full; brimming over.

Overgaze', *v. a.* and *v. n* To overlook.

Overgird', *v. a.* To gird too tightly.

Overglad', *a* Unduly glad

Overglance', *v. a.* To glance over with the eye.

Overglide', *v. a.* To glide over.

Overgloom', *v. a.* To overshadow with gloom.

Overgo', *v a.* To exceed; to surpass.

Overgorge', *v. a.* To gorge to excess; to make a glutton of.

Overgrace', *v. a.* To pay measureless honor.

Overgreat', *a.* Too great.

Overgreat'ness, *n.* Excessive greatness; enormous size.

Overgreed'y, *a.* Ravenously greedy.

Overgross', *a.* Excessively gross.

Overgrow', *v. a.* To grow beyond; to rise above; to cover with growth or herbage.

—*v. n.* To grow beyond the fit or natural size; to increase or enlarge to an excess.

Overgrown', *p. a.* Grown over; covered with herbage; risen above in growth; grown beyond the natural size; as, an *overgrown* lad.

O'vergrowth, *n.* Exuberant or excessive growth.

Overhand, *n.* The upper hand; advantage; superiority.

Overhan'dle, *v. a.* To handle too much; to allude to too often.

Overhang', *v. a.* To hang or impend over; to jut or project over.

—*v. n.* To hang or jut over.

Overhap'py, *a.* Too happy.

Overharden, (*-här'dn,*) *v. a.* To make too hard.

Overhar'dy, *a.* Too hardy; too bold or confident.

Overhaste', *n.* Too great haste.

Overhast'ily, *adv.* In too much haste.

Overhast'iness, *n.* Precipitation.

Overhast'y, *a.* Precipitate; too hasty or impetuous.

Overhaul', *v. a.* To haul or draw over for examination; as, to *overhaul* a ship's bottom. — To haul, draw, or drag over. — To examine again; as, to *overhaul* accounts.

(*Naut.*) To overtake or gain upon in a chase; as, to *overhaul* an enemy's vessel

O'verhaul, O'verhauling, *n.* Examination or inspection with a view to correction or repairs.

Overhead', *adv.* Above the head; aloft; in the zenith or ceiling.

Overhear', *v. a.* (*imp.* and *pp.* OVERHEARD.) To hear what is not addressed to the hearer, or not intended to be heard by him; to hear casually, or by accident.

Overheat', *v. a.* To heat too much.

Overheav'y, *a.* Excessively heavy.

Overhigh', *a.* Too high.
Overhigh'ly, *adv.* In an excessive degree.
Overhon'estly, *adv.* With too scrupulous regard to the appearance of honesty.
Overin'fluence, *v. a.* To influence in an undue or excessive degree.
Overinform', *v. a.* To be more than enough to fill the mind.
Overis'sel, or OVERYSSEL, in *Michigan*, a post-township of Allegan co.
Overissue, (*-ish'shu,*) *n.* An issuing or dissemination to excess; as, an *overissue* of paper money; an issuing, as of debentures, beyond the capital, or in excess of the public demand.
—*v. a.* To issue in excess.
Overjeal'ous, *a.* Excessively jealous.
Overjoy', *v. a.* To please too highly.—To transport with gladness or delight.
—*n.* Joy to excess.
Overjump', *v. n.* To jump over;—hence, to let pass.
Overkind', *a.* Kind to an excessive degree.
Overkind'ness, *n.* Excess of kindness.
Overknow'ing, *a.* Too knowing; too shrewd or astute.
Overla'bor, Overla'bour, *v. a.* (*imp.* and *pp.* OVERLABORED) To harass with toil or severe labor.—To labor to excess.
Overlade', *v. a.* (*imp.* OVERLADED; *pp.* OVERLADEN.) To load with too great a freight or burden; as, an *overladen* ship or animal.
O'verland, *a.* Passing over by land; as, an *overland* mail.
O'verlander, *n.* A traveller over lands or countries.
Overlap', *v. a.* or *n.* To lap over. (Tautological.)
Overlarge', *a.* Too large; too great.
Overlarge'ness, *n.* Excess of size.
Overlash', *v. a.* To urge to excess.
Overlate', *a.* Too late; very late.
Overlav'ish, *a.* Lavish to a fault; profuse to excess.
Overlay', *v. a.* (*imp.* and *pp.* OVERLAID.) To lay too much upon; to oppress with incumbent weight.—To cover or spread over the surface of.—To smooth with close covering; to overwhelm.—To cloud; to overcast; to cover.—To join two opposite sides to a cover.
Overleap', *v. a.* To leap over; to pass or move from side to side by leaping.
Overlearn'edness, *n.* Excess of learning.
O'verleather, (*-leth-er,*) *n.* The leather which forms the upper part of a shoe; that which is over the foot.
Overleav'en, *v. a.* To leaven too much.—To corrupt.
Overlib'eral, *a.* Too free; too generous.
Overlib'erally, *adv.* Too freely; in a too liberal manner.
Overlie', *v. a.* To lie over or upon.
Overload', *v. a.* To load too much, or with too heavy a burden or cargo.—To fill to excess; to overburden.
Overlook', *v. a.* To survey; to oversee; to inspect; to superintend.—To view from a higher place; to stand in a more elevated place, or to rise so high as to afford the means of looking down on.—To review; to examine a second time or with care.—To pass by indulgently; to excuse; not to punish or censure.—To neglect; to slight.
O'verlying, *a.* Lying over or upon something; as, *overlying* rocks.
Overmas'ter, *v. a.* To overpower; to subdue; to govern.
Overmatch', *v. a.* To be too powerful for; to conquer; to oppress by superior force.
—*n.* One superior in power; one able to overcome.
Overmuch', *a.* Too much; exceeding what is necessary or proper.
—*adv.* In too great a degree.
O'vernight, *adv.* Through the night; in the evening, or on the evening before.
Overpass', *v. a.* To cross; to go over.—To overlook; to pass without regard.—To omit, as in reckoning.—Not to receive or include.
Overpay', *v. a.* To pay too much, or more than is due; to reward beyond the price or merit.
O'verplus, *n.* That which is over and above; surplus; that which remains after a supply, or beyond a quantity proposed.
Overpow'er, *v. a.* To affect with a power or force that cannot be borne; to bear down by force; to reduce to silence in action or submission; to overcome; to crush.
Overpow'eringly, *adv.* With superior force.
Overprais'ing, *n.* The bestowal of too great praise or commendation.
Overpress', *v. a.* To bear upon with irresistible force; to crush.—To overcome by entreaty; to press or persuade too much.
Overprize', *v. a.* To value at too high a price.
O'verprompt, *a.* Prompt to excess.
Overpropor'tion, *v. a.* To make of too great proportion.
Overprov'ident, *a.* Excessively provident.
Overprovoke', *v. a.* To provoke to too great a degree.
Overquell', *v. a.* To quell or subdue; to subject.
Overrake', *v. a.* (*Naut.*) To break in upon, as waves upon a vessel's bows, when she is at anchor with her head to the sea.
Overran', *imp.* of OVERRUN, *q. v.*
Overrate', *v. a.* To estimate at a value or amount beyond the worth.
Overreach', *v. a.* To rise above; to extend or stretch beyond.—To deceive by artifice; to cheat.
Overreach'ing, *n.* A reaching too far.—Act of deceiving.
Overrule', *v. a.* To influence or control by predominant power; to subject to superior authority.—To govern with high authority.—To disallow; to supersede or reject; as, in law, to *overrule* a plea, is to reject it as incompetent.
Overrul'ing, *a.* Exerting superior and controlling power.
Overrun', *v. a.* To grow over; to cover all over.—To march or rove over; to harass by hostile incursions; to ravage.—To outrun; to run faster than another and leave him behind.—To overspread with numbers.—To injure by treading down.
(*Printing.*) To run beyond a certain length by reason of insertions; to change in position, as types, by transferring them from a line, column, or page to another.
—*v. n.* To overflow; to run over.
Overrun'ning, *a.* Spreading over; ravaging.
O'ver-sea, *a.* Transmarine; foreign; from beyond the sea.
O'versee, *v. a.* To overlook; to superintend; to inspect; implying care.
O'verseer, *n.* One who oversees or overlooks; a superintendent; a supervisor; an inspector.
Overset', *v. a.* To turn from the proper position or base; to turn upon the side, or to turn bottom upward; to upset.—To subvert; to overthrow; to throw off the proper foundation.
—*v. n.* To turn or be turned over; to turn or fall off the base or bottom.
Overshade', *v. a.* To cover with shade; to overcloud; to overshadow.
Overshad'ow, *v. a.* To throw a shadow over.—To overshade; to shelter; to protect; to cover with protecting influence.
Overshoot', *v. a.* To shoot, cast, or throw beyond the mark.—To pass swiftly over.—(With the reciprocal pronoun), to hurry, go, or pass beyond, as the mark; to venture too far; to assert too much.
—*v. n.* To fly beyond the mark.
O'vershot-wheel, *n.* (*Mech.*) A water-wheel to which the water is conveyed over the top of the wheel and applied above the axle. In his case the water acts merely by its weight, and not by the impulse of the stream.
O'versight, *n.* Superintendence; watchful care.
—An overlooking, or failing to notice; a mistake; error; omission; inadvertence; neglect.
Oversize', *v. a.* To surpass in size.—To smear or daub over, as with size or other glutinous substance.
O'verslaugh, (*-slâw,*) *v. a.* (*Mil.*) To pass over; to omit.
Oversleep', *v. a.* To sleep too long:—used with the reflective pronoun.
Overslide', *v. n.* To glide or slip by.
Overslip', *v. a.* To let slip by; to neglect.
Oversold', *imp.* and *pp.* from OVERSELL, *q. v.*
Oversoon', *adv.* Too soon.
Overspan', *v. a.* To extend over.
Overspeak', *v. a.* To say too much;—used with the reflective pronoun.
Overspent', *p. a.* Having all the strength gone; wearied; exhausted; forespent.
Overspin', *v. a.* To draw out to an excess.
Overspread', *v. a.* To spread over; to cover over; to scatter over.
—*v. n.* To be spread or scattered over.
Overspring', *v. a.* To spring or leap over.
Overstare', *v. n.* To stare wildly.
Overstate', *v. a.* To state too high or in too strong terms; to exaggerate in statement.
Overstate'ment, *n.* Exaggeration; too exaggerated statement.
Overstay', *v. a.* To remain over; as, to *overstay* the time.
Overstep', *v. a.* To step over or beyond; to exceed.
Overstink', *v. a.* To surpass in stench.
Overstock', *v. a.* To fill too full; to crowd; to supply with more than is wanted.
—*n.* A superabundance.
Overstore', *v. a.* To store with too much.
Overstrain', *v. n.* To make exertion, or to labor to excess; to make violent efforts.
—*v. a.* To strain or stretch too much or too far; to stretch or deflect beyond the proper limits.
Overstrain'ing, *n.* The overdoing or overstraining of anything.
Overstretch', *v. a.* To stretch excessively.
Overstrew', *v. a.* To spread or scatter over.
Overstrict', *a.* Needlessly strict; excessively strict.
Overstride', *v. a.* To stride over or across.
O'verstrong, *a.* Too strong.
Overstu'diousness, *n.* Too much application to study; excessive studiousness.
Oversubtle, (*-sut'tl,*) *a.* Too subtle.
Over-superstl'tious, *a.* Too superstitious; carried away by superstition.
Over-sure', *a.* Too certain; too confident.
Over-sway', *v. a.* To overrule; to bear down.
Overswell', *v. a.* To rise above.
Over-swift', *a.* Too quick; too swift.
O'vert, *a.* [Fr. *ouvert*, from *ouvrir*; Lat. *aperire*, to open, from *ad*, and *pario*, to produce.] Open; public; manifest.
Overtake', *v. a.* To come up with in a course, pursuit, progress, or motion; to catch;—To take by surprise.
Overtask', *v. a.* To impose too heavy a task or injunction on.
Overtax', *v. a.* To tax too heavily.
Overte'dious, *a.* Very tedious.
Overtempt', *v. a.* To tempt too much.
Over-ter'rible, *a.* Too terrible or frightful.
Overthrow', *v. a.* To turn upside-down; to overturn; to throw down.—To demolish; to ruin; to destroy.—To defeat; to vanquish; to conquer.
—*n.* The state of being overthrown; ruin; destruction.—Defeat; discomfiture; rout.—Degradation; downfall.
Overthrow'er, *n.* One who overthrows.
Overthrow'ing, *n.* Overthrow; ruin; defeat.
Overthwart', *a.* Opposite; being over against.—Crossing anything perpendicularly.—Perverse; adverse; cross; contrary.
—*prep.* Across; athwart. (R.)
Overthwart'ness, *n.* Posture across.—Perviocity; perverseness.
Overtilt', *v. a.* To overturn or upset.
Overtire', *v. a.* To overcome with fatigue.
Overtir'ing, *n.* Weariness; fatigue.
Over-ti'tle, *v. a.* To bestow too high a title on.
O'vertly, *adv.* Publicly; openly; in an overt manner.
Over-toil', *v. a.* To over-work.
O'verton, in *Pennsylvania*, a post-township of Bradford co. *Pop.* (1897) 825.
Overton, in *Tennessee*, a N. by E. co., adjoining Kentucky; *area*, about 360 sq. m. *Rivers.* Cumberland and Obie's rivers, besides many smaller streams. *Surface*, mountainous; *soil*, generally fertile. *Min.* Iron and coal in abundance. *Cap.* Livingston. *Pop.* (1897) 12,560.
Overtop', *v. a.* To rise above; to raise the head above.—To excel; to surpass.
Overtow'er, *v. n.* To tower too high; to rise or fly too high.
Overtrade', *v. n.* To trade to excess, or beyond capital, or to purchase goods beyond the means of payment, or beyond the wants of the community.
Overtrad'er, *n.* One who overtrades.
Overtrad'ing, *n.* Excessive traffic, or trading beyond one's capital.
Overtread', *v. a.* To tread, or walk over.
Overtrip', *v. a.* To trip over; to walk lightly over.
Overtrust', *v. a.* To confide too much in; to trust too much.
Overtum'ble, *v. a.* To turn or tumble over.
O'verture, *n.* [Fr. *ouverture*, from *ouvrir*, from Lat. *aperire*, to open.] A disclosure; a discovery.—A proposal; declaration; something offered for consideration.—An opening. (R.)
(*Mus.*) An introductory symphony to an opera or oratorio, or a kind of musical prologue in keeping with the piece which it ushers in. This species of composition is said to have been originated in France, where it was afterwards perfected by Lully. Modern overtures are formed upon the subject of the opera, and generally contain snatches from the leading airs. As splendid examples of this species of composition, we may mention Mozart's overtures to *Figaro* and *Don Giovanni*, Weber's overture to *Der Freischütz*, and Rossini's overture to *Guillaume Tell*.
Overturn', *v. a.* To turn or throw from a base or foundation; to throw down.—To subvert; to ruin; to destroy.—To overpower; to conquer.
—*n.* State of being overturned or subverted; overthrow.
Overturn'able, *a.* Capable of being overturned.
Overturn'er, *n.* One who overturns; subverter.
Overturn'ing, *n.* Subversion.
Overvalua'tion, *n.* Over-estimate of value or price.
Overval'ue, *v. a.* To value too highly; to rate at too high a price.
Overval'uing, *n.* Over-valuation.
Overveil, (*-vāl',*) *v. a.* To cover; to obscure.
Overvote', *v. a.* To conquer by plurality of votes.
Overwalk', *v. a.* To walk over or upon.
Overwan'ton, *a.* Excessively wanton.
Overwa'ry, *a.* Too cautious or circumspect.
Overwash', *v. a.* To run over; to overflow.
Overwast'ed, *a.* Very much wasted.
Overwateh', *v. a.* To subdue with long want of rest.
Overwatched', *a.* Tired with too much watching.
Overweak', *a.* Too weak; too feeble.
Overwear', *v. a.* To wear too much.
Overwea'ry, *v. a.* To subdue with fatigue.
Overweath'er, *v. a.* To batter by violence of the weather.
Overween', *v. n.* To think arrogantly or conceitedly; to reach beyond the truth in thought; to think too favorably.
Overween'er, *n.* A conceited person.
Overween'ing, *a.* Thinking too highly, or conceitedly; conceited; vain.
Overween'ingly, *adv.* Conceitedly; with too much arrogance.
Overweigh', *v. a.* To exceed in weight; to cause to preponderate; to outweigh; to overbalance.
—*n.* Excess of weight; greater weight; preponderance.
Overwhelm', *v. a.* To whelm, cover, or spread over; to overspread or crush beneath something violent and weighty, that covers or encompasses the whole; to immerge; to submerge; to sink; to immerse and bear down; to overpower; to overcome; to subdue.
Overwhelm'ing, *p. a.* Crushing with weight or numbers.
Overwhelm'ingly, *adv.* In a manner to overwhelm.
O'verwise, *a.* Wise to affectation.
O'verwit, *n.* To overreach in wit, cunning, and craftiness.
Overwood'y, *a.* That is too much abounding in wood.
O'verwork, *n.* Excessive work or labor.
—*v. a.* To work to excess, or beyond the strength of; to cause to labor too much; to tire.
Overworn', *a.* Worn to excess; worn out; subdued by toil.
Overwrestle, (*-rès'l,*) *v. a.* To subdue by wrestling.
Overwrought', *p. a.* Wrought or labored to excess; worked all over.
Overys'sel, a province of the Netherlands, having N. Friesland and Drenthe, E. Hanover and Westphalia, S

Guelderland, and W. the Zuyder-Zee. *Area*, 1,293 sq. miles. The surface is level, with large tracts of marshy ground, but the soil is fertile along the banks of the rivers. *Rivers.* Yesel, Zwarte, Water, Vechte, Schiepbeek, and the Linde. *Prod.* Rye, buckwheat, hemp, and fruits. Large numbers of cattle are raised. *Manuf.* Linen and cotton fabrics, carpets, leather, wicker-wares, mats, and hardware. Ship-building is also carried on. *Chief towns.* Deventer (the cap.), Zwolle, and Kampen. *Pop.* 256,449.

O'vibos, *n.* [Lat. *ovis*, a sheep, and *bos*, an ox.] (*Zoöl.*) The MUSK-OX, *q. v.*

Ovic'ular, *a.* Pertaining to an egg.

O'vid, PUBLIUS OVIDIUS NASO, a celebrated Roman poet of the Augustan age, was of the equestrian order, and B. at Sulmo, B. C. 43. He studied the law, and is said to have pleaded with eloquence in the court of the centumviri; he was also constituted one of the triumviri, whose authority extended to the trial of capital causes; but his decided predilection for polite literature, and particularly poetry, led him to neglect severer studies, and on succeeding to the paternal estate, he quitted the bar for poetry and pleasure. Horace and Propertius were his friends, and Augustus was a liberal patron to him; but he at length fell under the displeasure of the Emperor, who, for some cause never explained, banished him from Rome, and sent him to live among the Getæ, or Goths, on the Euxine. It is probable that the political intrigues of the Empress Livia and her son Tiberius contributed to the removal of the poet; while the licentiousness of his writings, and the irregularities of his life, afforded plausible pretexts for the infliction of this punishment. His chief works are the *Amores*, *De Arte Amandi*, the *Fasti*, and *Metamorphoses*. He in vain solicited his recall to Rome, and D. at Tomi, A. D. 18. Ovid was born a poet — he "lisped in numbers, for the numbers came;" and that he possessed high poetical genius is unquestionable. His judgment and taste, however, are sometimes at fault, and the vigorous fancy and warmth of coloring displayed in some parts of his works are necessary to counterbalance the false taste and frigid conceit which present themselves in others. At the same time, it must be granted that no poet, either ancient or modern, has expressed beautiful thoughts in more appropriate language.

O'vid, in *Michigan*, a township of Branch county.—A post-village and township of Clinton county, about 69 miles E. of Grand Rapids.

Ovid, in *New York*, a post-village and township, cap. of Seneca co., on an isthmus between Seneca and Cayuga Lakes, abt. 190 m. W. of Albany. The Willard Insane Asylum is located at Willard, 2 m. distant.

O'viduct, *n.* [Lat. *ovum*, an egg, and *ductus*, a leading or conducting, a duct. See EGO and DUCT.] (*Anat.*) A duct or passage for the egg in animals, from the ovary to the womb, or to an external outlet. In mammals, this duct is termed the FALLOPIAN TUBE, *q. v.*

Oviedo, (*o-ve-ā'-do*,) an anc. city of Spain, prov. of Oviedo, at the junction of the rivers Ovia and Nora, 60 m. N.W. of Leon. *Manuf.* Arms, leather, hats, horn, combs, and metal buttons.

Oviedo y Valdez, GONZALO FERNANDEZ, (*o-ve-ā'do e val'dath.*) a Spanish historian, B. 1478, author of a *General History of the Indies*, a book of immense learning, though denounced by Las Casas as little better than fabulous. D. abt. 1558.

O'viform, *a.* [Lat. *ovum*, and *forma*, form.] Having the form or figure of an egg.

Ovig'erous, Ovif'erous, *a.* [Lat. *ovum*, and *gero*, to bear.] Bearing or containing eggs.

O'vine, *a.* [Fr., from Lat. *ovinus*; *ovis*, a sheep.] Pertaining to sheep.

Ovip'arous, *a.* (*Zoöl.*) A term applied to the mode of generation by the exclusion of the germ in the form and condition of an egg, the development of which takes place out of the body, either with or without incubation. Fishes, reptiles, and birds are called Oviparous Vertebrates, although some of both the former classes hatch the egg within the body and bring forth their young alive, as the viper and dog-fish.

Ovipos'it, *v. a.* To deposit, as eggs.

Oviposi'tion, *n.* (*Zoöl.*) The act of excluding eggs from the abdomen.

Ovipos'itor, *n.* [Lat. *ovum*, and *pono*, *positus*, to place.] (*Zoöl.*) The instrument by which an insect conducts its eggs to their appropriate sides, and often bores a way to it; the same instrument is, in some genera, used as a weapon of offence, when it is called the *aculeus*.

O'vis, *n.* [Lat., a sheep.] (*Zoöl.*) See SHEEP.

O'visac, *n.* [Lat. *ovum*, and *saccus*, a sac.] (*Anat.*) The cavity in the ovary which numerically contains the ovum.

O'void, Ovoid'al, *a.* [Lat. *ovum*, and Gr. *eidos*, form.] (*Bot.*) Ovate or oval in a solid form.

O'volo, *n.* (*Arch.*) A moulding (see COLUMN,) the profile of which is the quadrant of a circle. In Grecian architecture there is a deviation from this precise form; it is most apparent at the upper portion, where it resembles the form of an egg, whence this moulding derives its name. In fact, a Grecian ovolo is a portion of a cycloid.

Ovol'ogy, *n.* [Lat. *ovum*, and Gr. *logos*, discourse.] A treatise on eggs; oölogy.

Ovos, (Ilha Dos,) (*eel'ya-doce o'voce,*) an island of Brazil, at the entrance of the Bay of Cuma.

Ovovip'arous, *a.* (*Zoöl.*) Bringing forth a living fœtus, more or less extricated from the egg-coverings, which has been developed within the body of the parent, without any vascular or placental adhesion between the ovum and the womb.

O'vulary, *a.* Belonging to ovules.

Ovula'tion, *n.* (*Physiol.*) The formation of ova in the ovary, and their discharge. — *Dunglison.*

O'vule, *n.* [Fr., from Lat. *ovulum*, a small egg.] (*Bot.*) The young or immediate seed of a plant.

O'vulite, *n.* [Lat. *ovum*, and Gr. *lithos*, a stone.] (*Pal.*) A fossil egg.

Ov'ulum, *n.* [See OVULE.] (*Bot.*) An ovule.

(*Physiol.*) The ovum of the mammalia, so called on account of its relatively minute size.

O'vum, *n.*; *pl.* OVA. [Lat., an egg.] (*Anat.*) The body formed by the female in which, after impregnation, the development of the fœtus takes place. It is generally formed in a definite part, called the *ovarium*; but in some of the simplest animals, as the Polypes, the common cellular parenchyma of the body seems to have the unlimited faculty of producing the ova. The essential and apparently first-formed part of an ovum is a minute pellucid cell, called the *germinal vesicle*, which is characterized by an opaque speck or nucleus, called the *germinal spot*. The vesicle is immediately surrounded by a stratum of granules or nucleated cells, which form the *germinal disc*. These parts float in a greater or less quantity of fluid and granules, called the *yolk*, which is generally of some well-marked color, as yellow, green, violet, red, owing to the presence of a minutely diffused oil. The yolk is enclosed in a thin, delicate, structureless coat, called the *vitelline membrane*, and this is finally surrounded by an outer tunic called the *chorion*. Between the chorion and vitelline membrane there is commonly a greater or less quantity of albumen. In the birds, this fluid, which is called the *white* and the *yolk*, is in great quantity; the chorion is laminated, and the outer layer is combined with earthy salts to give due firmness, and preserve the shape of the egg while subject to the weight of the parent during incubation. Two twisted strings of firm albumen, called *chalazæ*, are continued from each end of the yolk, a little below the poles, and serve to steady and keep uppermost the *cicatricula* or *tread*, formed by the impregnated germinal vesicle or disc. A space intercepted between two of the layers of the chorion, or *membrana putaminis*, at the great end of the egg, contains a small quantity of gas, containing more oxygen than atmospheric air; this space is called the *vesica aërea*.

Owas'co, in *New York*, a lake of Cayuga co., abt. 160 m. W. by N. of Albany; *area*, abt. 8 sq. m. It communicates with Seneca River through Owasco Creek. —A post-village and township of Cayuga co., abt. 160 m. W. by N. of Albany.

Owaton'na, in *Minnesota*, a city and township, cap. of Steele co., on the Chic., Milw. & St. Paul and the Chic. & Northwestern R Rs.; has manuf. of farming implements, &c., and a fine trade with the rich agricultural region surrounding. Near here is a valuable mineral spring. *Pop.* (1897) 5,040.

Owe, *v. a.* [A. S. *agan*, pp. *âhte*; Ger. *eigen*; Gr. *echein*, to have, to hold.] To be under obligation or bound to pay; to be indebted.—To be obliged for; to be obliged to ascribe.

"That he may to me *owe* all his deliverance."—*Milton.*

—*v. n.* To be due to; to be the result or effect of.

"O deem thy fall not *owed* to man's decree."—*Pope.*

Owe'go, in *Illinois*, a township of Livingston co.

Owe'go, in *New York*, a handsome town, cap. of Tioga co., on the Susquehanna river, and the Erie, Del., Lack. & W., and Leh. Valley R. Rs., 37 m. E. of Elmira; has large manuf. and considerable trade. *Pop.* (1897) 5,200.

Ow'elty, Ov'elty, Ov'ealty, *n.* (*Law.*) Equality; as, *owelty* of partition.

Owen, (*o'en,*) RICHARD, F.R.S., a celebrated English comparative anatomist, B. 1804. After matriculating at Edinburgh University, in 1824, he became a member of the Royal College of Surgeons of London in 1826, and was appointed Hunterian Professor and Conservator of the Museum of the College in 1835, having for some years previous been engaged in preparing the *Descriptive and Illustrated Catalogue of the Specimens of Physiology and Comparative Anatomy*; the *Catalogue of the Natural History*, that of the *Osteology*, and that of *The Fossil Organic Remains*, preserved in the Museum. He took an active share in the work of the commission of Inquiry into the Health of Towns, and also a conspicuous part in the organization of the "Great Exhibition of all Nations," at London, in 1851, serving as president of one of the juries, and, at the request of the government, went to Paris, where he was president of the jury of the same class of objects in the "Universal Exposition of 1855," and received the Cross of the Legion of Honor. In the same year he brought out, in Paris, his *Principles of Comparative Osteology*, published in French. Discerning in a fragment of fossil bone from New Zealand, submitted to him in 1839, evidence of a bird more gigantic than the ostrich, Professor *O.* published an account of it; transmitted copies to New Zealand, and obtained evidence in confirmation and extension of his ideas, which occupies many successive parts of the "Transactions of the Zoölogical Society." In that for 1855, he propounds his theory of the extinction of species, on the principle of the "contest of existence," through the operation of extraneous influences. The genera of birds thus lost by natural rejection are Dinornis, Aptornis, Notornis. Chemiornis, &c. Concluding in the work *On the Nature of Limbs*, his researches on the unity of plan of animal organization, the author is led to regard species as due to secondary cause or law, continuously operating and producing them successively, but in a way unknown to him. Prof. *O.* produced, besides other works, *Memoir on the Pearly Nautilus* (1832); *Odontography* (1840); *Lectures on the Comparative Anatomy of the Invertebrate Animals*, and *History of British Fossils, Mammals, and Birds* (1846); *On the Archetype and Homologies of the Vertebrate Skeleton* (1848); *On the Nature of Limbs*, and *On Parthenogenesis, or the Successive Production of Procreative Individuals from a Single Ovum* (1849); *History of British Fossil Reptiles* (1849–51); *On Paleontology*, and *On the Megatherium* (1860); *On the Aye-Aye* (Chiroruye) (1863); *On the Gorilla* (1865); *On the Dodo*, and *On the Anatomy of Vertebrates* (1866); and articles on *Zoölogy, Comparative Anatomy and Physiology*, in *Brande's Dictionary of Science, &c.*, in which the article *Species* contains the professor's latest views of their nature and origin. Prof. *O.*, who communicated numerous papers to the transactions of the Royal, Linnæan, Geological, Zoölogical, Cambridge Philosophical, Medico-Chirurgical, and Microscopical Societies, and contributed some elaborate reports, published in the *Transactions of the British Association for the Advancement of Science*, was one of the founders and first president of the Microscopical Society, a fellow or associate of nearly all the learned societies or scientific academies of Europe and America, a chevalier of the Prussian Order of Merit, and one of the eight foreign associates of the French Institute. In 1877, Prof. *O.* brought out, at his own cost, a magnificently illustrated work *On the Fossil Mammals of Australia*, 2 vols., 450 pp., with 132 plates. His very useful work *On the Extinct Wingless Birds of New Zealand* appeared in 1879. Died Dec. 18, 1892.

Owen, ROBERT, a modern English philanthropist, and the founder of the political system called "Socialism," was B. in 1771. He rose to affluence as proprietor of Charlton Cotton Mills, near Manchester, and afterwards as co-proprietor, along with his wife's father, of the "New Lanark Twist Company's" works near Glasgow. There he presided over 4,000 operatives with a high benevolence, building new schools and dwellings, and evincing a patriarchal care for the welfare of all connected with him. From 1810 to 1815, he published his *New View of Society, or Essays on the Formation of the Human Character*. In 1823 he went to the U. S., when he purchased a large tract of land in Indiana, and founded a community called by him "New Harmony." This proving a failure, *O.* returned to England in 1827, and attempted similar social establishments in that country, but without success. D. 1858. — ROBERT DALE OWEN, eldest son of the preceding, B. in 1804, accompanied his father to the U. States, and remained there, becoming a prominent citizen, and representing Indiana for some years in Congress. Associated with Fanny Wright (1830), a gifted English woman, he edited the New Harmony *Gazette*. He was a warm advocate of the rights of women, and a leading Spiritualist. He was the author of *Footfalls on the Boundary of Another World* (1859); *The Wrongs of Slavery* (1864); *Debatable Land* (1872); greatly esteemed. D. June 24, 1877.— DAVID DALE OWEN, an American geologist, brother of the preceding, B. 1807, and educated in Switzerland, became a citizen of the United States in 1833 and achieved distinction as the conductor of the geological surveys of the States of Indiana, Iowa, Wisconsin, Minneesota, Kentucky, and Arkansas. D. at New Harmony, Ind., 1860.

Ow'en, in *Illinois*, a township of Winnebago county.

Ow'en, in *Indiana*, a S.W. central co.; *area*, about 390 sq. m. *Rivers.* West Fork of White river, and several less important streams. *Surface*, level, or generally undulating; *soil*, generally fertile. *Min.* Iron and coal. *Cap.* Spencer. *Pop.* (1890) 15,040.

—A township of Clarke co.

—A township of Clinton co.

—A township of Jackson co.

—A township of Warrick co.

Ow'en, in *Iowa*, a township of Cerro Gordo co.

Ow'en, in *Kentucky*, a N. co.; *area*, about 312 sq. m. *Rivers.* Kentucky river, Eagle creek, and many smaller streams. *Surface*, undulating; *soil*, fertile. *Cap.* Owenton. *Pop.* (1890) 17,676.

Ow'enborough, in *Kentucky*, a city, cap. of Daviess co., on the Ohio river, about 155 m. below Louisville. *Pop.* (1897) 10,350.

Ow'enite, *n.* [After David Dale *Owen*, an American geologist.] (*Min.*) A silicate of iron and lime.

Ow'ensburg, in *Indiana*, a post-village of Greene co., about 15 m. E.S.E. of Bloomfield.

Ow'en's Lake, in *California*, a sheet of water in Inyo co. It covers an area of about 80 sq. m., and receives Owen's river from the N.

Ow'en's River, in *California*, rises on the E. slope of the Sierra Nevada, in Mono co., and flows S. into Owen's lake, in Inyo co.

Ow'ensville, in *Indiana*, a post-town of Gibson co., about 9 m. S.W. of Preston.

Ow'ensville, in *Missouri*, a post-village of Gasconade co., about 28 m. S. of Hermann.

Ow'ensville, in *New York*, a village of Westchester co., about 112 m. S. of Albany.

Ow'ensville, in *Texas*, a post-village, former cap. of Robertson co., about 100 m. N. E. of Austin.

Ow'enton, in *Kentucky*, a post-village, cap. of Owen co., abt. 28 m. N of Frankfort.

Ow'enville, in *N. Carolina*, a post-village of Sampson co., abt. 84 m. S.S.E. of Raleigh.

Owhyhee, or **Hawaii,** (*o-wi-he'.*) an island in the N. Pacific Ocean, the most E., and by much the largest, of the Sandwich Islands. It is of a triangular shape. *Area*, estimated at 4,100 sq. m. *Desc.* Mountainous and volcanic. It has several lofty peaks, among which is Mauna Roa, an active volcano, which has an elevation of 13,120 feet above the level of the sea. In some part

there are volcanic appearances, the ground being everywhere covered with cinders, and intersected in many places with black streaks, which seem to mark the course of a lava-stream that has flowed not many ages back from the mountains to the shore. *Prod.* Sugar-cane, bread-fruit, sandal-wood, and numerous tropical productions. *Pop.* Estimated at from 80,000 to 100,000. Lat. of S. point 19° 32′ N., Lon. 154° 54′ W. It was on this island that the celebrated Captain Cook fell a sacrifice to a misunderstanding, or sudden impulse of revenge on the part of the natives, on Sunday, the 14th of February, 1779. It was afterward frequently visited by different navigators. See HAWAII.

Ow'ing, *p. a.* [Used for *owen* or *owed.*] Due; that moral obligation requires to be paid; as, money *owing* to a person for goods. — Consequential; ascribable, as a cause; as, his misfortunes are all *owing* to his own folly. — Imputable as an agent; as, to estimate how much is *owing* to nature, how much to art.

Ow'ing's Mills, in *Maryland,* a post-village of Baltimore co., abt. 17 m. N. of Baltimore.

Ow'ingsville, in *Kentucky,* a post-village, capital of Bath co., abt. 45 m. E. by N. of Lexington.

Owl, *n.* [A. S. *ule;* Ger. *eule;* Lat. *ulula.* Formed from the cry of the bird.] (*Zoöl.*) One of the fam. *Strigidæ,* ord. *Raptores,* including all the nocturnal birds of prey. The owls fill during the night the same offices which are performed by the holder hunting-falcons in the open day; and they serve to keep in check the increase of mice and other small mammalia which come out at night. For this purpose, the various organs of the owls are beautifully adapted. The vision is acute, although not suited to the light of noon. Their ears are contrived to catch sound in the broadest way, and also possess a delicate perception; while their plumage is of the softest texture, falling lightly on the air, so as not to cause any obstruction; and the wings are constructed for light, buoyant, and noiseless flight. In addition to these advantages in the pursuit of their prey, another is found nearly as essential, and without which the others would be useless. The color of the plumage exhibits a union of tints best suited for concealment; for a dusky and harmonious arrangement of colors renders the owls in-

Fig. 2015. — BARN-OWL, (*Strix flamma.*)

visible in the gloomy twilight or gray darkness of night. The tarsi and beak, although not showing any great strength, are finely formed for grasping; for, as in the *Scansores,* the exterior toe is versatile. The foot can thus be used either in scrambling in the interior of some rent or chimney, or in the hollow of a tree, while it also becomes more complete as an organ of prehension. In their habits, owls may generally be termed arboreal, the dark recesses of the forest or wooded rocks affording cover from the too strong light of the day. From these retreats, they sally out at nightfall on predatory excursions, seldom returning without something for their nest. Their eggs are of a roundish form, and are always nearly pure white in color. The geographical distribution of these birds is very extensive. The common White, Barn, or Screech-owl (Fig 2015), which may be taken as a type of the family, is common on the North American continent. The Long-eared owl is identical both in this country and in Africa. The Short-eared owl is not uncommon in the United States; and it is also common to Asia, several specimens having been obtained from China. The Tawny owl inhabits N. Europe and America, reaching nearly to the polar latitude. The genus *Bubo* (q. v.) includes the largest species known as Great-horned, Cat, or Eagle owls. The other most important species are described under their proper names.

—*v. a.,* (*imp.* and *pp.* OWLED.) To prowl; to go prying about. (Used as an English provincialism.) — Hence, by implication, to carry on a contraband or illegal traffic; — so called from its being performed chiefly in the night. (Used in England.)

Owl'er, *n.* One who carries or passes contraband goods.

Owl'et, *n.* [Dimin. of *owl.*] An owl; or, specifically, a little owl.

Owl'et-moth, *n.* (*Zoöl.*) A name common to many species of lepidopterous insects of the family *Noctuidæ,* (q. v.)

Owl'-light, *n.* Glimmering, or dim, imperfect light.

Owl Prai'rie, in *Indiana,* a post-village of Daviess co., abt. 16 m. N. of Washington.

Owl's Head, in *Maine,* a promontory and light-house on the W. side of the entrance of Penobscot Bay. It exhibits a fixed light 147 feet above sea-level; Lat. 44° N., Lon. 68° 58′ W.

Own, (ōn,) *a.* [A. S. *agen,* pp. of *agan.* See OWE.] Belonging to; possessed exclusively by; peculiar; — usually following a possessive pronoun, as *my, our, thy, his, her, it, their,* in order to express an emphatic idea of ownership, or of sole ownership to the exclusion of others; as, my *own* work, — that is, work performed by myself only, and not by any other.

"Every subject's soul is his *own.*"—*Shaks.*

—*v. a.,* (*imp.* and *pp.* OWNED.) To possess; to have the legal or rightful title to; to have the exclusive right of possession and use of; as, to *own* an estate. — To acknowledge to belong to; to avow or admit that some certain thing, as property, belongs to; as, he *owned* him for his son. — To avow; to acknowledge; to confess, as a fault, crime, or other act; to admit to be true; not to deny; as, I *own* I am in the wrong.

Own'er, *n.* One who owns; the rightful possessor or proprietor; one who has the legal rightful title, whether he be in possession or not.

Own'ership, *n.* Exclusive right of possession; proprietorship; legal or just claim or title; state of being an owner.

Owse, Ow'ser, *n.* Same as OOZE, *q. v.*

Ows'ley, in *Kentucky,* an E. central co.; *area,* abt. 176 sq. m. *Rivers.* Kentucky river and its three forks, besides several less important streams. *Surface,* mountainous; *soil,* not very fertile. *Min.* Iron and coal in great quantities. *Cap.* Booneville. *Pop.* (1890) 5,975.

Owy'hee, in *Idaho,* an extreme Southwestern co., adjoining Nevada on the S., and Oregon on the W.; *area,* about 7,800 sq. m. *Rivers.* Lewis Fork of Columbia river, and its numerous tributaries. *Surface,* mountainous; *soil,* in some parts fertile. *Min.* Gold and silver. *Cap.* Silver City. *Pop.* (1897) 3,456.

Owy'hee River, in *Oregon,* rises on the W. slope of the Blue Mountains, and flowing W. enters the S. branch of Lewis River.

Ox, *n. pl.* [A. S. *oxa;* Du. *os;* Ger. *ochs;* perhaps from Gr. *auxo,* I increase, the prosperity of individuals in early times being estimated by the amount of cattle they possessed.] (*Zoöl.*) The common name of the gen. *Bos,* including ruminant animals of the family *Bovidæ,* characterized by horns rounded, muzzle broad, usually naked, and without a vertical furrow at the end. In common parlance the male is called *Bull,* and the name *Ox* is restricted to the castrated male, the female being called *Cow,* and the young *Calf.* The early domesticity of the ox is attested by the mention made of it in the writings of Moses, and by the worship of it in Egypt, which the Israelites imitated in making the golden calf at Mount Sinai. The ancient accounts of the wild ox describe it to have been an animal of enormous size and great fierceness, and the fossil remains of oxen which are found in this and other countries certainly seem to prove that the oxen of ancient times possessed these characteristics. The modern breeds of oxen pre-eminently noticeable in Great Britain are remarkable for their numerous varieties, caused by the almost endless crossing of one breed with another; the principal varieties, however, are the *North Devon,* distinguished for the activity of its movements, its docility, and powere of labor. (See DEVONSHIRE.) The *Hereford,* which are larger than the Devon and fatten to a much greater weight. The *Sussex,* which has all the activity of the Devon and the strength of the Hereford, with the propensity to fatten, and the fine-grained flesh of both. The *Welsh,* which are stunted in their growth, from the poverty of their pastures; but which thrive where others starve, and which rapidly outstrip most others when they have plenty of good pasture. The Alderney cow, (Fig. 2016,) with her crumpled horn. The Scotch, of which there are many varieties; the principal being the West Highlanders, or Kyloes, as they are called; the Argyleshire breed; the cattle of the Shetland Islands, which are dwarfish, ill-shaped, and covered with hair. Fifeshire possessee a breed peculiar to itself, of a very superior description; and the Galloway polled cattle are a fine and valuable breed, from which is descended the celebrated dun cow of Suffolk. Of Irish cattle there are two breeds, — the middle-horns and the long-horns, (Fig. 2017,) the former being the original breed, tenanting the forests and more mountainous districts; while the latter are descended from an old Lancashire or Yorkshire breed All these varieties have been imported into this country, and more or less successfully acclimated. There is also now in the U. States a class of native cattle, arising from a mixture of various breeds imported by the early settlers, varying in different districts with the richness of soil, saluhrity of climate, and care of breeders. Almost every part of the ox is of use to mankind. Boxes, combs, knife-handles, and drinking-vessels are made of the horns; glue is made of the cartilages, gristles, and the finer pieces of cuttings and parings of the hides. The skin of the young ox is made into vellum; the hair is valuable in various manufactures, and the suet, fat, and tallow, for candles. The value of its flesh as food needs scarcely he mentioned.

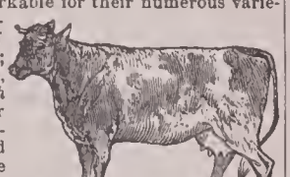


Fig. 2016. — ALDERNEY COW.

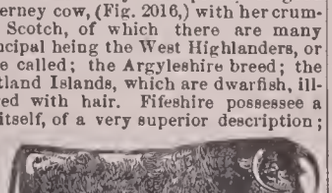


Fig. 2017. — LONG-HORNED BULL.

Oxac'id, *n.* (*Chem.*) An acid containing oxygen.

Oxal'amide, *n.* (*Chem.*) Same as OXAMIDE, *q. v.*

Ox'alate, *n.* (*Chem.*) A salt of oxalic acid.

Oxal'ic Acid, *n.* (*Chem.*) A very powerful organic acid, existing ready formed in the leaves of the wood-sorrel, in the leaf-stalks of the common garden-rhubarb, and in many other plants having an acid taste. It is also found in combination with lime, in crystals, in the juices of many vegetables. It is prepared artificially by oxidizing starch or sugar by nitric acid, or by acting on sawdust with a mixture of the hydrates of potash and soda. It crystallizes in fine transparent four-sided prisms, and dissolves in nine parts of cold water. Its solution has an intensely sour taste, and acts as a violent poison, occasioning death in a few hours. Its best antidote is the administration of chalk or magnesia suspended in water, with which it forms an inert and insoluble oxalate. It greatly resembles Epsom salts in appearance, and has been frequently administered for that popular purgative with fatal consequences. It is used in calico-printing as a resist, in the form of binoxalate of potash, and occasionally as a resist in combination with alumina. It is a bibasic acid, and forms acid and neutral salts with the bases, most of which are insoluble. Heated strongly, it splits up into carbonic acid and carbonic oxide, and is much used in the laboratory as a source of the last-mentioned gas. *Form.* $H_2C_2O_4$.

Oxalida'ceæ, *n.* (*Bot.*) The Oxalid or Wood-sorrel family, an order of plants, allianoe *Geraniales.* DIAG. Symmetrical flowers, distinct styles, carpels longer than the torus, and seeds with abundant albumen. — They are herbs, under-shrubs, or trees, generally distributed throughout both the hot and the temperate regions of the globe; the shrubby species, however, are almost confined to the tropics. They are chiefly remarkable for their acid juice, containing binoxalate of potash. The order contains 6 genera and 325 species.

Oxalis, *n.* [Gr. *oxys,* sour; from the acid taste of most species.] (*Bot.*) The typical genus of the order *Oxalidaceæ.* They are mostly perennial plants with trifoliate leaves. *O. acetosella,* the Common Wood-sorrel, is a well-known species. It has ternate leaves, and is considered by many to be the true Shamrock of the Irish, as its leaves open about St. Patrick's day. When infused in milk or water, it forms a pleasant refrigerant drink in fever The leaves taken as salad, are anti-scorbutic. The species *O. crenata,* called the Arracacha, and several others, have edible tubers, which are used as substitutes for potatoes in some districts. *O. anthelmintica,* the Mitchamitcho of Abyssinia, has very acrid tubers, which are employed for their anthelmintic properties.

Ox'alite, *n.* (*Min.*) A native yellow oxalate of iron; humboldtine.

Ox'alyle, *n.* (*Chem.*) The hypothetical radicle of oxalic acid. *Form.* C_2O_2.

Oxam ic Acid, *n.* (*Chem.*) One of the products of the destructive distillation of binoxalate of ammonia. *Form.* $NH_2\,C_2O_2,HO\,C_2O_3$.

Ox'amide, *n.* (*Chem.*) A white substance produced during the destructive distillation of oxalate of ammonia; — hence its name, compounded of *oxalis* and *ammonia.* It is a compound of nitrogen, hydrogen, oxygen, and carbon, in such proportions as to form oxalate of ammonia by the addition of four atoms of water. *Form.* $NH_2\,C_2O_2$

Ox'-bird, *n.* (*Zoöl.*) See TRINGA.

Ox'-bow, *n.* Part of a yoke intended to encircle an ox's neck.

Ox'bow, in *New York,* a post-village of Jefferson co., abt. 28 m. N N E of Watertown.

Ox'enstierns, AXEL, COUNT, an eminent Swedish statesman, distinguished for profound sagacity, patriotism, and political honesty, was B. in 1583. He was the favorite of Gustavus Adolphus, after whose death he conducted the affairs of the kingdom with equal ability and integrity. D. 1654. — His sons, JOHN and ERIC, both distinguished themselves as diplomatists.

Ox'-eye, *n.* (*Bot.*) See HELIOPOLIS.

(*Zoöl.*) The Large titmouse, *Parus major.*

(*Meteorol.*) A kind of heavy squall, resembling a typhoon, peculiar to the tropical latitudes of W. Africa.

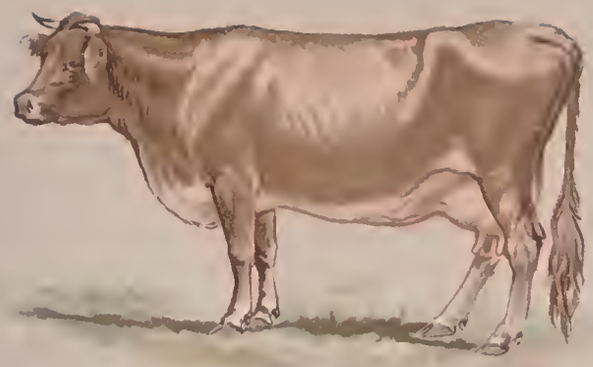
Ox'-eyed, (-īd,) *a.* Having large, full eyes, resembling those of an ox.

Ox'-eye Daisy, *n.* (*Bot.*) See LEUCANTHEMUM.

Ox'-fly, *n.* A fly hatched under the skin of cattle; *Æstus bovis.* See ÆSTRIDÆ.

Ox'ford, an inland co. of England, having N. the co. of Warwick, N.E. and E. Northampton and Buckingham, S. Berks, from which it is separated by the Thames, and W. Gloucester. *Area,* 739 sq. m. The surface is diversified, and the soil fertile in the N., but elsewhere gravelly or thin. *Rivers.* Windrush, Evenlode, Cherwell, and Thames. *Prod.* Wheat, barley, and vegetables. Large numbers of sheep are raised. *Chief towns.* Oxford, (the cap.,) Banbury, Woodstock, and Henley. *Pop.* (1897) 187,180.

OXFORD, a city, cap. of the above co., at the junction of the Isis and the Cherwell, 52 m. W.N.W. of London. It is pleasantly situated in a plain, thickly planted with trees, with the above-mentioned rivers on three sides, and contains many fine streets and handsome edifices.



JERSEY

SHORTHORN

HOLSTEIN

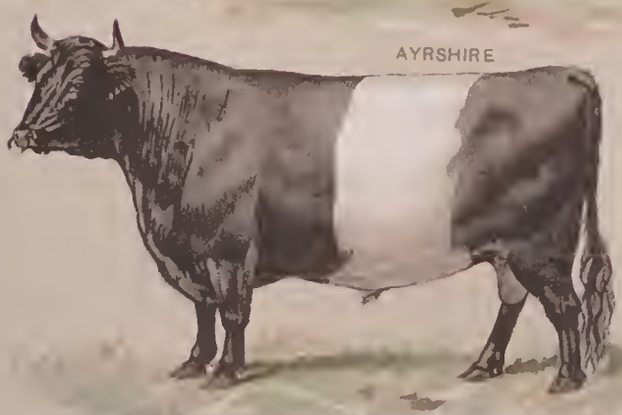
GUERNSEY

TEXAS STEER

BROWN SWISS

WEST HIGHLAND

AYRSHIRE



DUTCH BELTED

ABERDEEN-ANGUS

STANDARD CATTLE

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Besides its numerous collegiate edifices and churches, the prominent public buildings are the Cathedral, the Town Hall, Corn Exchange, the Theatre, and the Radcliffe

Fig. 2018.—RADCLIFFE LIBRARY, OXFORD.

Library (Fig. 2018), a splendid circular building, founded in 1749. *Pop.* (1897) 51,500.

Ox'ford, (University of.) This celebrated university lays claim to great antiquity, tradition assigning its foundation to King Alfred in 879. The earliest charter was granted by King John, and its privileges were confirmed and extended by subsequent monarchs, the act by which it was created a corporate body having been passed during the reign of Elizabeth in 1570. The number of colleges established are 20, viz.:—University, (founded, 1249); Ballol (1263); Merton (1274); Exeter (1314); Oriel (1326); Queen's (1340); New (1386); Lincoln (1427); All Souls' (1437); Magdalen (1456); Brasenose, (1509); Corpus Christi (1516); Christ Church (1525); Trinity (1554); St. John's (1557); Jesus (1571); Wadham (1613); Pembroke (1620); Worcester (1714); and Keble (1869). There are, besides, 5 halls, or colleges, not incorporated, viz.:—Magdalen, St. Edmund's, St. Mary's, New Inn, and St. Alban's. The constitution of the University was changed in Aug., 1854, and amended in June, 1856. Each college is bound by its own statutes, but controlled by the general laws governing the University, and contributes from their members, elected by vote, to the executive and legislative departments of the University. Attached to the University is the Bodleian Library, founded by Sir Thomas Bodley, containing about 500,000 printed vols., and more than 30,000 valuable MSS. The University received from James I., in 1604, the privilege of sending 2 members to the House of Commons; this was reduced to 1 member in 1885.

Ox'ford, a S.W. co. of prov. of Ontario; *area*, about 700 sq. m. *Rivers.* Thames and some less important streams. *Cap.* Woodstock. *Pop.* (1897) 49,350.

Ox'ford, in *Alabama*, a post-village of Calhoun co., about 110 m. N. by E. of Montgomery. *Pop.* (1897) 1,580.

Ox'ford, in *Connecticut*, a post-township of New Haven co. *Pop.* (1897) 950.

Ox'ford, in *Illinois*, a village and township of Henry co., about 14 m. N. of Galesburg.

Ox'ford, in *Indiana*, a post-town, former cap. of Benton co., about 88 m. N.W. of Indianapolis.

Ox'ford, in *Iowa*, a post-village and township of Johnson co., about 15 m. W.N.W. of Iowa City.

—A township of Jones co.

Ox'ford, in *Kansas*, a township of Johnson co.

Ox'ford, in *Kentucky*, a post-village of Scott co., about 22 m. E. by N. of Frankfort.

Ox'ford, in *Maine*, a W. co., adjoining Canada on the N. and New Hampshire on the W.; *area*, about 1,900 sq. m. *Rivers.* Androscoggin, Saco, and Margallaway rivers, besides numerous smaller streams and several lakes. *Surface*, generally hilly, and in the N. mountainous; *soil*, in some parts fertile. *Cap.* Paris. *Pop.* (1897) 31,100.

—A post-village of the above co.

Ox'ford, in *Maryland*, a post-town and port of entry of Talbot co., 12 m. S.W. of Easton. *Pop.* (1897) 1,220.

Ox'ford, in *Massachusetts*, a post-village and township of Worcester co., about 11 m. S. by W. of Worcester. Manuf. consists largely of cottons and woollens.

Ox'ford, in *Michigan*, a post-village and township of Oakland co., about 14 m. N. of Pontiac, on the Mich. Cent. and P., O. & N. R. Rs.

Ox'ford, in *Mississippi*, a city, cap. of La Fayette co., about 180 m. N. of Jackson.

Ox'ford, in *North Carolina*, a post-village, cap. of Granville co., about 45 m. N. of Raleigh. *Pop.* (1897) 3,160.

Ox'ford, in *New Jersey*, a post-township of Warren co.

Ox'ford, in *New York*, a post-village and township of Chenango co., about 170 m. W. by S. of Albany.

—A village of Orange co., about 52 m. N.W. of New York city.

Ox'ford, in *Ohio*, a post-village and township of Butler co., about 105 m. W.S.W. of Columbus.

—A village and township of Coshocton co.

—A township of Delaware co.

—A township of Erie co.

—A township of Guernsey co.

Ox'ford, in *Ohio*, a village of Holmes co.

—A township of Tuscarawas co.

Ox'ford, in *Pennsylvania*, a village and township of Adams co., abt. 10 miles N.E. of Gettysburg.—A post-borough of Chester county, about 69 miles S.E. of Harrisburg.—A former township of Philadelphia county, now included within the limits of the city of Philadelphia, on the Delaware River, abt. 6 miles N.E. of the State House.

Ox'ford, in *Wisconsin*, a post-township of Marquette co.

Ox'ford Depot, in *New York*, a post-vill. of Orange co., abt. 52 m. N.W. of New York.

Ox'-gang, *n.* (*Old Eng. Law.*) As much land as an ox can plough in a season.

Ox'-goad, *n.* An instrument with a sharp point for goading on oxen.

Ox'-hide, *n.* The skin of an ox, which, when tanned, forms a strong, serviceable quality of leather.

(*Old Eng. Law.*) A measure of land, being as much as could be surrounded by a hide cut into narrow strips or thongs.

Oxia, (*oks-she'a,*) one of the smaller Ionian islands off Cape Skropha, Acarnania. *Length*, 4 m., with a breadth of 2 m.

Oxidabil'ity, *n.* The susceptibility of being converted into an oxide.

Ox'idable, *a.* [Fr.] That is susceptible of conversion into an oxide.

Ox'idate, *v. a.* (*Chem.*) Same as OXIDIZE, *q. v.*

Oxida'tion, *n.* (*Chem.*) The operation or process of converting into an oxide.

Ox'idator. (*Chem.*) Same as OXYGENATOR, *q. v.*

Ox'ide, *n.* [Gr. *oxus*, acid.] (*Chem.*) A compound of oxygen, and a base destitute of acid and solidifying properties. See CHEMICAL NOMENCLATURE.

Ox'idizable, *a.* That may be oxidized.

Ox'idize, *v. a.* To convert into an oxide.

—*v. n.* To be changed or converted into an oxide.

Ox'idized, *p. a.* Converted into an oxide; oxidated.

Ox'idizement, *n.* The act of oxidizing; oxidation.

Ox'idizer, *n.* That which oxidizes.

Ox'idizing, *p. a.* Converting into an oxide.

Oxid'nlated, *a.* (*Chem.*) Present in the state of a protoxide; —said of an oxide.

Oxlod'ic, *a.* (*Chem.*) Consisting of oxygen and iodine.

Ox'lip, *n.* (*Bot.*) A species of primrose, so called from some resemblance in the flowers to the lips of an ox; *Primula elatior.*

Oxo'nian, *n.* A student or graduate of Oxford University, England.

Ox'-tongue, *n.* (*Bot.*) A popular name applied to several plants of the genera *Helmenthia*, *Picris*, and *Anchusa.*

Ox'us, AMOO, or JIHOUN, a river of Central Asia, rising in the mountain-lake Sir-i-kol, dist. of Pamir, Lat. 37° 27' N., Lon. 73° 40' E., at an elevation of 15,000 ft. above the sea. It forms the boundary between Thibet and Great Bokhara, and after a S.W. course of 1,300 m. falls into the Aral Sea, on its S. side, by numerous mouths; Lat. 43° N., Lon. 58° to 59° E. It is navigable for 300 m. to Kharjoo.

Oxyac'id, *n.* (*Chem.*) An acid, such as the nitric, sulphuric, chromic, &c., in which it is supposed that oxygen forms the acidifying principle, as distinguished from the hydracids, in which hydrogen is thought to play that part. The salts formed from them are called *oxysalts*, in opposition to the *haloids*, or hydracid salts.

Oxycoccus, (*ok-se-kok'kus,*) *n.* [Gr *oxys*, sour, *kokkos*, berry.] (*Bot.*) A genus of plants, order *Vaccinaceæ.* They are slender, prostrate shrubs, with alternate, coriaceous leaves, and eatable fruit. *O. palustris*, the common Cranberry, and *O. macrocarpus*, the larger Cranberry, are two very common species, the latter of which is now much cultivated, and the fruit of both are used for making tarts, jams, &c.

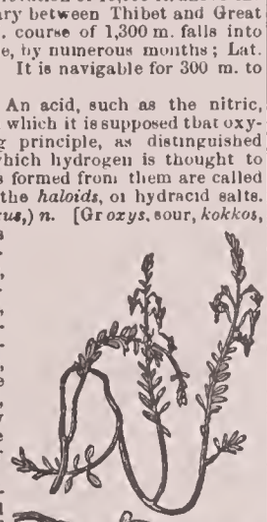


Fig. 2019.— CRANBERRY, (*Oxycoccus macrocarpus.*)

Ox'ygen, *n.* [Fr. *oxigène*, from Gr. *oxus*, and *gennao*, I generate.] (*Chem.*) The most abundant of the elements. It forms 8-9ths of water, ¼ of air, and about ½ of silica, chalk, and alumina, the three chief constituents of the earth's surface. It is also the most important element, being essential to the support of animal life. It is met with in nature in mechanical combination with nitrogen, as the atmosphere which surrounds our globe. It is also given off by growing plants, under the influence of direct sunlight. It possesses strong chemical properties, uniting with all the elements, except fluorine, in a large number of proportions. It was discovered by Priestley in 1774, and was obtained by him by the action of heat from the red oxide of mercury. It is tasteless, colorless, inodorous, and was first reduced to the liquid state in 1877. It is the least refractive of all the gases, and possesses magnetic properties similar to those of iron. It is sparingly soluble in water, being only absorbed in the proportion of 3 per cent. *O.* is readily procured in a pure state from a great number of compounds. For laboratory use, it is mostly obtained by heating chlorate of potash, finely powdered and mixed with one-eighth its weight of oxide of copper, iron, or manganese. Peroxide of manganese is a cheap source of oxygen when large quantities are required. It should be heated to redness in an iron bottle, to which a tube is attached, when oxygen is given off, and a low oxide of manganese left behind. The majority of the metals do not unite spontaneously with dry oxygen or air; but in moist *O.*, or air, many of them become slowly oxidized. Other bodies, such as phosphorus, certain metals in a highly divided state, greasy rags, and damp hay, having a great affinity for oxygen, unite with it at ordinary temperatures, and undergo spontaneous combustion. Many others when heated to redness unite with it with vehemence, giving rise to the phenomena of burning or combustion. Oxygen was so named by Lavoisier from the supposition that it was the acidifying principle, and it was thought by him to be essential to the constitution of an acid. Davy's researches on chlorine disproved this theory, by showing that hydrochloric acid contained no oxygen. The description of the various compounds of oxygen will be found under the heads of the elements with which it is united. Various methods have been proposed for the isolation of *O.* on a large scale, but its production in quantities suitable for extensive use, and of sufficient cheapness, has only of late years been achieved. One method employs oxide of barium, BaO, which is heated to a dull redness, and air passed over it under pressure. The result is the production of a quantity of barium peroxide BaO_2, which, when heated to a full red heat, yields up its extra *O.* in a pure state, and is reduced again to BaO. The same effect is produced without change of temperature by a considerable lowering of the pressure. This is the method pursued in practice. In another process, manganate of soda is used, a stream of superheated steam passing over it and withdrawing the *O.* from the soda, which may be reoxygenized by passing heated air over it. In both these methods the supply of *O.* is inexhaustible and the expense of isolating it is not great. The liquefaction of *O.* was accomplished in 1877 by Cailletet, of Paris, and Pictet, of Geneva, the latter employing a pressure of 320 atmospheres and a temperature of —140° C. It was afterward reduced to the solid state, and both these results are now easily achieved. Atom. wt. 16, sp. grav. (hyd=1) 16; 100 cub. in. weigh 34·203 grains. *Symbol* O.

Oxygena'tion, *n.* The act of combining with O.

Ox'ygenator, *n.* (*Chem.*) A contrivance for throwing a current of air on the flame of an argand lamp; an oxidator.

Ox'ygenizable, *a.* (*Chem.*) Susceptible of being oxygenized or oxygenated.

Ox'ygenize, *v. a.* (*Chem.*) To oxygenate.

Oxygenize'ment, *n.* (*Chem.*) Same as oxygenation.

Oxyg'enous, *a.* (*Chem.*) Pertaining to oxygen, or obtained from it.

Ox'ygon, *n.* [Gr. *oxys*, sharp, and *gonia*, an angle.] (*Geom.*) An acute-angled triangle.

Ox'ygonal, Oxygo'nial, *a.* (*Geom.*) That has three acute angles; acute-angled.

Oxyhydrogen Blowpipe, (*oks-e-hi'dro-jen,*) *n.* (*Chem.*) By throwing a jet of oxygen into a flame of coal-gas or hydrogen, the most intense heat known is produced. The same object is attained by burning the mixed gases in a blowpipe of a peculiar form, known as Hemming's jet, in which the tube conveying the gases from the reservoir is filled with pieces of very fine brass wire, packed closely together, in order to prevent the possibility of the flame rushing back into the tube and causing an explosion. M. St. Clair Deville has lately invented an oxyhydrogen furnace, by which large quantities of the most intractable metals, such as iridium and platinum, are melted like lead.

Ox'ymel, *n.* [Gr. *oxys*, sharp, sour, and *meli*, honey. See MELLIFLUOUS.] A mixture of vinegar and honey boiled to a syrupy consistence.

Oxymo'ron, *n.* Gr. *oxymoros—oxys*, sharp, and *moros*, dull, slow.] (*Rhet.*) That which is pointedly absurd or foolish; a rhetorical figure in which an epithet of a quite contrary signification is added to a word, as *cruel kindness.*

Oxymuriat'ic Acid, *n.* (*Chem.*) The former name of CHLORINE, *q. v.*

Oxyo'pia, Ox'yopy, *n.* [Gr. *oxys*, sharp, and *opsis*, vision.] The faculty of seeing more acutely than usual. Thus there have been instances known of persons who could see the stars in the day-time. The proximate cause is a preternatural sensibility of the retina. It has been known to precede the gutta serena; and it has been asserted that prisoners who have been long detained in darkness, have learned to read and write in darkened places.

Oxyph'ony, *n.* [*Oxys*, and *phone*, voice.] Acuteness or shrillness of voice.

Oxyr'ia, *n.* [Gr. *oxys*, sour; in allusion to the qualities of the leaves.] (*Bot.*) A genus of plants, order *Polygonaceæ.* They are perennial herbs, with leaves mostly radical, petiolate; and stem nearly leafless, paniculate-racemose. *O. reniformis*, the Mountain Sorrel, is found on the summits of the White Mountains, and N. to the Arctic Sea.

Oxyr'rhodine, *n.* [Gr. *oxys*, sharp, and *rodon*, a rose.] (*Med.*) A conserve of vinegar and roses, used as a liniment in herpes and erysipelas.

Ox'ysalt, Ox'isel, *n.* (*Chem.*) A salt formed by the union of an oxygen acid with a salifiable base.

O'yapoc, or **O'yapok,** a river of S. America, separating French Guiana from Brazil, and flowing into the Atlantic Ocean abt. 70 m. S.E. of Cayenne.

O'yer, *n.* [O. Fr.; Fr. *ouïr*, from Lat. *audire*, to hear.] (*Law.*) A prayer or petition to the court that the party may hear read to him the deed, &c., stated in the pleadings of the opposite party.

O'yer and Ter'miner, *n.* (*Law.*) The name of courts of criminal jurisdiction in the U. States, generally held at the same time with the court of quarter sessions, and by the same judges, and which have power, as the terms imply, *to hear and determine* all treasons, felonies, and misdemeanors committed within their jurisdiction.

O'yez. [Norm.] (*Law.*) Hear ye;—a word used by the sheriff or his substitute in making proclamation in court, requiring silence and attention. It is thrice repeated, and commonly pronounced *O yes.*

Oys'ter, *n.* [Ger. *auster*; Lat. *ostrea*, from Gr. *ostreon*, an oyster.] (*Zoöl.*) A well-known edible mollusc, order of *Lamellibranchiata*, the several species of which compose the family *Ostreidæ*. The shell, formed of two unequal valves, connected together by a hinge of the simplest character, has externally a coarse and dirty appearance; each shell being composed of a great number of laminæ irregularly closed down on each other. In some species it is smooth; in others, striated, tuberous, or prickly; the lower shell being always the deepest. The animal itself is also of very simple structure; no vestige of a foot can be seen; and the ligament which unites the valves is of small size. On separating the valves, four rows of gills, or what is called the *beard*, are observed at a little distance from the fringed edge of the mantle. Through these water is drawn in the function of respiration, and with it the food of the animal, which consists of microscopic organisms, the gill openings thus serving also the purpose of a mouth. The abductor muscle is situated at about the center of the body, near which the heart is to be distinguished. The oyster is one of the most sedentary of animal forms, remaining, in the mature state, firmly fixed upon some submarine substance, giving scarcely a sign of life beyond the opening and closing of its valves, passing water through its body in the breathing process, and obtaining nourishment from the minute organic forms borne to it upon the gentle currents thus produced. The young, however, enjoy a brief period of free life, swimming for a short time, and then fastening upon rocks, stones, shells, or other substances that happen to be in the vicinity. Very commonly they adhere to adult shells, and thus are formed the large masses called oyster banks. In about a year and a half they attain a size suitable for the table. The oyster genus is almost cosmopolitan in its range, though not represented in the Polar seas. Authors have divided it into about 70 recent species, in addition to a considerable number of fossil ones, but the actual species are probably less numerous, while only a few of them are used as articles of food. Of these the most notable are *Ostrea edulis*, the edible oyster of Europe, and *Ostrea virginiana*, that of the Eastern U. S. Both of these species vary considerably in form, and some authors have divided the American species into two—*O. borealis*, a Northern rounded form, and the longish *O. virginiana* of the Southern coast. *O. edulis* is comparatively small in size, and has a coppery flavor, which is absent from the American species. It is hermaphroditic, while in the American species the sexes are separate. The powers of multiplication which *O.* possess are so wonderful, that the *banks* or *beds* which they form occupy portions of the sea, extending for miles, in shallow parts; and in some places (particularly along the alluvial shores of Georgia) walls of living *O.* literally counteract the otherwise restless force of the tids. The common *O.* of Europe, *O. edulis*, are particularly abundant on the coasts of France and England. After having been dredged from the bottom, they are transferred to artificial beds or parks (Fig. 2020,) in some favorable and accessible locality, where they are preserved for sale, continually growing in size and improving in flavor. The species most esteemed in America are the Virginian oyster (*O. Virginiana*), and the Northern oyster (*O. borealis*). In the *O. Virginiana*, the shell is elongated and narrow, and the beaks pointed; it often measures 12 to 15 inches in length, but is rarely more than 3 inches wide. This is the common oyster from Chesapeake Bay southward. In the *O. borealis*, the shell is more rounded and curved, with the beaks short and considerably curved; a common size is 5 or 6 inches in length, but it grows to the length of a foot, and to a width of 6 inches. This is the common New York oyster, said also, formerly, to have been abundant in Massachusetts Bay. Boston market is supplied principally from artificial beds, derived from the Virginia and New York oysters; the flats in the vicinity of our large maritime cities are generally thickly beset with poles indicating the localities of oyster-beds. The oyster, particularly when eaten raw, is easy of digestion, and remarkably nutritious; its digestibility and nutritive properties, however, are materially impaired by cooking, and though very tempting and piquant culinary preparations are made with it in the form of sauces, ragouts, soups, patties, &c., these effects are obtained at the sacrifice of the best qualities of the fish, and should be carefully shunned by the invalid.—*Oyster Culture.* Oysters have been a favorite article of food for many centuries, and large heaps of their shells on the shores of American and European seas testify to the fondness for them of the primitive inhabitants. They have been during the 19th century fished for so diligently that the great natural beds are largely exhausted, and artificial culture has come into play, in some cases small *O.* being transferred from natural oyster beds to private areas, in others raised solely in such areas. The latter is the case generally in Europe, particularly in France, where the raising of *O.* from the spawn or spat produced on the spot is extensively practiced. In this country the former custom is most in vogue, it being found most profitable to transplant young *O.* from their native habitats to private beds. The practice of rearing them from the spat produced in these beds is practiced to some degree, shells being thrown into the water for them to fasten on, and this method is likely before many years to become far more general. Efforts have been made to propagate the oyster artificially, in the method pursued in fish culture, but though successful, the results have proved of no practical value. It has also been proposed to convert the salt marshes along parts of the Atlantic coast into oyster-raising pounds, in which they can be protected from the enemies which prey upon them in the open seas. This proposition, which doubtless will eventually be put into effect, cannot but add very largely to the oyster harvest of the United States. See SECTION II.

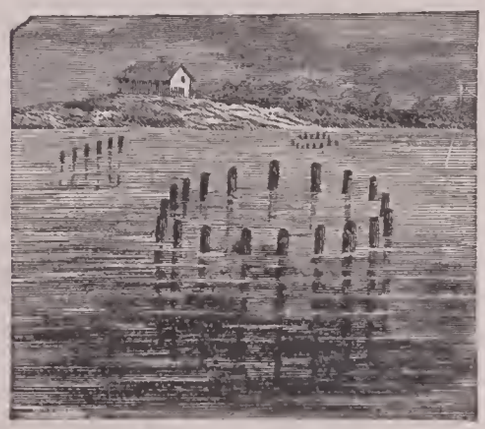


Fig. 2020.—OYSTER PARKS.

Oys'ter Bay, in *New York*, an arm of Long Island Sound, in Queen's co.

—A post-town of Queen's co., about 30 m. E. of New York city. *Pop.* 13,870.

Oyster-catch'er, or **Sea'-pie,** *n.* (*Zoöl.*) The popular names of *Himantopus ostralegus*, a small Grallatorial bird, allied to the plover, has been so named from its habit of opening the shells of bivalve mollusca with its powerful bill. It makes no nest. It is indigenous in the northern portion of the Old World, from Ireland to Japan.

Oyster Creek, in *Texas*, enters the Gulf of Mexico from Brazoria co.

Oyster-dredge (*-drĕj*), *n.* A small drag-net for fishing oysters.

Oyster-pat'ty, *n.* A pastry or paté containing oysters, and baked.

Oyster-plant, *n.* (*Bot.*) The Salsify. See TRAGOPOGON.

Oys'terville, or **Os'terville,** in *Massachusetts*, a village of Barnstable co., about 70 m. S.E. of Boston.

Oysterville, in *Washington*, a post-town, former cap. of Pacific co., about 100 m. S.W. of Olympia.

Oyster-wench, Oyster-wife, Oyster-woman, *n.* A woman who sells oysters.

Oz., an abbreviation for *ounce* or *ounces.*

Ozama (*o-sa'ma*), a river in Hayti, West Indies, rises in the central part of the island, and flowing S.E., then S., enters the Caribbean Sea at St. Domingo *Length*, 50 m.

Ozan', in *Arkansas*, a township of Hempstead co.

O'zark, in *Arkansas*, a post-town, cap. of Franklin co., about 121 m. W.N.W. of Little Rock.

Ozark, in *Kansas*, a township of Anderson co.

Ozark, in *Missouri*, a S. co., adjoining Arkansas; *area*, about 780 sq. m. *Rivers.* North Fork, Little North Fork, and Bryant's Fork of White River, and Beaver Creek. *Surface*, hilly; *soil*, in some parts fertile. *Cap.* Gainesville. *Pop.* (1890) 9,795.

O'zark, in *Missouri*, a post-town, cap. of Christian co., about 15 m. S.S.E. of Springfield.

Ozau'kee, in *Wisconsin*, a S.E. co., bordering on Lake Michigan; *area*, about 232 sq. m. *Rivers.* Milwaukee River, Cedar Creek, and some smaller streams. *Surface*, undulating; *soil*, fertile. *Cap.* Ozaukee. *Pop.* (1895) 16,545. Ozaukee, its cap., is situated on Lake Michigan, about 90 m. E.N.E. of Madison. It is also called PORT WASHINGTON.

Ozaw'kie, or **Ozaukie,** in *Kansas*, a post-town of Jefferson co., about 35 m. W. by S. of Leavenworth.

Oze'na, *n.* [Lat. *ozæna*; Gr. *ozaina*, from *ozein*, to smell.] (*Med.*) An affection of the pituitary membrane, which gives occasion to a disagreeable odor.

Ozieri, or **Othieri** (*o-ze-a'ree*), a town of the island of Sardinia, prov. of Sassari, 29 m. E.S.E. of Sassari. *Pop.* 8,000.

Ozoce'rite, *n.* [Gr. *ŏzein*, to smell, and *keros*, wax.] (*Min.*) Fossil wax, paraffine wax, and mineral tallow are the more familiar names by which this commodity is known. It is a fossil form of paraffine, and is found in large quantities in the mines of Galicia. It also occurs in the Sanpets Valley, Utah, and in other coal regions. Its principal uses are for the manufacture of paraffine and ceresin or imitation beeswax, and for the covering of electrical conductors. It came into commercial use about 1860, when a thriving trade was built up, until the large quantities of paraffine obtained from the Pennsylvania coal field reduced the demand for it. In chemical composition it is a mixture of liquid hydrocarbons, paraffines, waxy resins, bituminous resins, and coke. When gathered it is much mixed with dirt, and has to be hand-picked, washed and boiled, after which it is molded in cone-shaped cakes of 100 or 200 pounds, and marketed in this condition. It melts at 133° to 158° F., and is preferred of a light color, though the tints often run to green and brown.

Ozona'tion, *n.* Act or process of treating with ozone.

Ozone', *n.* [Gr. *oze*, a stench.] (*Chem.*) A peculiar odor was long ago found to attend the working of an electrical machine, which was similarly found to appear where electric sparks were passed through a tube containing oxygen. It was therefore called by Von Marum the "smell of electricity." Various explanations of this phenomenon were offered, but its true cause was not discovered until 1840, when it was closely investigated by Schönbein. He named the substance producing the odor *ozone*, and suggested that it might be a higher oxids of oxygen. Others considered it to be an allotropic condition of oxygen, but later investigations have sustained Schönbein's suggestion, and it is believed to be virtually an oxide of oxygen, or a compound of 3 atoms, ordinary oxygen being a compound of 2 atoms. Ozone has been liquefied under pressure, at a temperature of about —23° C. Its density, as its composition indicates, is one and a half that of oxygen. Its properties are as follows: It bleaches the vegetable colors, converting indigo, for instance, into colorless isatin. It oxidates black sulphide of lead into the neutral sulphate, and converts moist iron, copper, and even silver filings, into their respective oxides. There are several methods of forming it, one of the easiest consisting in transmitting a succession of electric sparks through a tube containing pure dry oxygen. Although formed in minute traces only, the characteristic smell of this peculiar body is soon perceived. It may be detected chemically by immersing in a vessel, containing even the smallest trace of it, a piece of paper covered with moistened starch and iodide of potassium. The *O.* immediately displaces the iodine, which unites with the starch, giving rise to a blue color. A temperature a little below 212° is sufficient to destroy the active properties of ozone. It appears to act most beneficially as a disinfectant in the economy of the world; it having been proved that epidemic diseases, such as cholera, fevers, &c., are always accompanied by a decrease, or entire absence, of this agent from the atmosphere. The quantity of *O.* in the atmosphere is never great, and it varies within wide limits. It is believed to be active in destroying unwholesome substances, through its intense oxidizing properties. Efforts have been made to take advantage of this useful property by the production of *O.* in hospitals and other places infected by disease germs. See PERMANGANIC ACID, and PICRATE.

Ozonifica'tion, *n.* The act of producing ozone.

O'zonize, *v. a.* To change into ozone; also, to impregnate with ozone.

Ozonom'eter, *n.* An instrument for determining the amount of ozone in the atmosphere.

Ozonomet'ric, *a.* Having reference to or employed in ozonometry; as, *ozonometric* observations.

Ozonom'etry, *n.* Determination of the quantity of ozone in the atmosphere.

Ozor'kow, or **Ozor'kov,** a town of Russian Poland, govt. of Warsaw, on the Bzura, 76 m. W.S.W. of Warsaw. *Pop.* (1897) 5,840.

O.—SECTION II.

Oak Cliff, in *Texas*, a suburb of Dallas, in Dallas co. *Pop.* (1897) about 3,600.

Oak Har'bor, in *Ohio*, a post-village of Ottawa co., 24 m. E. by S. of Toledo. *Pop.* (1897) 1,850.

Oak Park, in *Illinois*, a post-village of Cook co.; a suburb of Chicago. *Pop.* (1897) 6,500.

Oak'dale, in *California*, a post-town of Stanislaus co., 34 m. S. of Stockton. *Pop.* (1897) 1,170.

Oakdale, in *Nebraska*, a post-village of Antelope co., 5 m. E. of Nellgh; has good water power and several mills. *Pop.* (1897) 780.

Oakes, in *North Dakota*, a city of Dickey co., 25 m. E. of Ellendale; has foundry and machine shops. *Pop.* (1897) 500.

Oakes'dale, in *Washington*, a post-town of Whitman co., 46 m. S. of Spokane Falls. *Pop.* (1897) 650.

Oak'land, in *Iowa*, a post-town of Pottawattamie co., 25 m. E. of Council Bluffs. *Pop.* (1895) 912.

Oakland, in *Maine*, a post-town of Kennebec co., 6 m. from Waterville. *Pop.* (1897) 2,066.

Oakland, in *Nebraska*, a post-village of Burt co., 16 m. N. of Tekamah. *Pop.* (1897) 950.

Oakland City, in *Indiana*, a post-village of Gibson co., 28 m. N.N.E. of Evansville; has 2 large brick-yards, 2 stave factories, &c. *Pop.* (1897) 1,620.

Oar, *n.* [A. S. *ar.*] (*Naut.*) A mechanical agent, formed of a long, thin piece of timber, by which boats, barges, &c., are propelled through the water, in conjunction with manual labor. An oar consists of three parts—the *blade*, which is the smooth part dipped in the water; secondly, the *shoulder*, which marks the termination of the blade; and, lastly, the *handle*, which is held in the grasp of the oarsman. The fulcrum on which the leverage of the oar is exerted is called the *rowlock* (pronounced *rullock*); and this is inclosed by two pins of timber, termed *thole-pins*, or by brass round-shaped tholes, termed *crutches*.—To *ship* and *unship* oars are respectively to fix or unfix them from the rowlocks.—*To feather an oar* is, at the end of a stroke, in rowing, to bring the blade horizontal with the water by a turn of the wrist, so as to allow it to shake off its grasp of the water. See FEATHER.

To boat the oars. (*Naut.*) To cease rowing, and stow the oars in the boat.—*To lie* or *rest on the oars.* To cease pulling, lifting them out of water, but not boating them;—hence, to refrain from work of any kind; to idle.

"Having made his fortune, he *rested on* his *oars*."—*Hamlyn.*

To muffle the oars. To cover the oars with something, in order to prevent sound or noise in rowing.—*To ship the oars.* To fix them in the rowlocks.—*To toss the oars.* To elevate the oars perpendicularly, the butt or handle resting on the bottom of the boat;—generally performed by way of salute or compliment.—*To unship the oars.* To remove them from the rowlocks.

—*v. n.* To row.

"He *oar'd* with lab'ring arms along the flood."—*Pope.*

—*v. a.* To impel by rowing.

Oath, *n.* [A. S. *ath.*] A solemn declaration or promise, made under sanction of the maker's religion, in the presence of one legally authorized to administer it. It is required on entering upon certain public offices and before giving evidence in a court of justice. The oath-taker imprecates divine punishment if he be guilty of a falsehood or violate his promise. The most important oaths affecting the general public are those administered in courts of justice to jurors and witnesses. The ordinary witness-oath is promissory in form, the witness swearing that the evidence he shall give will be the truth, the whole truth, and nothing but the truth. In the absence of express statutory directions, the oath is administered in that form which the one taking it considers most binding on his conscience. A Jew is sworn on the Pentateuch, with his hat on. Mohammedans are sworn on the Koran, and Parsees on their sacred books. A part of the ceremony of swearing a Hindu consists in his touching the foot of a Brahmin, or, if a Brahmin is sworn, in his touching another Brahmin's hand. Chinese oath-takers break a saucer or behead a fowl as an essential part of the ceremony. The oaths taken by public officials are usually promissory. The President of the U. S. is required to swear that he will faithfully execute the office, and will, to the best of his ability, preserve, protect, and defend the Constitution of the U. S. In mediæval times, oaths in Europe were administered in chapels and other places esteemed holy, at the altars, which were thought to be made more sacred by placing upon them relics considered holy. The Pope, according to the Roman Catholic faith, has authority to absolve from the obligation of an oath. Oaths to perform illegal acts do not bind, nor do they excuse the performance of the act. The employment of oaths, even in legal proceedings, has been criticised by persons whose opinion is worthy of great respect, as irreligious and also as useless. Pothier, the great French lawyer, declared: "In the exercise of my profession for more than 40 years . . . I have not more than twice known a person restrained by the sanctity of an oath from persisting in what he had before asserted." Any person called as a witness, or required or desiring to make an affidavit or deposition, who shall refuse or be unwilling, from conscientious motives, to be sworn, may make instead a solemn declaration or affirmation.

Obdormi'tion, *n.* [Lat., *obdormio.*] (*Path.*) The temporary numbness of some part of the body from pressure on the nerves.

(*Obs.*) A sleeping soundly.

O'berlin, in *Kansas*, a post-village and cap. of Decatur co., 260 m. N.W. of Topeka. *Pop.* (1897) 860.

Oberlin Col'lege. (*Educ.*) This institution is located at Oberlin, O. It was started in 1833 as a private institution, and chartered in 1834 as the Oberlin Collegiate Institute. Its original object was to train Congregational ministers. In 1850 it became Oberlin College. Since its incorporation it has always admitted students, irrespective of sex or color, which was a remarkable innovation 60 years ago. Negro students have constituted from 3 to 5 per cent. of the whole, and the total attendance, averaging from 1,300 to 1,500 a year, has been about equally divided between the sexes. Another marked feature of the institution for many years was the encouragement of students to assist themselves by manual labor. There are theological, collegiate, and preparatory departments. Especial attention is given to instruction in music, and the choral singing of the students is of rare excellence. The college, in 1905, had 110 instructors and 1715 students, with more than 120,000 volumes in its library. In the same year its productive funds were in excess of $1,200,000 and its income $230,000.

O'bion, in *Tennessee*, a post-village of Obion co., 74 m. S.S.W. of Paducah. *Pop.* (1897) 750.

Objec'tive Teach'ing. The system of instruction which generalizes the facts obtained by object-teaching.

Objec'tivism, *n.* The power to treat subjects objectively apart from the agent's own personality; or the quality resulting from such treatment.

(*Philos.*) The tendency to overestimate the objective elements of knowledge; or the idea that the facts of the non-ego have precedence over those of the ego.

Ob'ject-les'son, *n.* A lesson in which the object which is the subject of study (or a representation of it) is presented to the eye of the pupil.

Object-teach'ing, *n.* The method of teaching by object-lessons, employing the perceptive faculties of the pupil.

O'Brien, JOHN, actor (stage name, JOHN T. RAYMOND), was born in Buffalo, N. Y., April 5 1836; began his theatrical career in 1853; his first tour was made with E. A. Sothern, in *Our American Cousin*, in which he took the part of *Asa Trenchard*. In 1871 he won his greatest success in *The Gilded Age;* his inimitable rendition of *Colonel Sellers* made this play peculiarly his own. He made a European tour in this character, but its characteristic American humor was not appreciated by foreigners, and he soon abandoned the tour. His last appearance on the stage was at Hopkinsville, Ky. Died April 10, 1887.

Observa'tion-car, *n.* A railway car with open or glass sides, or ends, for obtaining an unobstructed view of the country or the track. Used by tourists, and by railway officials on inspection trips.

Ocarina (*ŏka-rē'-na*), *n.* [It.] (*Mus.*) A small musical instrument made of terra-cotta, with mouthpiece and finger-holes; introduced by a company of performers calling themselves the "Mountaineers of the Apennines," who played seven, of different sizes, in unison, with pleasing effect.

Occipito-. An initial compounding element, from Lat. *occiput* (gen. *occipitis*), the back part of the head.

Occult'ism, *n.* Investigation of the mysterious and supernatural.—Supernatural power, as claimed by an astrologer.—Modern theosophy, as professing to have spiritual illumination, and an insight into things hidden from material eyes.

O'cean Grove, in *New Jersey*, a post-town of Monmouth co., adjoining Asbury Park on the S.; a sea-bathing resort and camp-meeting site. Summer population estimated at 12,000. *Pop.* (1895) 2,754.

Ocean Springs, in *Mississippi*, a post-town of Jackson co., 43 m. from Mobile, Ala. *Pop.* (1897) 1,280.

O'chiltree, in *Texas*, a N.W. co.; *area*, 900 sq. m. *Cap.* Ochiltree. *Pop.* (1890) 198.

Ochle'sis, *n.* [Gr. disturbance.] (*Med.*) Crowd-poisoning; disease, or liability to disease, from the overcrowding of dwelling-houses.

O'clock. A contraction for *of the clock;* as, what *o'clock* is it?—*i. e.*, what hour *of* or *by the clock* is it?

Oconee', in *Georgia*, a N. central co.; *area*, 168 sq.m.; bounded E. by the Oconee river, and W. by the Appalachee river. *Surface*, hilly; *soil*, fertile near the streams. *Products*, Cotton, corn, and oats. *Cap.* Watkinsville. *Pop.* (1890) 7,713.

Oconee, in *South Carolina*, an extreme N.W. co.; *area*, 620 sq. m.; bounded E. by the Kiowee river, N.W. by the Chattooga, and S.W. by the Tugaloo. *Surface*, part mountainous, part rolling; *soil*, fertile in the valleys. *Min.* Gold, mica, asbestos, corundum, copper, and magnetic iron ore. *Cap.* Walhalla. *Pop.* (1890) 18,687.

O'Con'nor, THOMAS POWER, M. P., was born at Athlone, co. Roscommon, Ireland, in 1848; educated at Queen's College, Galway, and at Queen's College, Cork; began journalistic work first in Dublin, and later in London, in connection with the *Daily Telegraph*. In 1876 he published a life of Lord Beaconsfield. He entered Parliament (1880) as member from Galway, and became prominent in the Parnell party; was one of the executors of the Land League both in England and in Ireland. He came to the United States in 1881, and lectured in the principal cities on behalf of the Irish cause, and within seven months raised a large sum of money. In 1883 he became president of the Irish National League of Great Britain. Besides his principal work, *The Parnell Movement* (1885), he has written many articles, political and literary, for current magazines. He also served as member of parliament from a Liverpool district, and became editor of the London *Sun* and *Sunday Sun*.

O'Con'or, CHARLES, lawyer, was born in New York city, Jan. 22, 1804. At an early age he became eminent in the law, his most famous case being the Forrest divorce suit, in which he was brilliantly successful as a pleader. During the Civil War he was in sympathy with the South, and became counsel for Jefferson Davis when the latter was indicted for treason. In 1871–75 he was conspicuous in the New York courts as chief counsel in the proceedings against the famous "Tweed Ring," and published an account of the cases (1875) under the title, *Peculation Triumphant*. In 1872, the old-line Democrats, who refused to accept Horace Greeley as a Presidential candidate, gave expression to this opposition by nominating Mr. *O'C.;* but he did not receive an Electoral vote. He was president of the Law Institute of New York, being elected in 1869. Died May 12, 1884.

Oct-, Octa-, Octo-. An initial compounding element from the Lat. *octo*, or Gr. *okto*, eight.

Oc'tad, *n.* A series of eight; especially in chemistry, an atom element or radical with a combining power of eight.

Octam'eter, *n.* [Gr. *oktō*, eight; *metron*, measure.] A verse of eight feet; used also adjectively.

Octet', or **Octette',** *n.* (*Mus.*) A piece of music of eight parts.—A choir of eight voices, or an orchestra of eight performers.

Oc'tic, *a.* (*Math.*) Of the eighth degree in order.

Odd'ment, *n.* An incidental, not essential, part of a thing; a trifle, a remnant.

(*Pl.*) The parts of a book, as title, preface, index, &c., not portions of the actual text.

O'debolt, in *Iowa*, a post-town of Sac co., 21 m. S.W. of Sac City; has flour mills and creamery. *Pop.* (1895) 1,400.

Odenkirchen (*o-dĕn-keerk'ĕn*), a town of Rhenish Prussia, 15 m. W.S.W. from Düsseldorf, near the right bank of the Niers. *Manuf.* Velvets, paper, leather, &c. *Pop.* (1897) 32,000.

Odes'sa, in *Missouri*, a post-village of Lafayette co., 38 m. E. of Kansas City; has a large flour mill and grain elevator. Ships extensively of grain, fruit, and live stock. *Pop.* (1897) 1,330.

Odil'lon-Barrot', CAMILLE HYACINTHE, a celebrated French advocate, was born at Villefort, 1791.

He was a most active member of the party which brought about the revolution of July, 1830, and was again the leader of the agitation, in favor of reform, which led to the revolution of 1848. It is evident he did not foreee the results to which the agitation, partly aroused by himself, was destined to lead, for he halted midway, accepted the task of forming a cabinet in company with M. Thiers, and supported the right of the Count de Paris to the throne, and that of the Duchess d'Orléans to the regency. Under the presidency of Louie Napoleon, he was for some time a minister, and conducted the government of France with success until 1851, when he retired from active political life. Died in August, 1873.

O'dograph, *n.* [Gr. *hodos*, a way; *graphō*, to write.] A hand-odometer for recording the rapidity, length, and number of strides of a pedestrian in a given distance.

Odom'eter, *n.* (*Mech.*) A recording-device for attachment to a carriage or other vehicle, for the purpose of registering the distance it has travelled. Such mechanisms have been in use from an early period. As commonly made, it consists of a train of wheel-work, which receives motion from the axle of a vehicle-wheel, to an index which moves round the circumference of a dial. The wheel-work is arranged so as to produce a great diminution of the velocity impressed by the axle of the vehicle, and the dial is so graduated that the index can show the number of miles, &c., traversed. The instrument is also constructed to work independently, being in this case provided with wheels and an axle of its own; when this is done, the wheel is made of such a size that its circumference is an aliquot part of a mile, an arrangement which greatly simplifies the calculation of the distance traversed. This form is used by surveyors.

-odon. Terminal compounding element, from Gr. *odous* (gen. *odontos*), tooth; as in *mon-odon*, a genus of animals with one tooth.

Odont-, Odonto-. Initial compounding forms, from Gr. *odous* (gen. *odontos*), tooth.

Odontoglos'sum, *n.* (*Bot.*) An extensive genus of orchids, found principally in the cool mountain regions of Mexico, Peru, New Grenada, and Venezuela. Some species are epiphytal, and others terrestrial. A considerable number of its species have been introduced into this country, and are much prized by cultivators for their magnificent flowers. *O. grande* (Fig. 3010), a native of Guatemala, has been found to live and flower in the open air in this country during the summer season. Its scape bears from two to five flowers, each some six or more inches across, yellow, closely marked with cinnamon-brown bands and blotches.

Fig. 3010.—ODONTOGLOSSUM GRANDE.

Odont'oscope, *n.* [Gr. *odonto*, and Gr. *skopeō*, to see.] An instrument for viewing the teeth, comprising a dental mirror with an electric light.

Oel'la, in *Maryland*, a post-village of Baltimore co. *Pop.* (1897) 750.

Oel'wein, in *Iowa*, a post-town of Fayette co., 14 m. N. of Independence. *Pop.* (1895) 1,928.

Oer'sted, ANDERS SANDOE, naturalist, was born in Rudkjoebuerg on June 21, 1816; became professor of Natural History in the University of Copenhagen, in 1837; travelled in North and South America, and afterward published several volumes describing his scientific discoveries there. Died Sept. 3, 1872.

Officer of the Day. (*Mil.*) A commissioned officer temporarily managing the internal affairs of a post or encampment.

Officer of the Deck. (*Naut.*) One of the officers of a vessel who is temporarily in charge of the deck, and superintendent of the work of the crew.

Officer of the Guard. (*Mil.*) An officer subordinate to the officer of the day, detailed to command, instruct, and inspect the guard.

Off'ish, *a.* Rather shy or distant in manner; reserved, unsociable.

Off'let, *n.* A pipe laid at the bottom of a canal or other artificial waterway to let off the water.

Off'print, *n.* A paragraph or article reproduced from some other publication.

Off'shore, *adv.* In a direction away from the land; at some distance from the land.

Off'take, *n.* (*Mining.*) A level through which water is carried away over the country; a drain.

Ogallal'a, in *Nebraska*, a post-village, cap. of Kelth co., on South Fork of Platte river, 342 m. W. of Omaha. *Pop.* (1897) 650.

Og'doad, *n.* [Gr. *ogdoas* (gen. *ogdoados*), the number eight.] A thing composed of eight parts, as a poem of eight lines, a body of eight persons, &c.—In the Gnostic system, eight divine beings or æons; also heaven, or the ethereal region.

O'geman, in *Michigan*, a N.E. central co.; *area*, 576 sq. m.; drained by Rifle river, which rises in it. *Surface*, undulating, two-thirds heavily timbered; *soil*, fertile, clay, and sandy loam. Lumbering is the principal industry, but farming is rapidly superseding it. *Cap.* West Branch. *Pop.* (1894) 5,636.

O'glesby, RICHARD JAMES, soldier and statesman, was born in Oldham co., Kentucky, July 25, 1824. Orphaned in childhood, he supported and educated himself, being admitted to the bar in Illinois in 1845. He was a first-lieutenant in the Mexican War; in 1849 he made the overland trip to California, and engaged in mining for two years; returned in 1851, and resumed his law practice; was elected State senator (1860)), but relinquished the office to take part in the Civil War, which he entered as colonel of the 8th Illinois Volunteers; reached the rank of major-general of volunteers. He was elected governor of Illinois in 1864; reelected in 1872; chosen U. S. Senator in 1873 for a term of six years. From 1885 to 1889 he was again governor of Illinois.

Ogo'bai, Ogo'way, or **Ogo'wé,** (*Geog.*) A large river in Western Africa, examined by Du Chaillu, which flows by a delta into the sea about Lat. 1° S. Its length is about 500 miles, navigable to Ngunie Falls. Its most northern mouth, the Nazareth, flows into a bay of the Atlantic, on the north of Cape Lopez. Another mouth, to the south, is the Mexican. The southernmost, which seems largest of all, is the Fernand Vas. Its valley is under French protection.

Oh'net, GEORGES, novelist and playwright, was born in Paris, April 3, 1848; became a journalist (1870) on the staff of the *Constitutionnel* and *Le Pays;* wrote a number of dramas and romances; among his novels are *Le Doctor Rameau* and *Volenté*. His dramas *The Iron-Master* and *La Grande Marnière* are his most successful plays.

-oid. A suffix from the Greek *eidos*, form, used to denote resemblance.

Oil Rivers, *n., pl.* The branches of the Niger and a few rivers of independent source which help to form the delta of the Niger, making a network of waterways. Most of the palm oil exported from West Africa comes from this region, which is low and marshy near the coast, but firm and dry above tide-water. The climate is more healthful than that of most British colonies in West Africa. Akasa, at the month of the main Niger, is the chief port of these rivers, and they are under the control of a British Imperial commissioner residing at Lagoe.

Oil Wells. The forcing of a series of pipes several hundred, or perhaps several thousand, feet into the earth requires much ingenuity and experience, as well as superior tools and appliances. The art has been developed in its highest degree in the Pennsylvania oil-fields, where the first well was sunk in 1859. The drilling is done with rock-drills, but not the style that are seen in use by blasters and excavators. A long and heavy chisel-like bit or drill is used as one of a string of free-falling tools, which do their work by being raised from above and dropped again. In the most primitive form of oil-well a bent tree and a rope were used to elevate the tools; now a wooden, or preferably a steel, derrick, 70 to 80 feet high, is universally employed, a stationary engine, with a walking-beam, operating the bull-wheel, hand-wheel, and rope. The bull-wheels are mounted on a heavy shaft that carries a reel, on which is wound the principal cable used in rope-drilling. In beginning a well, a tool is suspended by a rope from a pulley at the top of the derrick, and this is jumped up and down until a hole is made large enough and deep enough to admit a string of tools. These tools are usually at least 70 feet in length, and consist of a temper-screw, hung from the walking-beam; below this, a cable, a rope-socket, a sinker-bar, a pair of sliding links called jars, the auger-stem, and, lastly, the bit. The temper-screw is so adjustable as to allow an attendant to give a partial rotation to the string of tools at every stroke. The sinker-bar is a heavy piece of metal, perhaps 20 feet in length. The jars have links which afford them 13 inches of play, and when a blow is delivered they allow the sinker-bar to bounce up, making it easier to withdraw the bit should it be jammed. The sinker-bar, jars, auger-stem and bit are attached by screwing the lower end of one into the head of the next, and so on. The upper part of an oil-well is made of eight inches diameter, to accommodate the drive-pipe, which is usually run down 300 to 400 feet, as far as the surface water penetrates, when a water-tight joint is made, and the casing, which is a 5½-inch pipe, is inserted, and the well continued down at that diameter. The lower end of the casing is closed when it is let down, in order that any water which has gathered may buoy up a portion of its great weight, and make the lowering easier. When the casing is down the drilling is easily continued by forcing the tools through its bottom. The casing-pipe forms the main part of the well and excludes the surface water, which may settle between it and the drive-pipe. Within the casing is inserted a smaller tube, commonly two inches, but sometimes from one to four inches in diameter, through which the oil is designed to flow. A temporary disk near the lower end of the tubing serves to keep out the oil until the proper time. At the extremity of the tubing is a perforated pipe called the anchor, which admits the oil, and prevents the entrance of large particles which might choke the well. The work of drilling is subject to numerous accidents through tools becoming jammed or broken hundreds of feet below the surface, and divers tools and devices have been invented to overcome these difficulties. If the various grabs, hooks or screws fail to bring up a lost tool or a broken part, a long tapering heavy instrument called a whipstock is forced down to one side of the lost part, and pounded until the impediment is crowded out of the way sufficiently to allow the well to go on. If the drive-pipe becomes indented, it is necessary to lower into it a big swedge, rounded on the lower end, which will pound it back into shape. Sometimes the casing becomes loaded with sediment, and has to be split or cut off. In addition to rectifying such accidents, there is the regular work of stopping to pump out sand, for which purpose sand-pumps are provided. Bailers and swabs are used for cleaning the hole. The swab is a pipe with a rubber collar, and is often used to remove paraffin and the heavier oils. When the oil-sand is reached, drilling is suspended, and a torpedo let down. A pointed tool termed a "go-devil" is dropped on the torpedo and explodes it. The oil and gas then issue with tremendous force for a time, bringing up also a shower of dirt and small stones. When this subsides the tubing is lowered, and its weight causes a comparatively steady flow of oil, which may last for months or years. When it ceases, the well is pumped, and when it becomes dry the torpedo is used again, until no more is to be had. The average life of a well is about five years, but some have yielded for as long as fifteen years. Wells have been sunk which yielded oil when down but a little over 200 feet, and one was sunk in Silesia, in Northern Austria, to a depth of 6,568 feet. It is usual to give each oil-well five acres of ground, though they are sometimes sunk more closely, in which case one is likely to draw what might flow through the other. About 65,000 oil-wells have been sunk in the U. S. and Canada, and the total number in the world is probably within 100,000.

Oil'-bee'tle, *n.* (*Entom.*) See MELOE.

Oil'-bird, *n.* (*Ornith.*) The GUACHARO-BIRD (*q. v.*).

Oil'-box, *n.* A box containing a supply of oil for a journal, and feeding it by means of a wick or other contrivance.

Oil'-cake, *n.* The residuum of various seeds after expressing the oil, especially of linseed, rape, and cotton-seed; it is used for cattle-feeding, and as manure.

Oil'-can, *n.* A can, of any size, usually made of tin, for holding or distributing oil.

Oil-cellar, *n.* A receptacle in a journal-box, containing lubricating oil.

Oil'-distrib'utor, *n.* (*Naut.*) A device by which oil may be spread over the surface of the sea to calm the waves in a storm.

Oil'-mill, *n.* A mill for pulverizing fruits, nuts, seeds, &c., from which oil is to be expressed.

Oil'-ring, *n.* A ring about a horizontal journal, dipping into an oil-cellar, and bringing oil to the journal at each rotation.

Oil'-riv'er, *n.* A stream on the banks of which oil is found, or a river used for conveying oil.

Oil'-size, *n.* A size made of boiled linseed oil and chrome yellow, used with gold-leaf to cause it to adhere to any surface; gold-size.

Oil'-smell'er, *n.* A person supposed to be able to detect the smell of oil; used to determine profitable locations for oil-wells.

Oil'-spring, *n.* A spring which yields mineral oils, petroleum, naphtha, &c., with or without water.

Oil'-stove, *n.* A stove using oil as fuel for cooking or heating purposes.

Oil'-test'er, *n.* The finding of the flashing-point of oils is of importance, as indicating under what circumstances they may be used with safety. A number of tests for determining this have been either legalized or ordered by enactment of various states and governments. The Abel oil-tester is officially used in Germany, and to some extent in England. It consists of a holder filled with water, partially immersed in which is a smaller holder for the oil. A thermometer passes through the cover into the oil, so that its temperature can be regularly noted. The water being heated to 44·5° to 55° C., the oil is allowed to heat, and a sliding-bar is withdrawn from the top of the oil-holder and a flame tipped over the opening. If no flash results, the sliding-bar is closed, until the temperature of the oil rises one-half degree, when it is withdrawn and the flame again brought over the opening. This is repeated until the oil reaches a temperature where it gives off enough vapor to ignite, thus determining the flashing point. It is usual to make the test 3 times on each sample of oil, and to average the result of the 3. Very many oil-testers more or less similar to this have been devised, as the Parrish, used in Holland, in which the inflammable mixture is carried out of the petroleum-holder to a stationary flame; the Bernstein, in which the vapors evolved are displaced by water-pressure; the Saybolt, in which an electric spark serves for the flame; the Braun, having a magnetic pendulum arrangement for applying the flame; the Engler, having a stirrer for the oil; the Grey, having a stirrer for the oil and another for the vapor; and the Pensky, which is used for testing lubricating oils. Most of them employ a lamp to heat water, which so surrounds an oil-cup as to heat it gradually and uniformly.

Okan'ogan, in *Washington*, a N. co.; *area*, 7,253 sq. m.; bounded S. by the Wenatchee river and S. E. by the Columbia, and intersected from N. to S. by the Okanogan river. *Surface*, principally hilly, mountainous in parts; *soil*, sandy loam, very productive. *Min.* Gold, silver, lead, some iron, and coal. Plenty of timber. Stock-raising is the chief industry. *Cap.* Conconully. *Pop.* (1897) 2,550.

Okar'che, in *Oklahoma*, a post-village of Canadian co., 10 m. from Kingfisher. *Pop.* (1897) about 1,000.

Okeene', in *Oklahoma*, a post-village of Blaine co., 24 m. W. of Hennessey. *Pop.* (1897) about 500.

Oklaho'ma. A State of the American Union comprising the original area of the Indian Territory, and

also the narrow Public Land Strip left unassigned after the organization of Texas. It lies between Lat. 33° and 37° N., Lon. 94° and 103° W., and has an area of 70,430 sq. m. It is bounded N. by Kansas and Colorado, E. by Missouri and Arkansas, and S. and W. by Texas and New Mexico. The surface is mainly rolling prairie, with broad stretches of rich land along the streams and an abundance of timber. A broad belt of forest known as the "Cross Timbers," from 40 to 60 miles wide, extends north and south through the central region of the State. The eastern section—the recent Indian Territory—is fertile and well watered, and is broken in the S. and S. E. by groups of hills and low mountains, forming part of the Ozark range. The principal streams are the Arkansas and Red Rivers, which have numerous affluents. The western portion of *O.*—recently the Oklahoma Territory—has a lower rainfall and fewer streams, many of its water courses being so saturated with alkaline salts as to make their waters unfit for use. In the river valleys and some of the upland regions there are fertile spots, but much of this region resembles western Kansas in aridity during unfavorable seasons. The Public Land Strip, extending westward from the N. W. corner of the State and forming one of its counties, was formerly covered with cactus and sage brush, but is now a productive farming and grazing region. Though the climate of *O.* is generally mild, the average annual temperature being about 60°, it is subject to sudden changes produced by the "northers" which are common in this part of the U. S. Yet the climate permits the staple products of both North and South to be cultivated; wheat, corn, oats, potatoes, and cotton being important products. Mineral wealth is abundant in the eastern section, and comprises coal, copper, iron, lead, zinc, and marble. Coal is extensively mined. *O.* has abundant means of railroad communication with the other states.

Hist. This region was originally set aside as a reservation for the Creeks, Choctaws, Cherokees, Chickasaws, and Seminoles of the South, but other tribes and remnants of tribes were subsequently removed to it. The present population of the former Indian Territory comprises many negroes, first introduced as slaves by the Indians, and whites, who entered as tenants. Intermarriage of the Indians with the negroes and whites has been so common that few true Indians remain. In 1866 the tribes ceded the western portion of their domain, which they had not occupied, to the United States, with the stipulation that it was to be reserved for settlement only by Indians and freedmen. Yet various efforts were made by whites to occupy the territory, and these became so persistent that in 1888 the U. S. bought the lands from their Indian owners and opened them to settlement on April 22, 1889. At the hour fixed more than 50,000 settlers crossed the border, and a year later the settlement was organized as Oklahoma Territory. In Sept., 1893, the President opened by proclamation some 6,000,000 acres more, and the rush of 1889 was repeated. The population increased so rapidly that the 78,475 of 1890 was augmented to 398,331 in 1900. During the same period the population of Indian Territory, now restricted to the eastern half of the original area, increased from 180,182 to 392,060, the increase being chiefly in whites. An agitation arose in the early years of the twentieth century for the admission of these Territories either as a single State or as two States. A bill was finally passed, and signed by the President June 16, 1906, for their admission as one State, to be known as Oklahoma, which thus became the 46th State of the Union. *Pop.* (1900) 790,331.

A central co.; *area*, 750 sq. m.; intersected by the North Fork of the Canadian river. *Surface*, rolling; *soil*, red loam; timbered. *Cap.* Oklahoma City. *Pop.* (1900) 25,915.

Oklaho'ma City, a city, cap. of Oklahoma co., 31 m. S. of Guthrie. *Pop.* (1900) 10,037.

Oklahoma, Univer'sity of. (*Educ.*) This institution was established at Norman in 1892, by act of the legislature. It was endowed with 181,000 acres of land, from which is derived at present an income of $7,000 a year. The total income was $26,714 in 1896, when it had 7 instructors, 150 students, and 2,500 volumes in its library. It is co-educational and non-sectarian.

-ol. A suffix, an abbreviation of *alcohol*, denoting that a compound is a true alcohol.

-ole. A suffix, derived from Lat. *oleum*, oil, to denote a hydrocarbon.

Old Bai'ley. The building in which occur the monthly sessions of the Central Criminal Court of London, England; it is situated on Old Bailey Street, and adjoins Newgate Prison (*q. v.*). On the restoration of Charles II. to the throne the surviving judges of Charles I. were tried in the Old Bailey Court; and in the same place and year (1660) the hangman burned Milton's *Eikonoklastes* and *Defensio Prima*. Among other noted trials held here were those of Lord William Russell (1683), Jack Sheppard (1724), Bellingham (1812), and the Cato Street conspirators (1820). The judges of the Old Bailey Court are the lord mayor, the lord chancellor, the judges, aldermen, recorder, and common sergeant of London, but, among these, the lower officials most frequently preside. Crimes of every sort are tried here, and the record of the court-sittings runs back to the time when there were no records kept. For many years the sheriffs gave dinners to the judges at the Old Bailey; they were served twice a day, and were famous for their beefsteaks and marrow puddings.

Old Cath'olics. (*Eccl. Hist.*) After the Vatican Council in 1870 had decreed papal infallibility, a number of priests refused to be bound by that decree. They seceded from the Roman Catholic Church and called themselves Old Catholics, professing to retain the whole Roman Catholic system with the exception only of the Vatican decree, which was regarded as a dangerous innovation. Dr. Döllinger did more than anyone else to incite to rebellion against the Vatican decree. He, however, declined to join the Old Catholics, which did not prevent his being excommunicated April 17, 1871, as being guilty of "the crime of open and formal heresy." The movement spread with considerable rapidity in Germany and Switzerland. The sect was formally organized by the election of Prof. Joseph Hubert Reinkens as bishop, who was consecrated by the Jansenist bishop, Heykamp, at Rotterdam, Aug. 11, 1873, and now resides at Bonn, on the Rhine, having been recognized in his new dignity by the Prussian government. Sept. 18, 1876, Bishop Reinkens consecrated Edward Herzog as bishop of the Old Catholics of Switzerland. Père Hyacinthe has recently declared himself an Old Catholic. Most in sympathy with the Church of England and the Protestant Episcopal Church in the U. S., the Old Catholics have never identified themselves with Protestantism in any form. At the synod held at Bonn, in 1878, a resolution was passed favoring the marriage of the clergy. The movement seems to be dying out.

Old World. The Eastern Hemisphere, including Europe, Asia, Africa, and Australia.

Old-fo'gyish, *a.* Having antiquated notions; extremely conservative; old-fashioned.

Old'ham, in *Texas*, a N.W. co.; *area*, 1,460 sq. m.; intersected by the Canadian river. *Cap.* Tascosa. *Pop.* (1890) 270.

Old Maid, *n.* A woman who remains single beyond the usual age of marriage; usually, but not necessarily, a disparaging term.

—A game of cards, in which, one card being removed from the pack, the cards are matched, and the one holding the unmatchable card is "old maid."

Old-maid'ish, *a.* Having the characteristics usually attributed to an old maid; prim; fussy; peculiar.

Old-ti'mer, *n.* One who has lived in a place or held a position a long time. Formerly, one belonging to, or clinging to, the views and habits of olden times.

Old-world, *a.* Inhabiting the Eastern Hemisphere.—Pertaining to a bygone age, antiquated.

O'leo, *n.* An abbreviation of oleomargarine.

Oleo-. An initial compounding element (derived from Latin *oleum*, oil), denoting substances containing oil.

O'leograph, *n.* [*oleo*, and Gr., *graphō*, to write.] A picture produced by a process similar to lithographing, imitating oil-painting.

Oleomar'garine, *n.* Artificial butter made originally from beef fats, but now usually from oleo-oil, a deodorized product of other fats, neutral lard, milk, and pure butter, with a coloring matter. It was first made in France by M. Hippolyte Mége, about 1870. The process consists in repeated washing of beef fat in fresh water until it becomes a pure white fat. It is then cut up by machinery into fine pieces, and in this condition it is easily rendered, after which it is pressed until the butter-oil ceases to flow, leaving a cake of hard and white stearin. The butter-oil pressed out is collected and solidifies, when it may then be churned with milk and becomes oleomargarine, or oleo, or butterine, or suine, according to the taste of the person naming it.

Oleom'eter, *n.* An instrument, usually some form of hydrometer, for ascertaining the gravity of oils. One form has a weighted glass bulb and graduated tube divided into 50 degrees, and arranged to float at zero in pure oil of poppy-seed, and at 50° in pure olive oil.

Olfactom'eter, *n.* An instrument for measuring the acuteness of the sense of smell.

Olig'ocene Sys'tem. (*Geol.*) A geological system of the Tertiary age, lying between the Eocene and Miocene, and formerly included within those systems. Its strata are widely distributed and rich in fossils, including an abundant flora, largely composed of modern genera, and a fauna comprising numerous strange mammalian forms. In physical conditions the *O.* differed little from those of the Tertiary strata generally, its climate being genial, but probably less tropical than that of the Eocene, and its land surface marked by great lakes, which afterward silted up.

O'lin, in *Iowa*, a post-town of Jones co., 14 m. S.E. of Anamosa; has a cheese factory, tile works, and creamery. *Pop.* (1895) 648.

Ol'iphant, Laurence, traveller, novelist, and mystic, was born in 1829, son of Sir Anthony *O.*, chief justice of Ceylon. His first publications were *A Journey to Khatmundi* (1852), and *The Russian Shores of the Black Sea* (1853), both descriptive of his travels. He studied law, but never practiced; became private secretary to the Earl of Elgin, governor-general of Canada; afterward accompanied Lord Elgin on his embassy to China; published *Minnesota and the Far West* (1855), and *A Narrative of the Earl of Elgin's Mission to China and Japan* (1860). He was *chargé d'affaires* in Japan in 1861, when he was obliged to resign on account of having been severely wounded by assassins. He was a member of parliament for several years, and a magazine writer of note. He became absorbed in a religious mania, and joined a spiritualistic community in the U. S., under the influence of T. L. Harris (*q. v.*); subsequently broke away from this connection, and went to reside at Haifa, in Palestine, ultimately returning to London. His writings were numerous and varied, but chiefly of the nature of tourists' descriptions and clever social notions; of the latter may be mentioned *The Tender Recollections of Irene Macgillicuddy*. In *Scientific Religion* (1888) is embodied his peculiar religious opinions. Died Dec. 23, 1888.

Ol'iphant, Mrs. Margaret (Wilson), novelist and biographer, was born in Scotland, in 1820. Her first book was *Passages in the Life of Mrs. Margaret Maitland* (1849), and from that date she continued to publish stories at short intervals, until she has become one of the most voluminous novelists of the day. Some of her best novels are: *Adam Graeme, of Mossgray* (1852); *The Quiet Heart* (1856); *Miss Majoribanks* (1865); *The Chronicles of Carlingsford* (1866); *White Ladus* (1871); *The Heir Presumptive and the Heir Apparent* (1891), and *The Marriage of Elinor* (1893). She has written valuable biographies and critical sketches of many celebrated people, and her series of art and antiquarian volumes, *The Makers of Florence*, and *The Makers of Venice; Jerusalem*, &c., are all of superior interest. She also wrote extensively on English history and literature. Died June 25, 1897.

Ol'ive Oil. (*Agric.*) The culture of the olive-tree and the manufacture of oil from its fruit is gradually becoming a leading industry in California, in the valley of Santa Barbara and the foot-hills of Santa Inez. The olive is propagated almost entirely by cuttings taken from the sprouts and branches of mature trees at the time of pruning. These are placed in a perpendicular position in a bed of good soil, 6, 8, or 10 inches apart, their tops level with the surface. Here they remain, throwing out leaves and branches until April or May, when they are taken up and are set out in the orchard in rows about 25 feet apart each way. The ground between the trees may be cultivated for several years, with little or no detriment to the young trees. The process of extracting the oil as practiced in Santa Barbara is very simple. A large, broad stone wheel is held by an arm from a center-post, and drawn by a horse. The fruit is thrown upon this stone bed and is shovelled constantly in the line of the moving wheel until it is considerably macerated, but not thoroughly, and without breaking the stones. This process finished, the pulp is wrapped in coarse cloths or gunny sacks, and placed under a rude, home-made screw or lever press. The oil and juices, as they ooze through the cloth or sacks, flow into a small tank, and as they increase are distributed into other vessels, from the surface of which the oil is afterward skimmed. The oil flowing from this first pressure is that known as "virgin oil," and commands the highest price from connoisseurs of the table. Without further preparation the oil is now ready for use, except that, in order that any intrusive matter may be separated from the body of the oil and collected at the bottom of the oil cask or jar previous to bottling, it is set away for a time to rest. The "second-class oil" is the result of a second and more thorough crushing of the berries, in which even the stones are broken, and of a subsequent subjection of the pulp to the press. The berries are sometimes submitted even to a third process of crushing; and, previous to pressure, are brought to a boiling heat in huge copper kettles. The oil thus obtained is of an inferior quality, and is sold for use as a lubricator, and also as an ingredient in the manufacture of castile and fancy toilet soaps, and for other purposes, for which it is superior to animal oil. The tree at 5 years of age returns a slight recompense for care; and at 7 an orchard should afford an average yield of about 20 gallons of berries to a tree. Thus an average yield of olives derived from an orchard covering one acre of land, will produce about $800 worth of oil. After deducting the entire cost of production and manufacture, a net profit may be anticipated of at least $2 per gallon. A large part of the oil sold in America, and purporting to be olive-oil of European manufacture, is the product of adulteration and imitation. It is generally manufactured in this country, and is composed principally of animal oil, though mustard-seed oil and other inferior vegetable oils also form materials for its adulteration. Every one familiar with the nature of olive-oil knows that it retains its perfect transparency and uniform oily consistence under any temperature. Animal oil condenses under the influence of cold, but vegetable oil does not. The genuine oil glows clear beneath the glass in all weathers; the adulterated oil turns flaky with the cold. It is an advantage, also, of the genuine "virgin oil," obtained by home manufacture, that it retains is perfect sweetness longer than any other oil.

Olive-branch, *n.* A branch of an olive-tree; figuratively, an emblem of peace.

(*Humorous.*) A child; founded on Psalm cxxviii., 3 (usually in the plural).

Ol'iver, *n.* [From name of inventor.] A small lift-hammer, worked by the foot. The head is about 2½ inches square and 10 inches long, with a swage-tool, having a conical crease attached to it; and a corresponding swage is fixed in a square cast-iron anvil-block, about 12 inches square and 6 deep, with round holes for punching, &c.

Oliver, in *North Dakota*, a S.W. central co.; *area*, 720 sq. m.; bounded on the E. by the Missouri river. *Surface*, rolling prairie; *soil*, well adapted to grains and vegetables. Cattle, sheep, and swine are largely raised. *Cap.* Sanger. *Pop.* (1890) 464.

Oliver Springs, in *Tennessee*, a post-village of Anderson co. *Pop.* (1897) 725.

Ol'ivet, *n.* An imitation pearl, used for beads and in traffic with savages.

Olivet, in *Michigan*, a post-village of Eaton co., on the Chicago & Grand Trunk R.R., 27 m. S.W. of Lansing; in a fine farming region. Seat of Olivet College (Congregational). *Pop.* (1894) 783.

Oliz-, Olizo-. An initial compounding element, from Gr. *olizos*, few, little, denoting smallness of proportion, fewness, littleness.

Olm'stead, Frederick Law, landscape gardener, was born in Hartford, Conn., April 26, 1822; attended Yale College, taking studies bearing upon agriculture. In 1848 he turned his attention to landscape gardening, making a walking tour through England and parts of the Continent, observing the conditions of this art in the older countries. This tour he described in *Walks and Talks of an American Farmer in England* (1852). A few years later he journeyed through the Southern States, observing agricultural conditions under the institution of slavery, and publishing his experiences in several volumes. During the Civil War he was secretary of the Sanitary Commission; in 1863–65 he was a member of the Californin Yosemite Restoration Commission. He superintended the laying out of Central Park, New York; the Capitol grounds, Washington; the World's Fair grounds, in Jackson Park, Chicago (1893), and various parks in Brooklyn, Buffalo, Chicago, &c. Died August 28, 1903.

Ol'ney, Richard, lawyer and statesman, was born at Oxford, Mass., Sept. 15, 1835; graduated from Brown University, and studied law at Harvard, beginning practice in Boston; was a member of the State legislature in 1874, and was once defeated as the Democratic nominee for attorney-general of Massachusetts. In 1893 he was made U. S. attorney-general in Mr. Cleveland's Cabinet; and upon the death of Mr. Gresham he was appointed secretary of state (June 10, 1895), administering the affairs of that office with so much force and brilliancy that his retirement (March, 1897) was a source of genuine regret to very many of the opposite political party. Mr. *O.* has since resumed the practice of law in Boston. An evidence of his broad judicial temperament—and also, perhaps, of his political sagacity—was seen in his letter to the Brown University corporation (August, 1897), severely criticising the course of action which had led to the resignation of the former president, Dr. E. Benjamin Andrews, a few weeks before.

Ol'ogy, *n.* (*Humorous.*) Any branch of learning or science.

-ology. A terminal compounding element, derived from Gr. *logos* (the *o* being prefixed or derived from the initial element), word, discourse; denoting, usually, a branch of science.

Oloza'ga, Don Salustiano, a Spanish statesman, was born at Logroño, in 1803. Elected a member of the Cortes, he led the opposition against the Isturiz Ministry in 1835, and in the year following gave his support to the Mendizabal Cabinet, after the overturn of which he became the chief of the monarchical opposition. From 1840 till 1843 he held the ambassadorship at Paris, after which he was entrusted with the formation of a new Cabinet, which however, owing to the intrigues of Narvaez, had but a brief existence. He became a member of the Ministry of 1868, and president of the Constitutional Committee appointed by the Cortes, and in February, 1871, was again made Spanish ambassador at Paris, a position he resigned in April, in consequence of his having been elected president of the Chamber of Deputies at Madrid. Died in 1873.

Ol'yphant, in *Pennsylvania*, a post-borough of Lackawanna co., 6 m. N. E. of Scranton; has extensive collieries and heavy shipments of coal. *Pop.* (1897) 4,540.

Om-, Omo-. An initial compounding element, derived from the Gr. *ōmos*, shoulder.

O'maha, in *Illinois*, a post-village of Gallatin co. *Pop.* (1897) 500.

Om'brograph, *n.* [Gr. *ombros*, rain storm, and *graphō*.] An instrument for recording, automatically, the quantity and rapidity of a rainfall and the time of occurrence.

O'men, in *Texas*, a post-town of Smith co., 5 m. N. of Troupe. *Pop.* (1897) 600.

Omi'cron, or **Om'ikron,** [*o* and *mikron*, little.] The fifteenth letter of the Greek alphabet, corresponding to English short *o*. So called by the Greeks to distinguish it from *omega*, great, or long *ō*.

Omni-. An initial compounding element, derived from the Lat. *omnis*, all, denoting universality.

Omopha'gia, *n.* [Gr. *ōmos*, raw, and *phagō*, to eat.] The eating of raw flesh.

Omph-, Omphalo-. An initial compounding element, from the Gr. *omphalos*, the navel.

Om'phalism, *n.* [Gr. *omphalos*, the navel, a center.] Locating, or a tendency to locate, the capital of a country at its geographical center; hence, a tendency to strengthen a central government at expense of its subordinate local governments.

Omphalop'agus, *n.* A double monster united at the navel; as the Siamese twins.

Ona'ga, in *Kansas*, a post-village of Pottawattomie co., 20 m. N.W. of Westmoreland. *Pop.* (1895) 519.

On'ager, *n.* (*Zoöl.*) The large, horse-like, wild ass (*Equus onager*) of the Central Asian deserts from Persia to Siud, remarkable for its fleetness. Also called Kulan. Compare Kiang.

Onco-. An initial compounding element, derived from the Gr. *onkos*, mass.

On'come, *n.* [Scot.] The first part of any undertaking. (*Med.*) A mysterious attack of disease.—A swelling or gathering.

Oncosim'eter, *n.* [Gr. *onkos*, swelling, and *metron*, measure.] A device for ascertaining the specific gravity of a molten metal, by immersing in it a ball of known weight made of a different metal.

-one. (*Chem.*) A suffix used as an abbreviation of acetone or ketone.

Onei'da, in *Idaho*, a S. E. co.; *area*, 2,700 sq. m. *Rivers.* Bear, Snake. *Surface*, mountainous; *soil*, fertile. Has rich gold and silver mines. *Cap.* Malad City. *Pop.* (1890) 6,819.

Oneida, in *Wisconsin*, a N. central co.; *area*, 936 sq. m.; drained by the Wisconsin, Tomahawk, Little Rice rivers, and numerous smaller streams and lakes. *Cap.* Rhinelander. *Pop.* (1895) 7,060.

O'Neill, in *Nebraska*, a city, cap. of Holt co., 60 m. W. S. W. of Yankton, Dak. *Pop.* (1897) 1,500.

Oneir-, Oneiro-. An initial compounding element, derived from the Gr. *oneiros*, a dream.

Oneirol'ogy, *n.* The science of dreams; a study or collection of dreams with their interpretation.

Onisc-, Onisci-, Onisco-. An initial compounding element, derived from the Gr. *oniskos*, a wood-louse.

Onocen'taur, *n.* [Gr. *onos*, an ass, and *kentauros*, centaur.] (*Myth.*) A fabulous monster, represented in ancient sculpture, with a body partly human, partly asinine.

Onta'rio. The most populous province of the Dominion of Canada. It was known as Upper Canada until 1867, when it adopted its present name when it joined Quebec (formerly Lower Canada), New Brunswick, and Nova Scotia in political union. Ontario lies between Lat. 42° and 53° N., and Lon. 74° and 95° W., extending about 1,200 miles north and south, and nearly 700 east and west, its area being approximately 222,000 sq. m., of which 2,350 are water surface. The older and more thickly settled portions of the province are those which adjoin Lakes Erie and Ontario. In 1868 the wide territory to the northwest, which had long been under the control of the Hudson Bay Company, was acquired, and settlement spread with some rapidity in this direction. The boundaries of Ontario to the N. and W. were not finally settled until 1878, when arbitrators made a satisfactory arrangement between the several provinces and territories concerned. The older portions of the province are of low elevation, nowhere exceeding 1,000 feet; but north of the St. Lawrence basin the country presents an aspect of greater boldness, the Laurentian Hills here crossing the province, though reduced to a hummocky plateau which is known as the Height of Land. This ridge forms the watershed between Hudson Bay on the N., the Ottawa on the E., and Lakes Nepigon and Superior on the W. In addition to Nepigon, the province embraces Lakes Nipissing, Muskoka, and Simcoe, with numerous smaller ones.—*Geol.* Ontario is composed almost completely of Archæan and Palæozoic strata, which have been little disturbed during the later ages, but greatly denuded, the rocks that resisted denudation remaining as hills. East of Kingston and Ottawa Silurian limestones appear, and between Kingston and Georgian Bay are Devonian strata, while the mineral-bearing area, extending from Georgian Bay to Lake Winnipeg and northward, consists of Laurentian gneisses and granites, with many areas of volcanic rocks. In the upper valley of the Ottawa occur fossil-bearing Cambro-Silurian rocks, overlying Laurentian strata. A wide belt of Huronian deposits crosses the country from S.W to N.E.—*Climate.* The country is one of pleasant summers and cold winters, though the cold is extreme only in the uninhabited northern region. In the southern section it is bracing and easy of endurance, while the snows are of much service to the lumbermen and farmers. The mean winter temperature varies in several sections of the southern district from 9° to 24°, and the summer from 58° to 65°.—*Soil and Products.* Much of the country is still in forest, which covers in all about 100,000 sq. m. of area, while of the occupied land (about 25,000,000 acres) about one-half has been cleared, and nearly 12,000,000 acres are woodland and marshes. 8,000,000 acres of cleared land are devoted to agriculture, 2,500,000 to pasture, and nearly 200,000 to horticulture. Nearly all the useful grains and roots can be cultivated, oats being the leading cereal crop, though the yield of wheat is also large. The other important crops are barley, pease, turnips, potatoes, and hay. The orchards are devoted mainly to the hardy fruits, apples giving usually a profitable yield, while the same may be said of plums and cherries. The peach is grown in the Niagara district, while there is an excellent yield of grapes and berries in the Lake Erie and Ontario districts. Domestic animals are raised in large numbers, the total value of the live stock being estimated at over $100,000,000, while the wool-clip is large and valuable. Special attention has been paid to the breeding of carriage and saddle horses.—*Minerals.* There is considerable mineral wealth, particularly in the country between Lake Nipissing, Port Arthur, and the Lake of the Woods. The minerals here consist of gold, silver, copper, nickel, iron, lead, zinc, and plumbago, with granite, marble, and freestone in large deposits. Most of these metals also occur in the central and eastern counties, and also phosphates and other mineral fertilizers. Salt, petroleum, and gypsum occur in the western section.—*Pol. Div., &c.* Ontario is divided into 42 counties and 6 districts. The principal cities are Toronto (the capital), Hamilton, Ottawa, London, Kingston, Brantford, Guelph, St. Thomas, Windsor, Belleville, Stratford, and St. Catharines. The governing powers consist of an executive council and a legislative assembly, with a lieutenant-governor, who has a cabinet of 8 members. The legislature sits for 4 years, but may be dissolved by the lieutenant-governor. Matters of a general character are under the jurisdiction of the Federal government sitting in Ottawa, and controlling the affairs of the dominion.—*Education.* There is a free school system of growing importance, the province expending more than $4,000,000 on its public schools, which have an enrollment of about 500,000, and over 250,000 attendance. There are 2 normal schools, and excellent provision for the higher education. At the head of the system stands Toronto University, while there are various colleges of good standing. Ontario has no public debt. It has about 8,000 miles of railway and a number of important canals, while its position on the Great Lakes has greatly stimulated its commerce. *Pop.* (1891) 2,114,321.

Onta'rio, in *California*, a post-village of San Bernardino co., 38 m. N. of Los Angeles. *Pop.* (1897) 760.

Ontog'ney, *n.* [Gr. *ōn* (gen. *ontos*), being, and *genesis*, origin.] The history of the development of the individual; germ-history.

Ontog'raphy, *n.* [Gr. *ōn* (*ontos*), being, and *graphō*, to write.] A description of the nature of beings.

Ontol'ogism, *n.* [Eccl. Lat. *ontologismus*.] The doctrine that the human intellect has an immediate consciousness of God as its proper object and the principle of all its cognitions.

Onych-, Onycho-. An initial compounding element, derived from the Gr. *onyx*, claw, or nail.

On'ycha, *n.* [Lat. *onyx*, mussel.] An ingredient of the Mosaic incense (Exodus xxx., 34), probably an operculum of a mollusk of the genus Strombus.

On'ychite, *n.* (*Petrol.*) A kind of marble or alabaster, with brown and yellow veins.

Oo'lakan, *n.* See Candle-fish.

Oo'ri. (*Geog.*) An African river forming part of the northern boundary of the South African Republic. It flows into the Indian Ocean and has a length of about 900 m. Same as the Limpopo; also called Bempe, Crocodile river, and Inhampura.

Ooze, *n.* (*Geol.*) Large areas of the floor of the oceanic basins are covered with a soft chalky mud called *ooze*. Thousands of square miles of this have been found in both the Atlantic and Pacific. A sounding-lead dropped upon it sinks deeply, and hundreds of specimens have been brought up. (See Sounding, Deep-sea.) A dredge is filled at once with this fleecy deposit. The upper layer, says Geikie, is a yellowish, creamy, somewhat sticky substance, full of entire and broken shells of minute animal organisms (infusoria, and the like), together with fragments of sponges and other submarine creatures. Underneath this surface-layer the ooze shows the shells in a more crumbling state, and no doubt in the deeper parts of the deposit, which the dredge cannot reach, the substance may consist only of a kind of fine chalk, formed almost entirely of the mouldered remains of these lowly forms of life. (See Chalk.) The principal constituent of the ooze, however, is the calcareous (chalky) part of the skeletons of a microscopic animalcule (a reticularian protozoan) known as *Globigerina*, which, in many species, exists near the surface of all oceans in countless multitudes, and whose coiled, nautilus-like shells begin to sift slowly down to the bottom as soon as the animal dies. It is a striking commentary on the lapse of time in the history of the world that this minute creature, and slow process of deposit, have been able to build up the great deposits of chalk and the thick beds of oceanic ooze of which we know.

Opeid'oscope, *n.* [Gr. *ops* (gen. *opis*), voice; *eidos*, form; *scopeo*, to see.] An instrument giving a visual illustration of sound by means of the movements of a ray of light reflected from a mirror upon a screen.

Open Sesame (*sēs'a-my*). The words, constituting a magical charm, by which, in the story of *Ali Baba and the Forty Thieves*, the door of the cave was opened. Hence, any specific for opening closed doors or gaining entrance to a secret place.

Op'era Bouffe. [Fr.] A French term—corresponding to the Italian *opera buffa*—for a farcical comic operetta. See Opera.

Oph-, Ophido-, Ophio-. An initial compounding element, derived from the Gr. *ophis*, a serpent.

Ophiur-. An initial compounding element, derived from the Gr. *ophiouros*, serpent-tailed.

Ophthalm-, Ophthalmo-. An initial compounding element, derived from the Gr. *ophthalmos*, eye.

Ophthal'mostat, *n.* [Gr. *ophthalmo*, and *statos*, fixed.] (*Surg.*) An instrument for holding the eye in a fixed position to facilitate an operation.

Opian'ic, *a.* Pertaining to or derived from opium or narcotin.

O'pie, Mrs. Amelia (*née* Alderson), novelist and poet, was born Nov. 12, 1769, at Norwich, England. She was a voluminous writer of stories, sketches, and poems, and a brilliant figure in social life, mingling with the most distinguished people of the day in London and Paris. In her later years she joined the Society of Friends, and ceased to write novels, but retained her characteristic gayety of spirit to the end. She was married to John Opie, the painter, on May 8, 1798. Died Dec. 2, 1853.

Opie, John, painter, was born at St. Agnes, Cornwall, in May, 1761. In early childhood he evinced a mathematical bent, but his art tendency proved stronger still. With the encouragement and assistance of Dr. Walcot ("Peter Pindar"), he pursued his studies, and secured patronage as a portrait painter. Sir Joshua Reynolds also aided him by his advice and approbation. In 1782 he began to exhibit at the Royal Academy. A few years later he was largely employed in painting pictures for the important illustrated works of the day; notably, for Boydell's *Shakespeare*, Macklin's *Poets*, and Hume's *History of England*. In 1805 he was elected professor of Painting to the Royal Academy, and his series of lectures there are accounted among the best contributions to critical literature. His marriage to Amelia Alderson, the writer, was most happy. He worked incessantly, on lectures and paintings, until early in 1807,

when his health failed, and after a few months' struggle to finish his work for the Academy exhibition, he died, April 9, 1807, and was buried, with some pomp, in St. Paul's Cathedral.

Opisom'eter, *n.* [Gr., *opisō*, backward, and *metron*, measure.] An instrument for measuring an irregular line. It has a thin wheel set to rotate on a screw-thread. By rolling it over an irregular line, and then backward over a straight line till it returns on the thread to the point of starting, and measuring the straight line traversed, the length of the irregular line is ascertained.

Opisth-, Opistho-. An initial compounding element, derived from the Greek *opisthen*, behind, at the back.

Opis'thograph, *n.* A manuscript or a slab inscribed on the back as well as the front.

Opop'anax, *n.* [Gr., *opos*, juice, and *panax*, kind of plant, all-healing.] (*Bot.*) A genus of *Umbelliferæ*, the parsley family.

(*Chem.*) The resinous juice from the roots of *Pastinaca opopanax*. It occurs in lumps of a yellowish-red color, with a bitter acrid taste and a peculiar odor; used in pharmacy.

Op'pert, Jules, Orientalist, was born in Hamburg, Germany, July 9, 1825; studied at several leading German universities; was professor of German in the lyceums of Laval and Rheims, France, and was a member of a government scientific expedition to Mesopotamia. In 1854 he received the grand prize of 20,000 francs, from the French Institute, for his method of deciphering the cuneiform inscriptions. He taught Sanskrit, and in 1874 became full professor in the College of France. He has published, *Assyrian Studies* (1860), a *Sanskrit Grammar* (1857), *Babylonia and the Babylonians* (1869), *Mythological Fragments* (1882), &c.

Opportu'nist, *n.* One who endeavors to turn circumstances to the advantage of himself or his party; one who accepts what comes nearest to his ideal and acts upon it. In France, a member of the moderate faction of the Republican party led by Gambetta.

Opposi'tion, *n.* (*Logic.*) The relation between any two judgments which have the same matter but a different form, the same subject and predicate but a different quantity, quality, or relation. *O.* may be *contradictory*, *contrary*, *subcontrary*, or *subaltern*.

Opsoma'nia, *n.* [Gr.] (*Pathol.*) An insane or morbid craving for some particular food; daintiness in regard to food.

Op'tic, Oliver. See Adams, W. T.

Op'tigraph, *n.* An instrument for copying landscapes, the rays of the object to be drawn being reflected from a plane mirror through the object-glass of the instrument to a speculum, and thence through an eye-glass to the eye. Between the eye and the speculum is a piece of parallel-faced glass, with a dot in the center exactly in the focus of the eye-glass. By moving the pencil, the dot seen in the field of the telescope is passed over the outlines of the object, which are at the same time traced on the paper by the pencil.

Op'timum, *n.* [*Lat.*] (*Bot.*) The conditions that produce the best results; the combination of conditions producing the best average result; the mean of two or more maximim or minimum effects representing the most favorable result.

Opto-. An initial compounding element, derived from the Gr. *optikos*, optic.

Op'togram, *n.* (*Optics.*) An image of the last object seen before death, said to be retained on the retina.

Optog'raphy, *n.* (*Optics.*) The photo-chemical process of bleaching an optogram into the visual purple.

Oquirrh (*ō'kwēr*), *n.* A mountain range in Utah, forming the boundary between Tooele and Utah counties, and extending south from the Great Salt Lake. It contains some of the richest silver mines in the country. Its sterile peaks form a striking and beautiful feature of the landscape viewed from Salt Lake City.

Or'ange, in *California*, a S. co.; *area*, 740 sq. m.; drained by the Santa Ana river and Alisos creek. *Cap.* Santa Ana. *Pop.* (1897) 15,000.

Orange, in *California*, a post-village of Orange co., 30 m. S.E. of Los Angeles; center of the raisin production of southern California. *Pop.* (1897) 1,200.

Orange City, in *Iowa*, a post-town, cap. of Sioux co., about 45 m. N.N.E. of Sioux City; has a cheese factory and flour mill, ships grain and live stock. *Pop.* (1895) 1,480.

Orange Cul'ture in the Uni'ted States. Oranges are cultivated with more or less success along the Gulf and Atlantic coasts of the United States from the Rio Grande to the sea islands of South Carolina, and in California; but Florida, Louisiana, and California are the only States which have raised more than enough for home consumption. The sour or bitter orange, known as the wild orange in Florida, is not native to America, as is sometimes stated, but has naturalized itself in the tropical and sub-tropical regions, having escaped from early Spanish gardens. It grows in thickets in Florida and South America; candied orange-peel and marmalade are made from its fruit, and its bark, leaves, and flowers yield various extracts useful as medicines and perfumes; it is sometimes cultivated as an ornamental tree, but its chief value horticulturally is as a hardy stock on which any variety of sweet orange may be grafted. Like most other fruits, oranges do not reproduce their characteristics accurately by seed, the only way of keeping the varieties true being to propagate by budding or grafting. Some growers prefer to use seedling sweet oranges as a stock, for in that case if the tree is frozen to the ground the sprouts from the roots will still bear edible oranges, but others claim a greater hardiness for the wild-orange stock, and think it equally available, as seedling sweet oranges are usually inferior in quality to the named varieties, so that the new growth should be grafted in any case. Although sweet oranges have been grown ever since the early settlement of Florida and Louisiana, most of the large Florida groves have been planted within thirty years; in spite of repeated injurious freezes, the orange acreage steadily increased in Florida up to 1894–5; in Louisiana there is rather less attention to orange-growing now than formerly, and as the conditions governing the orchards there do not vary materially from those in Florida, they do not need separate consideration. The "Orange Belt" of Florida, though often spoken of as the middle portion of the State, might more properly be said to cover the whole State, as a large part of the crop is grown along the banks of the St. John's river, as far north as Jacksonville; and even the extreme southern end of the peninsula is not free from frost. The high and the low-lying districts, and the districts having peculiarities of soil, all claim to be specially adapted to orange culture, but the only result is to prove that the orange itself is adaptable, suiting itself to varied conditions, although certain varieties are evidently best suited to certain districts; Florida oranges, as a whole, are acknowledged to be among the finest in the world, and certainly the finest in America, surpassing the California oranges in tenderness, thinness of skin, and juiciness. Among the famous Florida orange groves are the Dummit grove, on Indian river near Hanlover, Brevard county; the Harris grove, near Citra, Marion county; the Belair groves, near Sanford, Orange county; and the Tiger Tail Island grove, near Homosassa, Citrus county. Young orange groves, even in southern Florida, have often been more or less injured by frosts which set back their growth for a year or two, but did no very serious damage; of late years, however, the damage by cold has been more serious. In 1886 there was a cold wave during which the thermometer registered 15° at Jacksonville, and many of the groves in northern Florida were seriously cut back; such cold had not been known since 1835, at which time there were no important orchard interests; orange growers hoped that as long a time would pass before it occurred again, but in December, 1894, there was a blizzard, during which the mercury sank to 14° at Jacksonville, and almost as low in the middle and southern part of the State; the crop had been an exceedingly large one, and a great part of it, as much as 3,000,000 boxes, had not been picked, and was frozen upon the trees; although a quantity of the frozen fruit was eaten and shipped away while still fresh, the greater part of it was an entire loss. The leaves and younger branches were frozen too, and after a few weeks the leaves fell off, leaving the trunks of the trees unprotected against a second cold wave of equal force, which occurred early in February, 1895, completely destroying whole groves and injuring well-protected trees, far below Tampa Bay and Jupiter Inlet. Unprotected trees were injured as far south as 26° 39′, but the damage south of 27° was not serious. Every effort has been made to reclaim these frozen groves by regrafting the root-stocks or the shoots which they send up, but with the utmost care and success it was several years before the acreage of bearing trees in Florida became as great as it was in the fall of 1894, when the estimated crop was 5,000,000 boxes. The cultivation of the orange in California was first undertaken by the Catholic missions in the latter part of the 18th century. The first American settlers found trees at San Gabriel, Los Angeles county, which were in full maturity, and of which no one knew the age. From 1850 to 1860 some extensive orchards were planted around Los Angeles, and about the same time experiments were made in San Bernardino and elsewhere. These orchards matured without difficulty and produced fruit which sold for good prices. The period from 1865 to 1875 was marked by heavy immigration to California, and many orange orchards were planted, mostly in Los Angeles and San Bernardino counties, in the latter the celebrated orange-growing settlement of Riverside being founded in 1871. In 1876 the Department of Agriculture sent to Riverside two navel-orange trees, imported from Bahia, Brazil, and although various navel oranges had already been tried in Florida and California, this Bahia, or Riverside, navel took precedence of them all, and, in California, became the most widely planted orange in the State on account of its skin, seedlessness, juiciness, and good flavor. Oranges are now planted in various districts of California, as far north as Butte and Tehama counties. Oddly, the northern crops ripen first, and are marketed before the southern reach maturity. The orange is not successfully grown in the California coast regions, and it is almost everywhere subject to various insect pests which have proved more serious there than in Florida, where the frosts which injure the trees do a little good by also destroying parasites. The scale insects, a great variety of which infest orange trees, are the most serious pests. A few years ago the cottony cushion scale, or fluted scale (*Icerya purchasi*) was destroying the orange groves of Southern California so rapidly that some growers lost hope and cut down their trees, but its lady-bird enemy (*Novius cardinalis*) was introduced from Australia, the original home of the fluted scale, and by help of the lady-bird, by fumigating with hydrocyanic gas, and by spraying the trees, the scale is now under control. This fluted scale has never reached Florida, but various other scales are prevalent there; the whole subject of scales will be considered under the heading, Scale Insects. The "rust mite," a minute insect which lives upon the essential oil of the orange skin, and produces the discoloration known as rust, is prevalent in Florida, but not in California; it does not affect the quality of the fruit, but injures its appearance and consequently its market value; experiments in spraying show that it, also, may be combatted by proper care. Various diseases, notably the "die back" and the "foot rot," both attributed to fungi, are troublesome in Florida, but may usually be avoided by attention to the general health of the trees. In spite of the increase of orange cultivation in the U. S., the home supply does not yet equal the demand, and oranges are annually imported to a considerable extent. This, however, may soon be overcome by the increase of acreage under orange culture.

Orange River, the largest river of South Africa, rises in the Kuthlamba Mountains, east of Basutoland, and flows west, inclining to the north, to the Atlantic Ocean. In its course of 1000 miles, it describes numerous wide curves, and formed the southern boundary of the former Orange River Free State. Area of basin 325,000 sq. m. It is also known as the Gariep, and has several tributaries, of which the principal are the Caledon and the Vaal. The latter gave the name to the Transvaal Republic, which it bounded on the south. Its volume varies greatly between the rainy and dry season. In the former it overflows in its upper course, and in the latter it is not navigable. Its mouth is obstructed by a bar.

O'rant, *n.* [Lat. *oro*, to pray.] (*Art.*) A worshipper.

Orate', *v. a.* [*Oration.*] (*Humorous.*) To deliver an oration, make a speech, harangue.

Orbigny (*ôr-bän'ya*), Charles Dessalines d', a French naturalist, was born at Loire-Inférieure, 1806; became assistant in the Museum of Natural History, Paris, in 1835. His works embrace *Tableaux Synoptiques du Règne Végétal* (1834); *Dictionnaire Universel d'Historie Naturelle* (1839–40); *Dictionnaire Abrégé d'Historie Naturelle* (1842). Died in 1876.

Orbit-, Orbito-. An initial compounding form, derived from the Lat. *orbita*, orbit.

Orches'trion, *n.* (*Music.*) A large musical instrument constructed on the principle of a hand-organ, designed to imitate an orchestra in force and variety of tone.

Ord, Edward Otho Cresap, U.S. A., was born in Cumberland, Md., Oct. 18, 1818; graduated at West Point (1839); served in the Florida War until 1842; on duty on the frontier until the Civil War. In Sept., 1861, he was appointed brigadier-general of volunteers, and commanded a brigade of Pennsylvania Reserves. On May 2, 1862, he was transferred to a command in the Department of the Mississippi, with rank of major-general of volunteers; commanded the 13th Army Corps during the siege and capture of Vicksburg and capture of Jackson; in July, 1864, commanded the 8th Army Corps and the troops in the Middle Department. In Jan., 1865, he was given the command of the Army of the James and the Department of Virginia, and took part in the closing operations around Richmond; subsequently he was given the Department of the Ohio. In Sept., 1866, he was mustered out of the volunteer service, with rank of brigadier-general in the regular army. He commanded various departments from 1866 to 1880; retired in 1881, with rank of major-general, and died July 12, 1883.

Ord, in *Nebraska*, a post-village, cap. of Valley co., 68 m. N. of Kearney. *Pop.* (1897) 1,450.

Ore-crush'ing and Dress'ing Machi'nery. The first coarse crushing of ore is done with machines similar to or identical with rock-breakers. The Blake, Krom, Dodge, Buchanan, Fulton, and other crushers have upright jaws, one of which oscillates and crushes the ore as it works down. The Comet is a rotary crusher, and there are a few other forms. The old-fashioned stamp-mill, with its sets of upright wooden bars, raised

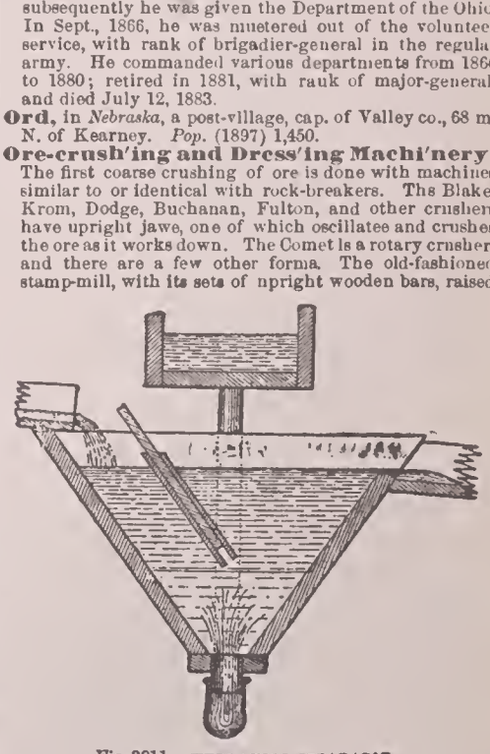


Fig. 3011.—HYDRAULIC SEPARATOR.

by cams, and dropped by gravity on the ore which was to be crushed, are being replaced in large ore-crushing establishments by the steam ore-stamp, which is constructed on the principle of the steam-hammer. This is an enormous and powerful machine, the largest size made weighing 70 tons and standing 30 feet high. It is capable of crushing 35 tons of ore in five hours, with a consumption of one ton of coal. The frame is pyramidal, having four stout columns, centering on a top

ring, in which is placed the steam-cylinder. The piston-rod of the cylinder descends vertically, and carries at its lower end a powerful stamp, which delivers its blow, not only by the force of its gravity, but by the added force of a strong pressure of steam behind the piston. The valves are arranged with elliptical gears, so as to admit but a small quantity of steam for the up-stroke of the piston, and reserve as much steam as possible for the down-stroke. A rubber disk is introduced between the piston and the stamp-stem, so as to preserve the cylinder from too much jar. A very heavy cast-iron mortar or anvil contains the ore, and receives the force of the stamp's blows. It is usually set on a base of spring-timbers, with a rubber cushion between to take up the vibration, but recently some have been built on a solid, unyielding base. Both ore and water are fed in at the top of the mortar, the discharge being from the lower corners. For soft ores, many prefer to use fast-running rolls for crushing, a system of revolving-screens being used for sizing, while a set of elevators carry the material back two or three times for extra rolling. Sets of rolls of graded sizes are generally used, the largest size having rolls about 18 inches in diameter. Removable steel faces are used on the rolls, so as to be replaceable after the wear has injured their contour. Two forms are made, one driven by belts, the other by gearing. The gearing is more positive in operation,

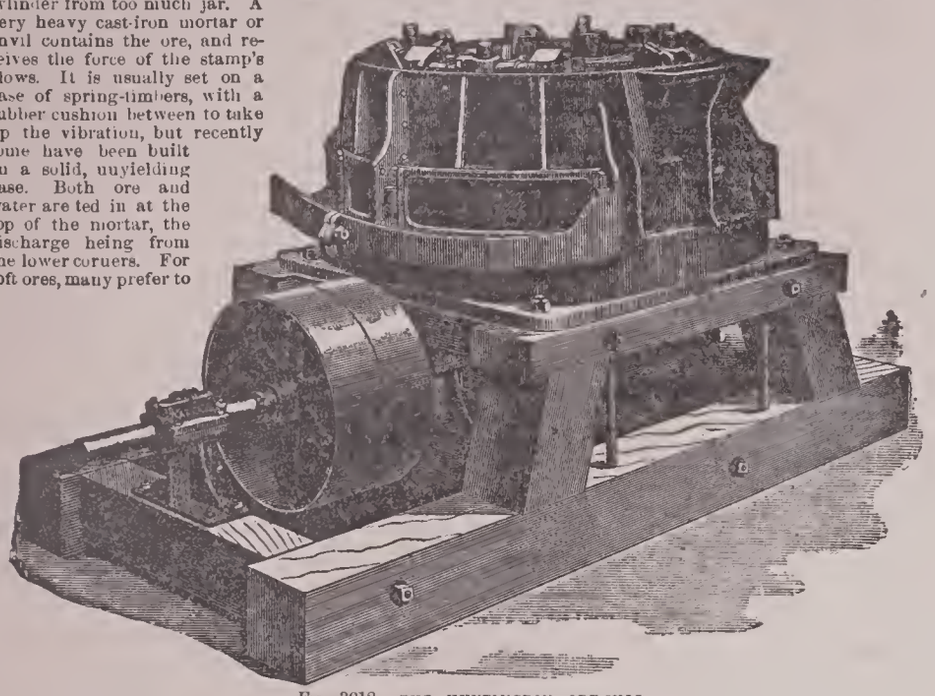


Fig. 3012.—THE HUNTINGTON ORE-MILL.

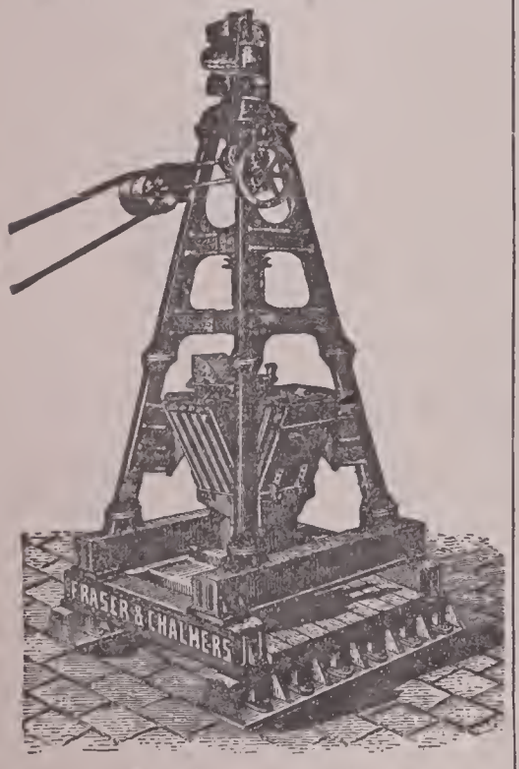


Fig. 3013.—STEAM STAMP-MILL.

but the belts admit of driving at higher speed, and wear longer than the gears. The rolls are always protected by stout springs, which give before the pressure approaches a point dangerous to the rolls. Of small mills for crushing, the best known are perhaps the Huntington and Sturtevant mills. The Huntington mill produces a complete pulverization. It has a large steel circle, called a ring-die, resembling a heavy wagon-tire set on its side. Within this die revolve several crushing disks, suspended from above, so that their bearings are entirely out of the way of the slimes, and so retain long life and wear. These crushing-disks bear against the inside of the ring-die with centrifugal force. A screen retains the ore until it is of the desired fineness. The Sturtevant mill, which is suited to coarse crushing, resembles a cement-mill, having two cylindrical heads rotating oppositely within a screen-lined casing. These heads become piled up conically with the ore until it flies off centrifugally. There being two heads, the pieces of ore that fly off strike each other violently and are broken against themselves, thus saving wear of the mill. The Heberle mill partly shears and partly grinds the ore between a large horizontal rotating plate and two small runners. Other well-known mills are the Cyclone and Narod pulverizers, and the Griffin and Frisbee-Lucop mills. For the separation of ores so that the weightier particles containing the most metal may be divided, the jig or jigging-machine is used. This imitates the shaking of a sieve by hand under water. The common jig is a form of long water-tank having a division which does not reach to the bottom. A screen is hung horizontally on one side of this partition, and on the screen the sized ore is fed. An agitator is operated in the water on the other side of the partition, causing a regular pulsation of the water through the screen, with the result of shaking the ore so that the heavier particles either come down through the screen or are worked along through a gate placed above the level of the screen, the lighter particles in the meanwhile working along to the side or end of the screen, where they are discharged. When more than two products of separation are wanted, jigs are provided with three or four compartments, each having its appropriate screen and agitator. Another form of separator consists of a V-form or U-form of trough, into which the pulp is flowed through a launder. Partitions are set in the trough in such a manner as to prevent direct flow, and clean water is forced in near the bottom, sending the slimes and mud to the surface, to be carried off by the overflow, while the weightier particles are discharged from below. Very similar machines are the Woodbury, Garnier, and Golden Gate concentrators, and the Luhrig vanner. The revolving buddle or slime-table is largely used, the Evans being perhaps the most common form. It presents a table 14 feet in diameter, having the central part slightly elevated or coned. Ore and water being fed at the top and the table rotated, the ore and slimes are separated as they wash across, and are discharged at different points along the circumference. Another form of the table has the lowest point at the center, the ore and water being fed in from the circumference. In yet another form the table is stationary, and a feed-spout and wash-pipes travel around the outer edge. Two-story slime-tables are also used, which give better separation, though with all of them it is necessary to use material partially classified in advance. The Collum buddle resembles the Evans, but has light brooms which sweep half the table and assist the separation. In Germany percussion-tables are much used in place of vanners and buddles. In these the table is regularly jarred sideways, by a cam and spring, while the water washes the table downward, and the heavy particles are thus worked along diagonally. Iron ores require to be prepared for smelting much more cheaply than those containing the precious metals, and log-washers, coarse jigs, and magnetic separators are commonly employed. The log-washer is a great box-tank containing two hexagonal logs, studded with coarse iron teeth. These logs are half submerged, set at a slight angle, and rotated by gearing. The ore is dropped in from a coarse screen or grizzly, and is passed out relieved of clay and dirt on to slow-rotating screens that dispose of the remaining sand. The magnetic separators, which have come in within a few years, are much more efficient, as well as simpler in operation, than the mechanical separators. The Edison magnetic separator consists of a simple hopper, from which the ore is dropped a considerable height. To one side of the descending ore is placed a powerful electro-magnet, so adjusted as to draw the magnetic particles to one side without entirely arresting their gravity. The magnetic particles, or good iron ore, thus fall in one pile to one side of the tailings, or non-magnetic particles, which fall in a heap directly below the hopper. The Buchanan separator has two large iron rolls, so magnetized that the iron particles cling to them in falling through and are carried part way around, when the magnetism is cut off and they are allowed to fall either side of the tailings. The Ball-Norton separator uses drums magnetized by internal sectors, and divides the ore into concentrates, middlings, and tailings. The Wenstrom has a single side-magnetized drum. The Conklin and Hoffman separators both deposit the ore on belts and carry it off sideways by magnets. The Lovett-Finney magnetic separator has large magnetized iron disks on which the ore is fed and the magnetic particles retained, while the remainder is washed off by water. This has the advantage of raising no dust. The methods of using the various kinds of ore-crushing and dressing machinery vary extremely according to the value of the metal in the ore, the hardness or softness of the ore, the locality, &c.

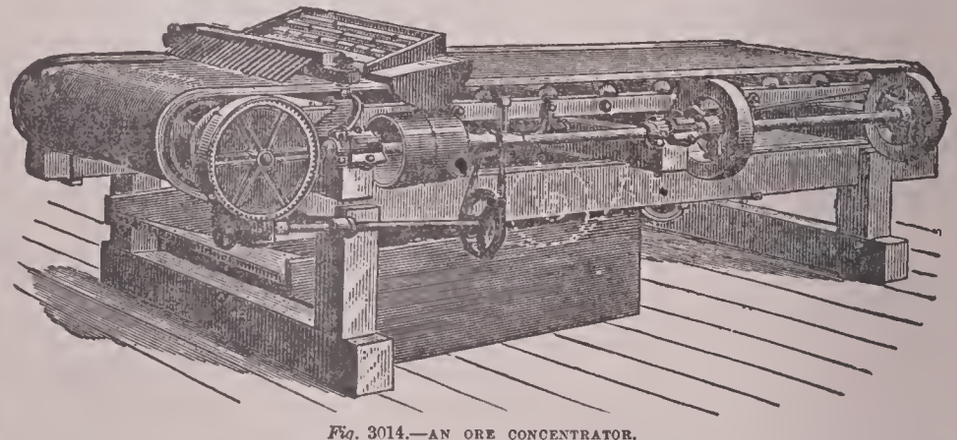


Fig. 3014.—AN ORE CONCENTRATOR.

Orec'tic, *a.* [Gr. *orektikos.*] Pertaining to the desires and appetites; used especially in reference to the natural tendencies of the soul as distinguished from the moral.

Oreide (*o'-re-id*), *n.* An alloy of copper, tin, magnesium, &c., or copper, zinc, and magnesium, with a few minor ingredients, used in the manufacture of cheap jewelry, as an imitation of gold.

O'Reil'ly, JOHN BOYLE, writer, was born at Dowth Castle, co. Meath, Ireland, June 28, 1844, son of William David O'Reilly, master of Netterville Institution, Dowth Castle. He began his work as a journalist by reporting for various English papers, and several Dublin journals; became an active Fenian, and joined the army, the Tenth Hussars, for the express purpose of disseminating revolutionary sentiments among the soldiers; was arrested and tried for high treason; sentenced to twenty years penal servitude in West Australia; escaped to the Cape of Good Hope, and finally to New York; went to Boston, and found employment on *The Pilot* (of which he ultimately became editor and principal owner), and, in 1870, went to Canada as reporter for *The Pilot* during the second Fenian raid, for a time commanding the Irish forces. His publishes

writinge are chiefly of a purely literary character, and include *Songs of the Southern Seas* (1873); *Songs, Legends, and Ballads* (1878); *Moondyne*, a novel (1879); *Statues in the Block* (1881); *In Bohemia* (1886); and *Stories and Sketches* (1888). Died Aug. 10, 1890.

O'Rell, MAX. See BLOUET, PAUL.

Or'gan, *n.* (*Mus.*) The pipe-organ is the largeet, most complex, and impoeing of musical iuetrumente. It consists of a eeries of pipee through which wind is blown when admitted by the fingering of the keys. When a key ie pressed down by the finger, a valve opens and allows air from the bellowe to pass through an aperture in the eound-board into a passage communicating with the pipee in each row of the same pitch. By meaus of stope usually placed at the side of the organ keyboard, and attached to regietere or slides in this passage, as many of these rowe as are required may be opened so as to play when the air is driven into the passage. By pushing in the etope the corresponding rows are closed. Organ pipes either have a vibrating metallic tongue, or eimply an aperture with a cross lip to cut the air and eet it in vibration. The former are termed reed-pipes, and the latter flute-pipes. The pitch of a reed pipe depends on the length and thickness of the tongue, the shape and length of the pipe giving the quality to the note; while the pitch of a flute-pipe depends on its length only. The pipee are usually made either of pewter, with a emall proportion of tin or other alloy, or of wood. The flute-tone is obtained by wooden pipes, the reed-tone by reed-pipes (*q. v.*), the string-tone by narrow-scale metal flue-pipee, and the organ-tone by broad-scale open metal flue-pipee. The keyboard for the hands is called a manual, and is eometimee made in several banks. The keys to be worked by the feet are called pedals. The mechanism connecting the keye with the pipes is called the action. It consiste of a complicated eeries of stickers, rollers, trackers, and levers, and sometimee is eo hard to operate that pneumatic or electric power is employed to make the touch easier for the player. The wind mechanism consists of a storage bellows, having weights to maintain a uniform pressure, and two or more feeding bellows, nenally operated by some form of power. In the organ-pipe the air is forced into a eort of box or mouthpiece, and escapes therefrom into the air through a narrow slit at the top of the box. The pipe fits on to the end of thie box. The side of the pipe near the elit is depressed inward, and slightly cut away, so that the sharp edge of the depressed portion ie just above the slit in the mouthpiece. When air ie forced into the mouthpiece, the current is split upon the sharp edge of the pipe, and as it escapes into the air it causes waves to be established in the pipe. The number of vibrations produced per second depends upon (1) the length of the

Fig. 3015.—ORGAN OF THE 14TH CENTURY.
Copied from a MMS. in the French National Library.

pipe; (2) whether it is closed or open at the end; (3) upon its depth—that is, the distance from the front to the back, supposing the elit to be in the front. The width of the pipe is without effect upon the pitch of the note, but affecte the loudness. If we suppose the pipe to give ite fundamental note, the length of the pipe, if closed at the end, must be ¼ of the wave length of the note. In an open organ-pipe the length of the pipe is ½ the wave length. By dimiuishing the size of the slit, or increasing the rapidity of the air-current, the harmonics of these notee can be formed. It follows that if two organ-pipes, otherwise alike, and treated alike, give the same note—one being closed and the other open—the open pipe ie twice as long as the cloeed one. In order to ascertain experimentally the condition of the air as to the position of ite loope and nodes—that ie, pointe of reet and regione of greatest amplitude when the pipe is eounding its fundamental note or its harmonice—a little tambourine of thin stiff paper may be raised and depressed as the pipe ie sounded. Thus, in a closed pipe, the agitation is found to be greatest at the mouthpiece, and to diminieh gradually to the closed end where there is a node. In an open pipe the end of the tube, the mouthpiece, and the center are found to be loops or regions of the greatest amplitude of vibration, while two nodee are found at the dietance of ¼ and ¾ from the mouthpiece. Each system of pipes in an organ has ite own set of stops, and ie called a partial organ. If there are three of theee, they are designated as the great organ, swell organ, aud choir organ. To theee are eometimee added the eolo organ and echo organ. The eyetem of pipee connected with the pedal keyboard is also sometimee termed the pedal organ. The *barrel organ* ie the portable instrument familiarly carried about by street musicians. The *reed organ* outwardly resemblee a piano-forte, but its tones are produced by brase vibrating reeds, across which the wind ie forced by foot bellowe, accordiug to the operation of the keyboard.

Organo-. An initial compounding element, derived from the Gr. *organon*, organ.

Orguinette', *n.* [Dim. of *organ.*] A musical instrument with a set of reeds to which the air ie admitted through paper so perforated as to bring the notes in proper sequences, the etrip of paper aud the bellows beiug moved by the turning of a crank.

Ori'on, in *Illinois*, a post-village of Henry co., 19 m. S.E. of Rock Ieland. *Pop.* (1897) 750.

Or'land, in *California*, a post-town of Glenn co., 166 m. N. of San Francisco. Trade center of an agricultural section. *Pop.* (1897) 600.

Orlan'do, in *Oklahoma*, a post-village of Logan co., 20 m. from Guthrie. *Pop.* (1897) 500.

Orle, *n.* (*Her.*) One of the charges known under the name of subordinariee, said to be the diminutive of Bordure, but differing from it in being detached from the sides of the shield (Fig. 3016). An orle of heraldic charges of any kind denotes a certain number (generally eight) of these charges placed in orle.

Fig. 3016.—ORLE.

Or'leans, in *Nebraska*, a city of Harlan co., 43 m. S.S.W. of Kearney, eeat of Orleaue Free Methodist College. *Pop.* (1897) 1,200.

Orms'by, in *Nevada*, a S.W. co.; *area*, 144 sq. m. *Surface*, mountainous, with fine foreste. Mining and lumhering are the chief induetries. *Cap.* Carson City. *Pop.* (1890) 4,883.

Or'nery, *a.* (*Dial.*) Low, mean, despicable.

Orne'ville, in *Maine*, a poet-town of Piecataquis co. *Pop.* (1897) 510.

Ornith-, Ornitho-. An initial compounding element, derived from the Gr. *ornis* (gen. *ornithos*), bird.

Ornithot'omy, *n.* The auatomy of birde, or dieecting of birds.

Orth-, Ortho-. An initial compounding element, derived from the Gr. *orthos*, straight, expreesing straightnees, correctness, regularity.

Orthom'etry, *n.* The art of composing verses correctly; proper versification.

Orthopæ'dia, or **Orthope'dia,** *n.* [Gr. *orthos*, and *pais* (gen. *paidos*), a child.] The act or art of correcting deformities in the bodiee of children, or, by exteneion, of persons of any age.

Ort'ing, in *Washington*, a post-village of Pierce co., 18 m. S.E. of Tacoma. *Pop.* (1897) 780.

Or'ton, EDWARD, geologist, was born in Deposit, N. Y., March 9, 1829; has held professorships in several collegee, and from 1873 to 1881 was president of the Ohio State Uuiversity. In 1881 he was appointed State geologiet for Ohio, having been assistant geologist since 1869; wae president of the Ohio State Sanitary Association (1884); vice-president in the section of geology of the American Association for the Advancement of Science (1885). He has given special attention to the dietribution of petroleum, coal, natural gas, and asphalt, concerning which he has made valuable reports. He has published several books on the *Geology of Ohio*, and oue on the subject, *Petroleum and Inflammable Gas*

Orton, JAMES, naturalist, wae born at Seneca Falls, N. Y., April 21, 1830; educated at Williame College, and at Andover Theological Seminary; became a Congregational minister, and devoted his life to teaching, and (1869) became profeesor of Natural History at Vassar College, which post he still held at the time of hie death. In 1867–68 he led the expedition sent out by Williams College to make exploratione in the Andes of Ecuador; in 1873 he made a second visit, and died during the passage of Lake Titicaca, Peru, on Sept. 25, 1877. He publiehed several worke relative to mining and geology; aleo, *The Proverbialist and the Poet* (1852), *Liberal Education of Women* (1873).

Or'tonville, in *Minnesota*, a city, cap. of Big Stone co., 45 m. N.W. of Montevideo; has grain and live stock intereets, and extensive granite quarries. *Pop.* (1895) 1,180.

Or'well, in *Vermont*, a post-town of Addieon co. *Pop.* (1897) 1,280.

O'sage Cit'y, in *Kansas*, a poet-village of Osage co., 35 m. S. by W. of Topeka. Here are large coal minee. Stone flagging and ochre are produced. Has some manufactures. *Pop.* (1895) 4,273.

O'saka. The second city in population in Japan, and a seaport, although its foreign trade is carried on through Hiogo, one hour distant by rail. It ie the headquartere of the rice and tea trade. It has a fine castle, with etones in the walle of extraordinary size, built by Hideyoshi, a great general in 1583. Afterward there was built in its precincts a palace which was perhape the most magnificent in Japan, but which was destroyed by fire in 1868. *Pop.* (1897) 521,200.

Osa'kis, in *Minnesota*, a post-village of Douglas co., on a lake of the same name, 12 m. E. of Alexandria; a eummer resort. *Pop.* (1895) 685.

Os'borne, in *Kansas*, a N. co.; *area*, 900 sq. m.; drained by the South Fork of Solomon river and its tributaries. *Surface*, chiefly rolling prairie; *soil*, fertile. Corn and wheat are largely produced. *Cap.* Osborne. *Pop.* (1895) 10,877.

—A city, cap. of Osborne co., 34 m. W. of Beloit. *Pop.* (1895) 991.

Osceo'la, in *Iowa*, a N.W. co.; *area*, 408 sq. m.; drained by the Little Ocheyedan river and smaller streams. *Surface*, undulating prairie; *soil*, fertile. *Cap.* Sibley. *Pop.* (1895) 7,377.

Osceola, in *Nebraska*, a post-village, cap. of Polk co., 115 m. S.W. of Omaha. *Pop.* (1897) 1,300.

Osceola Mills, in *Pennsylvania*, a post-borough of Clearfield co., 21 m. S. of Clearfield; has foundries, a tannery, and lumber mills; in a coal mining district. *Pop.* (1897) 2,120.

Os'cillator, *n.* Under this name, Nikola Tesla has developed a machine which is a simplified combination of a steam-engine and an electrical dynamo, and which has been widely heralded as likely to supersede the ordinary eteam-engine. One of the first built by him wae exhibited at the World's Fair, in Chicago, in 1893. But this was afterward materially improved upon, aud wae about ready to place on the market, in 1895, when Mr. Tesla'e laboratory, in New York, was totally deetroyed by fire, and the work had to be begun again from the beginning. In principle the oscillator is very simple, being a steam-cylinder, with a piston like that of an ordinary steam-engine. On the piston is mounted an armature, which is thrust back and forth within the field of an electro-magnetic coil, thus setting up currents, aud converting the coil into a dynamo, from which power can be sent forth on a wire. A later and more complicated form of the oscillator was made with a central steam-cylinder, having piston-rode directed oppositely, and carrying armaturee into the two magnetic generating eyetems, so that two dynamos are thus brought into being. The pistons operate 80 to 100 times a second, a speed vastly more rapid than that attained in any steam-engine; and as a pressure of 350 pounds is used in the cylinder, it is evident that it must develop a power much beyond what ie obtained from the best compound engines of similar correeponding size and weight. The construction of the steam-cylinder is such that no packing is required, a fact which facilitates the use of steam at the high preesure named. Another unique feature of the invention is that the oscillation of the pistone is regular, regardless of the load—accompliehed by placing a miniature oscillator on top of the steam-chest to control the admission of the eteam. The introduction of the machine in practical form is looked forward to by engineere with great interest and expectation.

Osco'da, in *Michigan*, a N.E. co.; *area*, 580 sq. m.; intereected by the Au Sable river. *Surface*, undulating; densely wooded; *soil*, moderately fertile. *Cap.* Mio. *Pop.* (1894) 1,804.

—A post-village of Iosco co., on Lake Huron, 70 m. N. of Bay City; has large saw and lumber mille, also three exteneive salt works, claimed to be the largest in the State. *Pop.* (1894) 2,078.

Osiander (*o-ze-án'-dêr*), ANDREAS, an eminent German theologian, wae born at Nuremberg, in 1498, originally bore the name of HOSEMANN. He early attained a high reputation for scholarship, and became a zealous friend and disciple of Luther, with whom he attended the Conference of Marburg in 1529, and the Diet of Augsburg in the year following. Later, he entered upon the professorship of Theology in Königeberg University, and became engaged in controversy on doctrinal points with Melancthon and other eminent theologiane of the time. Died in 1552.

-osity. A terminal compounding element, derived from the Lat. terminatiou *osus*, denoting fullness or abundance.

Os'man, NUBAR PASHA, military officer, was born in Tokat, in Aeia Minor, in 1832; entered the cavalry eervice in 1854, eerving under Omar Pasha; fought in Syria (1860); in Crete (1867), and in the Temca (1874); became a field-marshal in 1876; for his brilliant military feats in 1877 the Sultan bestowed on him the title of *Ghazi*—"Victorious." On Dec. 10, 1877, while attempting to break through the Russian linee he was wounded, and compelled to surrender with 40,000 men; the Czar returned hie sword, and the greatest courtesy was accorded the distinguiehed prieoner. After the war, he was entrusted with the reorganization of the Turkish army. In 1878 he became commander-in-chief of the Imperial Guard, governor-general of Crete, and minister of war. In 1882 he received the title of Seraskier, and in 1894 became grand marshal of the palace.

Oste-, Osteo-. An initial compounding element, derived from the Gr. *osteon*, a bone.

Os'teophone, *n.* [From Gr. *osteon*, hone, and *phone*, a sound.] An inetrument for assieting the hearing of deaf persons, consisting of some form of sound-gathering device, which is placed against the teeth, so that the sonnd-wavee are communicated through the cranial hones to the auditory nerves. The audiphone, shaped somewhat like a fan, is one form of this instrument.

Os'trich-farm'ing, *n.* The ostrich has been domesticated and grown for profit in South Africa, Algeria, and Tripoli, in Egypt to a emall extent, and in Auetralia, South America, and eouthern California. The South African oetrich-farming is by far the moet exteneive and well-established, having been carried on since 1867. In the beginning it wae very profitable, the feathers bringing $500 per pound, and the plumes of one hird sometimee amounting to as much as $125 at a plucking. The prices have naturally decreased with the more ahundant eupply, hut the long plumee from the winge are alwaye in demand, selling at high ratee, and the leee valuable feathers etill bring profitable prices. Ostrich-farming falle under two divisions: (1), breeding birde for eale to other farmers, and (2) growing birds for their feathers; eome farmere carry on hoth branchee, but more usually they are separate. When artificial incuhators are used to hatch the eggs, the hene lay from 75 to 90 during the year; the egge hatch in ahout eix weeke; the young birds are treated as "chicke" for a year, being fed three pounds of grain per day, and sheltered in wet weather: when a year old they are turned into a fenced range, or camp, to hunt food for themselves, ten acree heing allowed to a hird, but they etill require care to eee that they are not trouhled with parasites. The firet crop of feathers is taken when the hirde are eeven or eight monthe old, the quille heing cut off and the stubs heing left for two or three weeks, after which they are shrunken and easily removed. The feather-cutting goes on at intervals of eight months, the plumage reaching perfection when the hirde are three years old; the birds themselvee mature at four years, and, if thoy hrood their own egge, they are not clipped after this time, as their feathers are needed to cover the egge; the cocks ehare the lahor of brooding with the hens. A good pair of adult birds used to hring as much as $2,000 or $2,500, and a newly hatched chicken was worth $50. The values have now greatly decreased, and range from $100 up per pair of full-grown hirds. The most valuable ostrich feathere are the long white plumes which grow in the ende of the wings of the male hirds; there are ten to twenty of them in each wing, and also a few black feathere which are ealahle; the tail feathers are of less value, and so are all the feathere of the female, whoee long plumes are uot pure white, hut flecked with gray, and are known commercially ae "feminines." The feathers are sold hy weight, 120 to 130 of the finest going to a pound. The saudy Karroo plains of South Africa are the natural home of the ostrich, and the fact that they thrive heet when grazing over an alkaline eoil led, in 1882, to their introduction into southern California, where they are grown iu eeveral placee with very fair success.

Oswegatch'ie, in *New York*, a poet-town of St. Lawrence co. *Pop.* (1897) 2,450.

Oswe'go, in *Kansas*, a city, cap. of Lahette co., 15 m. S.S.E. of Parsons. *Pop.* (1895) 2,145.

Oswego, in *Oregon*, a post-village of Clackamae co., 7 m. S. of Portlaud; hae manufacturee of pig-iron and cast-iron pipe.

Oswego Falls, in *New York*, a post-village of Oewego co., 24 m. N.W. of Syracuse; hae some considerable manufactures. *Pop.* (1897) 1,950.

Osy'ka, in *Mississippi*, a post-town of Pike co. *Pop.* (1897) 820.

Ota'go. A provincial district of New Zealand, lying at the south of South Island; it was colonized in 1848 by the Otago Association in connectiou with tho Scotch Free Church, and was one of the original six provincee which were aholished in 1876 to make way for the county eystem. In 1861 gold was discovered in this dietrict, and there are now 2,500,000 acres in the gold fielde. The capital ie Dunedin, on Otago Bay.

Ote'ro, in *Colorado*, a S. E. co.; *area*, 2,050 eq. m.; intersected hy the Arkaneas river. *Surface*, gently rolling; *soil*, a rich sandy loam; cottonwoode along the streame. *Cap.* La Junta. *Pop.* (1897) 12,000.

O'tis, Harrieon Gray, an American orator and etatesman, wae horn in Boston, 1765; after graduating at Harvard in 1783, practiced law in Boston, and in 1796 entered Congress, where he became a Federalist leader. He was the governor of Massachusetts (1805 to 1812), sat in the Hartford Convention in 1814, and U. S. Senator (1817). He was a prominent speaker against elavery. Died in 1848.

Otse'go, in *Michigan*, a N. co.; *area*, 540 eq. m.; drained hy the Au Sable, Pigeon, and Mullett'e rivere. *Surface*, nearly level, heavily timhered; *soil*, rich gravelly loam. *Products.* Wheat, oats, hay, potatoes. *Cap.* Gaylord. *Pop.* (1894) 4,794.

Ot'terbein Univer'sity. (*Educ.*) A co-edncational institution, founded in 1847 at Westerville, O., nnder the charge of the United Brethren in Christ, a Protestant eect founded hy Philip W. Otterhein, a German, who came to North America as a missionary in 1752. It has ahout 300 students.

Ouachita (*wä'-she-tä*), or **Washita,** in *Arkansas*, a S.W. co.; *area*, 732 sq. m.; partly hounded N. hy the Little Missouri river, and is intereected hy the Onachita, or Washita, river. *Surface*, somewhat hilly; *soil*, generally fertile. *Cap.* Camden. *Pop.* (1896) 17,033.

Ouachita, in *Louisiana*, a N. parish; *area*, 644 eq m.; intersected by the Ouachita river. *Surface*, hilly on west hank of Ouachita river, level and fertile on east bank. *Products.* Cotton, corn, sweet potatoee, wool, pork, live stock. *Cap.* Monroe. *Pop.* (1890) 17,985.

Ought'ness, *n.* The quality or state of being due; obligatoriness.—The feeling of moral ohligation involved in conscience.—The condition or relation of heing hound hy the moral law or to right conduct; moral obligation.

Ouida (*wē'-da*). See Ramée, Mlle. de la.

Ou'ray, in *Colorado*, a S. W. co.; *area*, 450 eq. m.; drained hy the Uucompahgre river. *Surface*, mountainous; *soil*, fertile in valleys. *Min.* Gold, eilver, and copper. Mining ie the chief induetry. *Cap.* Ouray. *Pop.* (1890) 6,510.

—A post-village, cap. of above co., ahout 15 m. N. of Silverton; hae rich gold and silver mines, and hot eulphur and iron eprings, with maguificent surroundiug sceuery. *Pop.* (1897) 3,100.

-ous. A suffix, derived from the Latin, through the French, indicating preseuce or possession of a quality, usually in ahundance.

Ouse'ley, Sir Frederick Arthur Gore, musician, wae horn in London, Aug. 12, 1825; eon of Sir Gore Oueeley, the Orientalist. He graduated at Christ Church, Oxford, and took orders, hut devoted his attention to music, receiving the degree of Mue. D. at Oxford in 1854. In 1855 he euceeeded Sir Henry Bishop ae professor of mueic at Oxford, and in 1856 hecame vicar of St. Michaels, Tenhury. He puhliehed eeveral works on harmony; edited *Naumann's History of Music* (1886), and compoeed several oratorios. He devoted his entire fortune to building and endowing St. Michael'e College, Tenhury, for the training of choristers. Died April 6, 1889.

Ovam'pos, or **Ovam'bos,** *n. pl.* (*Anthrop.*) A Bantu people living in the northern part of German Southwest Africa. They occupy a territory extending from Damaraland northward to the Portugueee frontier. Ten divisions or tribes of thie people have been described hy explorere, and their number is estimated at 100,000. Though ahle to fight well, they are peaceahly inclined, industrioue, ingeuioue, and remarkably honest. Their country along the coaet is eandy and unproductive, but fifty milee inland rises a lofty table-land, on which the *O.* raise great quantitiee of native grain. For agricultural purpoees thie land is the hest in German Southwest Africa, hut the people are unahle to get their grain to market for lack of traneportation facilitiee. The table-land declinee on the south and east to the desert of Kalihari and the region of Lake Ngami. The region occupied hy theee people appears on eome maps as *Ovampoland.*

Ow'ens, John E., actor, was horn in Liverpool, Eng., May 4, 1824; removed to the U. S. in 1834; made his dêbut as an actor, in Philadelphia, on Aug. 20, 1846. He had a successful career as manager and actor in America, and aleo toured twice in England. Hie characteristic success was in euch rôlee as *Solon Shingle, Caleb Plummer, Aminadab Sleek,* and *Dr. Pangloss.* He retired from the etage on account of failing health, and died Dec. 6, 1886.

Owos'so, in *Michigan*, a city and R.R. center of Shiawassee co., 28 m. N. E. of Lansing, on the Mich. Central aud 3 other R.Rs.; hae importaut manufactures and a good local trade. *Pop.* (1897) about 8,800.

Ox'ford, in *Georgia*, a post-town of Newton co., ahout 38 m. E.S.E. of Atlanta. Here ie situated Emory College (Methodist). *Pop.* (1897) 880.

Oxford, in *Kansas*, a post-village of Sumner co., 13 m. E. of Wellington. *Pop.* (1895) 549.

Oxford, in *Nebraska*, a post-town of Fnrnas co., 18 m. N.E. of Beaver City. *Pop.* (1897) 780.

Oxford Junc'tion, in *Iowa*, a post-town of Jonee co., 40 m. E. of Cedar Rapide. *Pop.* (1895) 726.

Oxford (Tracta'rian) Move'ment. (*Eccl. Hist.*) Toward the cloee of the 18th century there was formed in the Church of England an evangelical party more intent on practical Christian life than on guarding the strict formulas of orthodoxy. This church party hecame a liberal party in politice. The political liberaliem culminated in reforme, particularly iu the abolition of the Test Act. Church reform was then undertaken, and in 1833 one-half of the hishoprice in Ireland were aholished. The very existence of the Church of England seemed in danger. The seat of the evangelical party was Cambridge University. These reeulte of the evangelical movement alarmed the High Churchmen of Oxford University, especially those of Oriel College, to which at that time helonged eeveral very gifted young men, among whom were John Keble, the poet, Edward Bouverie Pusey, John Henry Newman, and R. H. Froude. With these coöperated A. P. Perceval, rector at East Horeeley. These men combined to oppose what they thought the dangerous errors of the evangelicale. Perceval appeared in 1825 with a book—*A Christian Peace-offering*—aiming to allay the prejudices of Anglicans against the Roman Catholic Church. He arguee that the differencee between Anglicane and Roman Catholics are not essential and that the Roman is a true hranch of the Catholic Church. In epite of thie book, the evangelical movement kept advancing, and the inherent righte of the bishops were in danger of heing undermined. So the young men of Oriel prepared the *Churchman's Manual*, in a catechetical form, intended to enlighten the laity as to the inalienable righte of the Church ae euch. Three pointe were made prominent in the *Manual:* the idea of the Church; the importance of the Sacraments; the eignificance of the priestly office. While this was in preparation the Irish bishoprics were abolished. The *Manual* was afterward called by its authors "the firet tract put forth to meet the exigencies of the times." It was followed by 90 other emall treatisee under the general title, *Tracts for the Times.* Hence the name of the party—Tractariane. The firet tract proper appeared Sept. 9, 1833. By Nov., 1835, there had been published 70, making two volumee. Moet of them were original essaye, though eome were extracte from earlier writers. The Tractarians, in general, had taught their followers to look indulgeutly on the errors of Rome. It was not wonderful then that certain young enthusiaste were on the point of actually going over to Rome. To prevent this consummation Newman wrote Tract 90, the last of the seriee. It appeared in 1841, and dealt with the Thirty-nine Articlee from the Tractarian point of view. The Articlee had, at the time of the Reformation, heen accepted hy Anglicane unfavorable to Protestantism. Newman, therefore, undertook to show in this tract that the articlee were capahle of heing nnderstood in a Romau Catholic sense. The appearance of the tract caused a great outcry, and it was condemned hy the hebdomadal hoard of the univereity, which refused to wait for Newman's defence. In a sermon in May, 1843, Pueey taught transubstantiation so clearly that the authorities euspended him from preaching for two yeare. By 1845 Newman saw that a midway poeition hetween Anglicanism and Roman Catholicism was no longer practicable, so he hecame a Roman Catholic, and hie act was a signal for a hoet of othere. By Decemher, 1846, no less than 150 clergymen and eminent laymen had followed Newman's example. By Christmas, 1852, 200 clergymen and more than ae many laymen had done likewise, and the clergymen had hecome 300 hy the end of 1862. Other leaders of the movement, including the two greatest, Kehle and Pusey, remained eteadfast Anglicane. The movement survived its losses and hecame vigorous again. Ae after the departure of Newman its moet prominent figure was Pueey, it was for a number of years termed Puseyiem. According to the Tractariane, truth was to he sought for, not hy proceeees of thought, hut hy consulting authorities. As a form of church life, it ie æsthetic, earneet, active, contemplative, constructive. It has assumed a more and more practical character in the institution of guilde, religious sisterhoode and hrotherhoods, and parochial missions, introduction or revival of hymns and popular devotions, restoration and building of churchee. It laye great etrese on mannere and daily conduct, as well as on architecture and ceremoniee. It has infused an entirely new epiritual life into what was once the very staid, cold life of the High Church party in the Church of England, and has affected in the same way the Protestant Episcopal Church of the United States.

Ox'moor, in *Alabama*, a poet-town of Jeffereon co. *Pop.* (1897) 660.

Oxy-. An initial compounding element, derived from the Gr. *oxys*, sharp, acid. In chemical terms it denotes the preeence of oxygen or its compounds.

Oya'ma, Marquis, Japaneee soldier and etatesman; distinguished ae a soldier in the civil war to restore the Mikado; wae promoted major-general in 1875, lieutenaut general in 1879, and general in 1890, he and Yamagata alone holding thie high office. He eerved eeveral terms as miulster of war. In 1894 he conducted the campaign leading to the capture of Port Arthur and Wei-Hai-Wei. On hie return he was promoted to the rank of marquie and given the new military office of field marshal. As such he organized the campaigne in Manchuria during the Ruseo-Japaneee war of 1904-05, and commanded the armiee in perseon during the great Japauese victories of Liao-Yang and Mukden.

Oys'ter, Artifi'cial Breed'ing of. Mr. Ryder, the embryologist to the United States Fish Commission, thue briefly summarizes the latest reeults in this important hranch of economical biology: "While it is too eoon to affirm that artificial hreeding may he profitably available on an exteneive ecale in practical oyster culture, experiment has demonetrated a numher of very important facte. These are: (1) Oyeter spat may he reared from artificially-fertilized eggs; (2) the spat will grow just as fast in euch enclosures [artificially-excavated ponds, connected hy a guarded passagewey with the open water of the eea] as in the open water; (3) food ie rapidly generated in such enclosure; (4) the density of the water in the ponds is not materially affected hy rains or leaching from the hanke; (5) ponds are readily excavated in salt marsh lands, and can in all probability he used for fattening and growing *Ostrea Virginica* for market just as successfully as *Ostrea edulis* and *angulata* are grown by a similar method on the coast of France. Pond culture, where there are salt marshee adjoining arms of the sea, the waters of which have a density helow 1·020, can douhtless be carried on profitahly in connection with intelligent use of simple, cheap collecting apparatue placed in hoth open and confined watere to catch a 'set' of spat, which can then he traneferred to ponde or open hede." The principal American localitiee where the artificial breeding of oysters is now carried ou are in Long Island Sound, near New Haven, Conn., in Chesapeake Bay, and at the mouth of the Jamee river; and a large proportion of the oyeters ueed as "seed," or sent direct to market, are now produced in thie way.

O'zark, in *Alabama*, a post-village, cap. of Dale co., 45 m. S.W. of Eufaula; has several mills, a carriage factory, and cotton gins. *Pop.* (1897) 1,280.

P.

P. The twelfth consonant and the sixteenth consecutive letter of the English language, is the most prominent of the labial mutes, and is pronounced by compressing the lips closely, and parting them by a sudden emission of the breath. *P* is what is termed the *thin letter* of the labial series, *p*, *b*, *f*, *v*, and is interchangeable with the other letters of the series in nearly all the modern languages, but more especially in German. Both among English-speaking peoples, and on the European Continent, there are entire districts in which the native ear is insensible to the difference between the sound of these labials, and in which they are almost invariably confounded in pronunciation. Of this peculiarity, several counties of Wales, and the whole of Lower Saxony, present noted examples. *P* is termed the *labial mute*, *b*, the *labial sonant*, and *m*, the *labial nasal*. Like the other pure mutes, — *r* and *t*, — *p* gives an abruptness to the sound immediately preceding or following it, according as it is in itself final or initial in the syllable, as in *stop*, *plug*. The combination *ph* is equivalent in sound to *f*, as in *Philip*, corresponding with the Greek φ. In some words of Greek extraction, as *psalm*, *p* is silent. As an abbreviation in Latin inscriptions P. stands for *Publius*, *pontifex*, *pius*, *perpetuus*, *pro-consul*, *patronus*, *posuit*, *pedes*, *pondo*, *post*, *ponendum*, &c. P.P. denotes *pater patriæ*, *præpositus*, *pro prætore*, &c.; P.C., *patres conscripti*. In some medical formulæ P is used as the abbreviation of *pugillus*, the eigbth part of a handful. In Music, it stands for *piano*, and in Chemistry it is the symbol of *Platinum*. P.Æ. is the nbbreviation of *partes æquales*, equal parts. In Numismatics, it is the symbol of ancient coins struck at Dijon. Among the ancients the numerical value of *p* has been variously interpreted. Among the Greeks, as the initial letter of πεντε, it seems originally to have noted 5; and, afterwards, 80. Among the Romans, it stood for various equivalents, according to different authorities.

Paas, (*paws,*) *n.* [D. *paasch.*] The festival of Easter. (Local, N. Y.)

Paas eggs, hard-boiled eggs, eaten at the Easter festival.

Pab'ular, Pab'ulous, *a.* [From Lat. *pabulum*, food.] Affording or pertaining, or having reference to food; supplying aliment.

Pabula'tion, *n.* [Lat. *pabulatio.*] Act of feeding or procuring food.

Pab'ulous, *a.* Same as PABULAR, *q. v.*

Pab'ulum, *n.* [Lat., from *pasco*, to feed. See PASTURE.] Food; aliment; nourishment; that which feeds animals or plants.

—Fuel; that which supplies the means of combustion.

Pa'ca, *n.* [Braz.] (*Zoöl.*) A small rodent animal of the genus *Cavia*, distinguished from its congeners by white spots on a dark ground.

Paca'ja, PACAJAZ, or PACAYA, a river of Brazil, flowing into the æstuary of the Amazons, S. of the island of Marajo.

Pa'cate, Pa'cated, *a.* [Lat. *pacatus.*] Peaceful; tranquil.

Paca'tion, *n.* [Lat. *pacatio.*] Act of appeasing or pacifying.

Pace, *n.* [Fr. *pas;* Lat. *passus*, from *pando*, to spread out.] A step; a stretching out of the feet in walking; any single pedestrian movement. — Gait; manner of walking; degree of celerity or speed in pedestrianism; as, a quick *pace*, a slow *pace*. — Step; movement or act of gradation in business. (R.) — A denomination of linear measure, of uncertain extent; assumed by some to be 5 feet, by others 4·4 feet, and called the *geometrical pace*. It is the quantity supposed to be measured by the foot from the place where it is taken up to that where it is set down. The space between the two feet in walking is roughly estimated at 3 feet. The military pace is 2½ feet. The ancient *Roman pace*, considered as the thousandth part of a mile, was 5 Roman feet, and each foot contained between 11·60 and 11·64 modern English inches; hence the pace was about 58·1 English inches, and the Roman mile, *mille passus*, equal to 1,614 yards. See MILE.

(*Manege.*) A mode of stepping among horses, in which the legs on the same side are lifted together; an amble; as, "*pace* or trot." — *Hudibras.*

To keep pace with, to keep up with; to move equally fast as; as, he *kept pace with* the spirit of the times.

Pace, *v. n.* To advance step by step; to go; to walk; to move. — To go, move, or walk slowly or leisurely. — To move by lifting the legs together on the same side, as a horse.

—*v. a.* To measure by steps or paces. — To regulate in motion; to cause to take measured steps. "*Pace* your wisdom in that good path." (*Shaks.*) — To walk over with measured paces or steps.

"*Pacing* through the forest, chewing the food of fancy." — *Shaks.*

(NOTE. *Paced* is frequently used adjectively in composition: as, slow-*paced*, high-*paced*, thorough-*paced*, &c.)

Pac'er, *n.* One who paces; — specifically, a horse that paces.

Pacha, (*pâsh'a,*) *n.* Same as PASHA, *q. v.*

Pachaca'ma, Pachaca'mac, a village of Peru, abt. 18 m. S.E. of Lima. Here are the ruins of a temple which was consecrated to *Pachacamac*, the creator of the universe, and from which immense treasure was taken by Pizarro.

Pachalic, (*pa-shaw'lik,*) *n.* and *a.* See PASHALIC.

Pache'co, in *California*, a post-village of Contra Costa co., abt. 30 m. N.E. of San Francisco.

Pachit'la Creek, in *Georgia*, enters the Ichawaynochaway River in Baker co.

Pachu'ca, a town of Mexico, abt. 50 m. N.N.E. of the city of Mexico.

Pachuca'ca, a river of Peru, rising in a lake of its own name in the dept. of Cuzco, and flowing N. into the Apurimac.

Pachycor'mus, *n.* [Gr. *pachys*, thick, and *kormos*, the trunk of a tree.] (*Pal.*) A genus of homocercal, ganoid, fossil fishes, having a very thick body.

Pachydactyl, (*-dăk'til,*) *n.* [Gr. *pachys*, thick, and *daktylos*, toe.] (*Zoöl.*) A thick-toed bird or animal.

Pachydac'tylous, *a.* Thick-toed.

Pach'yderm, *n.* [Fr. *pachydermé*, from Gr. *pachys*, thick, and *derma*, skin.] (*Zoöl.*) One of the PACHYDERMATA, *q. v.*

Pachyder'mal, *a.* Pertaining, or having reference to the pachyderms.

Pachyder'mata, *n. pl.* (*Zoöl.*) An order of mammiferous quadrupeds distinguished by the thickness of their skins, including various animals that in other respects are by no means closely allied; as, for instance, the Elephant, the Horse, and the Hog. The order is, however, subdivided into: 1. The *Proboscidea*, or those possessing a prolonged snout or proboscis, and having five toes on each foot, included in a very firm, horny skin; as the Elephant, and certain extinct gigantic species. 2. The *Pachydermata ordinaria*, in which the feet have four, three, or two toes on each foot. Among these are the Rhinoceros (Fig. 2021), Hippopotamus, Tapir, Wild Boar,

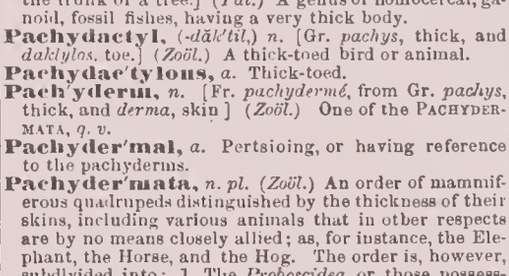


Fig. 2021. — THE TWO-HORNED RHINOCEROS.

&c. The skeleton is generally massive, indicating great strength but inactive habits; the thoracic cavity is enormous, in proportion to the great bulk and weight of the viscera; the limbs are robust, though adapted for running in the smaller members like the hog; there are no clavicles. They occur, as the animals of the first section, in the warmer climates of all parts of the world, except Australia. 3. The *Solidungula*, or quadrupeds with only one apparent toe and a single hoof to each foot, although beneath the skin, on each side of their metacarpus and metatarsus, there are bony points or processes which represent two lateral toes; as the Horse and its congeners. They are all herbivorous.

Pachyder'matous, *a.* Belooging, or relating to a pachyderm, or to the order *Pachydermata*.

Pachyma, (*pak-i'ma,*) *n.* (*Bot.*) A genus of plants, alliance *Fungales*. The species *P. cocos* is highly esteemed as a food and medicine by the Chinese, and by the Indians of N. America. It is called *Tuckahoe*, or Indian-bread.

Paci'fic, *a.* [Fr. *pacifique;* Lat. *pacificus* — *pax*, *pacis*, and *facio*, to make. See PACIFY.] Peace-making; conciliatory; suited to make or restore peace; adapted to adjust or reconcile differences; mild; appeasing; emollient; as, a *pacific* sign, *pacific* propositions. — Characterized by peaceful features; calm; tranquil; quiet; as, a *pacific* manner, a *pacific* state of society.

Paci'fic, in *California*, a township of Humboldt county.

Pacific, in *Missouri*, a post-town of Franklin co., about 37 m. W. of St. Louis.

Pacific, in *Washington*, a W. by S. co., bordering on the Pacific Ocean; *area*, about 800 sq. m. *Rivers.* Columbia river, and some less important streams. *Surface*, diversified; *soil*, generally fertile. *Cap.* South Bend. *Pop.* (1897) about 6,000.

Pacific, in *Wisconsin*, a post-township of Columbia co.

Paci'ficable, *a.* Placable; that may be pacified. (R.)

Paci'fical, *a.* Pacific; having reference to peace.

Paci'fically, *adv.* In a pacific manner; peaceably; placably.

Pacifica'tion, *n.* [Fr.; Lat. *pacificatio.*] Act or operation of making peace between two nations or parties at variance; act of appeasing or pacifying wrath or hostility; reconciliation.

Paci'ficator, *n.* [Lat.] A peace-maker; one who restores amity between contending parties or nations.

Paci'ficatory, *a.* [Lat. *pacificatorius.*] Conciliatory; tending to reconcile, or to make peace.

Pacific City, in *Iowa*, a post-village of Mills co., abt. 5 m. W. of Glenwood.

Pacific City, in *Washington*, a post-village, former cap. of Pacific co., on the Columbia river, about 2 miles above the ocean.

Pacific O'cean, The. See SECTION II.

Pac'ifier, *n.* One who pacifies; a pacificator.

Pac'ify, *v. a.* [Fr. *pacifier;* Lat. *pacifico* — *pax*, *pacis*, peace, and *facio*, to make.] To give or restore peace to; to tranquillize. — To conciliate; to appease, as wrath, or other violent passions or appetite; to calm; to still; to quiet; to soothe; to allay as agitation or excitement; as, to *pacify* a jealous woman; to *pacify* a rebellious tribe or nation.

Pack'age, *n.* Act, art, or method of packing. — A bale; a pack or packet; a truss or small bale; a little bundle or parcel; as, a *package* of merchandise. — A charge made for packing goods.

Pack'-cloth, *n.* A cloth used in packing goods, or in which they are bound up.

Pack'-duck, *n.* A kiod of cloth hagging used for packing goods.

Pack'er, *n.* One who packs; specifically, one who prepares merchandise for transit; also, a person appointed and sworn to pack herrings, &c.

Pack'er, in *Pennsylvania*, a township of Carbon county.

Pack'et, (formerly written PACQUET,) *n.* [Fr *paquet*, dimin. of Eng. *pack;* It. *pachetto*, a packet.] A small pack or package; a little bundle or parcel; as, a *packet* of envelopes.

(*Naut.*) Originally, an advice- or dispatch-boat; a ship or other vessel employed by government to convey the public mails from country to country, or from port to port; also, a vessel engaged in conveyiog despatches or passengers from place to place, or to carry passengers and goods coastwise at regular stated times.

—An English provincialism for the pannel borne by a pack-horse to carry packs, &c. in.

—*v. a.* To bind up in a packet, or in a parcel or parcels. — To send by a packet or dispatch-vessel.

—*v. n.* To ply with a packet or dispatch-vessel.

Pack'et-boat, *n.* (*Naut.*) A packet; a packet-ship.

Pack'et-day, *n.* The day on which a packet sails; hence, the day for posting foreign or sea-going letters.

Pack'et-ship, *n.* A ship that sails at stated times between ports in distant countries for the conveyance of mails, passengers, goods, &c.

Pack'-horse, *n.* A horse employed in the carrying of packs of goods, baggage, &c.; hence, a beast of burden.

Pack'-house, *n.* A depot for receiving goods.

Pack'-ice, *n.* See PACK.

Pack'ing, *n.* Any substance or material used to fill up space, or make things lie close, by stuffing between. Act of binding in a pack, bale, or bundle.

(*Mason.*) Small stones imbedded in mortar, employed to fill the vacant spaces in the middle of walls.

Pack'ing-press, *n.* A powerful press employed in compressing goods, cotton, &c., in a small compass.

Pack'ing-sheet, *n.* A large cloth for bagging or packing goods.

(*Med.*) In hydropathy, a wet sheet used in packing water-cure patients.

Pack'-load, *n.* The load which an animal can carry on his back.

Pack'-man, *n.; pl.* PACK-MEN. One who carries a pack on his back; a pedlar.

Pack'-saddle, *n.* The saddle of a pack-horse, on which packs or burdens are laid for conveyance.

Pack'-staff, *n.* A staff on which a pedlar or traveller supports his pack.

Pack'-thread, *n.* A strong thread used in tying up parcels, &c.

Packwan'kee, in *Wisconsin*, a post-village and township of Marquette county, about 55 miles N. of Madison.

Pack'-wax, *n.* Same as PAXWAX, *q. v.*

Pack'-way, *n.* A narrow bridle-road traversed by pack-men's horses.

Pa'co, *n.* (*Zoöl.*) Same as ALPACA, *q. v.*

Paco'bahiba, a town of Brazil, abt. 12 m. W.S.W. of Mage; *pop.* 2,500.

Pacolet River, rises in Polk co., N. Carolina, and flowing S.E. into S. Carolina, enters Broad River from Spartanburg dist.

Paco'ra, a river of the Republic of Colombia, flowing into the Pacific Ocean E. of Panama.

Pact, *n.* [Fr. *pacte*, Lat. *pactum*, from *paciscor*, to fix, settle.] A contract; an agreement or covenant; a compact.

Pac'tion, *n.* [Lat. *pactio*, from *paciscor.*] An agreement or contract (a.)

Pactional, *a.* By agreement; by way of compact

Pactitious, (*-tish'us,*) *a.* Settled by agreement or covenant.

Pacto'lian, *a.* (*Geog.*) Pertaining to the river Pactolus of the ancients.

Pac'tolus, (now *Bayouly.*) (*Anc Geog.*) A small river of Asia Minor, renowned for its auriferous deposits, which has its source in the N side of Mt Tmolus in Lydia, and after a N. course past Sardis, falls into the river Hermus. It is believed that, while holding the Lydian sceptre, Crœsus obtained from this river his vast accumulation of money. It has, however, long since become exhausted,

Fig. 2022. — THE PACTOLUS, NEAR SARDIS.

and from the time of Strabo has ceased to yield any auriferous deposit. This is the river in which, in the earliest ages of Grecian story, Midas bathed or washed himself, turning whatever he touched thenceforth into gold, according to the myth or fable of the Greek poets.

Pacu'hi, a river of Brazil, flowing into the São Francisco, in the prov. of Minas-Geraes

Pad, *n.* [A.S.] An easy-paced horse; a nag. — A robber who infests the road on foot; usuelly termed FOOT-PAD, *q. v.*

—A soft substance flattened or laid flat; as, a *pad* of wool. — A package or piece of blotting-paper, &c.; es. a writing-*pad*. — A low, soft saddle: a cushion or bolster; properly, a saddle or pillion stuffed with straw. — A kind of mash-tub used by brewers. (Prov. Eng.) — The hoof of a fox (Used in England.)

—*v. a.* To tread or walk upon; hence, to travel. — To tread or beat smooth or level.

—*v. n.* To travel slowly or leisurely. — To act the part of a footpad — To beat a way smooth or level

—*v. a.* (*imp.* and *pp.* PADDED.) To stuff or furnish with pad or padding.

(*Manuf.*) In calico-printing, to imbue cloth equelly with a mordant.

Pad'ding, *n.* The stuffing of a coat, saddle, cushion, &c. — The material used in stuffing coats, &c — The act of imbuing cloth with a mordant.

Pad'dle, *v. n.* [Fr. *patrouiller*, from *patte*, a foot.] To handle or finger about. — To play in water with hands or feet. — To row: to beat the water as with oars; to propel a boat by means of a paddle.

—*v. a.* To propel by an oar or paddle — To pad; to tread; to trample. (An English provincialism.)

—*n.* A broad but short oar, used in impelling light boats. — The blade or broad part of an oar or weapon. — One of the broad boards at the circumference of a water-wheel, or the float of the paddle-wheel of a steam-vessel. — A small sluice-gate — A paddle-shaped foot, as of the crocodile — A paddle-staff. (Local English.)

(*Glass Manuf.*) An implement for stirring the fused sand and ashes

Pad'dle-beam, *n.* One of the two large beems between which a steamer's paddle-wheels revolve.

Pad'dle-board, *n.* One of the floats of a steamer's paddle-wheel

Pad'dle-box, *n.* One of the semicircular boxes projecting from either side of a steamboat, within which the paddle-wheels revolve.

Pad'dler, *n.* One who paddles

Pad'dle-shaft, *n* The shaft upon which the paddle-wheel of a steamboat is fixed, placed centrally with, and connected to, the trunk-shaft.

Pad'dle-staff, *n.* A paddle, or iron-headed staff used by ploughmen to free the share from earth, &c. (Used in England.) — A mole-catcher's staff, having a spade-shaped pike at its extremity

Pad'dle-wheel, *n.* The wheel fixed upon the paddle-shaft of a steam vessel, for propelling her through the water by the action of a number of floats, or paddle-boards, fixed at the circumference.

Pad'dock, *n.* [A. S. *pada*; Du *padde.*] A great frog or toad — A small inclosure under pasture, immediately adjoining the stables of a domain — In Scotland, a low sledge for carrying away stones, &c

Pad'dy, *n.* [A corruption from *Patrick.*] A name sometimes applied to an Irishman; — jocularly, or in contempt; as, "*Paddy* from Ireland, *Paddy* from Cork."

Pad'dy, *n.* In Hindostan, rice in the husk.

Pad dytown, in *W. Virginia*, a village of Hampshire co., abt. 210 m N.W. of Richmond, Virginia

Pad'erborn, a town of Prussian Westphalia, at the source of the Pader, a tributary of the Lippe, 52 m. E. S.E. of Munster; *pop.* 12,271.

Padilla, (*pa-deel'ya,*) a village of Mexico, abt. 12 m. W. N.W. of New Santander. At this place, July 19, 1824, Iturbide, the ex-emperor of Mexico, was shot.

Padil'la, DON JUAN DE, a noble Spaniard, who espoused the cause of the people against Charles V, during their arduous struggle for liberty from 1520 to 1522. Being defeated and taken prisoner at the battle of Villalar, April 23, 1521, he was put to death on the following day, and met his fate with the heroism of a true patriot. Donna Maria, his heroic wife, participated in all his labors, and after his death gained several advantages at the head of her troops, and defended Toledo for several months. She was at length deserted by the citizens, and retired to Portugal, where she died

Padishah', *n.* [Pers.] The sovereign; the chief ruler; — a title given to the Sultan of Turkey, and to the Shah of Persia.

Pad'lock, *n.* A lock to be hung on a stable and held by a link.

—*v. a.* To fasten with a padlock; to stop, to shut; to confine.

Pad'-nag, *n.* An ambling nag; as, a bishop's *pad-nag.*

Pado'ra, in *Indiana*, a post-village of Crawford co., abt. 50 m. W. by. N. of New Albany.

Pad'ua, (anc. *Patavium.*) a fortified city of Italy, prov. of Padua, at the junction of the Brenta and Bacchiglione, 24 m. W. of Venice, Lat. 45° 23′ 41″ N., Lon. 11° 52′ 43″ E. Its celebrated university, founded in the 13th century, had in former times students from all parts of the world. Among these were Dante, Petrarch, and Tasso; and among the professors were Fallopius, Fabricius ab Aquapendente, Morgagni, Galileo, and Guglielmini. The university library comprises 100,000 vols. There is also an academy of sciences. The churches, and especially San Antonio, are less remarkable for architecture than for their paintings and interior decorations. *Manuf.* Woollens, silks, ribbons, and leather.

Pad'ua, in *Illinois*, a post-township of McLean county.

Paduasoy', Pad'esoy, *n.* [From *Padua*, the Italian city, and Fr. *soie*, silk.] A kind of silken stuff formerly used for ladies' dresses.

Padu'cah, in *Iowa*, a village of Greene co., about 40 m. W.N.W. of Des Moines.

Paducah, in *Kentucky*, a city, cap. of McCracken co., on the Ohio river at mouth of Tennessee river, and on 3 railroad lines, about 48 m. above Cairo, Ill. *P.* is the chief depot of that neighborhood, and has an active and extensive trade in tobacco, pork, horses, mules, &c. *Pop.* (1897) 13,650.

Pæ'an, Pæon, *n.* [Gr. *paion.*] (*Antiq.*) Among the Greeks, properly a hymn in honor of Apollo, who was also called Pæan. Also a war song before or after battle: in the first case in honor of ARÊS, in the second as a thanksgiving to Apollo.

(*Anc. Poetry*) A foot consisting of four syllables, of which there are four kinds; the Pæan primes, secundus, &c.

Pæo'nia, *n.* [From *Pæonia*, a mountainous country of Macedonia.] (*Bot.*) The Pæony, a genus of plants, order *Ranunculaceæ*, May and June. The Chinese Poppy-

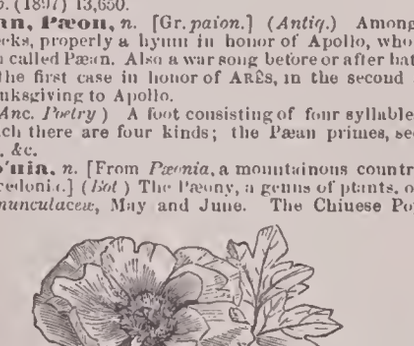


Fig. 2023. — PÆONIA PAPAVERACEÆ.

flowered Pæony, *P. papaveraceæ*, is a deciduous suffrutescent bush, 3–6 ft. high, native of China, introduced in Europe in 1787, and sometimes cultivated in this country; flowers pink, blossoming in May. It is distinguished from the other species by its united carpels.

Pa'er, FERDINANDO, a celebrated Italian musical composer, b. at Parma in 1774. He studied at Venice, was called to the court of Vienna in 1795, became chapel-master to the elector of Saxony six years later, and after the battle of Jena, entered the service of Napoleon. He spent the rest of his life at Paris, and from 1818 till 1825 held the office of Director of the Italian Opera. He was a member of the Academy of the Fine Arts. His most successful productions were the operas of *Griselda, Agnese, Camilla*, and *Achille.* D. 1839

Pæstum. (*Anc. Geog.*) An ancient city of Lucania, in S Italy, in the N W. extremity of that province, abt. 4 m. S.E. from the mouth of the Silarus (Selo), and upon a bay of the Tyrrhenian Sea, called *Sinus Pæstanus*, (now Gulf of Salerno.) It was a place of importance and great beauty in the time of the Romans, and renowned for the splendid roses grown in its neighborhood, which bloomed twice a year. Several magnificent remains of its former grandeur are still standing, and attract universal attention. See Fig. 1903.

Pa'gan, *n.* [Lat. *paganus.* See PAGANISM.] A heathen; a gentile; one who worships false gods.

—*a.* Heathen; heathenish; noting a person who worships false gods; pertaining to the worship of false gods.

Pa'ganism, *n.* [Fr. *paganisme;* from Lat. *Pagus*, pl *pagi*, villages, because heathen, when the worship of their gods was forbidden in the cities, retired to the villages, where they could practise their ceremonies secretly and safely.] Heathenism; the worship of idols or false gods. — The theology of the pagans, according to their own writers, Scævola and Varro, was of three kinds. The first may be called the *mythological*, or fabulous, as it treats of the theology and genealogy of their deities, in which they describe such things as are unworthy of deity. In this species of paganism, they ascribe to their gods thefts, murders, adulteries, and all manner of crimes. (See MYTHOLOGY.) This kind of theology is, therefore, condemned by the wiser heathen. The writers of this sort of theology were Sanchoniatho the Phœnician, and Orpheus, Hesiod, Pherecyde, &c., among the Greeks. The second sort of paganism, called *physical* or *natural*, was studied and taught by the philosophers, who, rejecting the multiplicity of gods introduced by the poets, brought their theology to a more natural and rational form, and supposed that there was only one supreme God, which they commonly make to be the sun, or at least an emblem of him, but at too great a distance to mind the world's affairs. In consequence of this, they devised certain demons, whom they looked upon as mediators between the supreme God and man. The philosophers who believed in this sort of theology, treated of the nature of these demons and their relations with regard to man. Among their writers on the subject were Thales, Pythagoras, Plato, and the Stoics The third sort of paganism, called *political* or *civil*, was instituted by legislators, statesmen, and politicians. The first among the Romans was Numa Pompilius. Political paganism chiefly respected the gods, temples, altars, sacrifices, and rites of worship; it was properly their idolatry, the care of which belonged to the priests; and it was enjoined the common people to keep them in obedience to the civil power The *rites* of paganism were as various as the objects of their worship. As a general rule, however, they had some idea of the necessity of an atonement for sin, and that "without the shedding of blood, there is no remission." Sacrifices were deemed essential, and in many cases, and in all emergencies, they were apprehensive that the sacrifice must be, at least, of equal dignity with the sinner. Hence, among many nations, both ancient and modern, from the worshippers of Moloch to the South Sea Islanders, the practice of human sacrifices, which have stained the altars of almost every nation upon earth. In some religions of paganism, for example in those followed by Zoroaster, Plato, and Socrates, there are to be found pure and elevated notions, and precepts of morality, which would not disgrace even Christianity

Pa'ganize, *v. a.* To render pagan or heathenish; to convert to paganism.

Paganini, NICOLO, (*pa-ga-ne'ne,*) the inimitable violinist, was b. at Genoa, 1784, and initiated into the principles of music by his father, who was a commission-agent by trade, but a great musical amateur. His first public engagement was at Lucca. Here he found a zealous patroness in the Princess Bacchiochi, sister of Napoleon; but in 1813 he left Lucca for Milan. From this period dates his wondrous performance on a single string, which at a later period called forth such bursts of applause from numerous audiences in Germany, France, and England. In 1828 he visited Vienna, where he met with an enthusiastic reception. Thence he visited the chief cities of Germany; and in 1831 he made a musical tour through France and England, where he realized enormous sums, which, however, the gambling-table swallowed up, frequently even with a greater rapidity than he gained them. His last years were spent at his villa Gajona, near Parma; and he D at Nice, 1840. The most absurd stories were circulated regarding Paganini during his lifetime; nor did they cease even with his death Crimes of the deepest dye were imputed to him without a vestige of foundation; though it must be admitted that the singular cast of his countenance, his reserved character, his sudden bursts of passion, and the mysterious veil which he was fond of throwing around all his proceedings, were well fitted to awaken public curiosity, with its usual adjunct, excessive credulity.

Page, *n.* [Fr. and Sp.; It. *paggio.* Etymol. unknown.] One side of the leaf of a book.

—A book or writing.

"Torn from their destined *page*."—*Ferriar.*

—A youth attached to the service of a royal or noble personage, rather for formality or show than for servitude. The name *pages* appears to have been confined to slaves and attendants of an inferior class, in modern Europe, until the reigns of Charles VI. and Charles VII. of France. As chivalric institutions prevailed, the office, by whatever name it may be called, became of importance. Courts and castles were the schools in which the young noble passed through the degree of page, in order to reach the higher grades of esquire and knight, when he became *hors de page.* In the 16th cent. the chivalrous character had become much adulterated; but the custom of bringing up sons as pages at courts continued until the disorder and license of the age rendered the service so dangerous that it was no longer sought by the better classes as a mode of education for their children. Pages then became, as they are now, mere relics of feudal custom: from almost all courts they have entirely disappeared; but are still to be found in

the household of the Queen of Great Britain, with the title of *Pages of the Presence*, &c.

Page, *v. a.* To mark or number the pages of a book or manuscript.

Page, in *Iowa*, a S.W. co., adjoining Missouri; *area*, abt. 550 sq. m. *Rivers.* Nodaway, Nishnabatona, and Tarkeo rivers. *Surface*, mostly level; *soil*, fertile. *Cap.* Clarinda.

Page, in *Virginia*, a N. co.; *area*, abt. 300 sq. m. *Rivers.* Shenandoah, and some smaller streams. *Surface*, much diversified; *soil*, in general very fertile. *Min.* Iron in abundance, also copper and lead, and a fine quality of marble. *Cap.* Luray.

Pageant, (*paj'jant,*) *n.* A triumphal car, chariot, arch, or other pompous thing, decorated with flags, &c., and carried in public shows and processions; a show; a spectacle of entertainment; something intended for pomp.

—*a.* Showy; pompous; ostentatious.

—*v. a.* To represent in show. (R.)

Pageantry, (*paj'jant-ry,*) *n.* Show; pompous representation; gaudy or brilliant spectacle.

Page City, in *Iowa*, a post-village of Page co., abt. 62 m. S.E. of Council Bluffs.

Page'hood, *n.* State, quality, or condition of a page.

Page'ville, in *Pennsylvania*, a village of Erie co., abt. 20 m. S.W. of Erie.

Pa'gil, *n.* (*Bot.*) Same as PAIGLE.

Pag'ina, *n.* [Lat.] (*Bot.*) The surface of a leaf.

Pag'inal, *a* [Lat.] Consisting of pages; as, *paginal* books

Pagina'tion, *n.* Act or process of paging a book; the figures used to denote the number of pages.

Paging, *n.* The marking of the pages of a book; as, the *paging* of a volume of MS.

Pago, an island of Austria, in Dalmatia, circle of Zara, in the Adriatic, separated from the mainland by the Morlacca Channel, between 2 and 3 m. wide; Lat. 44° 30′ N., Lon. 15° E. *Area*, 106 sq. m. Near its centre is the lake or inlet of Zascha. *Pop.* 5,000.

Pagod, n. A pagoun. (R.)

Pago'da, *n.* [Corrupted from Hind. *bootkudu*, an idol-house — *boot*, an idol, and *kuan*, house.] A Hindoo or Chinese temple, in which idols are worshipped. — An idol; an effigy of some imaginary deity.

(*Numismatics.*) A gold and silver coin of Hindostan, formerly current, and of values varying from $1.75 to $2.18.

Pa'godite, *n.* (*Min.*) Same as AGALMATOLITE, *q. v.*

Pago'sa Springs, in *Colorado*, a post-village, cap. of Archuleta co., 60 m. E. of Durango.

Pagu'ridæ, *n. pl* (*Zoöl.*) The Hermit or Soldier Crabs, a fam. of Brachyurous Crustacea, division *Anomoura*. The tail, or post abdomen, is of large size, but its envelope is little else than a membranous bag, entirely destitute of the usual hardness of the crustaceous integument. The thorax itself is not very firm; and it is only on the claws, which are of large size, that we find the true calcareous envelope. For the protection of their soft tails, the *P.* resort to various artificial methods. Many of them seek univalve shells, in which they take up their abodes; attaching themselves to the interior by a sucker with which the tail is furnished at its extremity, and also holding by its six false legs which it bears at its hinder portion. When they are feeding or walking, the head and thorax project beyond the mouth of the shell (Fig. 2024); but when they are alarmed they draw themselves in, closing the mouth with one of the claws, which is much larger than the other, and holding to the interior so firmly, that they will rather be torn asunder than quit their attachment. As they increase in size, they are obliged to change their habitation for a more commodious one; and the way in which they accomplish this is very amusing. They may be frequently observed crawling slowly along the line of empty shells, &c., left by the last wave; and as if unwilling to part with their old domicile till a new one has been obtained, they slip their tails out of the old house into the new one, again betaking themselves to the former, if the latter is not found suitable. In this manner they not unfrequently try a large number of shells before they find one to their liking. If it happens that two hermit-crabs stop before the same shell, a dispute arises, and the weakest yields to the strongest. There are several species of various sizes, chiefly belonging to tropical shores.

Fig. 2024.
DIOGENES HERMIT-CRAB.

Pah, *interj.* An exclamation, synonymous with BAH, *q. v.*

Panang', a town of the Malay peninsula, cap. of a small state of same name, on a broad and shallow river, about 5 m. from its mouth; Lat. 3° 34′ N., Lon. 103° 24′ E.

Pahaquar'ry, in *New Jersey*, a township of Warren co.

Paid, *imp.* and *pp.* of PAY, *q. v.* (*Paid* for *payed.*)

Paidentics, *n. sing.* [From Gr. *paideuein*, to teach, *pais*, a boy.] The science of instruction.

Pail, (*pāl,*) *n.* [W. *paol*, pail, pot; Gr *pella*, a wooden bowl, milk-pail; Lat. *pelvis*, a basin, laver.] An open vessel of wood, tin, &c., used as a household utensil for carrying or holding liquids, as water or milk.

Pail-brush, *n.* A brush used in cleaning pails.

Pail'ful, *n.*; *pl.* PAILFULS. The quantity held by a pail.

Paillasse, Palliasse, (*pal-yas',*) *n.* [Fr., from *paille*, straw, from Lat. *palea*, chaff.] A straw under-bed.

Paimbœuf, (*pang-buf',*) a seaport-town of France, dept. of Loire-Inférieure, on the Loire, 22 miles W. of Nantes. It is the deep-water harbor of the port of Nantes, vessels of more than 200 tons going there to load and unload their cargoes. *Pop.* 3,509.

Pain, (*pān,*) *n.* [A.S. *pin*, *pine*; D. *pijn*; Ger. *pein*; Fr. *peine*; Lat. *pœna.*] Physical suffering arising from pressure, from a blow, or from some other external cause; an uneasy sensation in animal bodies of any degree from slight disturbance to extreme or acute distress or torture; suffering; bodily grief. — Suffering or evil inflicted as a punishment for a crime; punishment suffered or denounced; penalty.

"None shall presume to fly under *pain* of death."—*Addison.*

—Mental distress; agony of spirit; torment; uneasiness of mind; disquietude; anxiety; solicitude for the future.

"Sweet is pleasure after *pain*."—*Dryden.*

—*pl.* Labor; work; toil; laborious or diligent effort; task; as, to take *pains* —The throes of travail or childbirth; pangs of parturition.

—*v. a.* [A. S. *pinian*; Fr. *peiner*] To torment; to torture; to cause uneasy sensations of any degree of intensity in the body of. — To render uneasy in mind; to trouble; to grieve; to disquiet; to wound the feelings of.

"She drops a doubtful word that *pains* his mind."—*Dryden.*

Pain'court, in *Louisiana*, a post-village, cap. of Assumption parish about 67 m. S. of Baton Rouge.

Paine, THOMAS, an American political writer, b. in England, 1737. He early distinguished himself by his literary abilities and republican notions. At the outbreak of the War of American Independence, he, in 1774, emigrated to this country, when he became editor of the *Pennsylvania Magazine*, and gave an impulse to the Revolution by his famous pamphlet called *Common Sense*, in which he advocated the policy of separation and independence. He went to Paris in 1789, and published, in 1791, his *Rights of Man*, in reply to Burke's speech on the French Revolution. In Sept., 1792, he was elected a member of the French National Convention, acted with the Girondists, narrowly escaped death in the reign of terror, and brought out, in 1795, his celebrated deistical work entitled, *The Age of Reason*. He returned to the U. States in 1802, and died at New York, in 1809.

Paine's Hollow, in *New York*, a post-village of Herkimer co., abt. 75 m. W.N.W. of Albany.

Paines'ville, in *Ohio*, a post-village and township, cap. of Lake co., abt. 29 m. N.E. of Cleveland. It is finely located and commands an active trade. *Manuf.* Machinery, barrels, flour, &c.

Pain'ful, *a.* Full of pain; giving pain, uneasiness, or distress to the body; occasioning pain, disquiet, or uneasiness to the mind; afflictive; distressing; grievous; producing anguish or misery; as, a *painful* event. — Requiring severe labor or toil; full of difficulties; exercising labor; undergoing toil or trouble; industrious; as, *painful* exertion.

"While pensive poets *painful* vigils keep."—*Pope.*

Pain'fully, *adv.* With suffering of body; with affliction; uneasiness, or distress of mind; laboriously; with toil; with arduous effort or diligence.

Pai'nim, *n.* and *a.* Same as PAYNIM, *q. v.*

Pain'less, *a.* Free from bodily pain or mental trouble; as, a *painless* disease, a *painless* operation.

Pain'lessness, *n.* Freedom from pain or trouble; state, quality, or condition of being painless.

Pains, *n. pl.* Care; trouble; effort. See PAIN.

Pains'taker, *n.* One who takes pains; a laborious person.

Pains'taking, *a.* Laborious; industrious; carefully diligent; sparing no pains.

Paint, *n.* A substance used in painting, either simple or compound; a coloring material; a pigment. — A composition used for heightening the color of the skin or complexion; a cosmetic; rouge.

—*v. a.* [Fr. *peindre*, pp. *peint*; Sp. *pintar*; It., from Lat. *pingere*, pictum; Sansk. *pinj*, to paint.] To form a figure, likeness, or representation of in colors; to portray by colors or images; to exhibit in forms and hues; to represent in a tinted semblance; as, to *paint* a portrait.

"As idle as a *painted* ship upon a *painted* ocean."—*Coleridge.*

—To cover or besmear with hues or colors, either with or without figures; to color; to embellish or diversify with tints or colors; to lay on artificial color for ornament; as, to *paint* a house, ship, sign-board, &c. — To represent or exhibit to the mind; to present in form or likeness to the intellectual view; to describe; to delineate; to portray; to depict; as, his errors were *painted* in the strongest terms.

—*v. n.* To practise the art of painting; as, this artist *paints* well. — To lay artificial coloring on the face by way of embellishment.

Paint, in *Ohio*, a township of Fayette co.

—A post-township of Highland co.

—A township of Holmes co.

—A township of Madison co.

—A township of Ross co.

—A township of Wayne co.

Paint, in *Pennsylvania*, a township of Clarion co. — A township of Somerset co.

Paint Creek, in *Iowa*, a township of Allamakee co.

Paint Creek, in *Michigan*, enters the Clinton River in Oakland co.

Paint Creek, in *Ohio*, enters the Scioto River abt. 3 m. below Chillicothe.

Paint'ed Post, in *New York*, a post-village of Steuben co., abt. 2 m. W. of Corning.

Paint'er, *n.* One whose occupation is to paint; one skilled in representing persons or things in colors.

(*Naut.*) A rope employed to fasten a boat to a ship, wharf, &c.

—The cougar or panther. (Local U. States.)

Paint'ers' Colic, *n.* (*Med.*) A disease which derives its name from the fact that painters are more frequently attacked by it than persons of other occupations, though habitual cider-drinkers, and people of various callings, are sometimes liable to its attack. As the cause in all cases is the presence of lead in the system, absorbed through the skin by contact with paints containing preparations of that metal, especially those known as white and red lead, or taken into the lungs from the fumes during smelting, or else received into the stomach by drinking liquors or water kept in leaden cisterns, it will be readily understood how many persons, coming in contact with easily absorbed minerals, may be affected by all the symptoms of the *P. C.*, the special peculiarity of which is the tremor of the hands, and sometimes of the head and legs — a mild form of paralysis that attends it. This very serious disease commands the prompt attendance of a physician. *Iodine of potassium* is said to be an effective remedy for lead and mercurial poisoning. See LEAD.

Paint'ership, *n.* State or condition of being a painter.

Paint'er-stainer, *n.* An heraldic painter. — A member of a London guild, denominated "The Worshipful Company of *Painter-stainers.*"

Paint'ing, *n.* An art which, by means of light, shade, and color, represents on a plane surface all objects presented to the eye or to the imagination. As the desire to imitate is one of the natural tastes of man, and the variety of forms and colors one of his chief sources of pleasure, it is not wonderful that traces of the art should be found among the remains of every nation, however ancient, and that it should be practised by every existing people, however uncivilized. In the absence of any positive information on the subject, it would be idle to inquire how early in the history of the world painting took a prominent place among the arts of life; and we must be content with the knowledge that it was practised by the Egyptians several thousand years before the Christian æra. Painting appears to have had its origin among all nations as a species of writing; and among the Egyptians it scarcely ever became anything more. The specimens which we possess of Egyptian art, executed 18 or 19 centuries before Christ, show that the arts were at that period in the highest condition which they ever attained in Egypt; and through the whole course of Egyptian art, we find that, as in these specimens, Egyptian painting seldom, if ever, attempted more than an outline of the object as seen in profile, such as would be obtained by its shadow. To this outline colors were applied simply and without mixture or blending, and without the slightest indication of light or shade. As the Egyptians did not practise dissection, they were ignorant of the true form of the bones and the muscles, and in the representation of the human figure, therefore, could only obtain such success as might result from attention to the length of the different parts of the body. The chief reason, however, for the low state of Egyptian art was the fact that during the larger period of its existence it was under the domination of the priesthood, who refused to allow the artists, in the religious works which formed almost their sole employment, to depart from certain sacred and conventional forms. The Egyptian artists employed six pigments, mixed up with a gummy liquid, namely, white, black, red, blue, yellow, and green, — the first three always earthy, and the remaining vegetable, or at least frequently transparent. With regard to the Hebrews, we have no information as to whether the art of painting was ever practised among them; but it may be inferred that a people who were acquainted with the arts of carving in wood and stone, and of chasing gold and silver, would not be wholly ignorant of painting. There has been much discussion as to how far the ancient Greeks were acquainted with the art of painting; but as their ancient writers, who were acquainted with the finest sculptures and the most beautiful architecture, speak in almost extravagant praise of the painters of their day, it may fairly be taken for granted that the art was practised among them with distinguished success. The first Grecian painting on record is the *Battle of Magnete*, by Bularchus, and purchased by Candaules, King of Lydia, for its weight in gold, or, as some say, a quantity of gold coins equal to the extent of its surface. This was in the year 718 B. C. During five centuries, however, the art had previously flourished in the cities and islands, and especially at Corinth, having passed through the various gradations of simple skiography (or shadow-painting), the monographic style (consisting of a simple outline), monochromatic compositions (in which one color only was employed), and polychromatic (where a variety of hue, but without shading, was used). After Bularchus, the art of painting continued slowly to improve until the time of Polygnotus of Thasos, who, in 460 B. C., founded what may be called the Athenian school, and whose pictures were admired several centuries after his death. Even at this period, however, the art was deficient in the most powerful of its means, the magic of chiaroscuro, and also in its instruments, the ancient paintings being executed with a *cestrum*, a short metal rod, broad at one end and pointed at the other, in the following manner: — The tablet, primed in white, was laid over with a varnish of resin mixed with wax, and usually incorporated with a dark reddish coloring-matter. Upon this the subject was traced, and the lights worked in with the cestrum. At length, however, the pencil was invented; and a new and glorious period of Grecian art commenced (400 B. C.) with Apollo-

dorus, Parrhasius, Timanthes, and Zeuxis, the latter of whom is the first from whose works we derive explicit statements of the ideal in Grecian painting, and who was the first to discover or practise the grand principle in the heroic style of painting — to render each figure the perfect representative of the class to which it belongs. There is reason to believe, also, that he was the first to teach the true method of grouping, artists before his time having arranged the figures in lines, without any principal group on which the interest of the event was concentrated. The last epoch of painting in Greece commences with Apelles (about the conclusion of the 4th century B. C.), whose style, as far as we can judge from the descriptions of the ancient writers, must have closely resembled that of Rafaelle, while their choice of subject appears to have been nearly similar. A Venus painted by him was esteemed the most faultless creation of the Grecian pencil, and was purchased, long after the artist's death, for 100 talents, or $100,000, by the emperor Augustus. Contemporary with Apelles was Protogenes, an excellent artist, whose only fault was that he finished too highly, and somewhat later lived Nichomachus, Pausius, Aetion, and others, with whom the art began to decline, through causes connected with the dismemberment of the Macedonian empire. We can never satisfactorily determine what perfection the art of painting attained in Greece; for while, on the one hand, the writers of antiquity, whom we know to have been most accomplished critics of poetry, oratory, sculpture, and architecture, speak in the most glowing terms of the works of the Greek artists, there is a great disparity between the means and instruments of the art as described by them, and the excellence of the effects they assert to have been produced by them; and, in fact, in the few and very imperfect remains of ancient paintings which have come down to us, such as in the delineations upon vases, it is observable, that, while the artist evidently well understood the principles common to form, he was but imperfectly acquainted with those peculiar to painting. As far as can be understood from the allusions of ancient writers, the Greek artists practised three principal methods of painting: first, *distemper*, employed for mural pictures; second, *glazing*, when the picture, after being finished in water-colors, crayons, or distemper, was covered with a coat of hard and transparent varnish; and thirdly, *encaustic*, when the coloring-matters, actually incorporated with wax, or preparations of wax, were thus applied in a liquid state, and when finished allowed to dry. It may here be observed that the practice of coloring marble statues was common among the Greeks; and that vase-painting was regarded as an art in itself. The Roman school of painting is scarcely worth a thought, the influx of Greek productions having had the effect of almost completely stifling native Italian talent, and the genius of the people leading them to prefer what was ostentatious and glittering to what was pure in design, pathetic in expression, or perfect in form. There are, however, three periods observable in the history of painting in ancient Rome: the first, that of Græco-Roman art, which may be dated from the conquest of Greece until the time of Augustus, when the artists were chiefly Greeks; the second, from the beginning of the Christian æra until about the latter end of the 3d century; the third, when Rome, in consequence of the foundation of Constantinople, and the changes it involved, suffered spoliations similar to those which it had previously inflicted upon Greece. During the second period, portrait painting was very common in Rome, and *Mosaic* was so general as to a great extent even to supersede painting. The fanatic fury of the early Christians against anything that reminded them of paganism, the division of the empire, and the incursions of the Goths and other barbarians, led to the destruction of all traces of the former splendor of its fine arts; and Christianity helped still further to stifle them, by making purity of heart everything, and physical ugliness or deformity nothing, and by inculcating that mankind, being corrupt and born in sin, no Christian painter ought to look at the naked figure while he was painting it. In spite of this fact that the popes and emperors at an early period gave orders for the adornment of the churches with pictures, this art continued to decay until the middle of the 11th century, when St. Didier having sent (A. D. 1066) for Greek artists to adorn Monte Casino, at Subiaco, this example was followed by the corporations of Pisa, Venice, Amalfi, and Genoa, who rivalled each other in adorning their native cities with works of art; and painting, having sunk to the lowest barbarism, went on improving, till the taking of Constantinople by Mahommed II. dispersed the Greek artists collected there, and scattered them all over Europe. Hundreds went to Italy, and inoculated Italian artists with some remnant of their taste for beauty, decayed as it was. Soon after their arrival, some of their pupils began to excel them, and Cimabus (A. D. 1240) was one of the first, if not the first, to give indications of attempting something new in painting. He was himself excelled by Giotto, a shepherd-boy, whom Cimabus had taken as a pupil, and who may be looked upon as the father of painting in Italy. In the 15th century there were two schools of painting in Europe descended from the Byzantine school, *i. e.*, from the Greek artists who had emigrated from Constantinople to various parts of Europe on its capture by Mahommed II.; namely, the Transalpine school and the Italian school; the former being again divided into the *Dutch*, *Flemish*, and *German* schools; and the latter into the *Florentine*, the *Sienese*, the *Roman*, the *Neapolitan*, the *Venetian*, the *Mantuan*, the *Modenese*, the school of *Parma*, the school of *Cremona*, the *Milanese*, the *Bolognese*, the *Ferrarese*, the *Genoese*, and the school of *Piedmont* and the adjacent territory. As few characteristics of a national style are to be found in the history of art in the Dutch and Flemish schools, as distinct from the German school, prior to the close of the 16th century, they may here be considered as one and the same. Its earliest pictures were painted upon wood, usually oak, covered sometimes with canvas, always with a white ground, upon which the outline of the subject was sketched, and the whole overlaid with gilding, the latter forming the real grounding of the picture, which was painted in water or size-color, with great care and diligence, and with more truth to nature than occurs in any other works of the same age and description. At the beginning of the 15th century, however, John Van Eyck discovered, or at any rate brought oil-colors into general use; and the Transalpine school being thus put early into possession of an advantage contributing principally to the distinguishing qualities of fine coloring and exquisite finish, at once took a high position. Of the great masters of this school, we may more particularly mention the Flemish painter, John van Eyck himself, whose paintings are distinguished by brilliant coloring, magic effect of the *chiar-oscuro*, carefully labored though often tasteless drawing, a strong yet natural expression, and boldness in composition. Francis Floris (born 1520, died 1570), called the "Flemish Rafaelle;" Francis Snyders, whose hunting-pieces are among the very best, if not the best, of their kind; and Peter Paul Rubens (born 1577, died 1640), the author of about 4,000 pictures, distinguished for brilliancy of coloring, the play of reflected lights, and splendor of general effect in his historical pictures; and for the freshness, clearness, and variety of nature in his landscapes; but who, in the former class of pictures, is sadly wanting in the elevation of form and sentiment which ennobles the works of the old masters of the schools of Florence and Rome. Of the Dutch school, the most distinguished during the 16th and 17th centuries were, Luke of Leyden (born 1494); Cornelius Poelenburg, of Utrecht (born 1586, died 1663), who was famous for his skill in painting small landscapes with figures; John Daniel de Heem, of Utrecht, (born 1604, died 1674), known for his faithful imitation of flowers, fruits, carpets, and vases; and, greatest of all, Paul Rembrandt van Rhyn, born in 1606, who was master of all that relates to coloring, distribution of light and shade, and the management of the pencil, but who was wanting in many of the characteristics of a true artist; such as composition, perspective, and dignified expression. Of the German branch of the Transalpine school, as it ceased to be a distinct school when it ceased to be Gothic,—*i. e.* after the 15th century, it will be sufficient here to mention Albert Dürer, born in Nuremberg, 1471, whose works, although somewhat hard and meagre, excel in truth, originality, simplicity of thought, and good coloring: and Holbein, his contemporary, whose works, chiefly painted in England during the reign of Henry VIII., are excellent examples of this school. Their successors, departing from the national style, became blended with the Italian masters, to whom we must now return. — The great men of the Florentine school painted more in fresco than in oils. After the lapse of a hundred years from the death of Giotto, during which this art had been slowly improving, appeared Tomaso da San Giovanni, nicknamed Masaccio, from his total neglect of personal appearance, who, although he died at the age of twenty-four, advanced the art from a state of infancy far towards the vigor of manhood. Shortly after his death was born Leonardo da Vinci, who, as philosopher, poet, and artist, anticipated three centuries, and who, to the truth and precision of character introduced by Masaccio, added new and most valuable qualities, by introducing the principles of chiaroscuro, and depth of tone in color. The "Last Supper," painted by him in fresco at Milan, exhibited a dignity and propriety of expression unequalled at the time; and, if seen as originally painted, probably still unsurpassed. After him came two contemporaries, who are regarded as the greatest painters of any age or country. Michael Angelo, (equally famous as a sculptor,) born in Florence in 1474, and Rafaelle, born in Urbino in 1483. Although contemporaries, they are most unlike in all the characteristics of genius, save in the final result. The former excelled in energy, the latter in beauty. Michael Angelo's conceptions are wonderful, but singular, and remote from nature; the figures on his canvas are a superior order of beings, and there is nothing about them to put us in mind of their belonging to our species. An ideal abstraction of mind was the object of his imitation, to which all living nature, elevated into gigantic forms and energetic modes, was to be moulded into subserviency. The excellency of Rafaelle, on the other hand, lay in the propriety, beauty, and majesty of his characters; his judicious contrivance of composition, correctness of drawing, and purity of taste. The manner of his best pictures is full, harmonious, sweet, and flowing, yet bold, learned, and sustained, and composed of such a union of natural grace and antique correctness as meet only in the creations of his pencil. Rafaelle properly belongs to the Roman school of painters; but in speaking of the history of the art of painting, it is difficult not to associate his name with that of Michael Angelo. Of the artists who supported the reputation of the Florentine school after Michael Angelo, we may mention Daniel di Volterra, who imitated him, as did many others, in a somewhat hard and laborious manner; Andrea del Sarto, who followed the style of Leonardo da Vinci; and Carlo Dolce, who is famous for Madonnas and small pictures, which he finished with exquisite delicacy of pencil, and which are fraught with the genuine expression of certain affecting emotions. — *The Roman School.* Some lovers of art have doubted the right of the Roman school to that appellation, as most of the artists who flourished at Rome were either natives of the other cities of the Roman State or from other parts of Italy; however this may be, the Roman school or academy appears to have come into existence about the time of the transference of the papal chair from Avignon to Rome, and to have owed its immediate origin to the diligence of the pontiffs in decorating the Vatican. The only master of this school whom we will here mention before Rafaelle, is Pietro Perugino, his instructor in the mysteries of the pencil. His style was narrow and contracted, his figures and draperies being pinched up in a very unpleasing manner; but his youthful and female heads were frequently graceful, and it is known that Rafaelle esteemed his works very highly. Rafaelle, whose place of birth we have already mentioned, had at different periods of his life three distinct styles of painting; the first dry and meagre, in imitation of his master, Pietro Perugino, but not without truth, and often great beauty of finishing; the second and intermediate step, an attempt to escape from the minuteness, which he soon found to be unsuitable both to his own taste and the dignity of art. The third manner solely and exclusively individual, proceeding from the study of nature and the antique, and of which the most wonderful example is his picture of the *Transfiguration*. His death, in 1520, proved an irremediable loss to the arts; and that, and the death of Leo, with the inattention of his successors to anything connected with the fine arts, proved most injurious to the Roman school, which still, however, produced some great masters, of whom the most prominent are Michael Angelo Caravaggio (B. 1569), who aimed at great simplicity of color, and generally chose sombre subjects, such as nocturnal skirmishes, treachery, and murder. Salvator Rosa (B. 1615), who applied the style of Caravaggio to landscape, and chose as his subjects savage scenery, Alps, broken rocks and caves, wild thickets, and desert plains. His genius, however, was not confined to such compositions, as he painted some altar-pieces which were well conceived and of powerful effect. Nicholas and Gaspar Poussin, although Frenchmen, are generally classed in the Roman school, as its style was their rule, and Rome was the constant theatre of their efforts. Towards the close of the 17th century, the Roman school had sunk into the last stage of decline; the result of the calamitous events which had afflicted Rome about the middle of that century; the feuds of the nobles, the flight of the Barberini family, and the dreadful plague of 1655. The rudiments of the *Venetian school* of painting appear to date from the 11th century, about the year 1070, when the doge Selvo invited mosaic-workers from Greece to adorn the magnificent church of St. Mark; a great impulse being given to it by the arrival of an immense quantity of pictures, statues, and basso-relievi from Constantinople, after its capture in 1204. The Venetians were the first of Italian artists who became acquainted with Van Eyck's method of painting in oils; and Georgs Belliul was the first in Venice, toward the close of the 15th century, to practise and obtain success in it. His pictures are gracefully drawn, and mellow in color; but his chief merit consists in the fact that he was the master of the three great Venetian painters — Titian, Giorgione, and Sebastiano del Piombo — from whom the Venetian school may be said to have taken its distinctive characteristics of smooth harmony and brilliancy of coloring. Giorgione, whose real name was Giorgio Barbarelli, the friend and rival of Titian, painted with a certain freedom and audacity of manner, of which he may be said to be the inventor, and which he combined with very rich and careful finishing in fresco; and as these works were generally upon the outside of the walls of houses, scarcely any of them now remain. Many of his oil-paintings, however, are to be found both in Venice and other places, in excellent preservation, and full of grace and beauty. Sebastiano del Piombo, who may be considered a disciple, and the most distinguished one, of Giorgione, imitated him very closely in the tone of his colors and the fulness of his forms, and was particularly successful in pictures for private rooms and portraits. It is said that Michael Angelo held him in such esteem as a colorist, that he united with him, in order to oppose the too favorable opinion entertained by the Romans of Rafaelle. Great as were these painters, however, Titian (B. 1477, D. 1576) must be regarded as altogether at the head of the school under notice. In expression he is the most historical of all painters, his portraits being second only to those of Rafaelle; in careful imitation of natural effect, he is equal to the most painstaking of the Dutch school, while at the same time preserving great grandeur and breadth of effect. In his pictures, the surrounding colors and objects are delicately reflected by every surface capable of reflecting, even in the eyes of the figures; and the broad shades, instead of being mere dark masses, are composed of those innumerable gradations which mark the shadows of nature. The Venetian masters were unable, after his death, to maintain the reputation which Titian had gained for it; but we must mention Tintoretto, his contemporary, a painter full of fire and sprightliness, who has been called the lightning of the pencil, from his miraculous dispatch, and whose pictures are distinguished by wild and fantastical inventions; Bassano, who was particularly expert in the representation of animals; and Paul Veronese, who founded a distinct branch of the Venetian school. His genius was naturally noble, and even magnificent and vast, and while his compositions failed in historical correctness and elegance of design, they are exceedingly

attractive, from their freshness and magnificence of coloring. In his pictures are to be found splendid banquets, sumptuous edifices, bright aërial spaces, noble vestments, lords and ladies, crowns and sceptres, arms and jewels. In the course of time, the masters of the Venetian school became mannerists in color; but it cannot be denied that during the period of the decline of art throughout Italy, the Venetian school shone peculiarly conspicuous in the number of superior artists it produced. The next school of any importance is the *Lombard school*, which comprehends those of Mantua, Modena, Cremona, and Milan. The art of miniature-painting was practised at a very early period in Mantua; but in regard to pictures, the first known artist is Andrea Montegna, who was a native of Padua, and established his school at Mantua at the end of the 15th century, where he has left some works of great merit; and with him must be mentioned Giulio Romano (B. 1492, D. 1546), Rafaelle's most distinguished pupil, whose last works at Mantua, chiefly in fresco, place him at the head of that school. Contiguous to the Modenese school is the Parmesan, which brings us to Correggio (B. 1494, D. 1534), the most delightful of all painters, and one who, from the bosom of poverty, without master, without patron, burst at once upon the view in all the blaze of original talent. He had come into notice at a time when it was resolved to paint the great cupola of St. John at Parma, and he was selected as the artist. The clearness and relief, the sweetness and freedom of pencil in the works which he thereupon executed, have never been exceeded; while the grandeur of design, and the boldness of conception in the foreshortenings, have astonished all succeeding generations of artists. In the management of light and shade he was unequalled; and his only defects were a certain want of correctness, and a want of force, which sometimes render the whole effect of his pictures effeminate and monotonous. Parmegiano is the next important name in this school; but he cannot be compared with Correggio. The school of *Cremona* appears to have had its origin in the foundation of the magnificent cathedral in 1107, which was as speedily as possible decorated with all that sculpture and painting could afford; and, indeed, the history of the school is almost identical with the history of its adornment. The *Milanese school* dates from 1335, when Giotto was employed in ornamenting various places in the city, which long continued to be regarded as most beautiful specimens of the art; but the founder of the Milanese school is, however, by many considered to be Vicenzio Foppa, who flourished about the year 1407, and was employed by the celebrated Francesco Sforza. —*The Bolognese School.* Towards the close of the 16th, and early part of the 17th century, the progress of decline in the art of painting in Italy was stayed for a time by the rise of a new school — the Bolognese, or Eclectic, the great principle of which was to select what was most excellent in the primitive schools — design from the Florentine, grace from the Roman, from the Venetian color, and from the Lombard, light and shade. We have spoken of this school at length under the head Bolognese School. The most ancient specimens of the art of painting in France are those on glass, many still remaining of considerable beauty. The school of French painting may fairly, however, be supposed to have risen in the reign of Francis I., who, for the improvement of his subjects, brought artists from Italy. The first native painter of France whose name we find recorded, is Jean Cousin; but the first French masters of eminence were Vouet (B. in 1582) and Nicholas Poussin (B. 1594); who has been already mentioned as belonging to an Italian school, and who had formed his taste by a residence of nearly twenty years in Italy, before he was invited, in 1639, to a pension and an apartment in the Tuileries. He has been called the Rafaelle of France; and the characteristics of his works are extreme correctness of form and costume, great propriety in keeping, and the most enchanting simplicity of design. Louis XIV., who commenced his reign in the year 1643, having resolved to give to France a school of native artists, called into existence a race of painters, of whom the most distinguished were Le Sueur, who, with the exception of Poussin, is supposed by some critics to be the best painter France ever produced; Le Brun, who had a lively fancy, great dexterity of hand, and sometimes noble conceptions, but who was in all things too artificial. Contemporary with these was Claude Gelée, commonly called Claude Lorraine, who was a master of aërial perspective, as of nearly every other branch of landscape; but though French by birth, he practised his art and passed most of his life in Italy. In the succeeding reign, Antoine Watteau painted *fêtes galantes* with grace and effect; Joseph Vernet was noted as a marine painter; and Jean Baptiste Greuze was famous for his female heads and representations of domestic life. Painting deteriorated in France during the latter half of the 18th century; but was restored to a certain amount of vitality about the time of the French revolution by Jacques Louis David, whose style, known as the "classic," is dry and pedantic; and who was followed by a numerous band of scholars. At length, Gros, Gericault, and others inaugurated the system of painting from nature, and originated the modern French school, of whom a few of the most distinguished ornaments are Paul Delaroche, historical painter; Ary Scheffer, famous for ideal conceptions; Horace Vernet, unrivalled in battle-pieces; Rosa Bonheur, Decamp, Courbet, Corot, Daubigny, Gerome, Troyon, Flandrin, Fortuny, &c. The *Spanish school* can scarcely be said to have had an existence previous to the middle of the 15th century, when some Flemish artists gave the native painters their first practical ideas of color and design. In the 16th century, schools were in existence in Castile, Valencia, Seville, and elsewhere, that of Seville being the most distinguished. Among the eminent men connected with them were Antonio del Riçon, Luis de Vargas, Luis de Morales, Vincente Joanes, sometimes called the Spanish Rafaelle; Pablo de Cespedes, and Juan de las Roelas, most of whom studied in Italy, and flourished in the 16th century; Francisco Zurbaran, a distinguished painter of the naturalistic school of Caravaggio; and Diego Velasquez de Silva, and Bartolomé Esteban Murillo, whose place is in the first rank of the artists of any age or clime. Since the commencement of the 18th century, Spain has produced no painters of eminence.—Of the *English school of painting*, little can be said previous to the 18th century; since, although Holbein, Rubens, Vandyke, and other distinguished artists had, during the previous two centuries, successfully practised their art in England, their influence failed to form a national school. Sir Joshua Reynolds, who flourished 1750–80, may be considered as the founder of the English school. He was truly a great artist, excelling in portraiture, and eminent as a colorist. His contemporary and rival, Gainsborough, while nearly approaching Sir Thomas in portraits, is better known as a landscape painter of the highest order. They were both preceded by Hogarth, whose pictures are powerful satires on the manners, morals, and follies of the age; though unique in the treatment of his subjects, Hogarth appears to have had but little direct effect upon contemporary painters. Among the other artists who flourished during the latter half of the last century were Fuseli, the "Dante" of painters, Richard Wilson, eminent in landscapes, Romney and Opie, famous for their portraiture of female beauty; and Barry, an eccentric man of genius, who produced some great historical pictures. In the first quarter of the present century appeared Sir Thomas Lawrence, whose female heads are remarkable for their striking grace and elaborate finish; Hoppner, Jackson, and Sir Henry Raeburn, his compeers in portraiture; Sir David Wilkie, the best delineator of humble life that England has yet produced; Haydon, the "apostle of high art," an historical painter of great merit, but objectionable mannerisms; Etty, a splendid colorist, and the "Rubens" of the English school; Turner, the most original and æsthetic perhaps of all English landscapists; Constable, Callcott, Collins, Morland, Nasmyth, and John Martin, famous for his startling chiaro-scuro. During the same period, *genre* painting was cultivated by Bird, Smirke, Stothard, and others, who had, as their successors in this style of art, Newton, Leslie, Cooper, Mulready, Maclise, Herbert, Sir Charles Eastlake, Redgrave, E. M. Ward, Cilbert, Cruikshank, Webster, Hamilton, Cope, Dyce, C. Landseer, Frith, Horsley, Ford, Faed, and innumerable others of mark, the majority of whom have also painted historical subjects and landscape with success. In the latter branch of art, the most eminent painters of late years have been Creswick, Boddington, Linnell, and F. Lee. Roberts achieved celebrity by his delineations of Eastern life and travel; Haghe for Flemish interiors; Lance as the first painter of still-life of his time; Stanfield for his unrivalled sea-pieces; and, as animal painters, Sir Edwin Landseer, Ansdell, and Herring, stand in their several walks unrivalled. At the head of the English school of portrait-painting at the present day, is Sir Francis Grant, President of the Royal Academy. Among the chief names in the English school of water-color painting may be mentioned, Prout, Copley Fielding, Cox, Roberts, Hunt, Cattermole, Nash, Absolon, and E. Corbould. A new school grafted on the old, and called the *Pre-Raphaelite*, has for its chief representatives, Holman Hunt, Millais, and Dante G. Rossetti, the poet. In the U. States, painting, previous to the present century, made but scant progress. Benj. West, a native of Pennsylvania, the earliest of American painters, gained his reputation in England, as also did Copley, who in that country won celebrity by his portraits. C. W. Peale and Col. John Trumbull may be said to be the first native painters who practised their art to any noticeable extent in this country. The gallery of national portraits and pictures illustrative of American history now at New Haven would in themselves form the valuable nucleus of a national gallery of art. In the beginning of the present century, Malbone, Gilbert Stuart, and Allston, appeared as the expositors of American claims to artistic eminence: the first, a fine miniature painter; the second, scarcely inferior to Reynolds in portraiture; and the third, a worker of peculiar excellence in grand historical art. At the same period, too, portrait-painting found able operators in J. W. Jarvis and Thomas Sully; and historical pieces were ably treated by Vanderlyn. About 1825, Thos. Cole founded what may be styled the American school of landscape-painting, a department which was thenceforward more cultivated by American artists as a specialty. The works from Cole's atelier, though not remarkable for striking vigor of conception, are, nevertheless, characterized by a dreamy morality (as it were), in its type approaching to allegory. Of his pictures, the series forming *The Course of Empire*, and *The Voyage of Life*, are among the *chef d'œuvres* of American art. Immediately following Cole, appear the names of Inman, Durand, Fisher, and Doughty, of whom Doughty and Durand excelled in landscape, while Inman may be esteemed the first successful American master of *genre*. Besides these distinguished painters, we may mention Rembrandt Peale, Weir, Page, Huntington, Rothermel, and Buchanan Read, all of whom have figured in a more or less degree in historical representation, genre, and landscape,—Page being peculiarly notable as a colorist. Morse, Neagle, Ingham, Harding, and Fraser, form in themselves a group of "limners of the human face divine" of deserved celebrity. During the last 30 years, landscape-painting has derived a fresh and healthful impetus, and it is questioned if, in the art schools of Europe, there shall be found a higher development of talent in this department than exists now in this country. Prominent among the great names of the time are those of Bierstadt, Church, Kensett, G. L. Brown, Cropsey, Chapman, Casilear, W. and J. M. Hart, Mignot, Gignoux, Gifford, Colman, Gay, Cranch, Innes, Shattuck, Hubbard, Boughton, Dana, W. T. Richards, *cum multis aliis*. The works of these painters are, for the most part, characterized by close fidelity to nature, and are in general notably free from mannerisms and Old World conventionalisms. During the same period, genre has been cultivated with considerable success by Lambdin, Mount, Langer, Ehringer, May, Darley, Hoppin, Eastman, Johnson, Wm. Hunt, Edmonds, and others; miniature-painting by Staigg and Brown; while Beard, Hinckley, Tait, and Hays are well known animal painters. Historical art has comparatively few professors, doubtless owing to the lack of popular encouragement; there are, however, among them, the eminent names of Lentze, Rothermel, Rossiter, White, Gray, Terry, Schussele, and Powell.—With regard to *P.*, considered as an art, it may be said to consist of two chief parts,—*outline* and *design*. Outline is a design without color, and examples of it may be seen in the cartoons of Rafaelle, Retzsch, Flaxman, and others. Design, properly so called, includes outline, representing the contour of objects, together with color, which gives to the image not only the hue, but also the form and relief proper to the object. The technical processes of painting are oil-painting, water-color painting, encaustic-painting, miniature-painting, fresco-painting, enamel-painting, &c. There are at least ten branches of the art, viz. — history, grotesque, portraits, fancy, animals, flowers and fruits, seascape, landscape, still-life, and battle-pieces. In order to successfully prosecute the art, the painter should be well acquainted with anatomy, as otherwise the living model would be useless to him. Without perspective, he is unable to dispose the objects in his picture properly. Symmetry teaches him to observe the relative proportions of parts to each other; invention assists him in representing the action and expression of the persons employed in his picture; expression tells how to depict the passions and emotions of the mind. Coloring — that crowning beauty of the painter's art — has also its laws. All trifling, or artful play of little lights, or an attention to a variety of tints, is to be avoided; a quietness and simplicity should reign over the whole work, to which a breadth of uniform and simple color will greatly contribute. "Grandeur of effects is produced in two different ways, which seem totally opposed to each other. One is by reducing the colors to little more than chiaro-scuro, which was often the practice of the Bolognese school; and the other by making the colors very distinct and forcible, such as we see in those of Rome and Florence; but still the presiding principle in both those manners is simplicity."

Paint'less, *a.* That may not be painted, delineated, or represented.

Paint'ress, *n.* A female painter; a woman who paints.

Paint'-strake, *n.* (*Naut.*) The uppermost strake of plank immediately below the plank-sheer.

Paint'ville, in *Kentucky*, a post-village, cap. of Johnson co., abt. 140 m. E. by S. of Frankfort.

Pair, (*pâr,*) *n.* [Fr. *paire*, a pair, couple; *pair* = Lat. *par*, equal.] Two things that are equal in any respect; two things of a kind, similar in form, applied to the same purpose, and suited to each other or used together; a couple; a brace: as, a *pair* of gloves or shoes, a *pair* of horses, &c.; distinctively, a man and wife.

"Baucis and Philemon . . . a happy *pair*." — *Dryden.*

—*v. n.* To be joined in pairs: to couple; to go together: as, turtles *pair*. — To suit; to fit, as a counterpart.

"My heart was made to fit and *pair* with thine. — *Rowe.*

—*v. a.* To assort and place together in twos, as things that are equal, similar, suited, or adapted to each other; to unite in couples; to unite as correspondent, or rather to contrast.

To pair off, to depart in a pair or in pairs; hence, to come to an understanding with one of an opposite party or political faith, by which the votes of both are withheld from counting in the division of a legislative assembly; as, the honorable member *paired off* for the remainder of the session.

Pair'ing-off, *n.* (*Eng. Pol.*) A practical custom by which two members of a legislative body holding opposite political opinions, concur to absent themselves from divisions of the house during a specified period.

Pair'ing-time, *n.* The season when birds couple.

Pair'-royal, *a.* [Fr. *pair*, equal, and Eng. *royal.*] Three things of a kind; — used specifically in some games at cards. (Also, but incorrectly, written *parial* and *prial.*)

Paisiello, Giovanni, (*pai-se-ail'lo,*) a celebrated singer and composer, was the son of a veterinary surgeon of Taranto in Italy, and B. in 1741. He was put under the care of the celebrated Durante, and, in 1763, produced his first opera, *La Pupilla*, with great applause, at the Marzigli Theatre, in Bologna. From this period commenced a long career of success; and his works were not only applauded in Italy, but over the whole continent of Europe. D. at Naples, 1816. His operas, serious and comic, exceed 70, and he wrote, besides, a great variety of ballets, cantatas, &c. Simplicity, elegance, and correctness are the characteristics of his style.

Paisley, (*pāz'le,*) a manufacturing town of Scotland, co. of Renfrew, on the White Cart River, 8 m. S.W. of Glasgow. *Manuf.* Shawls, muslins, thread, scarfs, and gauzes.

Paixhans, Henri Joseph, (*paix'han,*) a French general of artillery, b. at Metz, 1783. He is the inventor of the guns and projectiles which bear his name. The Paixhans guns are adapted to throw shells and hollow shot. These guns and projectiles were used on board the Russian fleet at the battle of Sinope, when the Turkish ships were annihilated by their deadly effects. D. 1854.

Pajaro River, (*pah-ha'ro,*) in *California*, rises in the Coast Range, and flows W. into Monterey Bay.

—A township of Monterey co.

Paks, a town of Hungary, co. of Tolna, on the Danube, 62 m. S. of Buda: *pop.* 9,000.

Pal, *n.* An accomplice; a comrade; a partner; an associate. (Slang.)

Palace, (*pāl'ās,*) *n.* [Fr. *palais;* Lat. *Palatium*, the name of one of the hills on which Rome was built, and where Augustus had his residence.] A magnificent house in which a monarch, prince, or noble of high rank, resides; as, an imperial *palace*, a royal *palace*, a ducal *palace*, &c. In France, however, the term is used in a much more extended signification; as the Palais Législatif, and the Palais de la Bourse, in Paris.

Pal'adin, *n.* [Fr., from Lat. *Palatinus.*] A term originally derived from the Counts Palatine, or of the Palace, who were the highest dignitaries in the Byzantine court, and thence used generally for a lord or chieftain, and by the Italian romantic poets for a knight-errant.

Palæog'raphy, *n.* See Paleography.

Palæologus, an illustrious Byzantine family, first mentioned about 1078, when George *P.* was a faithful servant of the emperor Nicephorus III. He was killed while defending Dyrrhachium, or Durazzo, against the Normans in 1081. The *P.*, the last Greek family that occupied the throne of Constantinople, reigned from 1260 to 1453. A branch of the *P.* ruled over Montferrat in Italy from 1305 to 1530.

Palæontol'ogy, *n.* See Paleontology.

Palæozo'ic, *a.* [Gr. *palaios*, ancient, and *zōon*, an animal.] (*Geol.*) The term applied, by the universal consent of modern geologists, to the oldest of the three great groups of fossiliferous strata, commencing with the lower deposits of the new red sandstone, and continuing downwards into the rocks that have not yet been found to contain any fossils. The term simply means *old life*, and refers to the significant and unquestioned fact that in these rocks we see the remains of the most ancient known forms of life that were introduced on our globe. Involving thus no theory, it admits of universal application, and is very convenient. It has entirely replaced the term *primary*. The subdivisions of the *P.* series will be found under Geology.

Palais, (St.,) (*pal'ai,*) a seaport-town of France, dept. of Morbihan, on the N. side of the island of Belleisle. It has a small port, defended by a citadel. *Pop* 5,000.

Palamedes, a Grecian hero, the son of Nauplius, king of Eubœa. Being sent by the confederated leaders before Troy to visit Ulysses and find the cause of his refusal to join the expedition, Palamedes discovered that the insanity put on by the king of Ithaca, to avoid leaving his wife and kingdom, was only feigned, and accordingly brought the sage Ulysses back with him. Enraged at being detected in practising a fraud, Ulysses conceived a mortal hatred against the man who had unmasked his hypocrisy, and, resolving to work his ruin and death, bribed one of Palamedes' servants to dig a hole in his master's tent and conceal in it a large sum of money, with which he supplied him, and then carefully to cover the opening. Having effected the first part of his scheme, Ulysses next forged a letter purporting to come from Priam to Palamedes, in which the Trojan monarch reproached the Greek chief for not having sooner fulfilled his contract and delivered the Grecian army into his hands, according to the tenor of his promise and in return for the bribe already delivered to him as payment for his treachery. This letter was carried before the Grecian princes. Palamedes was summoned, and protested his innocence, but vainly, as the money was discovered in his tent. He was found guilty by all the army, and stoned to death. Homer is silent as to the miserable fate of Palamedes. Palamedes was a learned man, as well as a soldier, and, according to some, he completed the alphabet of Cadmus by the addition of some letters. To him, also, is attributed the invention of chess and backgammon.

Palamow, a dist. of British India, presidency of Bengal, between Lat. 23° 12′ and 24° 22′ N., Lon. 83° 18′ and 84° 31′ E.; *area*, 3,468 sq. m. Palamow, the cap., is situated on the Coyle or Koel River; Lat. 25° 52′ N., Lon. 84° 10′ E.

Palanquin, (*pal-an-kēēn',*) *n.* [Corrupted from Hind. *palkee*, a sedan.] A covered litter used in India, China, &c., borne on the shoulders of men. The cut (Fig. 2025) represents the kind used chiefly in the country districts, and often, also, named *dooly*.

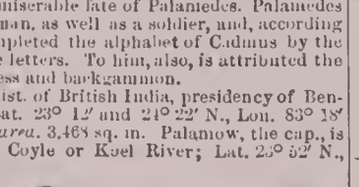


Fig. 2025. — palanquin.

Palatable, *a.* Agreeable to the palate or taste; savory; gustable; that is relished.

Palatableness, *n.* Quality of being palatable or agreeable to the taste; relish; gusto

Palatably, *adv.* In a manner agreeable to the taste or palate.

Palatal, *a.* [Fr. and Sp.] Pertaining or having reference to the palate; uttered by the aid of the palate.

—*n.* A letter pronounced by the aid of the palate, or an articulation of the root of the tongue with the roof of the mouth, as *g* soft, *ch* soft, or *j*.

Palate, *n.* [It. *palato;* Lat. *palatum.* Etymology unknown.] (*Anat.*) The root or upper part of the mouth. In man it is composed of two parts, — the hard palate, which forms an arch in the anterior part of the mouth; and the soft palate, which lies in the posterior part of the mouth, and consists of a membranous curtain of muscular and cellular tissue, from the middle of which hangs the uvula.

—The organ of taste; seat of gustation; relish; gusto; as, a tastidious *palate*.

—Mental relish; intellectual taste.

"The men of nice *palates* could not relish Aristotle as drest up by the schoolmen." —*Baker.*

Pal'ate, *n.* (*Bot.*) The convex base, or inward projection of the lower lip of a personate corolla.

Palatial, (*-lā'shal,*) *a.* [From Lat. *palatium*, palace.] Pertaining, or having reference to, or becoming a palace; magnificent; stately; as, a *palatial* residence, he lives in *palatial* style.

Palat'ic, *n.* A palatal. (R.)

Palatinate, (Lower,) or Palatinate of the Rhine, (*pa-lāt'i-nat.*) The name formerly given to two states of Germany, which were designated, by way of distinction, the Upper and Lower Palatinate, and though not contiguous, were under the control of the same sovereign till 1620. At that period they underwent great changes. Since the wars of the first French Revolution, which contributed more than any event on record to unsettle the ancient landmarks, they have been divided among different German sovereigns, and their very name has disappeared from the maps of Germany. The word *palatinate* is of feudal origin, and signifies in a more restricted sense the province or seigniory of a palatine, *i. e.* of a high dignitary during the Middle Ages, who originally held office in the court of the sovereign, and was designated the *comes palatii*, but who afterwards obtained, within his own province or district, the same power, rank, and jurisdiction, which the *comes palatii* possessed in the palace. Hence the old German title *pfalzgraf*, count-palatine; in English, *palsgrave*.

Pal'atine, *a.* and *n.* See Palatinate.

County palatine, in England, a county in which the crown formerly possessed rights of seigniory and jurisdiction; as, the *counties palatine* of Lancaster, Chester, Durham, and Cornwall.

Pal'atine, in *Illinois*, a post-village and township of Cook co., abt. 26 m. N.W of Chicago.

Pal'atine, in *New York*, a post-township of Montgomery co.

Pal'atine, in *W. Virginia*, a post-village of Marion co., on the Monongahela River, opposite Fairmount.

Palatine Bridge, in *New York*, a post-village of Montgomery co., abt. 55 m. W. by N. of Albany.

Palato-pharyn'geus, *n.* (*Anat.*) A muscle which arises at the root of the uvula and soft palate, and is inserted into the upper and back part of the thyroid cartilage; it draws the uvula and soft palate downwards and backwards, and pulls the thyroid cartilage and pharynx upwards.

Palaver, (*pa-lah'ver,*) *n.* [Sp. *palabra*, from Lat. *parabola.*] Nonsensical or idle talk; flattery; inconsequential speech; humkum; bosh; blarney. — A conference or formal debate; a public discussion or deliberation; as, to meet for *palaver*.

—*v. a.* or *v. n.* To hold a palaver; hence, to employ trivial, nonsensical, inconsequential talk; to bamboozle or humbug by words; to flatter.

Palav'erer, *n.* One who palavers, or talks blarney or humkum.

Palawan', or **Paragua,** an island of the Eastern Archipelago, between Borneo and the Philippine Islands; between Lat. 8° 37′ and 11° 30′ N., Lon. 117° and 120° E. Length, 275 m.; breadth, 30 m.

Pale, *a.* [Fr. *pâlir*, to grow pale; Lat. *pallidus*, pale, from *pallo*, to be or look pale.] Wan; deficient in color or bloom; pallid; not ruddy or fresh of color: as, a *pale* complexion, a *pale* blue, &c. — Dim; of a faint lustre; not bright, brilliant, or shining; as, the *pale* moonbeams.

(Note. *Pale* is frequently employed in the construction of self-explaining compound terms; as, *pale*-faced, *pale*-eyed, *pale*-looking, *pale*-colored, *pale*-visaged, &c.)

—*v. n.* To turn pale; to become pale; as, she *paled* with fright.

—*v. a.* To make pale.

Pale, *n.* [A. S. *pal, pīl;* D. *paal;* Dan. *pael;* Ger. *pfahl;* Lat. *palus*, a stake; It. *palo;* W. *pawl*, a pole.] A stake; a pole; a post; a rail used in fencing or inclosing; a pointed stake; a picket. — An inclosure; properly that which incloses; a fence; a boundary-mark.

"She tempts the stream, or leaps the *pales.*" —*Prior.*

—Hence, space inclosed; limited tract or region; as, out of the *pale* of humanity, within the *pale* of the Church, &c. — A cheese-scoop.

(*Her.*) The first and simplest kind of ordinary. See Ordinary, and Fig. 2000.

English pale. (*Hist.*) The term applied to the limits of the English territory held in Ireland for a period of nearly four centuries; as, the lords and castles of the *English pale*.

—*v. a.* To inclose or surround with pales, stakes, posts, or rails; to encompass; to inclose.

"Whate'er the ocean *pales.*" —*Shaks.*

Palazzuo'lo, a town of Italy, in Sicily, prov. of Syracuse, 13 m. N.W. of Noto; *pop.* 8,600.

Pale'a, or Paleæ, *n. pl.* [Lat., chaff.] (*Bot.*) A name given to the bracts stationed upon the receptacle of *Asteraceæ* between the florets, and having generally a membranous texture and no color; also, the interior bracts of the flowers of grasses.

Paleaceous, (*-ā'shus,*) *a.* [Lat. *palea*, chaff.] (*Bot.*) Chaffy; containing, or resembling, or consisting of chaff.

Pale'ly, *a.* Pallidly; wanly; not freshly or ruddily.

Palembang', a town of the island of Sumatra, cap. of a Dutch residency, on the Musi, 52 m. from the Soensang, its principal mouth in the Strait of Banca; Lat. 2° 58′ 51″ S., Lon. 104° 54′ E. It is intersected by numerous branches of the river Musi, on which account *P.* is sometimes called the "City of Twenty Islands." *Manuf.* Jewelry, cutlery, japanning, boat-building; also, cotton fabrics, and embroidered silk stuffs. It has considerable inland and foreign trade, the latter chiefly with Java, Banca, Singapore, China, and Siam. *Pop.* 44,000.

Palen'cia, a town of Spain, cap. of the prov. of Palencia, on the Carrion, 57 m. S.E. of Leon, and 118 m. N.N. W. of Madrid. *Manuf.* Woollen goods, blankets, coverlets, serge, hats, and earthenware.

Pale'ness, *n.* State or quality of being pale; wanness; defect or deficiency of color; a sickly whiteness of look; want of freshness or ruddiness; as, *paleness* of countenance. —Want of color or lustre; as, *paleness* of light, *paleness* of tint.

Pal'enque, a village of Mexico, state of Chiapas, abt. 100 m. E.N.E. of Ciudad-Real. About 7 m. S.W. of it are some of the most extensive and magnificent ruins in Central America. They consist of vast artificial terraces, or terraced truncated pyramids, of cut stone, surmounted by edifices of peculiar and solid architecture, also of cut stone, covered with figures in relief, or figures and hieroglyphics in stucco, with remains of brilliant colors. Most of the buildings are of one story, but a few are two, three, and some may have been four stories. The principal structure, known as the Palace, is 228 ft. long, 180 feet deep, and 25 feet high, standing on a terraced truncated pyramid of corresponding dimensions. It was faced with cut stone, cemented with mortar of lime and sand, and the front covered with stucco, and painted. A corridor runs around the building, opening into four interior courts, which open into many smaller rooms. On slabs of stone are carved numerous colossal figures, and the remains of statues more resemble Grecian than Egyptian or Hindoo art. Other spacious and elaborately ornamented buildings appear to have been temples of religion. These ruins were in the same condition when Cortez conquered Mexico, as now, overgrown with a forest, and their site forgotten. They were only discovered in 1750. Three explorations were made by the Spanish government, but they were little known until visited by Messrs. J. L. Stephens and F. Catherwood, and their account published with plans and drawings. (See Stephens' *Incidents of Travel in Central America, &c.*; and Catherwood's *Views of Ancient Monuments of Central America, &c.*) There are in Mexico dim traditions of the existence, at a remote period, of the capital of a theocratic state, the centre of a long since extinguished civilization, of which the only traces are these wonderful ruins and unexplained hieroglyphics.

Pal'eograph, Pal'æograph, *n.* An ancient manuscript.

Paleog'rapher, Palæog'rapher, *n.* One skilled in paleography.

Paleograph'ic, Paleograph'ical, Palæograph'ic, Palæograph'ical, *a.* [Fr. *paléographique.*] Pertaining, or having reference to paleography

Paleog'raphist, Palæog'raphist, *n.* Same as Paleographer, *q. v.*

Paleog'raphy, Palæog'raphy, *n.* [Gr. *palaios*, old, ancient, from *palai*, of old, and *graphō*, to write.] The science or art of deciphering ancient inscriptions, including the knowledge of the various characters used at different periods by the writers and sculptors of different nations and languages, their usual abbreviations, initials, &c. The science termed *diplomatics* is, in effect, a branch of paleography.

Paleol'ogist, *n.* A student of antiquity; one skilled in paleology.

Paleol'ogy, *n.* [Gr. *palaios*, ancient, and *logos*, treatise.] A discourse or treatise on antiquities, or the knowledge of ancient things: archæology.

Paleontograph'ical, *a.* Belonging, or having reference to the description of fossil remains.

Paleontog'raphy, *n.* [Gr. *palaios*, ancient, *onta*, existences, and *graphein*, to depict.] That branch of science which describes fossil remains.

Paleontolog'ical, *a.* [Fr. *paléontologique.*] Pertaining, or relating to paleontology.

Paleontol'ogist, *n.* [Fr. *paléontologiste.*] One versed in paleontology.

Paleontol'ogy, *n.* [Gr. *palaios*, ancient, *on, ontos*, being, from *eimi*, to be, and *logos*, treatise.] That branch of natural science which treats of fossil organic remains. Much of the light that has been thrown, of late years, on the formation and constitution of the globe is due to the discoveries and investigations of paleontology. The geologist, by its means, is able to trace the successive orders of animals and plants which have inhabited the earth at different periods of its existence. All fossiliferous systems may be viewed in two great aspects, — either as regards their mere mineral and physical relations, or as regards the plants and animals found as fossils in their strata. The former constitutes the *lithology*, and the latter the *paleontology*, of a formation. In order, however, to arrive at a

knowledge of the cosmical conditions which regulated the deposition of the strata of a system, an acquaintance with botany and geology is indispensable to the geologist, in order that he may be able to apply their general principles to the solutions of those problems that arise out of the science he is investigating.

Paleosau'rus, *n.* [Gr. *palaios*, ancient, and *sauros*, lizard.] (*Pal.*) A genus of extinct lizards, characteristic of the magnesian conglomerate.

Paleothe'rium, *n.* [Fr. *paléothérium*, from Gr. *palaios*, ancient, and *therium*, beast.] (*Pal.*) A genus of pachydermatous mammalia, whose remains occur in the Eocene beds of England and the Continent. At least 10 species have been described, ranging in size from that of a sheep to that of a horse. The upper Eocene gypseous quarries of Montmartre supplied the first scanty materials, which Cuvier, by a series of careful and instructive inductions, built up into an animal, whose fidelity to nature was afterwards verified by the discovery of a complete series of fossils. In general appearance the *P.* resembled the modern Tapir, and especially in having the snout terminating in a short proboscis. It had 3 toes on each foot, each terminated by a hoof. — The formula of the teeth is the same as that of the Hyracothere. It is supposed that animals of this genus dwelt on the margins of lakes and rivers, and that their habits were similar to those of the tapir.

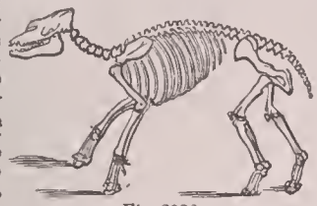


Fig. 2026.
SKELETON OF PALEOTHERIUM, (restored.)

Paleozo'ic, *a.* (*Geol.*) See PALÆOZOIC.

Paler mitan, *n.* (*Geog.*) A native or inhabitant of Palermo, Sicily

—*a.* (*Geog.*) Belonging, or having reference to the city of Palermo, or to its inhabitants.

Paler mo, (anc *Panormus,*) the cap. city, and a seaport of Sicily, on its N.W. extremity; Lat. 38° 8′ 2″ N., Lon. 13° 22′ 2″ E. It is built on the S.W. of an extensive bay, in a plain, which, from its luxuriance and from being surrounded by mountains on three sides, has been termed the "golden shell." In the front of the city is the *Marina*, a raised terrace, extending more than 1 m. along the bay, and is about 200 feet wide. The principal public buildings are, the royal palace, the tribunal of justice, the custom-house (formerly, palace of the Inquisition), the cathedral, Jesuit's college, and the splendid new opera house, numerous churches and convents, the former profusely ornamented. Near *P.* are many fine specimens of Saracenic architecture. *Manuf.* Silk and cotton fabrics, glass, oil-cloth, and leather. Nearly 1,000 boats, and 3,500 fishermen are engaged in the tunny fishery. *Exp.* Principally sumach, fruits, wine, manna, and brimstone. *P.*, the anc. *Panormus*, is first mentioned in history B.C 480, when the Carthaginians made it a naval station. It was taken by the Romans B. C. 254, and it became one of their principal naval stations. It fell, with the rest of Sicily, into the hands of the Goths, in 493. The Saracens captured it in 835, and made it the cap. of their Sicilian territories. The Normans took it in 1072, and in 1282 it was the scene of the massacre called the "Sicilian Vespers." When Sicily was united to Naples, the court was removed from *P.*, but again resided here from 1806 to 1814. Palermo was taken by Garibaldi in May, 1860.

Paler'mo, in *Iowa*, a township of Grundy co.

Palermo, in *Kansas*, a post-village of Doniphan co., about 8 m. S.W. of St. Joseph.

Palermo, in *Maine*, a post-township of Waldo county.

Palermo, in *New York*, a post-township of Oswego co.

Pales'tia, Palæs'tia, *n.* [Gr. *palaistia*, from *palē*, a wrestling, from *pallo*, to wield, to swing round.] (*Antiq.*) A wrestling; exercise of wrestling. — A place for wrestling; an arena for athletic exercises in ancient Greece.

Pal'estine, or HOLY LAND, a country of S.W. Asia, comprising the S. part of Syria, and forming the modern pashalics of Acre, Gaza, and the S. part of Damascus; Lat. between 30° 40′ and 33° 32′ N., Lon. 33° 35′ and 36° 48′ E; having N. the pashalic of Tripoli, S.E. and S. the Arabian Desert, and W. the Mediterranean. — *Ext.* 193 m. in length, and 75 in average breadth. *Area*, 11,000 sq. m. — *Desc.* The surface is generally mountainous, interspersed from N. to S. by the mountain

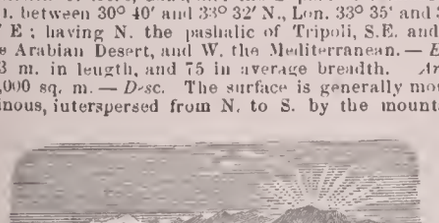


Fig. 2027. — LEBANON FROM BEYROUT.

chain of Lebanon, Mount Hermon, the highest peak, attaining an elevation of 10,000 ft. There are numerous other peaks, none exceeding 3,000 feet in height, but some of which are made famous by their frequent mention in sacred history, viz.: — Mount Carmel, forming a promontory in the Mediterranean on the S.W. of the Bay of Acre; Mount Tabor, the modern Jebel Toor, at the N.E. extremity of the plain of Esdraelon, Ebal and Gerizim, in Samaria; Gilead, and Nebo or Pisgah, E. of the Jordan; and Zion, Moriah, and the Mount of Olives, in or near Jerusalem. Judæa proper, the ancient kingdom of Judah, comprises the territory extending from Lake Asphaltites to the sea, and consists of hills and valleys of great beauty and fertility, where the sides of the mountains are adapted to the vine, the olive, the sycamore, and are crowned with natural groves of oak and cypress; while the earth is abundantly covered with aromatic plants. In proceeding eastward to the shores of the Dead Sea, the scene becomes more decidedly barren. Gloomy and naked rocks, stones, sand, and ashes, are the only objects which then present themselves. To the N. of ancient Judæa was Samaria, a mountainous district, but flourishing and well cultivated. To the N. of Samaria, but still communicating with Judæa by the banks of the Jordan, is Galilee, distinguished by its natural beauty and fertility. The plain of Esdraelon is described by Dr. Clarke as one vast meadow, covered with the richest pasture. He considers this as the richest part of all Palestine. The Lake of Tiberias, or Gennesareth, is surrounded by lofty and picturesque hills, the sides of which were once highly cultivated, and its banks covered with flourishing towns, now almost deserted. The regions beyond Jordan, though less noticed in history, include, however, many tracts once fertile and flourishing. Here are found the Hauran and Dschaulan, consisting of a vast plain, not watered by any great river; yet the inhabitants contrive, by collecting the torrents and rain-water into ponds, to obtain a sufficient supply for the purposes of agriculture: so that very extensive crops of grain are raised in the district. In many parts there are the remains of ancient ruins. *Rivers.* Jordan, Jarmuth, Kishon, and the Nahr. Naman or Belus. — *Lakes.* Tiberias, Gennesareth, and the Dead Sea. — *Clim.* Very fine in the dry season. Frosts are slight in winter, except in the elevated parts, where snow occasionally falls. — *Prod.* Wheat, barley, millet, tobacco, and fruits. The name Palestine is derived from the Hebrew *Pelescheth*, or land of the Philistines, and is properly applicable to the S.W. portion of the country. Its most ancient name was Canaan, its inhabitants being descended from Canaan, the fourth son of Ham and grandson of Noah. In the time of Moses the country E. of the Jordan was conquered and divided among the tribes of Reuben and Gad, and half of the tribe of Manasseh; under Joshua the remainder was conquered and divided between the other ten tribes. Under the reigns of David and Solomon it became one of the most flourishing kingdoms of Asia. It was conquered, however, by the

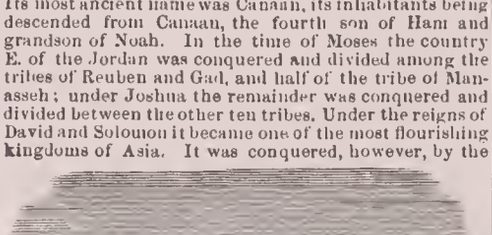


Fig. 2028. — SAMARIA.

kings of Nineveh and Babylon, who carried captive first Israel and then Judah, into the E. provs. of their empire. After the conquest of Babylon by Cyrus, the Jews were allowed to return to their country, to rebuild their temple, and reëstablish their ecclesiastical constitution. *P.* continued thus a prov. of Persia till after the conquest of Alexander, to whom it submitted without resistance. The Jews were again exposed to oppression from some of the Ptolemies, who having attempted to enforce the adoption of the Grecian idolatry, were met with the most determined resistance by the Maccabees, and Judæa now became an independent country. It subsequently fell under the dominion of Rome, who established the Herods as tributary kings. It was at this period that *P.* became the theatre of those great events which form the foundation of Christianity. The Jews, however, having rebelled repeatedly against the Romans, Titus entered Judæa with a large army, took Jerusalem, which he razed to the ground, and carried the whole nation captive, dispersing them throughout the Roman empire. The country remained in the power of the Romans till the conversion of the empire to Christianity, when it became an object of religious veneration. In the 6th century it fell under the sway of the Mohammedans, which gave occasion to the Crusades. Jerusalem was taken by the European forces, and was under Godfrey of Bouillon erected into a Latin kingdom, which endured for above 80 years, during which the Holy Land streamed with Christian and Saracen blood. In 1187 Judæa was conquered by Saladin, on the decline of whose kingdom it passed through various hands, till, in 1517, it was finally added to the Turkish empire. A railroad connecting Jaffa with Jerusalem has been constructed, and a harbor made at Jaffa.

Pal'estine, in *Illinois*, a post-village of Crawford co. —A township of Woodford co.

Pal'estine, in *Indiana*, a village of Franklin co. — A post-village of Kosciusko co.—A village of Monroe co., abt. 10 m. S.W. of Bloomington.

Pal'estine, in *Iowa*, a township of Storey county.

Pal'estine, in *Ohio*, a village of Adams co., abt. 36 m. S.W. of Chillicothe. — A township of Clermont co., abt. 16 m. E. of Cincinnati.—A township of Columbia co., abt. 165 m. N.E. of Columbus. — A township of Darke co., abt. 100 m. W. of Columbus. — A post-village of Pickaway co., abt. 20 m. S S W. of Columbus. — A village of Shelby co., abt. 61 m. W.N.W. of Columbus.

Pal'estine, in *Tennessee*, a post-village of Hickman co., abt. 68 m. S.W. of Nashville.

Pal'estine, in *Texas*, a post-village, cap. of Anderson co., abt. 200 m. N.E. of Austin.

Pal'estine, in *W Virginia*, a post-village of Greenbrier co., abt 12 m. W.S.W. of Lewis.

Palestin'ean, *a.* (*Geog.*) Pertaining, or relating to Palestine.

Pales'trian, Pales'tric, Pales'trical, *a.* [Gr. *palaistrikos*, expert in wrestling.] Pertaining, or relating to the exercise of wrestling. (Also written *palæstrian, palæstric*, and *palæstrical.*)

Palestrina, GIOVANNI PIETRO ALOYSIO DA, (*pa-laistre'na,*) a celebrated Italian musician and composer, b. at Palestrina, an ancient city 20 m. from Rome, in 1529; and was admitted into the Pope's Chapel in 1559. This musician holds the most prominent rank as a composer of ecclesiastical music of that age, his *motetts, masses*, and *chants* being still in use. Palestrina has been regarded as the Homer of ancient music and the father of choral melody. D. in 1594.

Palestri'na, (anc. PRÆNESTE,) a town of Italy, in the Pontifical States, 22 m. E S E of Rome; *pop.* 4,630.

Palestri'na, Pelestri'na, a town of Italy, on a narrow island of the Lagoons, in the Adriatic, 6 m. S. of Venice; *pop* 4,000.

Palestro, (*pa-lois'tro,*) a town of Italy, situate on the left bank of the Sesia, opposite Robbio. Two battles were fought near this town, between the Austrians and the Sardinians aided by the French, 1859. The first took place May 30, when the French and Sardinians were victorious, capturing more than 1,000 prisoners and 80 cannon; and the second May 31, when the French and Sardinians were again successful.

Paletot, (*păl'e-to,*) *n.* [Fr.] A loose overcoat.

Palette', Pallet', *n.* [Fr. *palette*, from L. Lat. *paleta*, dimin. of Lat. *pala*, a spade or shovel.] (*Painting.*) A little oval table or board, or piece of porcelain or ivory, on which a painter places his pigments for immediate use.

(*Archæol.*) In ancient armor, one of the points covering the junction of the back and breast plates.

To set the palette. (*Paint.*) To set or lay the pigments in order for use.

Palette'-knife, *n.* A flat, thin knife, rounded at the extremity, and used by painters to mix colors on the grinding-slab.

Pale'-wise, *a.* (*Her.*) See ORDINARY.

Pai'frey, JOHN GORHAM, an American clergyman, politician, and author, b. in Boston, 1796. He graduated at Harvard College, 1815, was ordained, 1818, as minister of the Congregational church in Brattle Square, Boston, was appointed, 1831, to the Dexter professorship of Sacred Literature in the Divinity school of Harvard University, and assumed in 1835 the editorship of the "North American Review," which he conducted till 1842. In 1847 he was elected to Congress by the Whigs of Middlesex county of Massachusetts, and became one of the acknowledged leaders of the Free-Soil party, and one of the most popular speakers and writers. His re-election to Congress was contested with unusual pertinacity, and after 17 successive elections without a choice, he was defeated, and from that time devoted himself entirely to literature. His principal works are: *Evidences of Christianity; Lectures on the Jewish Scriptures and Antiquities; Harmony of the Gospels;* and *History of New England.* D. April 26, 1881.

Palfrey, (*pawl'fre,*) *n.* [Fr. *palefroi — par le frein*, by the bridle, because parade and ladies' horses were led by the bridle by squires.] A saddle-horse used for the road or for state purposes, as distinguished from a war-horse. — A small horse adapted to ladies.

Palil'ogy, *n.* [Gr. *palin*, again, and *lego*, to speak.] (*Rhet.*) The repetition of a word or part of a sentence, for the sake of greater energy.

Pal'impsest, *n.* [Gr. *palin*, again, and *phao*, to rub.] (*Anat.*) A parchment from which the original writing has been erased by means of pumice stone or some other substance, to make room for a fresh subject being written thereon.

Pal'indrome, *n.* [Gr. *palin*, back, and *dromos*, a running.] A word, verse, or sentence that is the same when read backward or forward; as *madam.*

Palindrom'ic, PALINDROMICAL, *a.* In the manner of, or pertaining to a palindrome

Pal'ing, *n.* A fence formed with pales; or pales taken collectively.

Palingen'esis, Palingen'esy, Palingenesia, *n.* [Gr. *palingenesia*, from *palin*, again, and *genesis*, birth.] (*Phil.*) A new or second birth; regeneration. The doctrine of the destruction and reproduction of worlds

and living beings is Oriental; but the word in question appears to be of Stoical origin. (*Diog. Laert.* vii. 72.) The Stoics are said to have held that the demiurgus, or creator, had absorbed all being in himself, and reproduced it out of himself.

Pal'ing-man, *n.; pl.* PALING-MEN. (*Hist.*) One born in that part of Ireland formerly called the jurisdiction of the English *pale*.

Pal'inode, *n.* [Gr. *palinōdia*, from *palin*, back, and *ōde*, an ode.] (*Poetry.*) A recantation; — properly a piece in which the poet retracts the invectives contained in a former ode; a declaration contrary to a former one.

Pâli, *n.* [A corruption of the Sanskrit *Prâkrit*.] The name of the sacred language of the Buddhists.

Palino'dial, *a.* Pertaining to a palinode.

Palinu'rus, *n.; pl.* PALINURI. [Lat. *Palinuris*, the pilot of Æneas.] (*Zoöl.*) A genus of crustaceans; the spiny lobster.

Palisade', *n.* [Fr. *palissade*, from Lat. *palus*, a pole or stake.] (*Fort.*) A fence or fortification consisting of a row of pales, stakes, or posts, sharpened and set firmly in the ground, as a means of defence.

Palisades, in *New Jersey*, a basaltic formation in Bergen co., extending along the Hudson River from Piermont, S. abt. 20 m., and rising precipitously to a height of from 400 to 500 ft.

Pal'ish, *a.* Somewhat pale, or wan.

Palissy, BERNARD, (*pa-lis'se,*) a celebrated French potter and chemist, B. at Algen, abt. 1508, who, for his ingenuity in painting on glass and other works, was patronized by Henri III. He wrote several works upon natural philosophy, and upon subjects connected with the art of pottery. The best edition of his works, which are full of valuable and curious experiments, is that of Paris. (1848,) with the notes of M. Faujas de St. Fond. His pottery has become celebrated, and few things are more prized by the connoisseur than the famous "Palissy ware." Being a Protestant, he was arrested by the Leaguers toward the end of the reign of Henri III., and D. in the Bastille, 1589. — Mr. Morley has written an interesting biography of "Palissy the Potter."

Paliu'rus, *n.* (*Bot.*) A genus of plants, order *Rhamnaceæ*. They are deciduous shrubs or low trees, with slender, pliant branches, and ovate 3-nerved leaves, each of which has two sharp spines at the base, one straight and the other recurved.

P. Aculeatus, the Christ's thorn, Jew's thorn, or Buckler thorn, fancifully supposed to have supplied the crown of thorns with which Christ was crowned, is

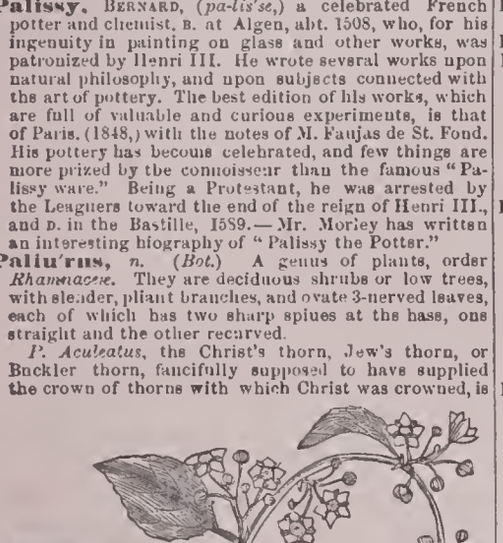


Fig. 2029. — CHRIST'S THORN, (*Paliurus aculeatus.*)
a, Ripe fruit.

native of the country around the Mediterranean, and is often used for hedges, its sharp spines and pliant branches admirably adapting it for this purpose. Its fruit has a singular appearance, being flat and thin, attached by the middle to a foot-stalk, the middle being raised like a hat, or shield, while the expansion resembles the brim. Hence, probably, the name Buckler-thorn.

Palk Strait, (*pawk-,*) that portion of the Indian Ocean which separates Ceylon from the mainland of India, Lat. 10° N., Lon. 80° E. It is 40 m. wide in its narrowest part.

Pal'kee, *n.* [Hind. *pâlki.*] In India, a palanquin.

Pall, (*pawl.*) *n.* [A. S. *pæll*, a cloak; Lat. *pallium.*] A covering; a cloak. — A mantle of state. — The mantle of an archbishop. — The cloth thrown over a dead body at funerals.

(*Her.*) The upper part of a saltire conjoined to the lower part of a pale. It often appears in the arms of the ecclesiastical sees.

(*Mach.*) See PAWL.

—*v. a.* To cover or invest; to cloak.

Pall, *v. n.* [W. *palla*, to fail, *pall*, loss of power.] To become vapid: to lose strength, life, or spirit; to become cloying or surfeiting; to become tasteless or insipid.

—*v. a.* To make vapid or insipid. — To make spiritless; to dispirit; to depress.

Pal'la, *n.* (*Antiq.*) Among the Romans, a piece of cloth resembling a scarf, worn by females, and fastened with a brooch.

Palladium, (*păl-lai'de-um,*) *n.* [Gr. *Palladion*, from *Pallas, Palludos*, Pallas.] (*Heroic Hist.*) A famous wooden statue of Pallas, whose eyes appeared to move. The Trojans believed that the image of the goddess fell suddenly from heaven into an unfinished temple, and were told by the oracle that Troy would never be taken while the statue remained in its walls. The Greek chiefs Ulysses and Diomedes, hearing this prophecy, watched their opportunity, stole into the city, reached the temple, and, killing the attendants who kept guard over the heavenly present, carried the Palladium in safety to the Grecian camp. The fall of Troy was not long delayed after this exploit had been achieved.

(*Chem.*) One of the rare metals found in the ores of platinum in the proportion of 1 to ⅛th per cent. It is a white, hard metal, having a specific gravity of 11·8. It is very infusible, but melts readily in Deville's oxyhydrogen furnace. Its rarity has prevented its application to numerous useful purposes. It forms three oxides, and several other compounds at present little known. It has a stronger affinity for cyanogen than any other metal, and forms a series of double cyanides. It readily combines with gold, forming a peculiarly white alloy, even when present in small proportions. It was discovered by Wollaston in 1803, and was thus named by him from the planet Pallas, discovered the year before. *Symbol* Pd.

Pal'lah, *n.* (*Zoöl.*) A species of antelope; *Antilope melampus.*

Pal'las. (*Gr. Myth.*) A name of MINERVA, *q. v.*

Pal'las, *n.* (*Astron.*) One of the asteroids or smaller planets discovered by Olbers, at Bremen, on the 28th of March, 1802. The size of Pallas has not been measured with accuracy, but it is known to be exceedingly small. In the *Annuaire du Bureau des Longitudes*, the following elements are given of the orbit of Pallas by M. Laugier: — Eccentricity, 0·2394280; inclination, 34° 37′ 20″; longitude of the perihelion, 121° 24′ 11″.

Pal'las, a freedman of the Emperor Claudius, over whom he had so great an ascendancy as to persuade him to espouse Agrippina, his niece, and to adopt Nero for his successor. Pallas, in concert with Agrippina, is charged with having hastened the death of Claudius by poison. Nero subsequently caused him to be secretly put to death, confiscated his treasure, amounting to upwards of £2,000,000 sterling; but erected a superb monument to his memory. Pallas was brother to the Felix before whom St. Paul pleaded.

Pal'las, PETER SIMON, a celebrated German traveller and naturalist, was B. at Berlin in 1741. He studied at Halle, Göttingen, and Leyden, and after making a long visit to England, everywhere applying himself to his favorite science, zoölogy, he settled at the Hague. Having gained a great reputation by several scientific works, he was called in 1767 to St. Petersburg by Catherine II., and named professor of natural history in the academy. In the following year he set out with the expedition sent to Siberia to observe the transit of Venus, penetrated to the borders of China, and after great hardships and fatigues, and the loss of most of his companions, he returned to St. Petersburg in 1774. There he lived for nearly 20 years, loaded with honors, made tutor to the Grand-dukes Alexander and Constantine, and very busily engaged in literary labors. By his own desire he afterwards settled in the Crimea, the empress giving him a fine house and a good income. But in 1810 he returned to Berlin, and D. there the following year. The principal works of this laborious observer are — *Elenchus Zoöphytorum*; *Spicilegia Zoölogica*; *Observations on the Formation of Mountains*; *History of the Mongolian Nations*; *Travels through the various parts of the Russian empire*; and *Zoögruphia Russo-Asiatica*. These works are of great value as storehouses of facts, and facts of very diversified kinds. Cuvier assigned to P. very high rank as a zoölogist, and asserted that by his observation of the order of succession of the granite, slate, and chalk series of rocks, he originated modern geology. P. was a member of the French Institute, the Royal Society of London, and many other scientific bodies.

Pallas, in *Missouri*, a post-village of Greene co., abt. 10 m. S.E. of Springfield.

Pallavicino, SFORZA, (*pal-la-ve-che'no,*) a learned and pious cardinal, B. at Rome, 1607. He was employed by Pope Innocent X. in various important affairs, and obtained a cardinal's hat in 1657. He wrote a *History of the Council of Trent*, intended as a reply to the great work of Father Paul on the same Council. D. 1667.

Pall'-bearer, *n.* One who carries the pall of a coffin at a funeral.

Pal'let, *n.* [Fr *palette*, from L. Lat. *paleta*, dim. of Lat. *pala*, a spade.] (*Paint.*) A little oval table or board, or piece of ivory on which the painter places the colors to be used. (See PALETTE.) — A wooden instrument used by potters, &c.

(*Gilding.*) An instrument used to detach gold-leaf from the pillow, and apply or extend it.

(*Her.*) A pale less in breadth than the third of the escutcheon.

(*Horology.*) The name given to the pieces connected with the pendulum or balance which receive the immediate impulse of the swing-wheel or balance-wheel. They are of various forms and constructions, according to the kind of escapement employed.

(*Med.*) A measure formerly used by apothecaries, containing three ounces.

—[Fr. *paille*, straw; Lat. *palea*, chaff.] A small bed of chaff or straw.

Pal'li, a town of Hindostan, in Rajputana, prov. of Joudpore, on a branch of the Luni River; Lat. 25° 48′ N., Lon. 73° 24′ E. It is the entrepot for the opium sent from Malwah to Bombay, and has an extensive commerce. *Pop.* 50,000.

Pal'lial, *a.* [From *pallium*, a mantle.] Pertaining or having relation to the mantle of molluscs.

Palliasse, (*pal-yas',*) *n.* Same as PALIASSE, *q. v.*

Pal'liate, *v. a.* [Fr. *pallier;* Lat. *palliatus*, from *pallium*, a cloak or mantle.] To cover with excuse; to conceal the enormity, as of offences by excuses and apologies; to extenuate; to lessen; to soften by favorable representation; as, to *palliate* a crime.—To reduce in violence; to mitigate; to lessen or abate; to alleviate; as, to *palliate* suffering.

—*a.* Eased; lightened; assuaged: mitigated.

Palliation, *n.* [Fr.] Concealment of the most flagrant circumstances of an offence; extenuation by favorable representation; as, *palliation* of wrong.

—Mitigation; alleviation; abatement; as, *palliation* of a disease.

Pal'liative, *a.* [Fr. *palliatif.*] Extenuating; serving to extenuate by excuses or favorable representations.

—Mitigating; alleviating, as pain or disease.

—*n.* That which palliates or extenuates; excuse.

—That which mitigates, alleviates, or abates the violence of pain, disease, or other evil.

Pal'lid, *a.* [Lat. *pallidus*, from *palleo*, to be or look pale.] Pale; wan; deficient in color; not high-colored; as, a *pallid* face.

Pal'lidly, *adv.* Palely; wanly; not freshly or ruddily.

Pal'lidness, *n.* Paleness; wanness; pallor; not freshness or ruddiness.

Palling, (*pawl'ing,*) *a.* Making or becoming vapid or insipid.

—*n.* Insipidity; the state of being insipid or cloyed.

Pal'liser's Islands, a group in the S. Pacific Ocean: Lat. 15° S., Lon. 145° W.

Pallium, (*păl'le-am,*) *n.* [Lat., a cloak.] (*Antiq.*) A square woollen cloak much worn by the Greeks, resembling the *toga* of the Roman citizens. It was formed of woollen cloth cut square, and was worn over the tunic, or sometimes, indeed, over the naked body as the sole covering; being fastened to the shoulder or neck by a fibula or brooch. According to Fairholt, it was the cheapest, most serviceable, and simplest mode of clothing adopted by the Greeks, who are often represented upon ancient vases as clothed with no other article of dress. Apparently it resembled the *bournous* adopted by the Arabs, as a soldier could wrap himself at night in its ample folds, and sleep secure from damp and cold. It was sometimes decorated with embroidery, but had usually merely a simple border.

(*Eccl.*) A vestment which by ancient usage is sent from Rome to all archbishops of the Roman Catholic Church, and to the four Latin patriarchs of the East, on their accession. It is now a white woollen band, made round, and worn over the shoulders, crossed in front, with one end hanging down over the breast; the other behind it, is ornamented with purple crosses, and fastened by three golden needles or pins. It was the custom, at the period of the greatest power of the Roman see, for the archbishops to come to Rome for the purpose of receiving it; it is now delivered as a mandatory, or merely by a delegate from Rome. Some simple bishops receive the pallium as a mark of honor. The cloth of which the pallium is made is woven from the wool of ten white lambs, blessed at Rome on the festival of St. Agnes, and deposited on the tomb of St Peter during the eve of his festival.

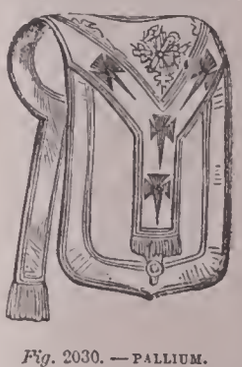


Fig. 2030. — PALLIUM.

Pall-mall, (pron. *pell-mell,*) *n.* (*Games.*) An athletic game in which a ball is driven through an iron ring with a mallet that strikes the ball. This game, once very fashionable in England, was played in the neighborhood of St. James' Park in the time of Charles II., and has given name to the celebrated street in London, running along the side of this park, called Pall-mall.

Pal'lor, *n.* [Lat.] Paleness; absence of color or bloom.

Palls, *n. pl.* (*Ship-building.*) Strong, short pieces of wood or iron, placed near the capstan or windlass, to prevent their recoiling.

Palm, (*päm,*) *n.* [Fr. *palme*; Lat. *palma*, from Gr. *palāmē*, the palm of the hand.] The hand spread out; the inner part of the hand.

(*Measures.*) An ancient measure of length taken from the extent of the hand. There were two different palms, — one corresponding to the length of the hand, and the other to the breadth. The Roman palm was about eight and a half English inches. The English palm is understood to be three inches.

(*Naut.*) A peculiar thimble used in sail-making. The word also denotes the flattened end of each arm of an anchor, terminating in a point to enter the ground, while the breadth of the palm gives a good hold.

(*Bot.*) See PALMACEÆ.

—The broad part of the antlers of a full-grown stag; as, a *palm* of sixteen branches. — A branch of palm or laurel anciently borne as a symbol of victory or jubilation. — Hence, the mark or symbol of superiority or success; a token of triumph or victory; as, to carry off the *palm*.

Palm, *v. a* To handle; to paw or touch with the hand. — To hide in the palm of the hand.

"They *palmed* the trick that lost the game."—*Prior.*

—To impose by deception; to put off by unfair or fraudulent means;—generally with *off*; as, he *palmed off* spurious coin upon me.

Pal'ma, one of the Canary Islands, in the Atlantic Ocean, off the W. coast of Africa; Lat. 28° 45′ N., Lon. 17° 50′ W. *Area*, 330 sq. m. The surface is elevated, attaining in its highest elevation 7,000 ft. The valleys are fertile and well wooded. *Prod.* Wine, fruits, wax, honey, and sugar. *Manuf.* Silk. *Chief towns.* Santa Cruz and Fazacorte. *Pop.* 35,000.

Pal'ma, a town of Italy, in Sicily, prov. of Girgenti, 13 m. S.E. of Girgenti. *Pop.* 8,000.

Pal'ma, in Spain, a town, prov. of Cordova, at the junction of the Guadalquivir with the Xenil, 30 m. S.W. of Cordova. *Pop.* 5,500. — A town, prov. of Huelva, 26 m. N.E. of Huelva. *Pop.* 4,000.

Pal'ma, a fortified town, cap. of the island of Majorca, in the Bay of Palmas, on its S.W. coast, 130 m. S. of Barcelona: Lat. 39° 34′ N., Lon. 2° 45′ E. *Manuf.* Woollens, silks, linens, glass, thread, and brandy. The port is small, and admits only vessels of light draught.

Palma'ceæ, *n.* (*Bot.*) The Palm family, an order of plants, alliance *Palmales*. DIAG. Perfect flowers, seated on a branched scaly spadix, and a minute embryo lodged below the surface of horny or fleshy albumeu. — They are characterized as having trunk arborescent, simple, occasionally shrubby, sometimes branched, rough with the dilated half-sheathing bases of the leaves or their scars. — Leaves clustered, terminal, usually very large, pinnate or flabelliform, plaited with parallel simple veins, in some cases croded and wedge-shaped. Flowers small; sepals 3, colorless, fleshy or leathery, persistent; fruit drupaceous, or nut-like, or berried, often with a fibrous rind. The plants of this order are native of tropical regions, aud are among the most valuable to mankind, as affordiug food, and raiment, and numerous objects of economical importance. Wine, oil, wax, flour, sugar, and salt," says Humboldt, are the produce of this tribe; to which Von Martius adds, thread, ntensils, weapons, food, and habitations. The order includes 73 genera and 400 (or, according to Martius, 1000) species, the most important of which are noticed in separate articles

Fig. 2031.—PALM-TREES, (*Corypha gebanga.*)

Palmaceous, (*-mā'shus,*) *a.* (*Bot.*) Pertaini..g to the palm tribe.

Pal'ma Chris'ti, *n.* (*Bot.*) See RICINUS.

Palma'les, *n.* (*Bot.*) An alliance of plants, class *Endogens*. DIAG. Perfect flowers, seated on a branched scaly spadix, and a minute embryo lodged below the surface of horny or fleshy albumen. The alliance is represented hy one order — PALMACEÆ, *q. v.*

Pal'mar, Pal'mary, *a.* [Lat. *palmaris*, from *palma*, the palm of the hand.] Of the breadth of the hand. — Pertaining to the palm of the hand.

Pal'mary, *a.* [Lat. *palmaris.*] Deserving of the palm; chief; pre-eminent; superior.

Pal'mas, an island of the Republic of Colombia, in the Bay of Choco, about 15 m. N.W. of Buenaventura.

Pal'mas, (Cape,) a promontory of W. Africa, forming the entrance from the north into the Gulf of Guinea; Lat. 4° 22′ N., Lon. 7° 44′ W.

Pal'mas, (Las,) a seaport-town, cap. of the island of Grand Canary, on its N.E. coast. It is one of the most beautiful and flourishing towns of the Canary Islands. *Manuf.* Woollens, linens, hats, glass, leather, and sailing-tackle; also ship-building. It has a large trade with the neighboring islands, the W. Indies, and Europe. It was declared a free port in 1852. *Pop.* 18,000.

Palmat'ilid, *a.* (*Bot.*) Palmate, hut having the divisions only half-way through.

Palmatisect'ed, *a.* (*Bot.*) Divided, as a palmate leaf, down to the midrib, when the parenchyma is interrupted.—*Webster.*

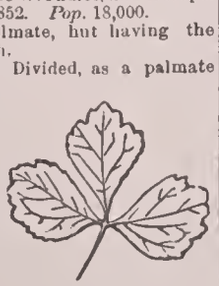


Fig. 2032.

Palmed, (*pämd,*) *a.* Having palms.

Palmed Deer. (*Venery.*) A stag of full growth, bearing palms.

Palmer, (*pä'mur,*) *n.* A pilgrim to or from the Holy Land, carrying several branches of palm. A poor Crusader. The palmer was distinguished, in the middle centuries, from other pilgrims, by his poverty, and his depending upon charitable contributions for his food and the expenses of his journey.

Pal'mate, Pal'mated, *a.* [Lat. *palmatus*, from *palmo*, to make the print of one's hand.] (*Bot. and Zoöl.*) Having the shape of a hand; resembliug a hand with the fingers spread.

Palm'er, in *Massachusetts*, a post-village and township of Hampden county, about 16 miles E.N.E. of Springfield.

Palm'er, in *Ohio*, a township of Washington county.

Palmer, in *Pennsylvania*, a township of Northampton co.

Palmer Depot, in *Massachusetts*, a village of Hampden co., abt. 3 m. E. by N. of Springfield.

Palm'erston, HENRY JOHN TEMPLE, VISCOUNT, prime minister of England, B. 1784. The Temple family trace their descent as far back as the period of the Norman Conquest. One of its most distinguished members was Sir William Temple, friend of William III., and eminent as a diplomatist and man of letters. It was from Sir William's brother, Sir John Temple, that Lord Palmerston descended. He entered upon official life in 1807, being named a lord of the Admiralty, under the Tory administration of the Duke of Portland. In 1809 he was appointed Secretary of War, and in this office he remained through the various Tory administrations for nearly 20 years. But in this interval his political views had undergone considerable modification, and in 1828 he retired from the Wellington administration. After the fall of the Conservative ministry of Sir Robert Peel, in the following year, Lord Palmerston again resumed his functions in the Foreign Office. He remained in office until 1841, and it was during these six years that the name of Palmerston became so celebrated as a foreign minister. Between the years 1841–1846, he was in opposition to the Conservative ministry of Sir Robert Peel; but in the last-mentioned year he was again appointed Foreign Secretary under the Whig administration of Lord John Russell. His ready acknowledgment of the *coup d'état* effected by Louis Napoleon in 1851, led to serious differences between himself and his colleagues, and, in consequence, he was compelled to resign. His secession, however, speedily led to the fall of the Russell ministry, and upon the accession of the Coalition administration, in the following year, he took the office of Home Secretary. The mismanagement of affairs in the Crimea brought about the fall of the Coalition ministry in 1855; immediately after which Lord Palmerston reached the apex of power as First Lord of the Treasury, and Prime Minister of Great Britain. As prime minister he successfully carried out the policy of alliance with France and the war with Russia, which ended with the fall of Sebastopol, in September, 1855. Feebly supported, however, by his colleagues, he lost strength in the House, and his administration finally fell, in Feb., 1858, upon the Conspiracy Bill, intended to protect the French emperor against the machinations of plotting refugees,—an act of loyal alliance, but in opposition with the hereditary feeling of the English people against their continental neighbor. The second Derby administration succeeded, but a year later *P.* was again called to be prime minister. With surprising energy, vivacity, and industry, almost unabated by age, he directed the English policy through the Italian war, the American war, and the Polish insurrection. He was prime minister for a greater number of years than any man in this century, except Lord Liverpool, and retained his marvellous popularity to the last. Above and beyond all differences of mere opinion rose, in his country, the general consciousness of his pure patriotism; and Englishmen were proud to be represented to other nations by a man in so many ways one of themselves, both in their strength and weaknesses. D. Oct. 27, 1865.

Palmet'to, *n.* The Cabbage-tree, (see ARECA,) a species of palm, genus *Chamærops*, 40 to 50 feet high, growing along the Atlantic coast from N. Carolina to Florida. It has a crown of large palmated leaves, the blade from one foot to five feet in length and breadth, and the footstalk long. The flowers are small, greenish, and in long racemes; the fruit black, about as long as a pea-pod, and not eatable. The leaves are made into hats. The terminal bud or *cabbage* is eaten. The wood is extremely porous, but much esteemed for wharves, as it is not liable to be attacked by worms.

Palmet'to Ranch, in *Texas*, a locality of Cameron co., near the old battle-ground of Palo Alto, memorable as the scene of the last conflict of the Civil War. Here, on May 13, 1865, Colonel Barrett, with 459 men, attacked a Confederate force numbering about 600, under Gen. J. E. Slaughter, and after a short engagement was defeated with a loss of 115 killed and many wounded.

Pal'miped, *a.* [Lat. *palma*, a palm, and *pes, pedis*, a foot.] (*Zoöl.*) Web-footed; having the toes connected by a membrane.

Pal'mipedes, Pal'mipeds, *n. pl.* (*Zoöl.*) Same as NATATORES.

Palmistry. See CHIROMANCY.

Palmit'ic Acid, *n.* (*Chem.*) One of the most important of the *Fatty Acids*. In a pure state, when crystallized from alcohol, it occurs in the form of beautifully white acicular crystals, arranged in tuft-like groups. These crystals are devoid of odor or taste, communicate a fatty feeling to the finger, fuse at 143·6°, and solidify on cooling in the form of crystalline scales. This acid is lighter than water, in which it is perfectly insoluble; but it dissolves freely in boiling alcohol and in ether, and the solutions have a distinctly acid reaction. The neutral palmitates of the alkalies constitute soaps, and are soluble in water; if, however, their solutions are largely diluted with additional water, they are decomposed, an insoluble acid salt being precipitated, while a portion of the base remains in solution. The addition of chloride of sodium (common salt) to a solution of an alkaline palmitate produces a similar effect. *Form.* $C_{32}H_{32}O_4$.

Pal'mitine, *n.* (*Chem.*) A white fat, usually occurring, when crystallized from ether, in the form of a mass of small scaly crystals. According to Duffy, it occurs, like the allied fat stearine, in three modifications, each of which has a different melting-point—viz., 114·8°, 143°, and 145°. On cooling, it solidifies into a wax-like mass, of lower specific gravity than water, and insoluble in that fluid, but readily soluble in ether and in boiling alcohol. It is a constituent of almost every kind of fat, and is the preponderating ingredient in those of a semi-solid consistence, and in many oils. It receives its name from the abundance in which it occurs in palm-oil, and it may readily be obtained from this source by removing the liquid portion (the oleine) by pressure, and purifying the remaining palmitine by crystallization from ether, or a mixture of ether and alcohol. *Form.* $C_{102}H_{98}O_{12}$.

Palm'-oil, *n.* See MACAW-TREE.

Palm-Sunday, (*pam-sun'dā,*) *n.* (*Eccl.*) The Sunday next before Easter; so called from the custom of blessing branches of the palm-tree, or of other trees substituted in those countries in which palm cannot be procured, and of carrying the blessed branches in procession, in commemoration of the triumphal entry of our Lord into Jerusalem (*John* xii.). Palm-Sunday is still celebrated with great solemnity by the Roman Catholics.

Palm'y, *a.* Flourishing; prosperous; victorious.

Palmy'ra, (*Anc. Geog.*) an ancient city, situated in a fruitful and well-watered oasis of the Syrian desert, in Lat. 34° 18′ N., Lon. 38° 13′ E. It was the *Tadmor* or *Thadmor* of the Hebrews (1 *Kings* ix. 18, and 2 *Chron.* viii. 4), founded, or enlarged by Solomon, about B. C. 1001. Both its Greek name *P.*, and its Hebrew name "Tadmor," signify the city of palms, and the Arabs call it *Tedmor*. It submitted to the Emperor Hadrian in 130, and rose to its highest power in the 3d century. Sapor I., King of Persia, was defeated here by Odenathus in 262. Odenathus was murdered about 267, and his wife Zenobia assumed the title of Queen of the East. Her army having been defeated at Antioch and at Emesa, Zenobia was besieged in her capital by the Emperor Aurelian in 272. She attempted to make her escape, but was taken prisoner, and *P.* surrendered in 274. The citizens slew the Roman garrison, and Aurelian destroyed Palmyra. It was restored by Justinian I. in 527, and again destroyed by the Saracens in 744. It was plundered by Tamerlane in 1400. Its site was long unknown, until the spot was at last penetrated by some

Fig. 2033. — RUINS OF PALMYRA.

European travellers. It had an immense temple dedicated to the sun, of which 60 columns out of 300 still remain, (Fig. 2033.) Of its appearance in modern times Volney observes: "In the space covered by these ruins, we sometimes find a palace, of which nothing remains but the court and walls; sometimes a temple, whose peristyle is half thrown down; and now a portico, a gallery, a triumphal arch. If from this striking scene we cast our eyes upon the ground, another almost as varied presents itself. On which side soever we look, the earth is strewed with vast stones half buried, with broken entablatures, mutilated friezes, disfigured reliefs, effaced sculptures, violated tombs, and altars defiled by the dust."

Palmy'ra, in *Illinois*, a twp. of Lee co.

Palmyra, in *Indiana*, a post-village of Harrison co., about 10 miles N. of Corydon.—A township of Knox county.—A village of Rush county, about 10 miles S. of Rushville.

Palmyra, in *Iowa*, a post-village and township of Warren co., abt. 16 m. S.E. of Des Moines.

Palmyra, in *Kansas*, a post-village and township of Douglas county, about 15 miles south by east of Lawrence.

Palmyra, in *Maine*, a post-township of Somerset county.

Palmyra, in *Michigan*, a post-village and township of Lenawee county, about 60 miles south-west of Detroit.

Palmy'ra, in *Missouri*, a city, cap. of Marion co., 15 m. N.W. of Hannibal. *Pop.* (1897) 2,840.

Palmyra, in *New York*, a post-village and township of Wayne co., abt. 22 m. E. by S. of Rochester

Palmyra, in *Ohio*, a village of Knox county, about 16 m. S. of Newark.—A post-township of Portage county.—A village of Warren county, about 20 m. N.E. of Cincinnati.

Palmyra, in *Pennsylvania*, a post-village of Lebanon county, about 15 miles east of Harrisburg.—A township of Pike county.—A township of Wayne county.

Palmyra, in *Virginia*, a post-village, cap. of Fluvanna co., abt. 60 m. W. by N. of Richmond.

Palmyra, in *Wisconsin*, a post-village and township of Jefferson county, about 42 miles W.S.W. of Milwaukee.

Palmyra Wood, *n.* (*Bot.*) The wood of the *Borassus flabelliformis*, and of the *Cocos mucifera*. See BORASSUS and COCOS.

Pa'lo, a town of S. Italy, prov. of Terra di Bari, 11 m. S.W. of Bari; *pop.* 5,500.

Pa'lo, Pa'loo, or **Pa'lu,** a town of Asiatic Turkey, on the Euphrates, 55 m. N. of Diarbekr. *Manuf.* Cotton weaving, dyeing, and tanning. *Pop.* 8,000.

Palo, in *Iowa*, a post-village of Linn co., abt. 35 m. N.N.W. of Iowa City.

Palo, in *Michigan*, a post-village of Ionia co., abt. 36 m. N.W. of Lansing.

Pa'lo Al'to, in *Iowa*, a N.W. co.; *area*, abt. 550 sq. m. *Rivers.* Des Moines and Lizard rivers. *Surface*, diversified; *soil*, generally fertile. *Cap.* Emmittsburg.

—A township of Jasper county.—A post-village of Louisa county, abt. 48 m. S.S.E. of Iowa City.

Palo Alto, in *Pennsylvania*, a township of Schuylkill co.

Palo Alto, in *Texas*, a locality of Cameron co., about midway between Point Isabel and Brownsville. Here, on May 8, 1846, occurred one of the most memorable battles of the Mexican War. Gen. Taylor, commanding 2,111 Americans, attacked and defeated 6,000 Mexicans under Gen. Arista. The former lost 32 men killed and 47 wounded. The Mexican loss was 252 men killed.

Palo de Vaca, *n.* (*Bot.*) See BAGIMUM.

Palo'ma, in *Illinois*, a post-village of Adams co., abt. 14 m. N.E. of Quincy.

Palo Pinto, in *Texas*, a N. central co.; *area*, abt. 1,100 sq. m. *Rivers.* Brazos and Palo Pinto rivers. *Surface*, mostly level prairie lands; *soil*, moderately fertile, and well adapted to stock-rearing. *Cap.* Palo Pinto, abt. 190 m. N. by W. of Austin.

Pa'los, in *Illinois*, a post-township of Cook county.

Palouse River, (*pah-loos'*,) rises on the W. slope of Bitter Root Mountains, in Idaho, and flowing W. into Washington, enters Lewis Fork of Columbia river in Spokane co.

Palp, *n.* [Lat. *palpare*, to touch softly.] (*Zoöl.*) A jointed sensiferous organ, attached in pairs to the *labium* or *maxilla* of insects, and termed, respectively, *labial* and *maxillary* palpi, or feelers.

—*v. a.* To feel. (R.)

Palpabil'ity, *n.* Quality of being perceptible by the touch

Pal'pable, *a.* [L. Lat. *palpabilis.*] Perceptible by the touch; that may be felt, as darkness.—Gross; coarse; easily perceived and detected, as a mistake.—Plain; obvious; easily perceptible, as proof.

Pal'pably *adv.* In such a manner as to be perceived by the touch; grossly; plainly; obviously.

Palpa'tion, *n.* [Lat. *palpatio*, from *palpo*, to stroke.] The act of feeling or touching.

Palpebral, *a.* [Fr., from Lat. *palpebralis*, from *palpebra*, an eyelid.] Of, or pertaining to, the eyelids.

Palpebrous, *a.* That has eyelids.

Palpiform, *a.* That has the form of a palp.

Palpig'erous, *a.* Bearing or producing palp.

Palpitate, *v. n.* [Lat. *palpito*, *palpitum*, frequent.] To tremble: to throb; to beat gently; to beat, as the heart; to flutter, that is, to move with little throes; to go pit-a-pat.

Palpita'tion, *n.* [Fr., from Lat. *palpitatio.*] (*Med.*) A preternatural beating or pulsation of the heart. There are few diseases more distressing, or often more alarming to the sufferer, the importance of the organ affected adding to the alarm of the patient. In general, however, *P.* is more a functional than an organic disease, and in delicate constitutions may proceed from causes that have nothing to do—directly, at least—with the heart. These irregular movements, as they are called, of the heart, may consist of a mere occasional tremor, transient, indeed momentary, in its duration; or they may be hard, steady, or intermitting beats, sometimes only heard when the patient is in bed, or lying on his side; or they may be so loud as to be audible to a stranger at the other side of the room, and at the same time so violent as sensibly to move the clothes covering that part of the chest. *P.* are sometimes accompanied by what is called *bruit de soufflet*, a peculiar sound, which is described under stethoscope (*q. v.*), and attended by a feeling of sickness and anxiety, with a pulsation at the pit of the stomach, and not unfrequently by faintings, and even *syncope*. Females are more subject to *P.* than males, and those of a *nervous* temperament, and of a weak, relaxed habit of body, much more so than those of a *sanguineous* temperament, and of a robust constitution. The exciting causes are, generally, strong mental emotions such as great or sudden grief or joy, violent exercise, or whatever debilitates or relaxes the frame. Young females suffering under catamenial irregularities, (chlorosis,) or delicate women in the early months of pregnancy, are the persons most liable to this affection. It is only by a close observation of his patient's condition, by a frequent and careful scrutiny of the pulse, and by the use of the stethoscope, that the physician can, in severe cases, detect the presence of organic mischief as the direct cause of *P.*

Pal'pus, *n.*; *pl.* PALPI. [Lat.] (*Zoöl.*) A PALP, *q. v.*

Pal'sical, *a.* Afflicted with the palsy.

Pal'sied, *a.* Affected with palsy.

Pal'ster, *n.* A pilgrim's staff.

Pal'sy, *n.* [Contracted from Fr. *paralysie*, from Gr. *paralysis.*] (*Med.*) Same as PARALYSIS, *q. v.*

Pal'sy, *v. a.* To paralyze; to deprive of action or energy.

Pal'ter, *v. n.* To shift; to dodge; to act insincerely.

Pal'terer, *n.* An insincere dealer; a shifter.

Pal'trily, *adv.* In a paltry manner; despicably.

Pal'triness, *n.* The state or quality of being paltry or vile.

Paltry, (*pawl'try.*) *a.* [Sw. *palta*; Scot. *paltrie* or *peltrie*, vile trash.] Worthless; despicable; contemptible; vile; mean.

Palu'dal, *a.* [Lat. *palus*, a swamp.] Pertaining to marshes; marshy.

Paludamen'tum, *n.* [Lat.] (*Antiq.*) The cloak worn by a Roman general commanding an army (Fig. 2034), his principal officers and personal attendants, in contradistinction to the *sagum* of the common soldiers, and the *toga* or garb of peace. It was the practice for a Roman magistrate, after he had received *imperium* from the *comitia curiata*, and offered up his vows in the capitol, to march out of the city arrayed in the *P.* (*exire paludatus*), attended by his lictors in similar attire (*paludatus lictoribus*), nor could he again enter the gates until he had formally divested himself of this emblem of military power. The *P.* was open in front, reached down to the knees or a little lower, and hung loosely over the shoulders, being fastened across the chest by a clasp. The color of the *P.* was commonly white or purple, and hence it was marked and remembered that Crassus, on the morning of the fatal battle of Carrhæ, went forth in a dark-colored mantle.

Fig. 2034.—PALUDAMENTUM.

Pal'udine, *a.* [From Lat. *palus*, *paludis*, a marsh.] Pertaining to a marsh.

Paludin'idæ, *n. pl.* [Lat. *palus*, a pool.] (*Zoöl.*) The River-snail family, order *Gasteropoda*, including fluviatile mollusca very widely diffused in rivers and ponds. *Paludina integra*, of the Western and Middle States (Fig. 1900), may be taken as a type of the family.

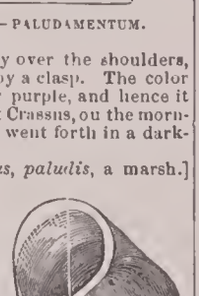


Fig. 2035. PALUDINA INTEGRA.

Pal'y, *a.* Pale; wanting color. (Used only in poetry.)

(*Her.*) Applied to a shield divided into four or more equal parts. See PALE.

Pam, *n.* The knave of clubs.

Pam'ah, in *Iowa*, a village of Jones co., abt. 35 m. N. by E. of Iowa City.

Pamel'la, in *New York*, a twp. of Jefferson co.

Pamelia Four Corners, in *New York*, a post-village of Jefferson co., abt 165 m. N.W. of Albany.

Pamiers, (*pa'me-ai,*) a town of France, dept. of Ariège, on the river Ariège, 10 m. N. of Foix. *Manuf.* Woollens, cottons, caps, and hats. *Pop.* 8,000.

Pamir', Pameer', or **Pamere',** an extensive table-land of central Asia. Its highest point, called by the natives the "roof of the world," in Lat. 37° 27' N., Lon. 73° 40' E., is 15,600 feet above the sea.

Pamlico, in *N. Carolina*, a river rising in Granville co., and flowing a general S.E. course enters Pamlico Sound by a large æstuary in Beaufort co. Its upper part is called TAR RIVER.

—A light-house on the S. side of the entrance to Pamlico River, about 35 m. S. of Washington.

Pamlico Sound, in *N. Carolina*, an inlet of the Atlantic Ocean, washing the cos. of Tyrel, Hyde, Beaufort, and Craven. It is about 80 m. long, by an average breadth of 20 m., very shallow, and receives the Neuse and Pamlico rivers

Pam'pa Grande, a level sandy desert of Peru, between Arequipo and the Pacific Ocean. It has an elevation of 2,000 feet above sea-level, and is destitute of water or vegetation.

Pam'pas, in *Illinois*, a township of De Kalb co.; *pop.* about 1,298.

Pam'pas, *n. pl.* (*Geog.*) Treeless plains extending for 2,000 m. from the tropic of Capricorn to the S. limit of the American continent on the E. side of the Andes. The breadth varies from 240 to 500 m. The total area is estimated at 750,000 sq. m. Within this wide range of country there are necessarily great differences of climate. For the most part the plains form step-like terraces, ranging N. and S., and rising to the W. Generally sterile, their steps are sometimes richly covered with verdure. They are here and there intersected by streams; but the waters flowing over them do not fertilize the soil. Huge boulders occasionally interrupt the dreary flat, black lava platforms sometimes intervene, and white incrustations of salt are not wanting. Swamps occur in the S. part of the tract, which are occasionally flooded by the rivers and entirely inundated. In other districts these remarkable platforms are exceedingly fertile, and they are estimated to feed at least a million of horned cattle and three million of horses, all of which are derived from animals introduced by the Spaniards. The higher plains to the W. are less fitted for natural pastures, but admit of very successful cultivation. A large salt desert forms the N. termination of the Pampas.—The Pampas-grass (*Gynerium argenteum*), which covers a large part of the *P.*, is a hardy plant, belonging to the order *Graminaceæ*. Its leaves are 6 or 8 feet long, the ends hanging gracefully over; the flowering stems 10 to 14 feet high; the panicles of flowers silvery-white, and from 18 to 24 inches long. Its tufts have a splendid appearance, but the herbage is too coarse to be of any agricultural value. It is cultivated in this country and in Europe on account of its ornamental character.

Fig. 2036.—PAMPAS-GRASS, (*Gynerium Argenteum.*)

Pam'pas del Sacramen'to, a plain, or series of plains, in the N.E. part of Peru; *area*, about 60,000 sq. miles. They are traversed by the Ucayale and other rivers, and though for the most part destitute of trees, they are in some places covered with immense forests, and are occupied by various tribes of Indians.

Pam'pas-grass, *n.* (*Bot.*) See PAMPAS.

Pam'pelmouse, *n.* (*Bot.*) Same as POMPELMOUS, *q. v.*

Pampelu'na, or **Pamplo'na,** a fortified city of Spain, cap. of the prov., and of the former kingdom of Navarre, on the Arga, 48 m. S. of Bayonne, and 198 N.E. of Madrid. *Manuf.* Course woollens, paper, and leather. *P.* was taken by the French in 1808, retaken by the English in 1813, and again occupied by the French in 1823. *Pop.* 22,896.

Pam'per, *v. a.* [O. Fr. *pampre*, from *pampre*, to fill or cover with vine-leaves, from Lat. *pampinus*, a vine-leaf.] To gratify to the full: to furnish with that which delights; to feed luxuriously; to glut.

Pam'peredness, *n.* The state of being pampered.

Pam'perer, *n.* One who pampers.

Pam'perize, *v. a.* To feed luxuriously; to pamper. (R.)

Pampe'ro, *n.*; *pl.* PAMPEROS. Violent S.W. winds which sweep over the pampas in the S. part of the Argentine republic.

Pamphilus, (*pam'fi-lus.*) a painter of Macedon, who flourished under king Philip, said to have been the first to apply the laws of proportion and perspective to his art. Apelles was the pupil of this master.

Pam'philus, an early Christian writer, probably B. in Berytus, was the friend and collaborator of Eusebius, and suffered martyrdom in Cæsarea, February 16, 309.—See EUSEBIUS.

Pamphlet, (*pam'flet,*) *n.* [Fr. Etym. unknown.] A small book consisting of sheets stitched together, and sold unbound. The English *pamphlet* is synonymous with the French *brochure* and the German *flugschrift*, as they all mean publications that are merely written for the moment, and for immediate effect.

Pamphleteer', *n.* A writer of pamphlets; a scribbler.

Pamphleteer'ing, *a.* Writing and publishing pamphlets.

—*n.* The writing and publishing of pamphlets.

Pamphy'lia. (*Anc. Geog.*) An ancient kingdom of Asia Minor, bounded N. by Pisidia and Mount Taurus, S. by Phrygia, E. by Cilicia, and W. by Lycia and part of Phrygia. The principal towns were Albia and Attalia.

Pample'gia, *n.* [Gr. *pan*, and *plego*, I strike.] (*Med.*) General paralysis. — Palsy of the whole body.

Pam'plin's Depot, in *Virginia*, a post-village of Appomattox co., about 87 m. W. of Petersburg.

Pamplo'na, a town of the Republic of Colombia, about 200 m. N.E. of Bogota. *Pop.* 4,000.

Pamunkey River, in *Virginia*, formed in Hanover co. by the union of the North Anna and South Anna rivers, and flows S.E. to West Point in King William co., joins the Mattapony to form the York River.

Pan. (*Gr. Myth.*) The god of shepherds, of huntsmen, and of all rural inhabitants. He was the son of Mercury, and was a monster in appearance, having two small horns in his head, a ruddy complexion, a flat nose; and his legs, thighs, tail, and feet were like those of a goat. His education was intrusted to a nymph of Arcadia, but she was so terrified at the sight of the monster, that she fled from him. His father then wrapped him in the skins of beasts, and carried him to heaven, where Jupiter and the gods long entertained themselves with the oddity of his appearance, and Bacchus gave him the name of Pan. He quitted the abode of the gods, and dwelt chiefly in Arcadia, choosing for his habitation the most sequestered woods and rugged mountains. He was the inventor of the flute with seven reeds, and amused himself by deceiving the nymphs; and even captivated Diana herself by transforming himself into a beautiful white goat. The worship of Pan was established in Arcadia, and his festivals, called by the Greeks *Lycæa*, were brought to Italy by Evander, and were well known at Rome by the name of *Lupercalia*. The worship and the different functions of Pan are derived from the mythology of the ancient Egyptians.

Pan, *n.* [A.S. *panna*, *panne*; Du. *pan*; Lat. *patina*, a broad dish.] A vessel broad and shallow, in which provisions are dressed or kept; any vessel of like character.

(*Mil.*) The part of a gun-lock, or other fire-arm, which holds the priming that communicates with the charge.

—A leaf of gold or silver.—The hard stratum of earth that lies below the soil, and holds the water.—The top of the head; the brain-pan; the cranium.—A masticatory substance. See AREca and BETEL.

Pa'na, in *Illinois*, a city of Christian co., on the Illinois Central, Balt. & Ohio S.W., and C., C., C. & St. L. R.Rs., 42 m. S.E. of Springfield. *Pop.* (1897) 5,650.

Pan'abase, *n.* (*Min.*) Same as TETRAHEDRITE, *q. v.*

Panace'a, *n.* [Lat.; Gr. *panakeia*, from *pas*, *pan*, all, and *akeomai*, to heal.] (*Med.*) Something supposed to have the power of curing all diseases; a remedy for all diseases; a universal medicine; a cure-all; a catholicon.

Panache, (*pa-năsh'*,) *n.* [Fr., from Lat. *penna*, a feather.] A plume of feathers formerly worn on a casque or helmet; as, "a *panache* of variegated plumes"

Prescott.

(*Arch.*) That part of a domed vault presenting the form of a spheroid triangle.

Pan'ada, Panade', Pan'ado, *n.* [Fr. *panade*; Sp. *panada*; It. *panata*, from Lat. *panis*, bread.] A kind of thick gruel made of bread boiled to a pulpy state, and sweetened; — used for invalids.

Panama', a fortified city and seaport of the Republic of Colombia, in Central America, situate on the Pacific, 38 m. S.E. of Chagres. The city stands on a rocky peninsula, projecting into the Bay of Panama, and has an imposing aspect from the sea. Its streets are well ventilated, and it is cleaner than most Hispano-American cities. The houses are mostly of stone, built in the Spanish style, the larger ones with court-yards and balconies, and the smaller with but one story. *P.* has suffered much by disastrous fires in 1864, 1870 and 1874, the loss in the last year amounting to $1,000,000. It has a large commerce, but most of it is due to the transit trade. It is a station for the mails between countries on the Atlantic, and those on the South or Central American coast on the Pacific, and is the Pacific terminus of the Panama railroad, which connects this place with Aspinwall, on the Atlantic side of the Isthmus. Two American lines of steamers connect it with San Francisco. The harbor or roadstead of *P.* is one of the finest in the world: there are a number of islands a short distance from the mainland, which afford secure anchorage for ships of any burden, and from which supplies of provisions, including excellent water, may usually be obtained. The tides daily rise and fall from 20 to 27 ft., so that it is peculiarly well-fitted for the repair and building of ships. *Pop.* (1897) 19,500.—OLD PANAMA, founded by the Spaniards in 1518, stood abt 3. m. to the E. of the present city, and was destroyed by the buccaneer, Sir Henry Morgan, in 1670, shortly after which the existing city was commenced.

P. (BAY OF.) A large indentation formed by the waters of the Pacific Ocean, extending inland abt. 120 m., has a width across of 135 m. It contains numerous islands, particularly on its E. side, where the group called Pearl Islands covers abt. 400 sq. m. Of its several harbors, Panama in the *N.*, and San Miguel in the E., are best known. The bay is usually tranquil, and not agitated by much wind or sea, but destructive storms occasionally occur, and during the rainy season W. winds send in a heavy swell. The tide rises from two to four fathoms.

P. (ISTHMUS OF.) (sometimes called ISTHMUS OF DARIEN,) a narrow neck of land which connects the continents of N. and S. America, forming a prov. of the republic of New Granada, between 8° and 10° N. Lat., and 77° and 81° W. Lon., having E. the Colombian prov. of Choco, W. that of Veragua, N. the Atlantic Ocean, and S. the Pacific. The "Cordillera" or chain of the Andes is here interrupted by several remarkable breaks of low or level land, through which a line of railroad has been laid from Aspinwall to Panama city. The isthmus, and, though without any river of considerable length, several of its streams are partially navigable. The climate is very hot on the coasts; on the flanks of the mountains in the interior it is relatively cool, but miasmatic fevers prevail everywhere. Nearly all the vegetable products of the torrid zone grow luxuriantly, and much of the surface is covered with dense forests, in which are found many of the most valuable kinds of timber, dye, cabinet, and medicinal woods and shrubs. Conspicuous among the trees are the giant cedars and the palms, among the latter of which are the wine, sago, ivory, grove, cabbage, and cocoa palms. In the rainy season when the blossoming trees are festooned with flowering vines and epiphytes, the forests are magnificent beyond description. A state in 1861, and subsequently a department, of the republic of Colombia, a revolution broke out in *P.* Nov. 3, 1903, in consequence of the rejection by the Colombian Senate of the canal treaty with the United States. The new republic was recognized by the United States Nov. 6, and has succeeded in maintaining its independence as a member of the family of nations. See PANAMA CANAL, in SECTION II.

Pana'ro, a river of N. Italy, rising in Monte Cimone, and after a N. course of 75 m. falling into the Po, 12 m. N.W. of Terrara.

Pan'ary, *a.* [From Lat. *panis*, bread.] Consisting of, or pertaining or having reference to, bread.

Pan'atom, *n.* See ATOMECHANICS.

Pan'ax, *n.* [Gr. *pan*, all, *acos*, a remedy; i.e., a *panacea*, or universal remedy.] (*Bot.*) A genus of herbs or shrubs, order *Araliaceæ*. *P. trifolium*, the Ground-nut or Dwarf Ginseng, is common in low woods in the U. States and Canada. *P. schinseng* produces the root called Asiatic *ginseng*, which is so highly prized by the Chinese as a stimulant and aphrodisiac, that they will sometimes give for it its weight in gold. *P. quinquefolium* of N. America has the same properties, but is held in little estimation in this country.

Pan'cake, *n.* A thin cake fried in a pan, or baked on an iron plate; a fritter.

Pancake Tuesday, Shrove-tide; Shrove-Tuesday.

Pancarte', *n.* [Fr.; Lat. *pancharta*, from Gr. *pan*, all, and *chartōs*, a leaf of paper.] A royal charter ratifying to a subject all his possessions.

Panch'way, Pannch'way, *n.* [Hind. *panso'i.*] (*Naut.*) A Bengalese four-oared passage-boat.

Pancratian, (*kra'shan,*) **Panerat'ic,** *a.* Pertaining, or having reference to the panacratium.

Panera'tiast, Pan'cratist, *n.* One who excels in gymnastic performances; one engaged in the athletic contests of the pancratium.

Pancra'tium, (*-shī-um,*) *n.* [Lat., from Gr. *pan*, all, and *kratos*, strength.] (*Rom. Antiq.*) Among the ancient Romans, an athletic contest which combined boxing and wrestling.

(*Bot.*) A genus of plants, order *Amaryllidaceæ*. *P. maritimum*, though not now regarded as officinal, has properties resembling those of the squill. There are many tropical species which are extremely ornamental. They characterize a section of the order distinguished by the stamens being borne on the cup.

Pan'creas, *n.* [Gr. *pan*, all, and *kreas*, flesh.] (*Anat.*) A gland known in the lower animals as the *Sweetbread*. It is a single glandular organ, situated transversely across the upper part of the abdomen, at the posterior part of the epigastric region, about on a level with the last dorsal vertebra (see Fig. 218). It is of an irregular elongated form, from six to eight inches in length, an inch and a half in breadth, and from half an inch to an inch thick. The right extremity or head is curved upon itself from above downwards, and is embraced by the cavity of the duodenum. Its body tapers towards its left extremity, where it forms a tale terminating at the spleen. The *pancreatic duct* extends from left to right through the substance of the pancreas, giving off numerous branches, and terminating in the common choledic duct, which conducts its secretions, called *pancreatic juice*, to the duodenum. In structure, the pancreas closely resembles the salivary glands, but it is looser and softer in texture; and the fluid secreted is almost identical with saliva. Its object is believed to be to reduce fatty matters to the state of an emulsion, and thereby promote their absorption by the lacteals. The amount daily secreted by man is from five to seven ounces, and it is most abundant at the commencement of digestion. Its importance is evident from the fact that it is found in all vertebrates, whether caruivorous or herbivorous.

Pancrent'ic, *a.* Pertaining to the PANCREAS, *q. v.*

Pan creatoid, *n.* [Gr. *pankreas*, and *eidos*, form.] (*Med.*) A tumor of pancreas-like form.

Pancsova, (*pan'cho-voh,*) a fortified town of S. Hungary, in the Banat, at the confluence of the Temes and the Danube, 62 m. S.S.W. of Temesvar; *pop.* 12,000.

Panda, *n.* (*Zoöl.*) The *Ailurus fulgens*, a quadruped of the family *Ursidæ*, found in N. India, and called by Cuvier the most beautiful of known quadrupeds. Its size is that of a common cat, the fur is soft and thickly set, the color above of the most brilliant cinnamon-red, the head whitish, and the tail marked with brown rings, while the under part of the body is black. The *P.* is also called *Wah* and *Chit-wa*, from the peculiar cry which it utters.

Pandana'ceæ, *n.* (*Bot.*) The Screw-pine family, an order of plants, alliance *Arales*. DIAG. Numerous naked or scaly flowers, arranged on a spadix covered by many spathes, stalked anthers, loose seeds, and a solid minute embryo.—They are palm-like trees or bushes, sometimes sending down aërial roots (see Fig. 39). The leaves are sheathing, imbricated, and spirally arranged in three rows, simple or pinnate; flowers unisexual or polygamous; stamens numerous; anthers 2- to 4-celled; ovaries 1-celled; ovules solitary or numerous, on parietal placentas. Fruit consisting of a number of 1-seeded fibrous, or of many-celled, many-seeded berries; embryo at the base of fleshy albumen. The plants of this order are common in most of the tropical islands of the Old World, but rare in America. None possess any very active properties. The genus *Pandanus* has edible seeds. A species called *Vaguois*, in the Isle of France, is chiefly abundant in Madagascar (see Fig. 1671). *P. candelabrum*, the Chandelier-tree of Guinea, is so called from its peculiar tendency to branch. The unexpanded leaves of *Carludovica palmata* furnish the material employed in the manufacture of Panama hats. The order contains 7 genera and 75 species.

Pan'dar, *n.* Ou old spelling of PANDER, *q. v.*

Pan'darus, a son of Lycaon, is remarkable for having broken the truce which had been agreed upon between the Greeks and Trojans; he also wounded Menelaus and Diomedes; but was at last killed by Diomedes. Æneas then carried him off in his chariot, and, attempting to revenge his death, nearly perished by the hand of the furious enemy. In mediæval romances, and in Shakspear's *Troilus and Cressida*, he is represented as procuring for Troilus the love and good graces of Chryseis.

Pande'an, *a.* [From *Pan.*] Belonging, or having reference to Pan.

P. pipes, or *Shepherd's pipe.* (*Mus.*) An ancient instrument (5, Fig. 1893) consisting of a number of reeds of progressive lengths joined together, said to have been invented by the god Pan.

Pan'dect, *n.*; *pl.* PAN'DECTS. [Lat., from Gr. *pandektes*, from *pas*, *pan*, all, and *dechomai*, to take, to receive.] A treatise comprising the entirety of any science.

—*pl.* The name of a collection of Roman laws. See JUSTINIAN I.

Pandem'ic, *a.* [Fr. *pandemique*; Lat. *pandemus*, from Gr. *pan*, all, and *dēmos*, people.] Epidemic; occurring to a whole people; as, a *pandemic* disease.

Pandemo'nium, *n.* [Gr. *pas*, *pan*, all, and *daimon*, a demon.] The fabled great hall or council-chamber of demons or evil spirits;— hence, figuratively, a hell, or place or scene of anarchy or torment.

Pan'der, *n.* (Formerly written *Pandar.*) [From *Pandarus* of Troy.] A pimp; a procurer; a mean, profligate person who caters to the lusts of others. — Hence, an assistant in, or promoter of, the evil designs and passions of another.

"My honesty was made the *pander* to thy lust and black ambition." —*Rowe.*

—*v. a.* To play the pander to; to procure the satisfying of the lust or passion of.

—*v. n.* To act as pimp; to be subservient to lust or passion;— hence, to aid in the evil designs or vicious propensities of others, as, they *pander* to the excesses of the mob.

Pan dernge, *n.* A going between; a promoting of sexual intercourse.

Pan derism, *n.* Vocation or vices of a pimp or pander; a procuring; a going between.

Pan'derly, *a.* Playing the pander; pimping.

Pandic'ulated, *a.* Stretched or spread out; extended; enlarged by distention.

Pandicula'tion, *a.* [From Lat. *pandiculari*, to stretch one's self, from *pandere*, to spread out.] A spasmodic or paroxysmal stretching of the limbs, or involuntary extension and stiffening of the trunk and extremities, induced by lassitude, fatigue, or the incipient action of disease.

Pan'door, *n.* Same as PANDOUR, *q. v.*

Pando'ra, [Lat.; Gr. *Pandōra*, from *pan*, all, and *dōron*, gift.] (*Myth.*) The first mortal female, according to Hesiod. She was made by Vulcan out of clay, at the command of Jupiter, who wished to punish the impiety of Prometheus by giving him a companion. When the statue was animated, each god and goddess, to make the mortal more captivating and certain to effect the object meditated by the supreme god, bestowed on her some special charm or attribute, beauty, grace, music, wisdom, fascination, and eloquence; while Jove himself presented her with the *Pandora's box*, a rare casket full of secret wonders, which could be only opened by the mortal she selected for her husband. When fully armed with all her gifts, and named *P.* from the multiplicity of her presents, Mercury carried her to earth, and presented her to the notice of the arch-burglar Promethens. That crafty and cunning prince, however, though admiring the beauty of the maid, declined the allnring bribe, and refused the offer. His more susceptible brother, however, captivated by *P.*'s charms, eagerly asked for and obtained the lovely *P.* for his wife, upon which she presented him with the casket, her dowry from the gods. When Epimethens, the husband, opened the lid, a host of evils — all the ills and mischiefs that afflict mankind — flew out and spread themselves over the world; and the consequences would have been still more fatal, had there not been Hope at the bottom, to ameliorate the pains and sufferings of life.

(*Zoöl.*) A genus of bivalve mollusca, having unequivalved shells, and found at a considerable depth in the sandy shores of Europe and of the Pacific Ocean.

(*Astron.*) An asteroid, discovered by G. Searle in 1858.

—[It *pandura*; Sp. *pondero*; Fr. *mandole*.] (*Mus.*) A kind of lute, furnished with strings of brass.

Pan'doran, Pan'dore, *n.* (*Mus.*) Same as BANDORE, *q. v.*

Pan'dour, Pan'door, *n.* [From *Pandur*, a place in Hungary.] (*Mil.*) An Hungarian infantry soldier in the Austrian service.

"Her whisker'd *pandours* and her fierce hussars." — *Campbell.*

Pandow'dy, *n.* A baked pudding, consisting of bread and apples, sliced, and placed in alternate layers.

Pan'durate, Pandu'riform, *a.* [Lat. *pandura*, *pandore*, and *forma*, form.] (*Bot.*) Fiddle-shaped; borate, with a concavity in both sides.

Pane, *n.* [A.S. *pan*, a piece; Fr. *pan*; Lat. *pannus*, a cloth.] A piece, section, or compartment distinct in itself; a limited division of a surface; particularly, a plate of glass; one of the squares of glass in a door, sash-frame, &c. — The narrow edge of the head of a hammer.

(*Arch.*) A term formerly applied to the sides of a tower, turret, spire, &c.

(*Draining.*) A subdivision of an irrigated tract, between a feeder and an outlet drein.

Paned, (*pānd.*) *a.* Variegated; composed of small squares, as a counterpane.

Panegyric, (*-jir'ik,*) *n.* [Fr. *panegyrique*; Gr. *panēgūrikos*, from *pas*, all, and *agūros*, *agóra*, an assembly, from *ageiro*, to bring together.] An oration or enlogy in praise of some distinguished person or achievement; a formal or elaborate encomium; praise bestowed on some eminent person, action, or virtue.

Panegyr'ic, Panegyr'ical, *a.* Containing panegyric, praise, or eulogy; encomiastic.

Panegyr'ically, *adv.* By way of panegyric, praise, or encomium.

Panegyr'ist, *n.* [Fr. *panégyriste.*] One who bestows praise; a eulogist; an encomiast, either by writing or speaking.

Pan'egyrize, *v. a.* To praise highly; to write or pronounce a enlogy or encomium.

—*v. n.* To bestow praises.

Pan'el, *n.* [Fr. *panneau*, dimin. of *pan*, a pane.] (*Arch.*) A space or compartment of a wall, ceiling, wood-work, &c., enclosed by beams, mouldings, framing, and so forth. It is generally sunk under the plane of the surrounding style. In wood-work, *P.* are thinned parts used to fill in a strong framing, as in doors, shutters, &c. In early Gothic architecture the panelling in stonework is very varied: circles, trefoils, quatrefoils, (Fig. 2037), cinquefoils, &c., and the pointed oval called the *vesica piscis*, are common forms: they are also frequently used in reuges, like shallow arcades, divided by small shafts or mullions, the heads being either plain arches, trefoils, or cinquefoils, and panels similar to these are often used singly: the backs are sometimes enriched with foliage, diaper-work, or other carvings.

(*Masonry*) One of the faces of a hewn stone.

(*Painting.*) A thin square board on which a picture is painted, instead of canvas.

(*Mining.*) A heap of ore dressed and ready for sale.

(*Law.*) A schedule containing the names of jurors empanelled by the sheriff;—hence, commonly the whole jury. — (*Scots. Law.*) A prisoner arraigned for trial at the bar of a criminal court.

—*v. a.* To construct with panels; as, to *panel* a wainscot or ceiling; as, a *panelled* staircase.

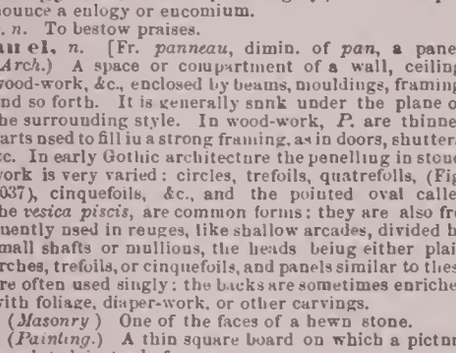


Fig. 2037. — EARLY GOTHIC PANELLING.

Pane'less, *a.* Without panes of glass, — said of windows, &c.

Pan'el-game, *n.* A method of committing theft, extortion, &c., as in a panel-house.

Pan'el-house, *n.* A house of ill-fame, to which persons are enticed by women who act as decoys, and where, after making sure of the victim, a man—usually playing the assumed part of the woman's husband — suddenly enters the room by a panel or other secret passage, and extorts money by threats of violence, or, if the sufferer be asleep, robs him of whatever valuables he may possess.

Pan'elling, *n.* Wainscoting; panel-work.

Pan'el-saw, *n.* A fine saw, generally used for cutting out panels.

Pan'el-thief, *n.* One who steals or extorts money in a panel-house.

Pan'el-work, *n.* The act of covering with boards in panel; wainscoting; panelling.

Panegy'logism, *n.* [Gr. *pas*, *pan*, all, and *éulogia*, eulogy.] Indiscriminate praise; eulogism of every one and everything.

Pan'ful, *n.*; *pl.* PANFULS. As much as a pan will hold; sufficient to fill a pan.

Pang, *n* [A.S. *pyngan*; Lat. *pungo*, to prick, to pierce.] A sharp and sudden pain; particularly, a sudden paroxysm of extreme pain; anguish; a throe; distress; suffering; egony; as, the *pangs* of maternity.

—*v. a.* To torment cruelly: to torture. (R.)

Pangla'ceæ, *n. pl.* (*Bot.*) A small order of arborescent unisexual plants, alliance *Papayales*, nearly allied to *Papayaceæ*, but differing principally in being polypetalous, and in the fertile flowers having as many scales as there are petals. There are two genera and four species, natives exclusively of the hotter parts of India. They are more or less poisonous; but the seeds of one species, *Pangium edule*, after being boiled and soaked, are used for flavoring curry.

Pan'golin, *n.* (*Zoöl.*) The common name of the genus *Manas*, Armadilla family, including animals of the Eastern hemisphere, differing from the gen. *Myrmecophaga* (q. v.) in having the body, limbs, and tail clothed with large trenchant scales arranged like tiles, which they elevate when they roll themselves into a ball, as they do when they would ward off the attacks of an enemy. The short-tailed Pangolin, *M. pendactyla* (Linn.) of the East Indies, is three or four feet in length.

Pan Handle, in *W. Virginia*, a name given to that narrow portion of the State extending N. between Pennsylvania and Ohio.

Panhellen'ic, *a.* Pertaining, or having reference to all Greece.

Panhel'lenism, *n.* A national project of forming all the Greeks into one political body, similar to that of united Germany.

Panhel'lenist, *n.* One who advocates panhellenism.

Panhelle'nium, *n.* [Gr. *panellénion*, from *pas*, all, and *Ellén*, pl. *Ellénes*, the Greeks.] (*Gr. Antiq.*) The national council of all the Greek states.

Pan'ic, *n.* [Fr. *panique*, chimerical; Gr. *Panikos*, sacred to Pan, from *Panikon*, panic, fear; said to be from the fabled god *Pan*, who assisted the Athenians at Marathon, by striking senseless fear into the enemy.] A sudden fright; particularly, a sudden fright without real cause, or terror inspired by a trifling cause or misapprehension of danger; as, the army was seized with a *panic*, a commercial or monetary *panic*, &c.

—*a.* Extreme or sudden; — applied to fright; as, *panic* terror.

Pan'ic, Pan'ic-grass, *n.* (*Bot.*) A plant of the genus PANICUM, *q. v.*

Pan'icle, *n.* [Fr. *panicule.*] (*Bot.*) A form of inflorescence in which the primary axis develops secondary axes, which themselves produce tertiary. In other words, a raceme beering branches of flowers in place of simple ones.

Fig. 2038. — A PANICLE.

Pan'icled, PANIC'ULATE, PANIC'ULATED, *a.* (*Bot.*) Arranged in a panicle.

Pan'ic-stricken, Pan'ic-struck, *a.* Seized with a sudden fear or panic.

Pan'icum, *n.* [From Lat. *panis*, bread.] (*Bot.*) A genus of plants, order *Graminaceæ*, including several useful species. *P. miliaceum* yields the grain called Indian Millet, the *Wanee*, and Kadi-kane of the East. *P. spectabile*, a Brazilian species, attains the height of six feet or more, and is an excellent fodder-grass. It is commonly known as Angola-grass. *P. jumentarum* is another fodder-plant, known as Guinea-grass, or Panic-grass *P. pilorum* yields the grain called *Bhadlee* in India. The grain of *P. frumentaceum* is used in the Deccan under the name of *Shamola*.

Pan'iput, or PANNIPUT, a city of India, presidency of Bengal, cap. of a dist. of same name, 55 m. N.N.W. of Delhi; Lat. 29° 22′ N., Lon. 76° 51′ E.

Paniv'orous, *a.* [Lat. *panis*, bread, and *vorare*, to devour, to eat greedily.] Subsisting on bread; eating bread.

Pannade', *n.* (*Manege.*) [Fr.] The curvet of a horse.

Pan'nage, *n.* [O. Fr. *panage*, from Lat. *panis*, bread.] Mast, as food for swine; also, a tax paid in England for feeding swine in the woods.

Pan'nary, *a.* [From Lat. *panis*, bread.] Pertaining to bread; that is used in making bread.

Pan'nel, *n.* [Du. *panneel*; Fr. *paneau.*] A kind of rustic saddle.

—A hawk's stomach.

Pannier, (*pan'yer,*) *n.* [Fr. *panier*; It. *paniere*, from Lat. *panis*, bread.] A wicker-basket; a basket used for carrying fruit or other things on a horse.

(*Arch.*) Same as CORBEL, *q. v.*

(*Archæol.*) A defence of basket-work formerly used by archers.

Pan'nikin, *n.* A small pan or cup.

Pannonia, (*Anc. Geog.*) A large extent of country in Europe, bounded on the N. by the Danube, S. by Illyricum and Mœsia, E. by the Danube, and W. by Noricum, inhabited by Celtic tribes, and including the parts now known as Hungary and the Duchy of Austria. It was attacked by the Romans, under Octavianus, B. C. 35, and made a Roman province by Tiberius in 8. It was ceded to the Huns by Theodosius II. about 447, came into the hands of the Ostrogoths at the death of Attila in 453, and to the Longobardi (527–65), from whom it passed to the Averi in 568. The Ungri, or Hungarians, settled here in 889; and from them a large part of *P.* received the name of Hungary.

Pano'la, in *Illinois*, a post-village and township of Woodford co.

Pano'la, in *Mississippi*, a N. by W. co.; *area*, abt. 800 sq m. *Rivers.* Tallahatchie River, Coldwater Creek, and some smaller streams. *Surface*, undulating, or nearly level; *soil*, fertile, and well adapted to the culture of sugar, cotton, and rice. *Caps.* Batesville and Sardis. *Pop.* (1890) 26,977.

—A village, former cap. of above co.

Pano'la, in *Texas*, an E. by N. co., adjoining Louisiena; *area*, abt. 840 sq. m. *Rivers.* Sabine River and many of its affluents. *Surface*, mostly level prairie-lands, interspersed with extensive forests; *soil*, generally fertile. *Cap.* Carthage.

Pano'la Sta'tion, in *Illinois*, a post-village of Woodford co., abt. 40 m. S. of La Salle.

Pan'oplied, (*-plid,*) *a.* Completely armed; as, *panoplied* in mail, *panoplied* in virtue.

Pan'oply, *n.* [Gr. *panoplia*, from *pas*, *pan*, all, and *ôplon*, arms.] Complete armor or defence; a full suit of defensive armor.

Panop'ticon, *n.* [Fr. *panoptique*; Gr. *pan*, and root *op*, future *opsomai*, to see.] A room for the exhibition of novelties — A prison constructed so as to have all the prisoners within view of the officers at all times, without being seen by them.

Pano'ra, in *Iowa*, a post-village, former cap. of Guthrie co., about 44 m. W. by N. of Des Moines.

Panora'ma, *n.* [Gr. *pan*, all, and *ŏrama*, a sight.] A complete and entire view on all sides.

—A large picture, generally of a town or landscape, so constructed that a spectator in the centre of the room can have a complete view of the objects represented. This ingenious contrivence was invented by an English artist, Robert Baker, about 1794. It was painted *in distemper*, or similarly to the mode employed in scene-painting. The panorama forms the surface of a hollow cylinder or rotunda, in the centre of which is a detached circular platform for the spectators, covered overhead to conceal the daylight, thus increasing the illusion and adding greater effect to the picture. The latter is painted on canvas, like the scenes of a theatre. In painting a panorama, the artist must take from a high point an accurate plan of the whole surrounding scenery as far as the eye can reach. The great objects to be aimed at in panoramas are truthfulness of representation and closeness of imitation. The *diorama* differs somewhat from the panorama. — See DIORAMA.

Panoram'ic, Panoram'ical, *a.* Belonging to, or like, a panorama.

Panphar'macon, *n.* [Gr. *pan*, all, and *pharmakon*, a medicine.] A universal remedy for all diseases; a panacea; a cure-all.

Pan-Sla'vic, Pan-Slavo'nian, *a.* Pertaining to the Slavic races.

Pan-Sla'vism, *n.* [Gr. *pan*, all, and *Slavic.*] A project of uniting all races of Slavic origin into one confederacy or nation.

Pan-Sla'vist, *n.* An advocate of pan-Slavism.

Pansoph'ical, *a.* Pretending to universal knowledge. (R.)

Pansoph'ist, *n.* One who pretends to universal knowledge. (R.)

Pan'sophy, *n.* [Gr. *pan*, all, and *sophia*, wisdom.] Universal wisdom or knowledge. (R.)

Panstereora'ma, *n.* [Gr. *pan*, all, *stereós*, firm, solid, *ŏrama*, a sight.] A model of a city, county, &c., executed in wood, cork, &c., presenting every object in relief.

Panstereoram'ic, *a.* Pertaining to a panstereorama.

Pan'sy, *n.* [Fr. *pensée*, thought, from *penser*, to think, from Lat. *pensare*, to ponder. Written also *pancy.*] (*Bot.*) The Heart's-ease or Garden Violet (*Viola tricolor*). — See VIOLA.

Pant, *v. n.* [Fr. *panteler.*] To beat with preternatural violence or rapidity, as the heart in terror, or after hard labor, or in anxious desire or suspense. — To have the breast heaving, as in short respiration or want of breath. — To long; to desire ardently; — with *after* or *for.*

"Who *pants for* glory finds but short repose."—*Pope.*

—To play with intermission or declining strength, as a breeze.

—*v. a.* To breathe in a labored manner, or quickly; to gasp out. — To long for.

—*n.* A violent palpitation of the heart. — A gasp; a catching of the breath.

Pan'tagon, *n.* See ATOMECHANICS.

Pan'tagraph, *n.* Same as PANTOGRAPH, *q. v.*

Pantagru'elism, *n.* [From *Pantagruel*, a character in Rabelais' works.] The doctrine or practice of the medical profession; — applied in burlesque or derision.

Pantalet', *n.* [Dimin. of *pantaloon*, q. v.] A child's or woman's drawers; — generally used in the plural.

Pantaloon', *n.* [Fr. *pantalon*; said to be named from *Pantaleon*, formerly the patron-saint of Venice.] A species of close, long trousers, worn by males, extending from the waist to the heels; — used in the plural, and abbreviated *pants.*

(*Dram. Hist.*) One of the chief actors in a pantomime, who plays the part of foil to the clown, to display his witticisms upon. The name is derived from one of the masks in Italian comedy, who was dressed in wide, long garments, similar to those which the modern pantaloon wears.

Pantaloon'ery, *n.* Stuff or materials for pantaloons; trowsering. — Buffoonery; characteristic tricks performed by a pantaloon in pantomimes.

Pan'tamorph, *n.* That which exists in all forms.

Pantamorph'ic, *a.* [Gr. *pan*, all, and *morphē*, shape.] Assuming all forms; protean.

Pantech'nicon, Pantechnethe'ca, *n.* [Gr. *pan*, all, and *technē*, art.] A place where all kinds of merchandise and wares are exposed for sale.

Pantellaria, (*pan-tel-la-ree'a.*) (Anc. *Cossyra.*) An island of Italy, in the Mediterranean, prov. of Girgenti, 60 m. from the S.W. coast of Sicily; Lat. 36° 51′ 15″ N., Lon. 11° 54′ 29″ E. It is 30 m. in circumference. *Prod.* Corn, fruits, and grapes. At its N.W. point is the town of Oppidolo, with a convenient port for small vessels. *Pop.* 7,000.

Pant'er, *n.* One who, or that which, pants or gasps for breath.

Pant'ess, *n.* The difficulty of breathing peculiar to a hawk.

Pan'theism, *n.* [Fr. *pantheisme*, from Gr. *pan*, all, and *theos*, God.] (*Phil.*) A doctrine or system of philosophical speculation or religious belief, which affirms that all existence, material and spiritual, is only modifications of one eternal self-existent substance, which it calls God. The word pantheism was first used in its present signification by Toland in 1705, and a society was formed who took the name of Pantheists, because they professed worship of all nature as their deity. Pantheism, however, had existed from the earliest times, but was classed under the general name of atheism. It is to be found in the most ancient records of the race, apart from Scripture. The Vedic writings of the Hindoos are pervaded with pantheism; their innumerable host of gods being regarded as emanations of the primeval and unchangeable; while in the opposing system of Buddhism, the final object of aspiration is the absorption of man in the great eternal substance. Passing from India to Greece, we find pantheism to prevail in various of the philosophic systems there. Anaximander of Miletus (a. c. 611–547) is regarded as the father of the pantheistic tendencies of Greek speculation, and with him began the disposition to develop the universe from one grand indeterminate abstraction. He was followed by the Pythagoreans and Eleatics. Many of the Neo-Platonists adopted a system of pantheism; it also found a place among the Gnostics. In the 7th century, John Scotus Erigena, a man of great learning and original genius, advocated pantheism, and maintained that "all which is truly said to be is God alone;" "that everything is God," and "God is everything." In the 12th century pantheism reappears in the speculations of Amabric de Bena and David de Dinante. Giordano Bruno, who was burned as a heretic at Rome in 1600, may be regarded as the precursor of Benedict Spinoza in the history of modern pantheism. The latter, however, is the one with whose name pantheism is most commonly associated, and whose system is the most able and philosophic that has ever appeared. It is elaborated in his great work, the *Ethica*, in which he has attempted to deduce mathematically, from the knowledge of God, the fundamental laws of morality, and the principles that should regulate human life. In true geometric fashion, he begins by laying down a series of definitions and axioms, from which he proceeds to evolve, demonstratively, in a set of theorems, each depending on what has gone before, his entire scheme of God and the world. According to him, there can only be one existing substance, which has two modes or properties — thought and extension; and that of one or both of these all things consist; so that they are modifications of the one Infinite substance, which is Deity. All things are modes of extension, all thoughts are modes of thought. This Deity is not a conscious or intelligent individual; but whatever of mental faculties it possesses can only be the aggregate of the mental powers and actions of the innumerable beings that possess intelligence. Death is but a returning into the infinite whole; and, consequently, there is no future state. The modern systems of Fichte, Hegel, and Schelling, are pantheistic.

Pan'theist, *n.* One who believes the universe to be God; a believer in pantheism.

Pantheis'tic, Pantheis'tical, *a.* Pertaining to pantheism; confounding God with the universe; founded in, or inclining to, pantheism.

(*Sculpt.*) Applied to statues and figures which bear the symbols of several deities together, the meaning of which has been a subject of dispute among antiquaries.

Pantheol'ogist, *n.* One learned in pantheology.

Pantheol'ogy, *n.* [Gr. *pan*, all, *theos*, God, and *logos*, discourse.] An entire system of theology; a system of theology embracing all religious beliefs.

Pan'ther, *n.* [Fr. *panthère*; Lat. *panthera.*] (*Zoöl.*) The *Felis pardus* of Africa and India, one of the largest *Felidæ*, being of the size of a large dog, with short hair. The *P.* is now generally supposed to be identical with, or a mere variety of, the *Leopard*, q. v., differing only in a somewhat larger size and deeper color. The *Puma*, or American *P.*, *Felis concolor*, is the largest of the American cats, except the Jaguar, being larger than the largest dogs. The color above is uniform, pale, brownish-yellow, finely mottled by dark tips to all the hairs; beneath, dingy-white. It preys upon deer, sheep, and smaller quadrupeds, and has been known to attack and kill a human being. It is sometimes called *Catamount*, and *Cougar*.

Pan'theon, *n.* [Lat. and Fr., from Gr. *pan*, all, and *theos*, God.] A temple dedicated to all the gods. — A work of mythology; a book in which all the deities worshipped by a people are treated of; as, Tooke's *Pantheon.* — A place of public exhibition in which is found every variety of amusement.

(*Roman Arch.*) One of the most magnificent temples of ancient Rome, dedicated to all the gods. Of all the splendid fanes of this Queen of Cities, the Pantheon is the only one that has come down to modern days uninjured by war or time, being now converted into a Christian church dedicated to the Virgin Mary and all the martyrs. (Fig. 2039.) The Pantheon was built by Agrippa,

Fig. 2039. — THE PANTHEON (Rome).

the son-in-law of Augustus. It consists of a vast rotunda, with a spherical dome, and has a noble, Corinthian, octostyle portico. Its diameter and height from ground to light is 144 feet. Within this rotunda — as it is sometimes called from its shape — were arranged all the gods, goddesses, and deities of the Roman mythology.

Pan'therine, *a.* Pertaining to, or resembling, a panther; characteristic of the panther.

Pan'ther's Creek, in *Ohio*, enters the West Branch of the Miami River in Miami co.

Pan'ther Springs, in *Tennessee*, a post-village of Jefferson co., abt. 220 m. E. of Nashville.

Pan'tile, *n.* (Written also *pantile.*) A gutter-tile; a tile with hollow or curved surface; — hence, a pavement constructed of such; as, the *Pantiles* at Tumbridge Wells, England.

Pant'ingly, *adv.* With palpitation or rapid breathing.

Pantisoc'racy, *n.* [Gr. *pas, pantos*, all, *isos*, equal, and *kratein*, to govern.] An Utopian scheme of government; a self-governing community.

Pant'ler, *n.* [Fr. *panetier*; Lat. *panis*, bread.] The officer, in a great family, who keeps the bread, and has charge of the pantry. (R.)

Panto'ble, *n.* Same as PANTOFLE. *q. v.*

Pantochronom'eter, *n.* [Gr. *pas, pan*, gen. *pantos*, all, and Eng. *chronometer.*] An instrument combining the properties of the compass, the sun-dial, and the universal time-dial.

Panto'fle, *n.* [Fr. *pantoufle.*] (Also written *pantable*, and *pantoble.*) A slipper.

Pan'tograph, Pan'tagraph, Pen'tagraph, *n.* An instrument devised for the purpose of copying drawing, so that the copy may be either similar to, or larger or smaller than the original.

Pantograph'ic, Pantograph'ical, *a.* Pertaining to, or performed by, a pantograph.

Panto'graphy, *n.* [Gr. *pas, pantos*, all, and *gráphein*, to write.] General representation or description; complete view or observation of an object.

Pantolog'ical, *a.* Pertaining or relating to pantology

Pantol'ogist, *n.* One conversant with pantology; a writer on pantology.

Pantol'ogy, *n.* [Gr. *pas, pantos*, all, and *logos*, discourse.] A work on universal science, or of general information; a systematic compendium of all branches of human knowledge.

Pan'tomime, *n.* [Lat. *pantomimus*; Gr. *pantomimos*, from *pas, pantos*, and *mimos*, an imitator.] An actor who expresses his meaning by mute action or gesticulation; a mimic.

(*Dram. Hist.*) A theatrical representation, in which the entire plot is exhibited by gesticulations and scenic agency, without speeches or conversation. The ancient *P.* were persons who could mimic all sorts of actions and characters, and were first introduced on the Greek stage to imitate, by actions of feature, hands, and body, the substance or plot of what the chorus was singing; subsequently, they were employed as a sort of interlude to divert the audience after the chorus and actors had left the stage; and, finally, the *P.* became a separate performance, and formed a species of entertainment of its own.

Pan'tomime, Pantomim'ic, Pantomim'ical, *a.* Pertaining to the pantomime; representing only in mute action: as, *pantomimic* show.

Pantomim'ically, *adv.* In the manner of pantomime; by dumb show.

Pan'tomimist, *n.* An actor in pantomime.

Pan'ton, PAN'TON-SHOE, *n.* (*Fur.*) A shoe contrived to recover a narrow and hoof-bound heel.

Pan'ton, in *Vermont*, a post-township of Addison co.; *pop.* abt. 600.

Pantophagist, (*-tŏf'a-jĭst,*) *n.* [Gr. *pas, pantos*, all, and *phagein*, to eat.] A person or animal that eats all sorts of food.

Pantoph'agous, *a* Eating all kinds of food.

Pantoph'agy, *n.* The power or habit of eating food of all kinds.

Pan'try, *n.* [Fr. *paneterie*, pantry, safe; L. Lat. *panetaria*, from Lat. *panis*, bread.] A closet or apartment in which bread and other provisions are kept.

Panu'co, a town of Mexico, on the Tula River, abt. 50 m. N.N.E. of the city of Mexico.

Panur'gidæ, *n. pl.* (*Zoöl.*) See APIDÆ.

Pão D'Alho, (*powng dal'yo,*) a town of Brazil, abt. 40 m. W.S.W. of Pernambuco.

Pão D'Assu'car, a huge rock on the W. side of the entrance to the Bay of Rio de Janeiro. It is of granite, devoid of vegetation, and rises abruptly from the sea 600 ft. On it is the fort of São João.

Pa'ola, a town of S. Italy, in Calabria Citeriore, 12 m. W.N.W. of Cosenza. *Manuf.* Woollens, silks, and earthenware. *Pop.* 5,000.

Paola, in *Kansas*, a thriving township, cap. of Miami county, about 55 miles south of Leavenworth. *Pop.* (1895) 3,009.

Paoli, PASQUALE, (*pa'o-le,*) a Corsican patriot, b. 1726, whose father, Hyacinth, was, in 1755, elected one of the chief magistrates of the island, and subsequently acted as a leader in the revolt against the Genoese. On being compelled to quit Corsica, he retired to Naples with Pasquale, who was placed in the military college of that city. In 1755, being invited by the Corsicans to become their captain-general, he put himself at the head of his countrymen, and, during twelve years, waged a fierce war with the Genoese, who were in the end driven from almost every fort in the island. Genoa, however, gave up the island to France in 1765; and soon afterwards a large force was landed, under the command of Count Marbœuf, against whom Paoli and his followers fought desperately. But the Corsicans being totally routed at Pontenuovo, the island submitted. Paoli went to England, where he remained until 1789, in which year, Mirabeau having moved in the National Assembly the recall of all Corsican patriots, Paoli repaired to Paris, and was created by Louis XVI. military commandant in Corsica. While the government of France was monarchical, Paoli remained faithful; but, at the outbreak of the Revolution, he conceived a scheme for making Corsica an independent republic. Until this time he had been on the best terms with the Bonaparte family, but they now joined the Jacobin party, while he allied himself with Britain, favored the landing of 2,000 British troops in the island in 1794, and joined them in driving out the French. He then surrendered the island to George III., but becoming dissatisfied with the government, he quarrelled with the British viceroy, while many of his countrymen were displeased with the course he had adopted in allying himself with the British. He, therefore, left the island in 1796, and went to London, where he d., 1807.

Pa'oli, in *Indiana*, a post-village and township, cap. of Orange county, about 40 miles north-west of New Albany.

Paoli, in *Pennsylvania*, a post-village of Chester co., abt. 19 m. W. by N. of Philadelphia. In this vicinity, Sept., 1777, Gen. Wayne with a body of American troops was surprised by a superior force of British soldiers under Gen. Grey. The former were overpowered, and after laying down their arms were massacred by the victors.

Pap, *n.* [From Lat. *papilla.*] A nipple or teat, by which the infant draws its first food. — A rounded, teat-like hill; as, the *Paps* of Jura. — A soft food for infants, made with bread boiled or steeped in water; panada. — The pulp of fruit.

— *v. a.* To feed with pap.

Papa', *n.* [Lat., Fr., Du., Ger., Dan., Sp., and It. *papa.*] A childish name for *father.*

Papa', a town of Hungary, co. of Wesprim, 82 m. S.E. of Vienna. *Manuf.* Earthenware, paper, and glass. *Pop.* 13,000.

Pa'pacy, *n.* [Fr. *papauté*; Norm. *papate*; It. *papato*, from *papa.*] The office and dignity of the Pope or pontiff of Rome; papal authority or jurisdiction; popedom. — The popes taken collectively. See POPE.

Papaga'io, or **Papagay'os,** a group of islets of Brazil, off the S.E. coast of the province of Rio de Janeiro.

Pap'agay, *n.* (*Zoöl.*) Same as POPINJAY.

Papaga'yo, a gulf of Nicaragua, on the Pacific coast S.W. of Lake Nicaragua. On the N. shore is a volcano of the same name.

Pa'pal, *a.* [Fr.] Belonging to the Pope or pontiff of Rome; proceeding from the Pope; annexed to the bishopric of Rome; as, the *papal* chair, a *papal* dispensation. — *Papal Crown.* See TIARA.

Pa'palize, *v. a.* To make or render papal.

— *v. n.* To conform to papal doctrine.

Pa'pally, *adv.* In a papal manner.

Papal States. See STATES OF THE CHURCH.

Papa'na, in *Indiana*, a village of Whitley co., abt. 10 m. N.W. of Columbia.

Papapho'bia, *n.* [Gr. *pápas*, and *phóbos*, fear.] Fear of the Pope; hatred of, or hostility to, the Pope.

Pa'parchy, *n.* [Gr. *papas*, the Pope, and *archein*, to govern.] The papal government.

Papasquiero, (*pa-pas-ke-a'ro,*) a town of Mexico, abt. 50 m. W.N.W. of Durango; *pop.* 3,500.

Papaver, *n.* [Celtic *papa*, pap, a soporific food for children, composed of poppy-seeds, &c.] (*Bot.*) The typical genus of the order *Papaveraceæ.* The species *P. somniferum*, the White, or Opium poppy, furnishes the valuable drug *opium*, used so largely in medicine, and as a narcotic indulgence. Opium is obtained by making incisions into unripe capsules, and inspissating the milky juice which exudes from them. *P. rhœas*, the common Red, or Corn poppy, is common in cornfields and on roadsides. Its scarlet petals are officinal in our pharmacopœias, being used to prepare a syrup,

which is supposed to have some slight narcotic properties, but which is probably useful only as a coloring ingredient.

Papavera'ceæ, *n.* (*Bot.*) The Poppy-worts, an order of plants, alliance *Ramales*. DIAG. Dimerous or trimerous flowers, consolidated carpels, deciduous calyx, and usually parietal placentæ. — They are herbs or shrubs, often with milky juice: leaves alternate and exstipulate; peduncles 1-flowered; flowers regular and symmetrical; calyx and corolla deciduous, hypogynous; stamens numerous, hypogynous; ovary compound, 1-celled, with stigmas opposite to the placentas: fruit 1-celled; seeds numerous, albuminous. The plants of this order are in almost all cases characterized by well-marked, narcotic properties. Many species are commonly cultivated in gardens. The order includes 18 genera and 130 species.

Papavera'ceous, *a.* [From. Lat. *papaver*, poppy.] Pertaining to the poppy.

Papav'erous, *a.* [From. Lat *paparer.*] Resembling the poppy; possessing the nature of poppies.

Pa'paw, *n.* (*Bot.*) The fruit of *Carica papaya*, order *Papayaceæ*. See CARICA, and Fig. 2040.

Papaya'ceæ, *n.* (*Bot.*) The Papayad family, an ord. of plants, alliance *Papayales*. DIAG. Monopetalous flowers, having no scales in the throat of the females.— They are trees or shrubs, sometimes yielding an acrid milky juice; leaves alternate, on long taper petioles, lobed; flowers unisexual; calyx inferior, minute, five-toothed. The fertile flower has a 1-celled superior ovary, with from 3 to 5 parietal placentas. Fruit succulent or dehiscent. Seeds numerous, albuminous, with radicle towards the hilum. The order contains 8 genera and 25 species, native of S. America, and the warmer parts of the Old World. The most important plant of the order is the Papaw. (Fig. 2040.)

Fig. 2040.
PAPAW-TREE, (*Carica papavera.*)

Papaya'les, *n. pl.* (*Bot.*) An alliance of plants, subclass *Dichlamus Exogens*. DIAG. Dichlamydeous flowers, superior consolidated carpels, parietal placentæ, and embryo surrounded by abundant albumen. The alliance consists of 2 orders — PAPAYACEÆ and PANDIACEÆ, *q. v.*

Pap'enburg, a town of Prussia, prov. of Hanover, 21 m. S.S.E. of Emden. *Manuf.* Linen, tobacco, and chicory. *Pop.* (1897) 4,780.

Pa'per, *n.* [Fr. *papier*; It. *papiro*; Lat. *papyrus*, from Gr. *papuros*, an Egyptian reed, from the bark of which a kind of paper was made.] A substance made in thin sheets, by chemical and mechanical processes, from wood, rags, grass, straw, etc., for printing, writing, and various industrial purposes. The first paper was that made from the Egyptian papyrus (*q. v.*), from which the name is derived. Very thin slices of the cellular pith of the papyrus were laid side by side, then crossed with another layer. This being moistened, subjected to heavy pressure, and then dried, formed a sheet of paper, which was finished by rubbing and polishing with a smooth stone, shell, or the like. About 300 years B. C. the Chinese made a writing material from silk waste, but fibrous vegetable paper was not made by them until about the year 100 A. D. Hemp, rags, bark, and the fiber of old fishing-nets were among the materials used. Paper-making was established at Bagdad in 795. The first making of rag paper in Europe was in Spain in 1154. The art was introduced in France and Germany about 1314. The first English paper-mill is believed to be that established in Stevenage, in Hertford, in 1460, though paper was used in England at least a century earlier. The first paper-mill erected in the United States was in 1690, in what is now a part of Philadelphia. The next was in 1714, in Delaware, afterward owned by a Mr. Wilcox, who furnished paper to Franklin. It was introduced into Massachusetts in 1717, and in Norwich, Conn., in 1768. It soon made rapid progress, so that in Pennsylvania, New Jersey, and Delaware, there were 40 paper-mills in 1770, and in the New England States the supply was far short of the demand. In 1810 the number of paper-mills in the United States was 185, producing over 200,000 reams of writing-paper, besides over 100 000 reams of wrapping and other kinds of paper. In 1897 there are about 1,500 mills in the United States, producing nearly 2,000,000 tons of paper annually of all kinds. The production of the other countries of the world is estimated at 1,500,000 tons annually, this being the product of about 3,500 mills. The paper made in the earlier part of the 19th century was almost wholly rag, but various fibers have been gradually introduced, including a great many varieties of wood, grasses, and straw. The available vegetable fibers are now so numerous that the sort used in different localities depends very much upon the cheapness and ease with which it can be obtained. Wood pulp, esparto grass, straw, and cotton and linen rags have come to be the commonest materials used, the three former for the cheaper grades, and the latter for the better. Paper was made entirely by hand until 1799, in which year Robert Louis built a machine for the Messrs. Didot, of the Essonnes paper-mills, near Paris. In 1803–4 the machine was introduced into England by Henry and Sealy Fourdrinier and Donkin. The Fourdriniers purchased the French patents, and developed the type of machine in use to-day, which is commonly called by their name. As now made, the paper-making machine is really a series of machines, set in a line, so as to operate continuously. The total length is sometimes 100 to 125 feet, and the width runs up to 126 inches. First is the pulp-vat, in which the pulpous mixture of fiber, water, &c., is agitated, being pumped therefrom into a regulator-box, from which it flows out through a gate, by means of which an even, regular flow is obtained. The pulp is received next on an endless wire cloth, or apron, the edges of which are protected by straps called deckles, so that the pulp may not run over the sides, the surplus water being drained off into a save-all box. The movement of the pulpous web is so regulated as to determine the thickness of the paper, while to the entire web a shaking motion from side to side is given, which serves to spread the pulp evenly, to cross the fibers, and as ist in draining the superfluous water through the wire-gauze. The pulp, by this means, is somewhat solidified. The wire apron carries the paper-pulp on to the couch-rolls, which transfer it to an endless wet-felt apron, thence to other rolls, and to the press-felt apron and the press-rolls. These last squeeze out most of the water. The speed of the felt aprons has to be very nicely regulated to prevent the breaking of the tender web of paper, but after leaving the press-rolls it is sufficiently strong to carry itself, and passes on to a series of hot drying-cylinders. Steam is introduced into these cylinders, of which there are 10 or 12, so that the last vestige of moisture is evaporated. The calendering rolls, which are of polished cast-iron, serve to give a certain finish to the paper by pressure. The paper may be then coated, or tub-sized, and then passed again through calender rolls. The slitting-machine then slits the web into the desired widths and trims the edges, after which the paper may be cut into sheets and quired. The plated papers used for labels, &c., and frequently plated on one side only in colors, are made by coating. White plate paper is given its high finish by being placed between zinc plates, and run through pressure rolls. So many kinds of paper are manufactured that it is impossible to attempt an enumeration of them. Wrapping paper, manila, blotting, news, book, writing, drawing, linen, coated, parchment, bond, paraffine, manifold, and filtering are some of the more distinctive sorts, suggesting the wide variety of kinds and qualities. Newspaper is used in enormous quantities, forming the bulk of the product manufactured. Common newspaper now sells at about 2 cents per pound, magazine paper at about 5 cents, and finely coated paper at 9 to 15 cents. The best bond papers are worth 8 cents a sheet.

Following is a list of the sizes of writing and printing papers that bear special names, though paper is now made in such a multitude of sizes that it is usually ordered definitely by inch measurements:

Sizes of Paper.	*U. S.*	*English.*
Foolscap, writing	12½ x 16	13½ x 17
Foolscap, printing		13½ x 17
Flat Cap	14 x 17	14 x 17
Post		15¼ x 19
Commercial Post		11 x 17
Small Post		13½ x 16½
Large Post		16½ x 20¾
Demy, writing	16 x 21	15 x 20
Demy, printing		17½ x 22
Folio Post	17 x 22	17 x 22
Medium, writing	18 x 23	17½ x 22
Medium, printing	19 x 24	19 x 24
Royal, writing	19 x 24	19 x 24
Royal, printing	20 x 25	20 x 25
Super-royal, writing	20 x 28	19¼ x 27½
Super-royal, printing	22 x 28	21 x 27
Imperial, writing	23 x 31	
Imperial, printing	22 x 32	22 x 30
Elephant, writing	23 x 25	23 x 28
Atlas, writing	26 x 33	26 x 34
Columbier, writing	23 x 34	24 x 34½
Antiquarian, writing		31 x 53

In making rag paper, the rags are first sorted, separating the cotton and linen. They are then run through a series of dusting, boiling, cutting, and comminuting machines. The boiling is done with caustic soda. Washing, beating, and bleaching follow. Resin soap, treated with alum, is added to the pulp for engine-sizing, and starch is also used for this purpose. The coloring matter, if any, is next mixed in, a certain quantity being necessary to produce pure white paper. Aniline colors are commonly employed for tinted papers. Clay is added to paper as an adulterate, to give it more weight. Some fine grades of paper are still made by hand, for writing, drawing, &c., and are supposed to be stronger than machine-made paper. A great deal of newspaper, and some book and manila papers are made and sold in the roll, for use on web printing-presses. If cut, it is either piled and bundled flat, in crates, or rolled, or folded in quires of 24 sheets, 20 quires to the ream. Some paper is sold, however, with 500 sheets to the ream. The water-mark is impressed in the body of the paper by shaping the wires on the dandy-rolls, or gauze wire cylinders which are placed over the wire apron upon which the pulpous sheet is formed. Deckled, or rough-edged, paper is that which comes untrimmed from the machine, the edges being irregular, as shaped by the deckles. Paper is either "laid" or "wove." (See these words.) The paper used by the U. S. government in the manufacture of bank-notes has colored silk threads worked into it, to discourage counterfeiting. Paper is brown when unbleached; natural or cream tint, when no color is introduced for whitening; toned, when slightly tinted; coated when brushed with a mixture of chalk, china clay, gypsum, sulphate of barytes, &c. Paper pulp is moulded into a great variety of commercial articles, as for wall decorations, filling for car-wheels, cartridge-cases, barrels, basins, pails, boats, building materials, &c.

Paper, *v. a.* To cover or spread with paper; to furnish with paper-hangings; as, to *paper* a room.—To envelop, inclose, or fold in paper.

Paper-cloth, *n.* A fabric made from the inner bark of the paper-mulberry, by islanders of the S. Pacific.— Also, any thin cloth faced with paper on one or both sides.

Paper-coal, *n.* Coal formed from masses of petrified leaves, found in the Tertiary formation.

Paper-cutter, *n.* A printers' and bookbinders' machine, for cutting and trimming large piles of paper. It is built on the guillotine principle, with a powerful horizontal knife, which is depressed with a side or drawing motion.

Paper-faced, *a.* With a face as white as paper.

Pa'per-hang'er, *n.* One who covers the walls of rooms with paper.

Pa'per-hang'ings, *n. pl.* Paper, ornamented or otherwise, intended for pasting on the walls of rooms, &c. Paper-hangings are printed by processes similar to those used by the calico printer.

Paper-holder, *n.* A file for newspapers; also, any convenient box or small receptacle for newspapers, writing paper, &c.

Paper-knife, *n.* A knife of ivory, bone, wood, &c., having a jointless handle and dull blade, usually formed in one piece, and serving to cut the leaves of untrimmed books, magazines, &c.

Pa'permill Vil'lage, in *Vermont*, a village of Bennington co., about 115 m. S.W. by S. of Montpelier.

Paper-mulber'ry, *n.* A tree of Japan and the S. Pacific islands (*Broussonetia papyrifera*), of the mulberry family; it is short and bushy, and has light, downy leaves.

Pa'per-mus'lin, *n.* Glazed muslin, used for linings, &c.

Pa'per Nau'tilus, Paper-sail'or, *n.* (*Zoöl.*) See ARGONAUT.

Paper-ru'ler, *n.* A ruling machine for making the soft lines on writing paper.—Any device for ruling a line on paper.—One who makes a business of ruling writing papers.

Paper-scales, *n.* Minute scales of great accuracy, for judging of the weight of a ream of paper by the weight of a single sheet.

Paper-spar, *n.* A variety of calcite, occurring in thin plates, suggestive of paper sheets.

Pa'per-stain'er, *n.* One who stains or colors paper for hangings, &c.

Paper-stock, *n.* Material for making paper.—An assortment of paper. About 25 per cent. of old paper can be worked into new stock in making the pulp. It adds to the body of the paper, but nothing to the strength, being practically deprived of its fiber.

Pa'pertown, in *Pennsylvania*, a village of Cumberland co., about 7 m. S. of Carlisle.

Paper-wasp, *n.* A wasp (as a *vespid*) that builds a nest of a papery material.

Pa'per-weight, *n.* A small weight placed upon loose papers to prevent their being blown away by the wind.

Pa'pery, *a.* Resembling paper; of the consistency of paper.

Papes'cent, *a.* Containing pap; having the nature of pap.

Papeterie, (*pap-a-tree'*,) *n.* [Fr., from *papier*, paper.] An ornamented case or portfolio containing paper and writing-materials.

Pa'phian, *a.* [Lat. *Paphius*, from Gr. *Paphos*.] (*Geog.*) Belonging, or relating to Paphos, a city of Cyprus; as, the *Paphian* goddess.

—Pertaining to Venus, or having reference to her rites.

—*n.* A native or inhabitant of Paphos.

Paphlago'nia, (*Anc. Geog.*) A country of Asia Minor, bounded on the N. by the Euxine; on the S. by Galatia; on the E. by the Halys, which separates it from Pontus; and on the W. by the river Parthenius, which parts it from Bithynia. *P.* contained 7 principal cities, of which Sinope (the cap.), Gangra, Amastris, and Sora, were the most important. It is mentioned by Homer, B. C. 962; was incorporated in the Lydian empire by Cræsus, B. C. 560–546; and in that of Persia by Cyrus, B. C. 546. Nominally independent for some time afterwards, it fell to the share of Eumenes, B. C. 323. It was united to Pontus by Mithridates III., B. C. 290; formed a part of the province of Galatia, under the Romans, B. C. 25; and was made a separate province by Constantine I., (323–337.)

Pa'phos. (*Anc. Geog.*) The name of two towns in the

Isle of Cyprus. The older city, *Palaipaphos* (now *Kuklos*, or *Konuklia*), was situated in the W. part of the island, about 1¼ m. from the coast. It was probably founded by the Phœnicians, and was famous, even before Homer's time, for a temple of Venus, who was said to have here risen from the sea close by, whence her epithet *Aphrodite*, "foam-sprung," and who was designated the Paphian goddess. This was her chief residence, and hither crowds of pilgrims used to come in ancient times. —The other Paphos, called *Neopaphos* (now *Baffa*), was on the sea-coast, about 7 or 8 m. N.W. of the older city, and was the place in which the apostle Paul proclaimed the gospel before the proconsul Sergius, and struck the sorcerer Elymas blind.

Papier-mâché, (*pap'yā-mā-shā'*,) *n.* [Fr., mashed paper.] A name given to articles manufactured of the pulp of paper, or of old paper ground up into a pulp, with other materials, and moulded into various forms. This article has been used upon an extensive scale for the manufacture of mouldings, rosettes, and other architectural ornaments; and is also now used in this country for making the moulds of stereotype plates. It is lighter, more durable, and less brittle and liable to damage than plaster, and admits of being colored, gilt, or otherwise ornamented. Another material, similar to papier-mâché, and extensively used, is called *carton pierre*. Another kind of papier-mâché consists of sheets of paper pasted or glued and powerfully pressed together, so as to acquire when dry the hardness of board, and yet to admit, while moist, of curvature and flexure: tea-trays, waiters, snuff boxes, and similar articles are thus prepared, and afterwards carefully covered by Japan or other varnishes, and often beautifully ornamented by figures or landscapes and other devices, &c., inlaid occasionally with mother-of-pearl. A mixture of sulphate of iron, quicklime, or glue, or white of egg, with the pulp for *P. M.*, renders it to a great extent waterproof; and the further addition of borax and phosphate of soda contributes to make it almost fireproof.

Papilio, (*pa-pil'yo.*) *n.* [Lat., butterfly.] (*Zoöl.*) The typical genus of the Papilionidæ, *q. v.*

Papilionaceæ, *n.* (*Bot.*) A sub-order of plants, order *Fabaceæ*. DIAG. Petals papilionaceous, imbricated in æstivation, the upper exterior. The plants of this sub-order are the only specimens known.

Papilionaceous, (*pa-pil-yo-nā'shus,*) *a.* [Fr. *papilionacé*.] (*Zoöl.*) Like the butterfly.

—*n.* [Fr. *papilionacé*, from Lat. *papilio*, a butterfly.] (*Bot.*) The name applied to the corolla of leguminous plants, from its fancied resemblance to the figure of a butterfly, (Fig. 65.) It consists of a large upper petal or vexillum, two lateral petals called *alæ*, and two intermediate petals forming a carina.

Papilion'idæ, *n. pl.* (*Zoöl.*) A family of insects, embracing lepidoptera, which are the largest of our butterflies, and which generally have their hind wings extended into a tail-like appendage. (Fig. 2041.)

Fig. 2041.
SWALLOW-TAILED BUTTERFLY,
(*Papilio machaon.*)

Papil'la, *n.*; *pl.* PAPILLÆ. [Lat.] (*Anat.*) Small eminences, more or less prominent, at the surface of several parts, particularly of the skin and mucous membranes, containing the ultimate expansions of the vessels and nerves, and are susceptible in some cases of a kind of erection.

(*Bot.*) A small, elongated, or nipple-shaped protuberance.

Papillary, Papillose, *a.* [Fr. *papillaire, papilleux*.] Pertaining to, or resembling the nipple, or nipple-like parts, such as small eminences on the surface of the tongue, &c.; covered with papillæ; warty; verrucose.

Papillate, *v. n.* To grow into a nipple, or into the form of a nipple.

—*a.* (*Bot.*) Having papillæ.

Papilliform, *a.* [Lat. *papilla*, nipple, and *forma*, form.] Nipple-shaped.

Papillon (or BIG PAPILLON) **River,** in *Nebraska*, rises in Washington co., and flowing generally S.S.E., enters the Missouri River in Sarpy co.

Papillote, *n.* [From Fr. *papillon*.] A lady's curl-paper; —also, sometimes, a cigarette.

Papillous, *a.* Same as PAPILLARY, *q. v.*

Papin, DENIS, a French physician, b. at Blois, 1647. He studied medicine in Paris, practised for some time as physician, devoted himself subsequently entirely to the study of physics, went to England, where he became member of the Royal Society, in 1681, and was called to the chair of mathematics in the university of Marburg, in Hesse Cassel. D. there, 1714. To *P.* undoubtedly belongs the high honor of having first applied steam to produce motion by raising a piston: he combined with this the simplest means of producing a vacuum beneath the raised piston, viz., by condensation of aqueous vapor; he is also the inventor of the "safety-valve," an essential part of his "Digester," (*q. v.*) By this latter machine, *P.* showed that liquids in a vacuum can be put in a state of ebullition at a much lower temperature than when freely exposed to the air. *P.*'s sagacity led him to many other discoveries; he discovered the principle of action of the siphon, improved the pneumatic machine of Otto de Guericke, and took part against Leibnitz in the discussion concerning "living" and "dead" forces.

Papist, *n.* [Fr. *papiste*, from *pape*, the pope.] A Roman Catholic; one who adheres to the Church of Rome and the authority of the Pope; —originally used by Protestants.

Papistic, Papistical, *a.* Conformable to the doctrine or practice which requires submission to the Pope; popish.

Papistically, *adv.* In a papistical manner.

Papistry, *n.* The doctrines of the Church of Rome; popery; —a term used by Protestants.

Papoose, Pappoose', *n.* The name given by N. American Indians to a babe or young child.

Pappose', Pap'pous, *a.* Downy; furnished with downy hairs, as the seeds of certain plants.

Pap'pus, *n.* [Gr. *pappos*.] (*Bot.*) A term applied to the calyx of *Asteraceæ*, and allied orders, which exists in the rudimentary condition of a cup or membranous coronet, or in the more perfect state of slender hairs or scales, or in some other similar condition, at the top of the achenium or fruit.

Paps of Jura, four mountains of the island of Jura, Hebrides, Scotland. The highest has an elevation of 2,470 feet.

Pap'py, *a.* Like pap; soft; succulent.

Papua, or NEW GUINEA, a large island of the Eastern Archipelago, the largest of the globe after Australia, between Lat. 0° 30' and 10° 4' S., Lon. 131° to 151° 30' E., having N. and N.E. the Pacific Ocean, S. Torres Strait, and W. the Moluccas Sea. It is abt. 1,500 m. in length from N.W. to S.E.; *area*, estimated at 250,000 sq. m. *Desc. P.* is deeply indented by several bays, but of which, as also of most of the interior, very little is known as yet. The surface is generally mountainous, and covered with palm and other timber of large size. There are several high peaks, the principal of which is Mount Owen Stanley, with an elevation of 13,205 feet. The soil is very fertile, and the climate generally healthy. *Rivers.* Amazon, or Rochussen, Aird's River, the Oeta-Natai, and the Karoela. *Prod.* Rice, sugar-cane, tobacco, cocoa-nuts, sago, bananas, oranges, lemons, &c. *Min.* Gold, coal, and ironstone. The inhabitants are of two distinct races, those of the W. being negroes, and those of the E. resembling the South-Sea Islanders. They are governed by native chiefs, though nominally under the authority of the sultan of Tidore. They do not seem to have any particular idea of religion, though there are temples with carved figures, &c. They are generally of fine figure. *P.* was discovered by the Portuguese in 1511, and visited by the Dutch in 1615 who founded a colony in 1828. In 1883 the island was annexed to the colonial govt. of Queenstown, this was not approved by the Home Government. Subsequently the S. Coast was taken possession of by Great Britain and Germany the N. Coast.

Papuan, *a.* (*Geog.*) Belonging, or having reference to, the island of Papua, or New Guinea.

—*n.* (*Geog.*) A native or inhabitant of Papua.

Papula, *n.*; *pl.* PAPULÆ. [Lat.] (*Med.*) A small acuminated elevation of the cuticle with an inflamed base; very seldom containing a fluid, or suppurating, and commonly terminating in scurf or desquamation.

Papudo Bay, an inlet of the Pacific Ocean, in Chili, abt. 45 m. N.E. of Valparaiso.

Papulose, Papulous, *a.* Covered with papulæ.

Papulous, *a.* Full of pimples.

Papyrus, (*pa-pī'rus.*) (*Bot.*) A genus of plants, order *Cyperaceæ*. *P. antiquorum*, the bulrush of the Nile, is celebrated on account of the soft cellular substance in the interior of its stems, having been in common use by the ancients for making a kind of paper. The uses of the papyrus were not confined to the making of paper alone, but it was also used for making sail-cloth, cordage, and wearing apparel. At the present day, it is still used for some of these purposes. In Abyssinia, boats are also made by weaving the stems closely together, and covering them with a sort of resinous matter. The roots are also used for fuel. Its most ancient and important use, however, was for the manufacture of paper. *P. sicula*, a Sicilian species, had likewise been employed for the same purpose. *P. corymbosus* is extensively used in India for the manufacture of the celebrated Indian matting. The paper made by the Egyptians from the *P.* plant was used for writing about B. C. 2000. The rolls of that material were made known in Europe through the French expedition, in 1798; specimens of which were printed by Cadet in 1805. Philostratus mentions it as a staple manufacture of Alexandria, in 244. It continued to be used in Italy till about the 12th century. In the ruins of Herculaneum 1,756 rolls were found about 1753.

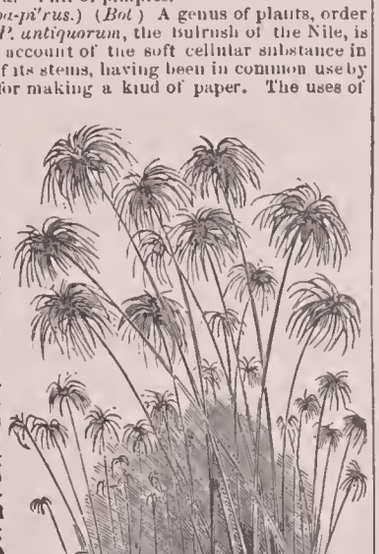


Fig. 2042. — PAPYRUS ANTIQUORUM

Papyra'ceous, Papyr'eau, *a.* [From Lat. *papyras*; Fr. *papyracé*.] Pertaining, or relating to the papyrus, or papyri.

Papyrine, *n.* A modification of paper formed on dipping it into sulphuric acid, washing, immersing in dilute ammonia, re-washing and drying. The product is tough and durable. It is commonly called *vegetable parchment*.

Papyrog'raphy, *n.* [Gr. *papyros*, and *graphein*, to write.] A method of taking impressions from a sort of pasteboard covered with a calcareous substance. *Worc.*

Pâque, (*pāk.*) *n.* [Fr.] Same as PASCHA, *q. v.*

Paque'ta, an island of Brazil, in the Bay of Rio de Janeiro.

Par, *n.* [Lat. *par, paris*, equal.] State of equality; equal value; equivalence without discount or premium; as, gold is at *par*. —Equality of condition; parity of circumstances.

On a par, on a level; equal; co-existent in the same condition or on the same terms; as, they are both *on a par*. — *Par of exchange*. (*Com.*) See EXCHANGE. —*Par value*, nominal value.

Para, *n.* [Turk., from Pers. *pârah*.] A Turkish current coin, being the fortieth part of a piastre, or about one quarter of a cent.

Para. A prefix derived from the Greek, signifying *beside, beyond*.

Para. [Pg., father of waters.] The name formerly applied to the Amazons River, Brazil, but now only given to its S. mouth or æstuary. It leaves the main stream abt. Lat. 1° S., Lon. 50° 30' W., and flowing a circuitous S., then E., then N.E. course, enters the Atlantic Ocean, after receiving the Tocantins and several less important streams. It is 200 m. in length, and varies from 12 to 40 m. in width.

PARA, a large N.E. prov. of Brazil, bordering on the Atlantic Ocean, and having an area of 983,898 sq. miles. *Rivers.* Amazons, Para, Rio Negro, Tocantins, Madeira, Tapajos, and many others. — *Surface*, mostly elevated, being a portion of the great table-lands of Brazil; *soil*, in general fertile, producing almost every variety of tropical fruits, vegetables, and cereals in abundance. *Pop.* 385,000.

Fig. 2043. — FEMALE INDIAN,
(Province of Par.)

PARA, (formerly *Belem*,) a city and sea-port, cap. of the above prov., at the mouth of the River Para, opposite the island of Joanes or Marajo, estimated about 60 m. from the Atlantic, and 300 miles W.N.W. of Maranhão; Lat. 1° 30' S., Lon. 48° 22' 33" W. It stands in a fertile plain, and is one of the finest of Brazilian cities, its streets being straight, and the houses almost all of stone, and both solid and elegant. The cathedral and governor's palace are said to be magnificent edifices. Para has a judicial tribunal, royal college, botanic garden, hospital, theatre, and arsenal. The harbor is confined, and is said to be diminishing in depth; the approach from the ocean is also rather difficult, and it is always expedient to take on board a pilot at the mouth of the æstuary. The principal articles of export are cocoa, of which it exports above 35,000 bags; caoutchouc, of which it is the principal mart; with isinglass, rice, drugs, and cotton, amounting in all from $750,000 to $850,000 a year. The sugar grown in the neighborhood is bad, the soil not being favorable for the cane. Ships of war have been built here; and timber used to be exported to Lisbon for the use of the arsenals. The climate of Para is very hot, and thunder-storms occur almost daily. It was formerly deemed very unhealthy, but in this respect it has latterly materially improved. *Pop.* abt. 25,000.

Parable, *n.* [Fr. *parabole*; Gr. *parabolē*, from *para*, beside, and *ballō*, to throw.] A fable or allegorical relation, or representation of something real in life or nature, from which a moral is drawn for instruction; as the *parables* of the New Testament.

—*v. a.* To describe or represent by fiction, fable, or allegory.

Parab'ola, *n.; pl.* PARABOLAS. [Fr. *parabole;* Gr. *parabolē.*] (*Geom.*) One of the conic sections formed by the intersection of a plane and a cone, when the plane passes parallel to the side of the cone. — See ELLIPSE.

Parab'ole, *n.* [Lat., from Gr. *parabolē.*] (*Rhet.*) Comparison; similitude; a parable.

Parabol'ic, Parabol'ical, *a.* Expressed by parable or allegorical representation; as, *parabolical* description. — Of, or belonging to a parabola; having the form of a parabola; as, a *parabolic* curve.

Parabolic conoid. See PARABOLOID. — *Parabolic spindle,* the solid generated by the rotation of a parabole about any double ordinate. — *Parabolic spiral,* a spiral curve supposed to be formed by the periphery of a semiparabola, when its axis is wrapped about a circle. — *Parabolic pyramidoid,* a solid generated by supposing all the squares of the ordinates applicable to the parabola, so placed that the axis shall pass through all their centres at right angles, in which case the aggregate of the planes will form the solid called the *parabolic pyramidoid,* the solidity of which is equal to the product of the bases and half the altitude.

Parabol'ically, *adv.* After the manner, or by way, of parable. — In the form of a parabola.

Parabol'iform, *a.* [From Lat. *parabola,* and *forma,* shape.] Like a parabola in form.

Parab'olist, *n.* A writer or expositor of paraboles.

Parab'oloid, *n.* [Gr. *parabolē,* parabola, and *eidos,* form.] (*Geom.*) The solid generated by the rotation of a parabola about its axis, which remains fixed. A frustum of a paraboloid is the lower solid formed by a plane passing parallel to the base of a paraboloid. (Sometimes termed a *parabolic conoid.*)

Paraboloid'al, *a.* Belonging to, or resembling, a paraboloid.

Paracatu, or PARAZATU, (*pa-ra-sa-too',*) a city of Brazil, on a river of the same name, (an affluent of the São Francisco,) abt. 350 m. N.N.W. of Rio de Janeiro. It contains a Latin school, and was once noted for the rich gold and diamond mines in the vicinity.

Paracel'sian, Paracel'sist, *n.* A follower of the system of medical practice initiated by Paracelsus.

—*a.* Pertaining, or having reference to Paracelsus or his practice.

Paracel'sus, theosophist, physician, and chemist, was b. at Einsiedeln, near Zurich, in 1493. His real name was PHILIP THEOPHRASTUS BOURBAST VON HOHENHEIM, but he assumed the high-sounding name of AUREOLUS THEOPHRASTUS PARACELSUS. He learned the rudiments of alchemy, astrology, and medicine from his father, and then became a wandering scholar, visiting almost all parts of Europe, and gathering information from physicians, barbers, old women, conjurers, &c. He made some fortunate cures, and announced that he had discovered an elixir which would prolong life indefinitely; whereby he made himself, for a time, an immense reputation of physic and surgery in the University of Basle, and there set the example of lecturing in the vulgar tongue. But his arrogance, coarseness of language, and habits of drunkenness and debauchery, soon destroyed his fame and influence, and he lost his professorship, and left Basle at the end of 1527. The rest of his life was spent in roving from place to place, practising medicine, indulging in low habits, and writing his books, which were published in 10 vols. 4to. Notwithstanding all his faults, errors, and absurdities, *P.* gave a new direction to medical science, by his doctrine that the true use of chemistry is not to make gold, but to prepare medicines; and from his day the study of chemistry became a necessary part of a medical education. He opposed the theories of Galen and Avicenna, and publicly burnt their works at Basle; and their long reign came to an end. *P.* made great use of the Cabalistic writers, adopted the grossest pantheism, boasted of his own divine inspiration, and employed many new and barbarous words, and used old ones in new senses, thus obscuring his opinions. D. at Salzburg, 1541.

Paracente'sis, *n.* [Lat.; Gr. *para,* at the side, and *kentein,* to pierce.] (*Surg.*) The operation of *tapping* any of the cavities of the body for the purpose of withdrawing a contained fluid.

Paracen'tric, Paracen'trical, *a.* (*Math.*) Applied to a curve line having this property, that a heavy body descending along it by the force of gravity will approach to or recede from a *centre* or fixed point, by equal distances in equal times.

P. motion. (*Astron.*) The rate at which a planet approaches nearer to or recedes farther from the sun or centre of attraction in a given interval.

Parachronism, (*-ăk'ron-izm,*) *n.* [Gr. *para,* beyond, and *chronos,* time.] A chronological error by which an event is post-dated as regards the actual time of occurrence.

Par'achute, (*-shūt,*) *n.* [Fr., from *parer,* to ward off, and *chute,* to fall.] A machine attached to a balloon, to retard the velocity of descent, or to enable the aëronaut to desert his car at any moment, and come gently to the earth. This has frequently been accomplished with success, and the parachute is a highly important addition to the balloon. In some cases, however, failure has attended the use of the parachute, and the aëronaut has paid with his life for his daring. The balloon itself may be so constructed as to act as a parachute by being collapsed at the will of the operator.

Paraclet, (*par'a-klai,*) a village of France, dept. of Aude, 3 m. from Nugent-sur-Seine. Here are the ruins of the convent founded by Abelard in the 12th cent., of which Heloise was abbess.

Par'aclete, *n.* [Fr. *paraclet;* Lat. *paracletus,* from Gr. *para,* beside, and *kalein,* to call.] An advocate; one summoned to aid, sustain, or support; — hence, the comforter, consoler, or intercessor; — a term applied to the Holy Spirit.

Paraclif'ta, in *Arkansas,* a village, former cap. of Sevier co., about 165 m. S. W. of Little Rock.

Par'aclose, Par'close, Per'close, *n.* [O. Fr. *parclose,* from Lat. *per,* through, and *claudere, clausum,* to close.] (*Arch.*) A screen dividing a chapel from the body of a church.

Paracros'tic, *n.* [Gr. *para,* and *akrostichon.*] (*Lit.*) A poetical effusion in which the first contains, in due order, all the letters which initial the remaining verses of the piece.

Paracyan'ogen, *n.* (*Chem.*) A brown, solid matter, having the same composition with gaseous cyanogen, and produced by the decomposition of cyanide of mercury by heat. *Form.* C_6N_3.

Parade', *n.* [Fr., military show or review; from Lat. *paro, parutus,* to place in order.] Display; gaudy show; exhibition; ostentation; — hence, military review or display; order and array of troops for inspection, &c.; — hence, also, the place where soldiers assemble for exercise, mounting guard, and the like. — Pompous procession, show, or spectacle. — Act of parrying a thrust in fencing. (A Gallicism.)

Parade of a field-work. (*Fortif.*) The space within the lines of a parapet. — *Parade of a permanent work,* the space inclosed within the rampart of a fort.

—*v. a.* To exhibit in a pompous manner; to show off ostentatiously; to make a spectacle of; as, a match-making mamma *parades* her marriageable daughters. — To assemble and array or marshal in military order; as, to *parade* troops.

—*v. n.* To go or walk about for show. — To assemble and be marshalled in military order; to go about in military procession.

Paradigm, (*păr'a-dim,*) *n.* [Gr. *paradeigma.*] A pattern; a model; an example. (R.)

(*Gram.*) An example of a verb conjugated in the several moods, tenses, and persons.

Paradigmat'ic, *n.* (*Eccl. Hist.*) A compiler of the memoirs of religious worthies, as examples of Christian excellence.

Paradigmat'ically, *adv.* By paradigm; in the way of example or model.

Paradis, (*par-a-dē',*) *n.* [Fr.] A wet-dock. — The upper gallery of a theatre; in England, the gallery sacred to the "gods."

Paradisa'ic, Paradisa'ical, *a.* Pertaining, or relating to, or resembling paradise; paradisal.

Par'adisal, *a.* Same as PARADISAIC, *q. v.*

Par'adise, *n.* [Fr. *paradis* = Gr. *pardeisos,* a park or pleasure-grounds; an Oriental word, in Ar. *furdūs,* pl. *furādīs;* Sansk. *puradēsha,* a land elevated and cultivated; Lat. *paradisus.*] (*Script.*) The Garden of Eden, the abode of Adam and Eve after their creation. — Hence, a region of ineffable bliss; a place of unalloyed delight. — Heaven, the seat of eternal felicity for sanctified souls after death.

(*Arch.*) The cloistered court in front of a church; also, the private apartment of a convent. — A churchyard or cemetery; a parvis.

Grains of Paradise. See AMOMUM.

Bird of Paradise. See PARADISEIDÆ.

Par'adise, in *Illinois,* a post-village and township of Coles county, about 80 miles east south-east of Springfield.

Paradise, in *Pennsylvania,* a post-village and township of Lancaster co., about 10 m. E. of Lancaster. — A twp. of Monroe co. — A twp. of York co. — A post-village in each, *Cal., Ill., Kan., Ky., Mo., N. Y., Texas,* and *Utah.*

Paradis'ean, *a.* Of, or having reference to paradise.

Paradise'idæ, *n. pl.* (*Zoöl.*) The Bird-of-Paradise family, comprising insessores birds peculiar to New Guinea and adjacent islands, and distinguished for their wonderfully developed and beautiful plumage. The genus *Paradisea* is the principal one. The Great Emerald Paradise Bird, *P. apoda,* from the tip of the bill to the end of the long side-feathers, is about two feet, but to the end of the real tail abt. 12 inches, the size of the bird being that of a thrush. The bill is slightly bent, and of a greenish color; the base being surrounded, for the distance of half an inch, with close-set, velvet-like black plumes, with a varying lustre of gold-green; the head, together with the back part of the neck, is of a pale gold-color, the throat and fore part of the neck of the richest changeable gold-green; the whole remainder of the plumage on the body and tail is of a fine deep chestnut, except on the breast, which is of a deep purple color. From the upper part of each side of the body, beneath the wings, springs a vast assemblage of extremely long, loose, broad floating plumes, of the most delicate texture and appearance; in some specimens of a bright deep yellow, in others of a paler hue, but most of them marked by a few longitudinal dark red spots; and from the middle of the rump spring a pair of naked shafts, considerably exceeding in length even to the long loose plumes of the sides.

Fig. 2044.—GREAT BIRD OF PARADISE, (*Paradisea apoda.*)

Paradisi'acal, Paradis'ial, Paradis'ian, *a.* [Lat. *paradisiacus.*] Pertaining, or relating to paradise, or to a place of supreme felicity; applicable to, or resembling, Eden or paradise.

Paradis'ic, Paradis'ical, *a.* Same as PARADISIACAL, *q. v.*

Par'ados, *n.* [Fr.. from *parer,* to guard, and *dos,* Lat. *dorsum,* back.] (*Fortif.*) An earthwork thrown up to protect the rear of a battery.

Par'adox, *n.* [Fr. *paradoxe;* Gr. *paradoxia,* marvellousness — *para,* contrary to, and *doxa,* opinion.] A tenet, assertion, or a term applied to any proposition which seems to be absurd, or at variance with common sense, or to contradict some previously ascertained truth; though, when properly investigated, it may prove to be perfectly well founded.

Paradox'ical, *a.* Possessing the nature of a paradox. — Disposed to tenets, notions, or abstractions, contrary to accepted opinions and received convictions; — applied to persons.

Paradox'ically, *adv.* In a paradoxical way or manner, or in a manner seemingly absurd.

Paradox'icalness, *n.* State or quality of being paradoxical.

Paradox Lake, in *New Jersey,* a small sheet of water in the S. part of Essex co., covers an area of abt. 3 sq. m.

Par'adoxy, *n.* A paradoxical statement or argument; also, paradoxicalness.

Par'affine, (*-fēēn,*) *n.* [Fr., from Lat. *parum,* too little, and *affinis,* akin.] (*Chem.*) A waxy substance obtained by the distillation, at a low temperature, of coal-tar, peat, petroleum, and other bodies of a similar nature. Its most abundant source is, however, Bog-head coal, from which it is now extracted in enormous quantities for the manufacture of candles, which are superior in every way to those made of the finest wax or the finest stearic acid. It is a white, hard, translucent body, melting at 110°, burning with a bright white flame. It is insoluble in water, but is readily dissolved by alcohol and ether. It is unacted on by the strongest mineral acids, chlorine, or the alkalies; hence its name, from *parum affinis,* without affinity. From forming no compounds with any known substance, its atomic constitution cannot be determined; it contains, however, equal atomic proportions of carbon and hydrogen.

Paragoge, (*-go'jē,*) *n.* [Lat. and Fr., from Gr. *para-go-gē* — *paru,* and *agō,* to lead.] (*Grum.*) The addition of a letter or syllable at the end of a word, as *olden* for *old.*

Paragog'ic, Paragog'ical, *a.* Relating to, or constituting a paragoge; serving to lengthen a word.

Par'agon, *n.* [Fr. *parangon,* from Gr. *paragō,* to pass by — *puru,* and *agō,* to lead.] Something that surpasses or is supremely excellent; a model or pattern, as example by way of distinction, implying superior excellence or perfection; as, a *paragon* of beauty.

—*v. a.* [Sp. *paragonar.*] To come into emulation with; to rival; to equal.

"A maid that *paragons* description." — *Shaks.*

—*v. n.* To pretend to rivalry or equality. (R.)

Par'agram, *n.* [Gr. *paragrammu.*] A substitution of one word or letter of a word for another; a play upon words, or a pun.

Paragram'matist, *n.* A punster.

Par'agraph, (*-grăf,*) *n.* [Fr. *paragraphe;* Gr. *para,* and *graphē,* to write.] A distinct part of a discourse or writing; any portion or section of a writing or chapter which relates to a particular point, whether consisting of one sentence or many sentences. — A marginal note, employed to direct attention to something in a text, or to indicate a change of subject; — as, for instance, the character ¶, used as a reference, or to mark a division.

—A brief notice; a sententious remark; a short passage; as, a newspaper *paragraph.*

—*v. a.* To express paragraphically; to write in the form of a paragraph. — To notice in a paragraph.

Paragraph'ic, Paragraph'ical, *a.* Consisting of paragraphs, or short divisions, with breaks.

Paragraph'ically, *adv.* By paragraphs; in the manner of short sentences, with breaks.

Parag'raphist, *n.* A writer of paragraphs.

Paragraphis'tical, *a.* Pertaining, or having reference to a paragraph or paragraphs.

Par'agrass, *n.* (*Bot.*) See LEOPOLDINIA.

Paraguaçu', or PARAGUAZU', a river of Brazil, flowing into the Bay of Todos-os-Santos, abt. 35 m. W.N.W. of São Salvador.

Paragua'no, a peninsula of Venezuela, extending into the Caribbean Sea; Lat. 12° N., Lon. 70° W.

Paraguay, (*pā-rā-gwui',*) a state of S. America, nominally republican, lying principally between the 21st and 27th degrees of S. Lat., and the 54th and 58th of W. Lon.; having N. and E. Brazil; S. E., S. and W. Argentine Republic, and N. Bolivia; in two sections, E. and W. *P.*, divided by *P.* river; length, N. to S. 460 m. Area, 142,000 sq. m. The inhabitants are composed of whites of Spanish descent, native Indians, negroes, and mixed races originating from the foregoing, those of Indo-Spanish descent greatly preponderating. *P.* is an inland peninsula, inclosed E. and S. by the Parana and its tributary the Yajnari, and W. and N.W. by the rivers Paraguay and Blanco. A chain of mountains, the Sierra Amambahy, enters *P.* on the N., runs through it near its centre to near Lat. 26°, and then divides into two branches, inclosing the basin of Tibiquari. From the undivided chain many small rivers flow on either

side to join the Parana and the Paraguay, and are all swollen in the rainy season, so as to inundate a considerable extent of country. There is but one lake, that of Ypoa, worth mentioning; extensive marshes, however, abound in the W. The climate is temperate, but damp. *P.*, in point of fertility, forms a favorable contrast to the adjacent parts of the Argentine republic. It is well wooded, and diversified with undulating hills and verdant vales. Almost half the entire territory is national property. It consists of pasturage lands and forests, which have never been granted to individuals; the estate of the Jesuit mission, and a great number of country houses and farming establishments, were confiscated by the dictator Francia.—*Zoöl.* The ostrich is seen in the plains of *P.*, and is remarkable for its immense size, fine plumage, and swift motion. The wild animals are the jaguar or tiger, the puma or cougar, the black bear, the ant-bear, and the tapir, or river-cow. Mosquitoes, and an innumerable variety of insects infest both the waters and the land, with snakes, vipers, and scorpions. The great boa-constrictor is found in the moist places adjoining the rivers, and some parts are haunted by the vampire-bat. —*Prod.* The temperate parts abound with all kinds of grain, beans peas, melons, cucumbers, and European vegetables and fruits. The other products are medicinal plants and the *P.* tea, or maté, a plant, an infusion of which supplies the inhabitants with a refreshing drink. The forests abound with a variety of woods, medicinal and aromatic, and many of them yield dug useful dyes. The trade of *P.* consists in the export of its tea, tobacco, sugar, cotton, hides, tallow, wax, honey, cattle, horses, mules, wool, leather, hemp, rice, and ornamental timber. *P.* was first discovered by Sebastian Cabot, in the year 1526. In 1556 the Jesuits made their appearance, and by the effect of gentleness and policy, succeeded in obtaining a great ascendancy over the minds of the natives, and in establishing settlements in different parts of the country. In 1768 they were expelled, and soon after the Indians, already half civilized, relapsed into their former barbarism. In 1811 the people rebelled against the yoke of Spain. In 1817, Francia was elected dictator, and until 1844, foreigners were excluded from the country. In 1841 General Lopez, elected president, succeeded to Francia, and he, in his turn, was succeeded by his son, Don Francisco Solano Lopez, in 1862. In 1865, *P.* became involved in war with Brazil, Uruguay, and the Argentine Republic. (See LOPEZ.) In 1870, after the death of President Lopez, the country submitted to the allies, who imposed a war indemnity. There are but few towns in *P.*—ASSUMPTION, the cap., is situated on the left bank of Paraguay river, in Lat. 25° 18′ S., Lon. 57° 30′ W. It was founded in 1535 by the Spanish, and soon became a place of importance. Its pop. (1897) was 25,000.—*Pop.* of Paraguay (1897) 310,416. In 1878, the Prest. of the U. S., acting as arbitrator, decided a boundary dispute that had existed since the war between *P.* and the Argentine Confederation in favor of *P.*

Fig. 2045.—INDIAN OF PARAGUAY.

Paraguay, a large river of S. America, an affluent of the Parana (*q. v.*), rises in the Brazilian prov. of Matto Grosso, on a plateau of red sandstone, in Lat 13° 30′ S., Lon abt. 55° 50′ W., 9,535 feet above sea-level. Pursuing a S.W. course, and after flowing through a level country covered with thick forests, the *P.* is joined from the W. by the Jauru, in Lat. 16° 20′ S. It then continues to flow S. through the marsh of Xarayes, which, during the season when the stream rises, is an expansive waste of waters, stretching far on each side of the stream, and extending from N. to S. over abt. 200 m. The river still pursues a circuitous but generally southward course, forming from 20° to 22° S the boundary-line between Brazil and Bolivia, thence flowing S.S.W. through the territories of Paraguay to its junction with the Parana, in Lat. 27° 17′ S., a few m. above the town of Corrientes. Its chief affluents are the Cuyaba, Tacoary, Mondego, and Apa on the left; and the Jauru, Pilcomayo, and Vermejo on the right. The entire length of the river is estimated at 1,800 m.; it is on an average about half a mile in width, and is navigable for steamers to the mouth of the Cuyaba, 100 m. above the town of Corumba. The waters of the *P.*, which are quite free from obstructions, were declared open to all nations in 1852; and since 1858, the great water-system, of which this river forms such an important part, was regularly traversed by steamers plying between Buenos Ayres on the Rio de la Plata.

Paraguayan, (*-gwī'an,*) *n.* (*Geog.*) A native or inhabitant of Paraguay.

—*a.* (*Geog.*) Pertaining or relating to Paraguay, or its people.

Par'aguay Tea, *n.* See ILEX.

Paraḥiba-do-Sul, or SOUTHERN PARAHIBA, a river of Brazil, flowing into the Atlantic Ocean at São João de Praya, abt. Lat. 21° 40′ S., Lon. 40° 50′ W., after a course of abt. 500 m.

Paraḥiba-do-Sul, a town of Brazil, on the above river, abt. 40 m. N. of Rio de Janeiro; *pop.* 2,500.

Parahitin'ga, a town of Brazil, abt. 140 m. N.E. of São Paulo; *pop.* 5,000.

Parahyba, PARAHIBA, or PARAIBA, (*pa-ra-ee'ba,*) in Brazil, a river which rises in the valley between the sierras of Cavriris and Boborema, and flowing a general E. by N. course of 270 m., enters the Atlantic Ocean abt. Lat. 7° 8′ S., Lon. 34° 45′ W.

PARAHYBA, an E. prov. of Brazil, bordering on the Atlantic Ocean. It lies between Lat. 6° and 8° S., and Lon. 34° 40′ and 38° 40′ W., and has an area of 40,985 sq. m. *Rivers.* Parahyba and Mamanguape. *Surface,* mostly elevated, and in the W. parts mountainous; *soil,* generally fertile. *Prod.* Sugar, cotton, Brazil-wood, drugs, timber, &c. *Expts.* Cotton, sugar, and rum. *Pop.* 345,000.

PARAHYBA, a handsome town, cap. of the above prov., on the river of the same name, abt. 10 m. from the sea, and 65 m. from Pernambuco.

Paraleip'sis, Paralep'sis, Paralip'sis, *n.* [Gr.; Fr. *paralipse.*] (*Rhet.*) The artificially exhibited omission or slight mention of some important point, in order to impress the hearers with indignation, pity, &c., called by the Latins *præteritio, omissio,* &c.

Para'lian, *n.* [From Gr. *para,* beside, and *als,* sea.] A dweller by the sea. (R.)

Paralipom'ena, *n. pl.* [Lat., from Gr. *paraleipomena,* things omitted.] Things left out, — hence, a supplement containing something omitted in a preceding work, as the two Books of Chronicles, which are supplementary to those of Kings.

Par'allel, *a.* [Fr. *parallele;* Gr. *parallēlos* — *para,* beside, and *allēlōn,* of one another.] Going on side by side; having the same direction or tendency; running in accordance with something.—Continuing a resemblance through many particulars; equal; like; similar; as, a *parallel* case, a *parallel* position.

(*Geom.*) A term applied to lines, figures, and bodies which are everywhere equidistant from each other, or which, if ever so far produced, would never meet.

Parallel Bars. In machinery, the rods parallel to the center of a beam, joining the connecting link at the lower end.—In gymnastics, two horizontal bars rigidly supported by upright posts, and a few feet above the ground.

Parallel Railroads. Two lines of railroad covering substantially the same territory. This arrangement generally results in benefit to the public concerned if there shall be active competition between the two lines; but it has frequently occurred that the second line was built chiefly for the purpose of forcing its purchase by the older company, which purpose, if accomplished, is likely to result in the entire abolition of competition, and a consequent increase in freight and passenger rates, due to the enlarged capitalization without a corresponding expansion of business. Efforts have been made in various States to prohibit by law the construction of such roads.

Parallel motion. The connection between the top of the piston-rod and the beams of a steam-engine: — a term given to a contrivance invented by James Watt, for converting a reciprocating circular motion into an alternating rectilinear motion. — *Parallel rod,* or *coupling rod,* a rod that connects the crank-pins of the driving-wheels of a steam-engine, as distinguished from the *connecting rod,* or that rod which connects the cross-head with the crank-pin. — *Parallel ruler,* an instrument consisting of two wooden, brass, or steel rulers, equally broad throughout, and so joined together by the cross blades as to open to different intervals, and accede and recede, yet still retaining their parallelism.

Parallel sailing. (*Navig.*) Sailing on a parallel of latitude.

Parallel sphere. (*Astron.* and *Geog.*) That position of the sphere in which the equator coincides with the horizon, and the poles are in the zenith and nadir.

Par'allel, *n.* A line which, throughout its entire extent, is equidistant from another line.

"Who made the spider *parallels* design?" — *Pope.*

—A line on the globe, parallel to the equator, and marking the latitude. — Direction conformable to that of another line; course continued through many particulars, or in its essential points; resemblance; likeness.

"'Twixt earthly females and the moon,
All *parallels* exactly run." — *Swift.*

—Anything equal to, or resembling another in all essential particulars; counterpart; as, where shall we find his *parallel?* — Comparison made, or similitude described; as, to draw a *parallel* between Cæsar and Napoleon I.

(*Fort.*) In the assault of a fortress, a wide trench parallel to the attacked work, protected by the besieged troops. The parallels are connected by approaches or zigzags.

(*Printing.*) A mark of reference [thus ‖] employed to direct attention to notes at the foot or in the margin of a page.

Parallel of altitude. (*Astron.*) Small circles of the sphere parallel to the horizon.

Parallel of declination. (*Astron.*) See DECLINATION.

Parallel of latitude. (*Astron.* and *Geog.*) See LATITUDE.

Parallel, *v. a.* To place so as to be parallel with. — To level; to equalize; as, "his life is *parallel'd.*" (*Shaks.*) — To correspond to; as, to *parallel* another in eloquence. — To be equal to; to resemble in all essential particulars; as, nothing can *parallel* his stupidity. — To compare; as, to *parallel* an idea with another.

Par'allelism, *n.* [Fr. *parallelisme.*] State of being parallel; equality of state; resemblance; comparison; as, the *parallelism* of the axis of the earth.

Parallelis'tic, *a.* Characterized by, or involved in parallelism; as, the *parallelistic* form of Hebrew poetry.

Par'allelize, *v. a.* To make parallel.

Par'allelless, *a.* Without parallel, beyond parallel (R.)

Par'allelly, *adv.* In a parallel manner; with parallelism.

Parallel'ogram, *n.* [Gr. *parallēlos,* parallel, and *gramma,* a letter, a mathematical diagram, from *graphō,* to write.] (*Geom.*) A quadrilateral right-lined figure whose opposite sides are parallel.

Parallelogram of forces, a phrase denoting the composition of forces, or the finding a single force that shall be equivalent to two or more given forces when acting in given directions.

Parallelogrammat'ic, *a.* Pertaining, or having reference to a parallelogram; parallelogrammic

Parallelogram'mic, Parallelogram'mical, *a.* Having the properties or characteristics of a parallelogram.

Parallelopip'ped, Parallelopip'edon, *n.* [Gr. *parallēlos,* and *epipedos,* on the ground, plane, superficial.] (*Geom.*) A regular solid, contained under six parallelograms, the opposite of which are equal and parallel; or it is a prism whose base is a parallelogram; it is triple to a pyramid of the same base and height.

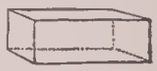


Fig. 2046. PARALLELOPIPED.

Paralog'ical, *a.* Characterized by paralogism; illogical; irrational.

Paral'ogism, *n.* [Fr. *paralogisme;* Gr. *paralogismos* — *para,* and *logismos,* a reckoning, from *logos,* reason.] (*Logic.*) A false conclusion; a fallacy; a quibble; an illogical deduction or inference; a reasoning which is false in point of form, or in which a conclusion is deduced from premises which do not logically warrant it; — antithesis of *syllogism.*

Paral'ogize, *v. a.* To reason falsely or illogically.

Paral'ogy, *n.* False ratiocination; paralogism

Paral'ysis, *n.* [Gr.] (*Med.*) The loss of the natural power of sensation or motion in any part of the body. It is owing to some diseased condition of the nervous system, either of the brain or spinal cord, or of the nerves. If the nerves of sensation or their centres be affected, there will be loss of sensation; if of motion, then loss of motion; to the latter of which the term *P.* is by some exclusively applied. Each of these kinds may again be general or partial, or may have various degrees of severity. It may affect only one nerve or muscle, or it may affect a number. The most usual form is when one side or half of the body is deprived of sensation or motion, or both, called *hemiplegia; paraplegia* is when the lower part of the body is paralyzed, while the upper retains both sensation and motion; and general *P.* is when the loss of nervous power extends over nearly every part of the body. In hemiplegia, the seat of the disease is one side of the brain, usually that opposite to the affected side of the body; in paraplegia, the lesion is within the spinal cord; and when more limited in extent, the disease usually arises from some abnormal state of a particular nerve. *P.* frequently follows apoplectic attacks, and this usually in its most severe and dangerous form The prognosis must be looked on as extremely unfavorable when the attack is sudden, the *P.* extensive and complete, and the loss of consciousness protracted; while, on the other hand, when the *P.* advances gradually, there is more reason to hope for prolonged life, if not for a complete restoration of health. Among the other causes that may give rise to *P.* are various injuries and diseases of the brain or spinal cord; as tumors, inflammation, external injuries, &c. When *P.* takes place without any previous apoplectic attack, the premonitory symptoms are a general torpor or lassitude, occasional giddiness, or a sense of weight and pain in the head, and loss of memory. When it is the result of injury of the spinal cord, then, of course, the *P.* takes place instantly. Paraplegia sometimes lasts for many years without greatly interfering with any function except locomotion; but when it occurs during fevers and advances rapidly, it is of very sinister augury, especially if it involves the sphincter muscles of the anus and bladder. Sometimes there is a gradual loss of power in the muscle or muscles affected; and in many cases the loss of power is preceded by severe pains in the part, cramps, a sense of numbness or tingling, and a curious feeling of coldness. *P.* is not a disease of itself, but only a sign of some disorder of the nervous system, probably at a distance from parts affected. In each case, therefore, the cause of the disorder is to be investigated, and the mode of treatment principally directed to its removal. In very many cases, however, little can be done either in the way of cure or alleviation.

Paralytic, Paralytical, (*-it'ik,*) *a.* [Fr. *paralytique.*] Affected with paralysis or palsy. — Inclined or tending to palsy; as, a *paralytic* seizure.

Paralyt'ic, *n.* A person affected with paralysis or palsy.

Paralyza'tion, *n.* Act of paralyzing; state of being paralyzed.

Par'alyze, *v. a.* [Fr. *paralyser;* Gr. *paralyō.* See PARALYSIS.] To affect with paralysis or palsy; hence, to unnerve; to destroy or impair physical or mental energy, as, his hopes were *paralyzed.*

Paramag'netism, *n.* Same as DIAMAGNETISM, *q. v.*

Paramari'bo, a town of S. America, cap. of the colony of Dutch Guiana, on the Surinam, abt. 5 m. above the Atlantic Ocean; Lat. 5° 49′ N., Lon. 55° 22′ W. The town is regularly laid out, generally well built, and contains many fine religious and other edifices; and though the streets are unpaved, they are wide and well shaded with tamarind and orange trees. Fort Zeelandia, the residence of the governor, is to the N. of the town. Besides other charitable institutions, there is a large hospital for lepers, on the Coppename River. *Pop.* 20,000.

Par'amast, *n.* [From Lat. *parare*, to prepare.] The furniture, ornaments, and hangings of a state apartment or reception-room.

Paramat'ta, *n.* A mixed textile fabric of worsted and cotton, resembling merino in appearance and feel.

Paramatta, a town of New South Whales, co. of Cumberland, on the Paramatta river, 13 m. W.N.W. of Sydney. *Pop.* 4,500.

Param'eter, *n.* [Fr. *paramètre*; from Gr. *para*, and *metron*, measure.] (*Geom.*) A constant right line in each of the three conic sections, and otherwise called *latus rectum*, because it measures the conjugate axes by the same ratio which has taken place between the axes themselves, being always a third proportion of them.

Paramithi'a, or **Paramythi'a,** a town of European Turkey, in Epirus, 30 m. S.W. of Yanina; *pop.* 5,000.

Para'mo, *n.* [Sp.] The name given in South America to a mountainous district covered with stunted trees, exposed to the winds, and in which a damp cold perpetually prevails. Under the torrid zone, the Paramos are generally from 10,000 to 12,000 feet in height. Snow often falls on them, but remains only a few hours; in which respect they are distinguished from the *Nevados*, which enter the limits of perpetual snow.

Paramo D'Assuay, a pass over the Andes in Ecuador, abt. Lat. 0° 2′ S. *Height*, 15,528 ft.

Par'amount, *a.* [Norm. *peramont*, above — *par* or *per* (= Gr. *para*), above, and *monter*, to ascend.] Superior to all others; possessing the highest title or jurisdiction; preëminent; supreme; of the highest order, value, or estimation.

Lord paramount, the sovereign, as being supreme in authority.

—*n.* The chief; the highest in rank, office, or order.

Par'amountcy, *n.* State, rank, or condition of being paramount. (R.)

Par'amountly, *adv.* In a paramount or supreme manner or degree.

Par'amour, (*-moor,*) *n.* [Fr. *par amour*, with love; Norm. *paraimer*, to love exceedingly.] A lover or wooer, in a bad sense; one of either sex who loves loosely, or with violation of moral propriety; especially, a kept mistress; a concubine.

Par'amus, in *New Jersey*, a village of Bergen co., abt. 7 m. N.W. of Hackensack.

Parana, (*pa-ra-na',*) a large river of S. America, rises in the Brazilian prov. of Minas-Geraes, about 100 m. N.W. of Rio de Janeiro. It flows W. for upwards of 500 m., through the provs. of Minas-Geraes and São Paulo. In the latter it is joined by the Parnahiba, after which it flows S.S.W. to Candelaria. Passing this town, it flows W. for 200 m. to its confluence with the Paraguay, and then bending southward, passes Santa Fe, below which its channel frequently divides and encloses numerous islands. After passing Santa Fe, it rolls onward in a S.E. direction, and unites with the Uruguay in forming the Rio de la Plata. Entire length about 2,400 m. Its principal tributaries are the Paraguay, Uruguay, Pardo, Tiete, and Parnahiba. For vessels drawing 7½ feet it is navigable to Corrientes, upwards of 600 miles from its mouth.

Para'na, a S. prov. of Brazil, bounded N. by the prov. of São Paulo, E. by the Atlantic, S E. by Santa Catharina, S. by Rio Grande do Sul, W. by Uruguay and Paraguay; *area*, 115,000 sq. m. *Cap.* Curitiba. The sea-coast is indented by several bays, but the chief and almost the only port as yet is Paranagua. A line of mountains runs parallel to the coast at a distance of abt. 80 m. inland. The streams flowing E. from this water-shed, though numerous, are inconsiderable; while the rivers flowing westward into the Parana, which forms the W. boundary of the prov., are all about or upwards of 400 miles in length. The principal are the Paranapanema, Ivay, Piquery, and Yguassu. The climate is unusually healthy; the soil is fertile; and agriculture, rearing cattle and swine, and gathering *mâté* or Paraguay tea, are the chief employments. *Pop.* 138,000.

Paranagua', a maritime town of Brazil, on a bay of the same name, abt. 170 m. S.W. of Santos. It has an excellent port. *Pop.* 8,000.

Paranahiba River, in Brazil. See PARNAHIBA.

Parana-Ibra, or **Paranahiba,** a river of Brazil, joins the Curumba to form the Parana, abt. 180 m. S. of Villa-Boa.

Paranaph'thaline, *n.* (*Chem.*) A white solid substance, so termed because it resembles and accompanies *naphthaline*.

Paran' City, in *Iowa*, a village of Marion co., abt. 100 m. W. by S. of Iowa City.

Paran'thite, Paran'thine, *n.* (*Min.*) A name for certain compact varieties and crystals of white and pale blue scapolite; found in the limestone quarries at Malsjö, in Sweden.

Pa'ra-nut, *n.* (*Bot.*) The Brazil-nut. See BERTHOLLETIA.

Par'anymph, (*-nimf,*) *n.* [Gr. *para*, near, and *nymphē*, bride.] Anciently, a bridesman or bridesmaid; — hence, one who gives support or countenance to another.

Parapegm. (*păr'a-pĕm.*) *n.* [Gr. *para*, beside, and *pēgnomai*, to fix.] Anciently, a brazen table attached to a pillar on which laws and public announcements were engraved.

—A table fixed in a public place, containing an account of meteorological observations.

Par'apet, *n.* [Fr.; It. *parapetto* — *para*, and *petto*; Lat. *pectus*, the breast.] A wall or rampart rising breast-high; a breast-work; particularly, a wall, rampart, or

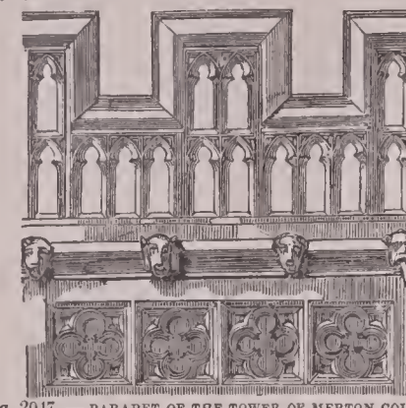


Fig. 2047. — PARAPET OF THE TOWER OF MERTON COLLEGE. (Oxford, A. D. 1440.)

earthwork for covering soldiers from an enemy's fire. — A breast-wall raised on the edge of a building, bridge, quay, &c., to prevent people from falling over.

Par'apeted, *a.* Having a parapet.

Paraph, (*păr'af,*) *n.* [A contraction of *paragraph.*] A flourish or peculiar figure drawn by a pen under one's signature, formerly adopted as a precaution against forgery.

—*v. a.* To append a paraph to; hence, to sign, as a paper, with one's initials.

Paraphernalia, *n. pl.* Same as PARAPHERNALIA, *q. v.*

Paraphernal, (*-fer'nal,*) *a.* Belonging, or having reference to, or consisting in, parapherna; as, *paraphernal* property.

Parapherna'lia, Paraphernalia, *n. pl.* [Gr. *parapherna* — *para*, beyond, and *pher-nē*, dowry, portion.] (*Law.*) The apparel, jewels, &c., of a wife, which are held to belong to her as a species of separate property. The husband may dispose of them in her lifetime, but cannot bequeath them away from her; and if he have not parted with them before his death, she may retain them against his executors and all other persons, except his creditors, when his other funds are not sufficient to satisfy their claims. The judge of probation is, in the practice of most states, entitled to make an allowance to the widow of a deceased person which more than takes the place of the paraphernalia.

Paraphimo'sis, *n.* [Gr. *para*, and *phymōsis*, a shutting up.] (*Med.*) Strangulation of the glans penis. *Dunglison.*

Paraphonia, (*-fō'ni-a,*) *n.* [Gr. *para*, and *phonē*, sound.] An alteration of voice.

(*Mus.*) In Greek music, a kind of progression by fourths and fifths.

Par'aphrase, (*-frāz,*) *n.* [Fr.; Gr. *paraphrasis* — *para*, and *phrazō*, to speak, tell, declare.] An explanation of some text or passage in a book, in a more clear and ample manner than is expressed in the words of the author; a loose or free translation; as, "*paraphrase*, or translation with latitude." — *Dryden.*

—*v. a.* [Fr. *paraphraser*; Gr. *paraphrazō.*] To explain, interpret, or translate with looseness or freedom; to convey the meaning of with latitude; to unfold, as the sense of an author, with more clearness and particularity than it is expressed by his own words.

—*v. n* To make a paraphrase; to explain with amplification.

Par'aphrast, (*-frăst,*) *n.* [Fr. *paraphraste.*] One who paraphrases.

Paraphras'tic, Paraphras'tical, *a.* Pertaining to, resembling, or having the nature of a paraphrase; free, clear, and ample in explanation or interpretation; diffuse; not verbal or literal.

Paraphras'tically, *adv.* In a paraphrastic manner.

Paraphreni'tis, *n.* [Gr. *para*, and *phrenos*, the diaphragm.] (*Med.*) Inflammation of the diaphragm.

Paraphy'ses, *n.* [Gr. *para*, and *physis*, nature.] (*Bot.*) A term used, in describing mosses, to denote the sessile, ovate, abortive bodies placed below the theca.

Parapl'ti, a river of Bolivia, rising in Lake Grande, and flowing N.N.E. into Lake Ubai.

Paraple'gia, Par'aplegy, *n.* [From Gr. *para*, and *plessein*, to strike.] (*Med.*) A paralysis of the lower half of the body, or only of both lower extremities.

Parap'oplexy, *n.* [Gr. *para*, near, and *apoplexia*, apoplexy.] (*Med.*) False apoplexy.

Par'asang, *n.* [Lat. *parasanga*, from Pers. *farsang.*] (*Antiq.*) An ancient Persian measure of length, diversely stated to have been from thirty to sixty stadia.

Parasceve, (*-sē've,*) *n.* [Lat.; Gr. *paraskevē.*] Among the Jews, the eve of the Sabbath.

Parasele'ne, *n.*; *pl.* PARASELENÆ. [Gr. *para*, and *selēnē*, the moon.] (*Astron.*) A luminous circle encompassing the moon.

Par'asite, *n.* [Fr.; Gr. *parasitos* — *para*, and *sitos*, to feed, from *sītos*, akin to Hind. *seedha*, food] One who dines with others; — hence, particularly, a trencher friend; a diner-out at the tables of the rich, who earns his welcome by flattery; a hanger-on; a toad-eater; a fawning, sycophantic attendant

"To enrich a pimp, or raise a *parasite*." — *Dryden.*

(*Bot.*) A plant obtaining nourishment immediately from other plants to which it attaches itself, and whose juices it absorbs.

(*Zoöl.*) This term, as designative of a group of animals, is variously applied by different naturalists. Lamarck includes under it a family of attenuated Arachnidans; Cuvier, Latreille, and Kirby, apply the term to an order of Apterous insects; Strauss, to a tribe of Crustaceans; but all the sections include animals of parasitic habits. They have been divided into *external* and *internal* parasites: the latter being more definitely termed ENTOZOA, or NEMATOIDS.

Parasit'ic, Parasit'ical, *a.* [Gr. *parasitikos.*] Of, or belonging to a parasite; partaking of the nature and habits of a parasite; fawning for food or favors; sycophantic; wheedling; as, *parasitic* courtiers. — Growing as a parasite grows; living on somebody; deriving sustentation from some other living thing, as a plant, animal, or fungus.

Parasit'ically, *adv.* In a parasitic, flattering, or wheedling manner; by dependence on another.

Parasit'icalness, *n.* State or condition of being parasitical.

Par'asitism, *n.* State, quality, or manners of a parasite.

Par asol, *n.* [Fr. and Sp., from Gr. *para*, and Lat. *sol*, the sun.] A small umbrella carried by ladies to defend themselves from the sun's rays. *P.* were used by the ancient Greeks, and the Romans employed them as a protection against the sun at the theatre. During the Middle Ages they were borne by horsemen in Italy. The modern *P.* was first used in France about 1680.

Parasolette', *n.* A small parasol; a sunshade.

Parasynax'is, *n.* [Lat., from Gr. *para*, and *synaxis*, an assembly.] (*Law.*) An unlawful assembly.

Paratax'is, *n.* [Gr. *para*, and *tassein.* to arrange.] (*Gram.*) The mere placing of propositions without sequen connectiou or dependence; — antithetical to *syntax.*

Parath'esis, *n.* [Gr. *para*, and *tithenai*, to set or place.] (*Gram.*) The mere ranging of propositions one after another, as the corresponding judgments present themselves to our mind, without marking their dependence on each other by way of consequence or the like; — opposed to *syntax.*

(*Rhet.*) A parenthetical announcement of matter to be afterwards auplified.

(*Print.*) The printed matter included within brackets.

Para'ti, a seaport-town of Brazil, abt. 135 m. E.N E. of São Paulo. It is regularly and compactly built, and has an extensive commerce. *Pop.* 10,000.

Paratonnerre, (*păr-a-ton-nair',*) *n.* [Fr.] A lightning-conductor.

Par'boil, *v. a.* [Fr. *parbouillir* (not in use) — Lat *pars*, *partis*, part, and Fr. *bouillir*, Lat. *bullire*, to boil.] To boil in part, or in a moderate degree. — To cause little vesicles on the skin by means of heat.

Par'boiled, *a.* Boiled moderately or in part; as, *parboiled* potatoes.

Par'buckle, Par'buncle, *n.* (*Naut.*) A purchase consisting of a single rope or chain around any weighty body, as a cask, by which it is lowered or hoisted.

—*v. a.* To hoist or lower with a parbuckle.

Parcæ, or Fates, (*par'se,*) *n. pl.* (*Grecian Myth.*) Three goddesses, who were represented in the Grecian mythology as presiding over the birth, life, and death of the human race. Clotho, the youngest of the sisters, with a distaff in her hand, watched the moment of man's birth; when Lachesis, the second, spun the thread detailing all the events and actions of his life; and the eldest of the three, Atropos, stood ready with her shears to cut the thread which her sisters had spun. The power of the *P.* was great and extensive, and though, according to some opinions, they were subject to Jupiter alone, others assert that even Jove was obedient to their commands. They were supposed to be the arbiters of life and death, and whatever good or ill befell mankind was attributed to the Fates. Though it was held in vain to appeal from their decrees, statues were raised to them, and temples built in which to worship and to offer up sacrifices to them. They were generally represented as three old women, wearing chaplets of wool interwoven with the flowers of the narcissus, each holding the symbol that distinguished her. Their dress is differently represented; and they are also called the Secretaries of Heaven, and the Keepers of the Archives of Eternity.

Parcel, (*păr'sl,*) *n.* [Fr. *parcelle*, from Lat. *particula*; dimin. of *pars*, *partis*, part.] A part; a portion of anything taken separately. — Any mass or quantity; a lot; a collection. — A small bundle or package; a packet; a number or quantity of things put up together; as, a *parcel* of groceries. — A number of persons; — used in contempt or burlesque.

"This youthful *parcel* of noble bachelors." — *Shaks.*

(*Law.*) A part belonging to a whole; a piece; a portion.

—*v. a.* To divide into parts or portions; — often with *out.* — To make up into parcels or packages.

To parcel a rope. (*Naut.*) To wind strips of tarred canvas around it as a protection.

Par'cel, *a.* and *adv.* In part; as, *parcel*-blind, *parcel*-deaf, *parcel*-gilt.

Par'cel-book, *n.* A book used by a merchant or trader for the registering of parcels.

Par'celling, *n.* (*Naut.*) Long narrow pieces of tarred canvas whipped round a rope.

Par'cenary, *n.* [Norm. Fr. *parcenier.*] (*Law.*) Coheirship.

Par'cener, *n.* (*Law.*) A co-heir.

Parch, *v. a.* [Sansk. *parishushka*, very dry — *part*, about, in composition with adjectives, *very*, and *shushka.*] To dry to extremity; to shrivel with heat; as, the *parched* places of the wilderness. — To burn superficially; to scorch; as, to *parch* the skin.

Pareh, *v. n.* To become very dry; to be scorched or superficially burned.
Pareh'edness, *n.* State or condition of being parched, scorched, or dried to extremity.
Pareh'ingly, *adv.* Scorchingly.
Parehim, or **Parchen**, (*park'im*,) a town of Germany, in Mecklenburg-Schwerin, on the Elbe, 21 m. S.E. of Schwerin. *Manuf.* Woollen cloth, leather, straw-hats, tobacco, and chicory. *Pop.* 6,500.
Parchment, (*partsh'ment*,) *n.* A term given to the skins of sheep and goats, prepared and rendered fit for writing upon. This is done by steeping the skins in pits impregnated with lime, stretching them upon frames, and reducing them by scraping and paring with sharp instruments. Pulverized chalk is rubbed on with a pumice-stone, which smooths and softens the skin, and improves the color. After being reduced to half its original thickness, it is smoothed and dried for use. *Vellum*, a similar substance, is made from the skins of young calves. Next to papyrus, the skins of animals in the form of *P.* formed the most extensive substance for writing upon among the ancients. About 200 B.C., when Eumenes or Attalus was desirous to found a library at Pergamus that should rival, if not excel, that at Alexandria, the king of Egypt at the time, being jealous, prohibited the exportation of papyrus. On this account, the inhabitants of Pergamus began to manufacture *P.* as a substitute; and the library was formed of manuscripts chiefly written on this material; whence it was known among the Romans as *Pergamena*, from which word the term *parchment* is supposed to have been derived. The ancient Hebrews were in the habit of writing on the skins of animals as early as the reign of King David. Herodotus relates that the Ionians, from the earliest period, wrote upon the skins of sheep and goats from which the hair had been scraped off. At the present day, *P.* is much used for charters and other writings.

Pareipany, in *New Jersey*, a village of Morris co., abt. 7 m. N. of Morristown.
Pard, *n.* [Lat. *pardus*, a leopard, panther, or ounce.]
Pardeeville, in *Wisconsin*, a post-village of Columbia co., abt. 9 m. E. of Portage City.
The leopard; — in a poetical sense, any spotted beast.
Pardo, *n.* A Chinese vessel, somewhat smaller than a junk. — A current coin at Goa, Hindostan, worth about 60 cents.
Pardo, a river of Brazil, formed by the union of the Vermelho and Sanguexuga rivers, and flowing into the Parana abt. Lat. 21° 36′ S.
Pardon, (*pär'dn*,) *v. a.* [Fr. *pardonner.*] To remit, as the consequences of a fault or crime; to grant remission of, as a penalty. — To grant forgiveness of, as an offence or crime; to suffer to pass without punishment or penalty; to excuse; to accept an excuse, as for a fault.
Pardon me, excuse me, forgive me; — used as a phrase of civil denial or slight apology.

"Sir, *pardon me*, it is a letter from my brother."—*Shaks.*

—*n.* Remission of a penalty. — The release of an offence or of the obligation of the offender to suffer a penalty, or to bear the displeasure of the offended party; forgiveness received; as, to sue for *pardon*.
(*Law.*) An act of grace, proceeding from the power intrusted with the execution of the laws, which exempts the individual on whom it is bestowed from the punishment the law inflicts for a crime he has committed. An *absolute* pardon is one which frees the criminal without any condition whatever. A *conditional* pardon is one to which a condition is annexed, the performance of which is necessary to the validity of the pardon. A *general* pardon is one which extends to all offenders of the same kind. It may be *express*, as when a general declaration is made that all offenders of a certain class shall be pardoned; or *implied*, as in case of the repeal of a penal statute. The pardoning power is lodged in the executive of the U. States and of the various States, and extends to all offences except those which are punished by impeachment after conviction. In some States a concurrence of one of the legislative bodies is required.

Pardonable, *a.* [Fr.] That may be pardoned; venial; excusable; that may be forgiven, overlooked, or passed by; as, a *pardonable* fault.
Pardonableness, *n.* State or quality of being pardonable; venialness; susceptibility of forgiveness or excuse.
Pardonably, *adv.* Venially; excusably; in a manner susceptible of pardon.
Pardoner, (*pär'dn-er*,) *n.* One who pardons or forgives; one who remits the penalty of an offence.
Pare, (*pār*,) *v. a.* [Icel. *para*, a piece of the skin cut off; Heb. *paras*, to cleave, to divide.] To cut off, as the superficial substance, the corners or extremities of a thing; to trim by cutting; to dress; to shave off with a sharp instrument; as, to *pare* an apple, to *pare* one's nails. — To cut off little by little; to diminish by degrees.

"The king began to *pare* a little the privilege of clergy." *Bacon.*

(NOTE. The noun is in the objective case when *pare* is followed by the thing diminished; as, to *pare* a horse's hoof. When the thing divided is the object, *pare* precedes *off* or *away*; as, some parts must be *pared away*; to *pare off* the rind of a fruit.)
Paré, AMBROISE, (*pa'raï*,) a French physician, b. near Laval, 1509, called the father of French surgery, and one of the greatest surgeons of modern times. He was professional adviser of four French sovereigns; and, though a Huguenot, he possessed the fullest confidence of Charles IX., and through his favor escaped the massacre of St. Bartholomew. D. 1590.
Paredon, or GREAT PAREDON KEY, an island of the W. Indies, in the old Bahama Channel, N. of Cuba; Lat. 22° 25′ N., Lon. 78° 8′ W. *Area*, about 20 sq. m.
Paregmenon, *n.* [Gr.] (*Rhet.*) The employment of words of a common derivation in the same sentence.
Paregoric, *a.* [Gr. *parēgorikos* — *para*, by the side of, and *agoreuō*, to harangue, to speak.] Soothing; mitigating; assuaging pain; as, *paregoric* elixir.
—*n.* (*Med.*) An anodyne; a medicine that assuages pain.
Pareira Brava, *n.* (*Bot.*) See CISSAMPELOS.
Parelcon, *n.* [Gr. *para*, and *elkein*, to draw.] (*Gram.*) The addition of a syllable or particle to the termination of a pronoun, verb, or adverb.
Parella, *n.* (*Bot.*) A kind of lichen, *Lecanora parella*, found in the N. of Europe, and extensively used in dyeing. See LECANORA.
Parenthole, *n.* [Fr.; from Gr. *para*, beside, and *ballein*, to throw.] (*Rhet.*) A figure by which a paragraph is inserted in the middle of a sentence with which it does not grammatically cohere, by way of explaining something. It is also called *paremptosis*, and is a species of parenthesis.
Parenchyma, (*-rĕnk'i-ma*,) *n.* [Gr., from *para*, beside, and *eychein*, to pour in.] (*Anat.*) A term applied by anatomists to the solid tissues of any organ, apart from the vessels, arteries, or veins that pass through or come out of its structure. The solid part of the lungs, liver, and other glands and organs.
(*Bot.*) The soft cellular part of the bark of plants.
Parenchymatous, **Parenchymous**, (*-rĕnk'-*,) *a.* [Fr. *parenchymateux.*] Pertaining to, resembling, or consisting of parenchyma; spongy; porous.
Parenet'ic, **Parenet'ical**, *a.* [Gr. *parainetikos.*] Hortatory; inciting.
Parent, *n.* [Fr.; Lat. *parens*, from *pario*, to bear, to beget; Heb. *para*, to bear.] One who begets or brings forth offspring; a father or mother; a progenitor.

"Lords, whose *parents* were, the Lord knows who."—*Defoe.*

—Hence, that which produces; cause; source; origin; as, idleness is the *parent* of ennui.
Parentage, *n.* [Fr.] Extraction; birth; condition with respect to the rank of parents; as, a man of honorable *parentage*.
Parental, *a.* [Lat. *parentalis.*] Pertaining, or having reference to parents; as, *parental* duties. — Becoming parents; tender; affectionate; as, *parental* care.
Parentally, *adv.* Like a parent; in a parental manner.
Parenthesis, *n.*; *pl.* PARENTHESES. [Fr. *parenthèse*; Sp. *parentesis*; Gr. *parenthesis* — *para*, and *thesis*, a placing, from *tithēmi*, to set, place.] (*Rhet.*) A sentence, or certain words inserted in a sentence, which interrupt the sense or natural connection of words, but serve to explain or qualify the sense of the principal sentence. In printing, the parenthesis is usually included in hooks or curved lines, thus ( ).
Parenthetic, **Parenthetical**, *a.* Pertaining, or having reference to a parenthesis; denoted in a parenthesis; as, a *parenthetical* allusion. — Employing or containing parentheses.
Parenthetically, *adv.* In a parenthesis; by way of parenthesis.
Parentless, *a.* Without parents.
Parer, *n.* One who, or that which, pares; an instrument for paring.
Pargasite, *n.* (*Min.*) Hornblende of a high lustre, and of a rather dark-green color, containing alumina, iron, and magnesia, found at Pargas, in Finland.
Parget, (*-jet*,) *n.* (*Arch.*) The plaster used for covering the walls and ceilings of rooms, &c.
—*v. a.* To plaster, as walls or ceilings.
—*v. n.* To plaster.
Pargeter, *n.* A plasterer.
Pargetting, (*-jĕt-*,) *n.* A kind of decorative plasterwork in raised ornamental figures, extensively employed in the 16th and 17th centuries for the internal and external embellishment of houses.
Parhelic, *a.* Pertaining, having reference to, or consisting of, parhelia.
Parhelion, *n.*; *pl.* PARHELIA. [Gr. *para*, and *hēlios*, allied to Armor. *heol*, the sun.] A mock sun or meteor, appearing in the form of a bright light near the sun. No very satisfactory explanation of this phenomenon has yet been given.
Paria, (**Gulf of**,) an inlet of the Caribbean Sea, S. America, lying between the island of Trinidad and the mainland. From these two lands on the N. two points jut out, with two islands intervening, which leave four openings, called the Mouths of the Dragon, by which the gulf communicates with the Caribbean Sea. This part is about 13 miles wide, and contains several islands. The length of the gulf is estimated at 100 miles.
Pariah, *n* [From Hind. *pahâriyâ.*] In Hindostan, one belonging to the lowest or most degraded caste of society; — hence, an outcast; one ostracised from human fellowship.
Pariah dogs, in India, native curs that are homeless and masterless.
Parian, *n.* (*Geog.*) A native or inhabitant of the island of Paros, in the Greek archipelago. — A fine kind of porcelain clay, employed in the making of statuettes and other artistic trifles; — so called from its resemblance to Parian marble.
—*a.* (*Geog.*) Pertaining, obtained from, or having relation to, Paros; as, *Parian* marble.
Paridæ, *n. pl.* (*Zoöl.*) See TITMOUSE.
Paridigitate, (*-dij'-*,) *a.* [Lat. *par*, equal, and *digitus*, finger.] Possessing an equal number of fingers and toes.
Parietal, *a.* [Fr., from Lat. *paries*, *parietis*, a wall.] Of, or pertaining to a wall. — Pertaining to, or within the walls of, a building; resembling a wall; serving as a wall.
(*Anat.*) The name of the two lateral bones of the skull, united above by the sagittal suture (formed by the interlacing of the two parietal bones), joined below to the temporal by the squamous suture, behind to the occipital bone by the lambdoid suture, and united in front to the frontal bone by the coronal suture.
(*Bot.*) Applied to any organ which grows from the sides of another. Those ovaries are parietal which grow from the sides of a calyx; and placentæ or ovules have this name when they proceed from the sides of the ovary.
Parietaria, *n.* [Lat. *paries*, a wall. Some of the species prefer to grow on old walls, &c.] (*Bot.*) A genus of plants, order *Urticaceæ*. *P. Pennsylvanica*, the common Pellitory or Hammer-wort, is a rough, pubescent annual herb, found in damp places in the Eastern, Middle, and North-western States. *P. officinalis*, the Wall Pellitory, is by many regarded as a valuable diuretic and lithontriptic.
Parietary, *n.* (*Bot.*) Same as PELLITORY. — See PARIETARIA.
Parietes, *n. pl.* [Lat. *paries*, a wall.] (*Anat.*) A name given to parts which form the enclosures or limits of different cavities of the body, as the parietes of the cranium, chest, &c.
Parima, (**Sierra**,) a spur or continuation of the Sierra Pacaraima, in Venezuela; Lat. 4° to 6° 30′ N., Lon. 64° to 67° W. The Orinoco River rises in it. Mt. Maravaca, the culmination, is more than 10,000 ft. high.
Parinacota, a mountain-summit of Bolivia, in Lat. 18° 10′ S., Lon. 69° 11′ W.; *height*, 20,030 feet.
Parinarium, *n.* (*Bot.*) A genus of plants, order *Chrysobalanaceæ*, including several valuable fruit-trees. *P. excelsum* yields the fruit known in Sierra Leone under the name of Rough-skinned or Gray Plum. The leaves of *P. laurinum* supply the chief material used by the Polynesians for covering the side-walls of their houses, while its seeds yield them a perfume.
Paring, *n.* That which is cut or pared off; a piece clipped off; rind severed from the fruit.
(*Agricult.*) The act, practice, or process of cutting off the surface of grass-land for tillage.
Paring and burning. (*Agricult.*) The operation of paring off the surface of worn-out grass-land, or lands covered with coarse herbage, and burning it for the sake of the ashes, and for the destruction of weeds, seeds, insects, &c. Agriculturists differ as to the value of this mode of improving land, the greater number preferring a naked fallow even for one or two years, alleging that more injury is done by the loss of vegetable matter in burning than is compensated by the ashes produced.
Parini, GIUSEPPE, (*pa-re'ne*,) an eminent Italian poet, was B. in 1729, at Bosizio, in the Milanese. He raised himself to eminence by his talents, which he employed in satirizing the vices and follies of the age. D. 1799. His principal poem is entitled *Il Giorna*. His works form 6 vols. 8vo.
Pari passu. [Lat.] With equal pace or progress; step by step.
Paripinnate, *a.* [Lat. *par*, equal, and *pinnatus*, winged.] (*Bot.*) Equally pinnate.
Paris. (*Homeric Myth.*) The seducer of Helen, and the cause of the Trojan war, was a younger son of Priam, king of Troy, by Hecuba, his queen. His mother, before the birth of Paris, having dreamed that she had brought forth a firebrand that would destroy both the palace and the city, consulted the oracle on the interpretation of her dream; when, to save the state from so dire a possibility, the priests advised the killing of the child as soon as born. As soon as Paris saw the light, he was, accordingly, intrusted to a slave, who was bound to execute the royal will and priestly decree; and for that purpose carried the child to the side of Mount Ida, where, touched with pity, and revolting from the crime of infanticide murder, the man left him; and where he was subsequently found by some shepherds, taken home, and reared as one of their own children. As Paris grew in frame and years, he showed such evidences of nobility of soul and heroic daring, especially in guarding the flocks under his care from all depredations both of robbers and wild beasts, as to obtain the title of "The Defender," or *Alexander*. Indeed, his reputation became so general, and his merits so extolled, that, at the marriage of Peleus, king of Thessaly, and Thetis, the goddess of Discord, — out of envy at being left out of the list of invited guests, — secretly entered the nuptial hall and flung down a golden apple, on which was inscribed, "The Prize of the Fairest." All the females claimed the apple as their own; and the angry feeling was only partially appeased by appointing an umpire, and allowing Minerva, Juno, and Venus to stand as candidates before the judge. The shepherd Paris was unanimously selected for that responsible office, and being seated with the apple in his hands, commanded the three beauties to appear before him with all their charms unveiled, that he might fairly judge to whom the prize should be awarded. His decision finally fell on Venus. This judgment of Paris so enraged Minerva and Juno, that they vowed eternal enmity against both Paris and his family. Priam, having been subsequently informed of the preservation of his son, and finding him so noble in appearance and heroic in his bearing, at once acknowledged him as his son, and, forgetting the gloomy auguries attending his birth, freely admitted him to his court and his fatherly love. Some time after his restoration, his father dispatched him to Greece on some political mission, when, remembering the promise made to him by Venus, that he should possess the most beautiful woman in the world for his wife, and having heard the report of the surpassing attractions of the Spartan

Helen, he steered his fleet for Lacedæmon, and visiting the court of Menelaus, king of Sparta, was there most hospitably entertained by the unsuspecting Menelaus; and where he found the lovely Helen, who had become the wife of the Spartan king, far exceeded all the accounts he had received of her fascination and beauty. In the mean time, the monarch being called away on some special business to the island of Crete, Paris, who had found means to make himself agreeable to Helen, persuaded her to embrace the opportunity of her husband's absence to quit her country and elope with him to Troy. Helen accordingly fled with Paris, and was received with welcome and open arms by Priam, and installed with all honor in Ilium. This violation of good faith, and the breach of hospitality committed by the Trojan, so enraged the Spartan king, on his return from Crete, that he called upon the other states of Greece to make a common cause of the indignity he had suffered, and declare a war of extermination against perfidious Troy. This summons was promptly answered by every state and kingdom in Greece, and the 10 years' siege of Troy was the consequence. Paris, abashed by the injury he had inflicted on Menelaus, avoided on all occasions meeting the Spartan king in the frequent battles that ensued, and left the field whenever Menelaus appeared in front. Once, however, according to Homer, they met, when Paris would have fallen but for the interposition of Venus, who saved him from the wrathful vengeance of the outraged king. It was a javelin, hurled by the arm of Paris, that found the vulnerable spot in Achilles, and brought that hero prostrate to the plain. The death of Paris is variously told; all, however, that is known of his end is, that he fell at or previous to the sack of Troy, and that Helen returned, as a prize, with her husband to Greece.

Par'is, MATTHEW, one of the earliest English historians, was a Benedictine monk of St. Alban's, and is known from 1245, to the year of his death, 1259. He was a man of the highest character, and distinguished as a musician, poet, orator, theologian, painter, and architect. His practical talents were turned to the reformation of monastic discipline, on which account he was sent to Norway by the Pope. His principal work, first published in 1571, extends over English history from the reign of William the Conqueror, to his own times.

Paris, FRANÇOIS, commonly called the ABBÉ PARIS, was a French ecclesiastic, B. 1690. He died in Paris, after a life of religious mortification and charity, 1727, and was buried in the cemetery of Saint-Medard. Here extraordinary scenes took place, occasioned by the alleged miracles wrought at his tomb. Where persons went into convulsions and transports of prophetic delirium.

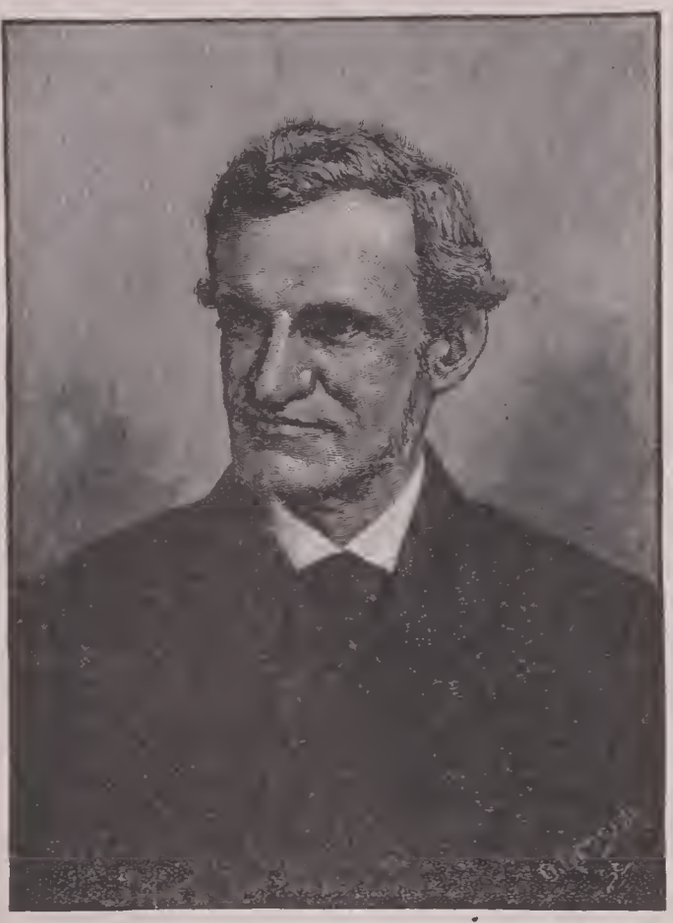
Paris (*Lutetia Parisiorum*, "the mud town of the Parisii," a people of Celtic Gaul), the cap. of France, stands in the midst of a fertile plain on the Isle de France, on the Seine, about 110 miles (direct distance) from its mouth, 210 m. S.S.E. of London, and 159 m. S.S.W. of Brussels; in the centre of the network (*réseau*) of French railways; Lat. 48° 50′ 13″ N., Lon. 2° 20′ 24″ E. The city stands in a plain, surrounded on several sides, but especially N. and N.E., by considerable eminences; and the geological constitution of the district is so peculiar that the French geologists have called it the *Paris basin*. Here are found alternate strata, abounding with marine and fresh-water shells, and containing, also, many fossil remains of extinct animals. Gypsum (the *plaster of Paris*) is found in large quantities; and S. of the Seine is quarried good building-stone, of which, indeed, some of the principal edifices of Paris are formed; the older quarries, all of which were subterranean, have been converted into catacombs, or repositories for the bones of the dead, removed from the public graves that once abounded, greatly to the injury of the health of the city. Paris is situated on both sides of a considerable river, which runs through it from S.E. to N.W., and divides it into two parts, of which the largest is on the N. side; the most ancient part of the city being, however, confined to the small islands within the channel of the river, the principal of which is called *the Cité*. In the course of centuries it has so extended itself, that it now occupies an area of about 14 square miles, including the Champs Elysées, and other open spaces at its W. extremity. Many of the best streets are parallel to the river and the open spaces, or quays, along its banks, present the most agreeable feature. The city was originally divided into 4 quarters (*quartiers*), but as it increased, new allotments became necessary, though the old name was retained; and hence we find that there are at present 80 quartiers. For electoral and municipal purposes, however, Paris is divided into 20 arrondissements, each comprising 4 quartiers. The arronds, or districts of Paris, differ as widely one from the other in the ideas, habits, and appearance of their inhabs. as in the height and size of their buildings, or the width and cleanliness of their streets. The *Chaussée d'Antin* breathes the atmosphere of the *Bourse*, and the *Palais Royal* is the district of bankers, stock-brokers, generals of the empire, and rich tradespeople; and it is the quarter fullest of life, most animated, most rife with the spirit of progress, change, luxury, and elegance. Here are all the fine buildings, arcades, and shops, and here are given the richest and most splendid balls. How different is the quartier *St. Germain*, the district of the long and silent street, and the large, well-trimmed garden, of the great court-yard, of the broad and dark staircase, inhabited by the administrations of the old nobility, manifesting no signs of change, no widening of streets, no piercing of arcades or passages; it hardly possesses a restaurant of note, and has but one unfrequented theatre. Further E., on the same side of the Seine, is the quartier of the students, at once poor and popular, inhabited by those eloquent and illustrious professors who give to France its literary glory. Then there is the *Marais*, the retreat of old-fashioned judges and merchants, where the manners have been changed almost as little as the houses by the philosophy of the 18th century. Here are no carriages, no equipages; all is still and silent; you are carried back to the customs of the grand hotels in the time of Louis XIII. Then there is the *Faubourg St. Antoine*, the residence of those

Fig. 2048.— NOTRE DAME DE PARIS.

immense masses that reigned under Robespierre, and which Napoleon, after Waterloo, refused to summon to his assistance. There is the ancient *Cité of Paris*, surrounded by the Seine, and filled by a vast population. There, at the end of new and large streets which have transformed this quarter, formerly the most sordid in the city, rise the splendid towers of Notre Dame (Fig. 2048), that temple of the 12th century, which, in spite of the Madeleine, has not been surpassed in the 19th; there is the Hôtel Dieu, the antique hospital as old as the time of Philip Augustus; and there is the Palais de Justice, where sat the old parliament, and where sit now the highest courts of justice in France. The immense changes made by the Emperor Napoleon III. in the outer aspect of Paris, involving the destruction of a great part of the old city and the erection of a new and far more splendid one on its ruins, are chiefly marked in these vast thoroughfares, which form the characteristic feature of Paris, known as the *Boulevards*. The Boulevards owe their origin to the improvements that took place in Paris under Louis XIV., when the ancient fortifications of the city were destroyed and the ditches filled up. At the suggestion of Colbert, the king determined to form a wide road upon the side of the northern ramparts, and plant it with trees; and, in 1670, the Boulevard, or bulwark, from the Rue St. Antoine to the Rue St. Martin, was opened for public use. Gradually this fine thoroughfare became extended, but it was not until the reign of Napoleon III. that the girdle of boulevards, surrounding the immense city on all sides, was entirely completed. Paris contains above 100 squares, of which the most celebrated are the Place Vendôme, an octagonal space, surrounded by elegant stone buildings, and having in its centre a triumphal bronze column erected by Napoleon I.; the Place Royale, a square in the E. of Paris; the Place des Victoires, a central and busy spot; the Place de Grève, the scene of many revolutionary executions, in the centre of Paris; the Place du Carrousel, a spacious oblong between the Tuileries and the Louvre, and having the long picture-gallery on its S. side; and the Place Louis XV., situate to the W. of the garden of the Tuileries. The Champ de Mars is an oblong park on the S.W. of Paris, extending from the military school to the river, and bordered on each side by several rows of trees. The Palais Royal, situate towards the centre of Paris, forms a large pile of buildings, entered in three distinct parts by as many portals or archways, and bearing less the appearance of a princely residence than of a place of business. The façade fronting the Rue St. Honoré was built in 1781, and is ornamented with Doric and Ionic pillars, surmounted by a finely sculptured *fronton*. At the back of these courts, and at a distance from the main building, is the garden of the palace, a spacious oblong, nearly 250 yds. in length, having in its central part a basin with *jets d'eau*, and at either end a shrubbery. The Seine, flowing from E. to W., intersects Paris nearly in the middle, and is crossed by the Pont Neuf, built in the 17th century; the Pont Royal, near the Tuileries, built by Louis XIV.; and the Pont de Louis XVI., finished in 1790. Lower down the river, and opposite the Champ de Mars, is the Pont de Jena, or des Invalides, a stone bridge; and, higher up, opposite the Jardin des Plantes, is the Pont d'Austerlitz, an iron bridge: both elegant structures, and both erected under Bonaparte. Lastly comes the Pont du Louvre, an iron-wrought bridge, and the Pont des Arts, opposite to the Louvre, a neat but slight iron bridge, appropriated to foot-passengers. Within the limits of the city, the Seine is crossed by no fewer than 23 bridges. The public buildings are numerous. The Tuileries, long the residence of the kings of France, and the scene of many of its most remarkable events, was begun in the 16th cent., and finished, after various interruptions, in the 17th. It was joined by Napoleon III. to the Louvre, but was destroyed by the Commune in 1871. The palace of the Luxembourg, situate in the S. of Paris, is distinguished by the symmetry of its proportions. The Palais Bourbon, on the left bank of the Seine, on the W. side of Paris, is a splendid building. The other buildings worthy of note are, the Hôtel des Invalides (Fig. 1394), a large structure with a dome, in the centre of which is a church, containing the tombs of Napoleon I. (Fig 1911), Vauban, and Turenne; the Military School, which forms one end of the Champ de Mars; the Palace of the Legion of Honor, nearly opposite to the Tuileries; the Bourse, in Rue Vivienne; the Bibliothèque Nationale, containing upwards of 2,000,000 vols.; and the Pantheon (Fig. 846), in the highest part of Paris, and appropriated to the remains of distinguished Frenchmen. On the same side of the Seine, but more towards the centre of Paris, stand the buildings of the Institute (Fig. 2049), and the Mint, or Hôtel des Monnaies. Among the old structures, the principal were the Hôtel de Ville and the Palais de Justice; and, in the busy part of the town, near the street of Montmartre, there is an elegant and extensive exchange. Besides Notre-Dame, there are the churches of St. Sulpice, St. Eustache, the Madeleine, Notre-Dame-de-Lorette, &c. The mansions, or, as they are termed, the *hotels*, of great families, are spread all along the W. part of the town, particularly in the Faubourg St. Germain, and in the suburb St. Honore. The private houses are very high, having frequently 6 and 7 stories. The most striking of the public monuments is the column of the Place Vendôme erected by Bonaparte, to commemorate his successes in Germany in 1805, and already noticed. It is a brazen pillar, with a diameter of 12 feet, and a height of 133; its form, an imitation of Trajan's pillar at Rome. After this comes the triumphal arch in the Place du Carrousel, near the Tuileries, erected in 1806; the Arc de Triomphe de l'Etoile, outside of the barrier of Neuilly; the Porte, or gate of St. Denis, a large triumphal arch, erected by Louis XIV.; and the Porte St. Martin; the column of Luxor (ancient Thebes), transported from that place, and now erected in the Place de la Concorde. The public fountains of Paris are extremely numerous, and several of them are deserving of high admiration. The hospitals of Paris are also numerous and well-managed. The largest is the Hôtel Dieu; after it come those of Charité, St. Antoine, Beaujon, Des Enfans Malades, and several others. Distinct from these are the *hospices*, or establishments where the aged, the infirm, the lunatics, are received and supported, on paying a small sum. The prisons of Paris, also, are much amended in their management since the

Fig. 2049.—INSTITUT DE FRANCE.

beginning of the present century. In literary, scientific, and educational institutions, Paris is not excelled by any other city in the world. The principal of these are the College of France, with 28 professors; the University, Academy of Paris, and various societies of medicine, of agriculture, of sciences and arts, &c.; the Athénée, the school of medicine, an elegant and capacious building, has halls for public lectures, large and generally crowded. At the Jardin des Plantes are classes for botany, zoölogy, geology, mineralogy, chemistry, &c.; to these are to be added the school for painting, sculpture, and architecture. There are also a number of celebrated schools for particular professions. The military school is for the education of youths, generally the sons of officers who have fallen in the service of their country. The École Polytechnique is for the education of engineers. The veterinary school at Alfort, near Paris, has classes on zoölogy, rural economy, the care of animals, &c. With libraries Paris is also well supplied: there are 32 altogether, and the Great National is a magnificent institution. It is divided into five sections: I. Printed works and pamphlets, of which there are now 2,500,000, including duplicates. 2. Manuscripts, of which there are 84,000 vols. 3. Medals and antiquities. 4. Prints. 5. Maps and charts. Amid the collections of interest to artists, those of the Louvre hold, unquestionably, the first rank. Of the ground floor of that spacious building, a great part is appropriated to statues and other specimens of sculpture, ancient and modern, distributed in spacious halls, and arranged with much taste. From these a magnificent staircase leads to the gallery of paintings, a collection that may be equalled by other European galleries in the works of certain schools, but which alone offers to the practical student, and the simple lover of art, a complete, comprehensive, and instructive view of all the schools. Next to these, the object of greatest interest in *P.* is the Museum of Natural History, in the buildings belonging to the Jardin des Plantes. Next comes the Jardin des Plantes itself, exhibiting, in miniature, groups of plants of almost every region on the globe; also a collection of animals of the most differ-



Francis Parkman

1823–1893

ent latitudes — lions, elephants, bears, &c. In a large building in the central part of *P.* is the Museum of French Monuments, a collection of statues and other sculptured ornaments. The Conservatory of the Arts and Trades is appropriated to mechanical improvements, and contains models of almost all ingenious machines. The chief theatres are the New Opéra, or Academy of Music, the Théâtre Française, Opéra Comique, and the Odéon; but the others are also much frequented, and conducted with taste and ingenuity. Of the public gardens and walks, those of the Tuileries, once the finest and most frequented, have lost their beauty since the destruction of the palace, though the grounds are still frequented. On the S. side of Paris are the fine gardens of the Luxembourg. The Champs Elysées afford very pleasant walks; the Boulevards, in the summer evenings, present a strikingly animated scene; and the beautiful Bois de Boulogne, leading to the palace of St. Cloud, forms one of the most charming promenades in the world. *Manuf.* These consist chiefly of articles of taste or nice workmanship, such as jewelry, watches, clocks, porcelain, cabinet-ware, mathematical instruments, silk, artificial flowers, plate-glass, and ornamental articles in bronze; also, cottons, carpets, &c. The well-known manufactory of the Gobelins exhibits imitations of beautiful pictures in webs of the finest silk and worsted. That of Sèvres is equally noted for the richness of its porcelain. Paris is, besides, almost exclusively the seat of the wholesale bookselling and printing business of France. Its commerce is greatly facilitated by the navigation of the Seine, its connection with many canals, and by railways to many of the principal towns in France. Paris was originally a Roman station, and, in the year 360, was the winter-quarters of Julian. In 508 it was constituted the cap. of the kingdom. It was surrounded with walls in the end of the 12th century, and, after the Revolution, it received many embellishments. The new line of fortifications was begun in 1840, and finished in 1848. Francis I. was the first French monarch who endeavored to render Paris worthy of being the cap. of France; under Henry IV. it increased; and to Marie de Médicis and to Cardinal Richelieu it owed much of its progress. Louis XIV. greatly embellished it. Napoleon I. was anxious that it should eclipse all other cities: and Napoleon III. made of it the hand-omest city in Europe. *Pop.* (1891) 2,447,957; (1901) 2,660,559.

Par'is, *n.* (*Bot.*) A genus of plants, order *Trilliaceæ*, including *P. quadrifolia*, the One-berry, the juice of which is reckoned a narcotic, acrid poison.

Paris, a village of province of Ontario, on Grand river, about 72 m. N.N.W. of Niagara Falls.

Paris, in *Illinois*, a city and township, cap. of Edgar co. *Pop.* (1897) 5,360.

Paris, in *Indiana*, a post-village of Jennings co., about 16 m. W.N.W. of Madison.

—A village of Posey co., about 20 m. N. of Mount Vernon.

Paris, in *Kansas*, a village and township of Linn co., about 60 m. S.S.E. of Lawrence.

Paris, in *Kentucky*, a city, cap. of Bourbon co., about 40 m. E. of Frankfort. It is one of the chief cattle-markets in the State. *Pop.* (1897) 4,510.

Paris, in *Maine*, a post-village and township, cap. of Oxford co., abt. 40 m. W. of Augusta.

Paris, in *Michigan*, a twp. of Kent co.

Paris, in *Missouri*, a post-village, cap. of Monroe co., abt. 40 m. W.S.W. of Hannibal.

Paris, in *New York*, a post-township of Oneida county.

Paris, in *Ohio*, a township of Portage county.—A post-village and township of Stark county, about 130 miles N.E. of Columbus.—A township of Union county.

Paris, in *Pennsylvania*, a post-village of Washington co., abt. 34 m. W. by S. of Pittsburg.

Paris, in *Tennessee*, a post-village, cap. of Henry co., abt. 110 m. W. of Nashville.

Paris, in *Texas*, a city, cap. of Lamar co., about 300 m. N.N.E. of Austin, and the center of a large cottou co., with excellent R.R. facilities. *Pop.* (1897) 10,500.

Paris, in *Va.*, a p. v. of Fauquier co.

Paris, in *Wisconsin*, a post-village and township of Kenosha co., abt. 10 m. N.W. of Kenosha.

Par'isburg, or GILES COURT-HOUSE, in *Virginia*, a post-village, cap. of Giles co., abt. 240 m. W. of Richmond.

Paris Green, a compound of arseniousacid and oxide, properly termed *arsenite of copper*. It is of a bright green color, and is sometimes used for coloring wall papers and destroying insects, and it is very cheaply made, but it is very poisonous and should be used with great caution.

Par'ish, *n.* [Fr. *paroisse;* L. Lat. *parochia;* Gr. *paroikia*, from *para*, and *oikos*, a house, a dwelling.] An ecclesiastical divisiou of a town or district, in which tho inhabitants dwell near each other; that is, a district of comparatively limited extent:—specifically, the circuit of ground which is committed to the spiritual charge of one person, vicar, or other Christian minister, having permanent cure of souls therein.

—In the U. States, an ecclesiastical society bounded by territorial limits, but composed of those persons who choose to unite under the charge of a particular priest, clergyman, or minister.—*Webster.*

—In Louisiana, one of the State divisions corresponding to *counties* in other States.

—*To go on the parish*, in England, to become chargeable as a pauper, to the parochial poor-rate.

—*a.* Belonging, or having reference to a parish; as, a *parish* church.—Employed in the ecclesiastical or spiritual concerns of a parish; as, a *parish* priest, a *parish* clerk.—Maintained at the cost of a parish; as, *parish* poor, a *parish* workhouse.

—*Parish clerk*, a layman who conducts the responses, and otherwise officiates in the services of the Anglican Episcopal Church.

Par'ish, in *Iowa*, a v. of Des Moines co., abt. 65 m. S.E. of Iowa City.—In *New York*, a post-twp. of Oswego co.

Parish Grove, in *Indiana*, a townsbip of Benton co.

Par'is Hill, in *N. Y.*, a v. of Oneida co.

Parish'ional, *a.* Same as PAROCHIAL, *q. v.*

Parishioner, (*pa-rish'un-er,*) *v. n.* [Fr. *paroissien.*] One who belongs to, or is a resident within, a parish.

Par'ishville, in *New York*, a post-village and township of St. Lawrence co., abt. 20 m. E. of Canton.

Parisian, (*pa-rēzh'i-an,*) *n.* [Fr. *Parisien.*] (*Geog.*) A native or resident of Paris.

—*a.* (*Geog.*) Pertaining or having reference to, or characteristic of, the natives of Paris; as, *Parisian* fashions.

Parisienne, (*pa-rē'ze-ėn,*) *n.* A female native or resident of Paris.

Parisol'ogy, *n.* [Gr. *paraisos*, nearly equal, and *logos*, discourse.] The practice of using ambiguous or equivocal words.

Parisyllab'ic, Parisyllab'ical, *a.* [Lat. *par, paris*, equal, and *syllaba*, syllable.] Denoting a word which has the samo number of syllables in all its inflections.

Par'itor, *n.* An apparitor; an usher; a beadle.

Par'ity, *n.* [Fr. *parité;* Lat. *paritas* — *par, paris* = Armor. *pâr*, equal.] Equality; equivalence; analogy; like or kindred state or degree; as, *parity* of reasoning or principle.

Park, *n.* [A. S. *pearroc;* Dan. *park;* Fr. and W. *parc.*] A piece of ground in an untilled state, inclosed for purposes of the chase, or for walking, driving, &c.—A tract of land withiu the precincts of a city or town, and kept for ornament and public recreation; as, Fairmount *Park* in Philadelphia, or tho Central *Park* in New York.

(*Mil.*) An assemblage of tho heavy ordnance belonging to an army, with its carriages, ammunition-wagons, and stores, on ground contiguous to that occupied by the troops when encamped; as, a *park* of artillery, a *park* of provisions, an engineer *park*, &c.

Park-hack, a horse with showy action, used for equestrian exercises in parks, &c.; a cob; a nag.

Park phaeton, a low carriage, or landaulet, for use in parks.

—*v. a.* To impark; to inclose, as in a park.—To mass together in a compact body; as, to *park* the artillery, commissary wagons, ambulances, &c.

Park, in *Colorado*, a N. central co.; *area*, about 2,200 square miles. *Rivers.* South Fork of Platte River and Arkansas River, besides many smaller streams. *Surface.* It is surrounded on all sides by high and rocky mountains which form what is called South Park. (see THREE PARKS). *Soil*, moderately fertile. *Min.* Gold. *Cap.* Fair Play.

Park, in *Michigan*, a post-township of St. Joseph county.

Park, MUNGO, a British traveller, B. near Selkirk, Scotland, 1771, was killed during his second expedition in Africa, 1808. (See AFRICA, § *History.*) His *Travels in the Interior of Africa* were published in 1797, and the *Journal* of his second expedition appeared in 1815.

Parke, in *Indiana*, a W. co., adjoining Illinois; *area*, abt. 440 sq. m. *Rivers.* Wabash River, and Sugar and Racoon creeks. *Surface*, generally level; *soil*, deep and fertile, yielding large crops of cereals and garden produce. *Cap.* Rockville.

Park'er, THEODORE, a distinguished American theologian, philosopher, and social reformer, B. at Lexington, near Boston, 1810. He entered Harvard College in 1830, continuing, however, for a time to work on his father's farm, and afterwards teaching in a school at Boston. In 1834 he entered the Theological School, the professors at which belonged to the then rising liberal school. After laborious and successful studies, he was chosen, in 1837, minister of a Unitarian congregation at West Roxbury, his marriage having taken place just previously. He had there leisure for study, and read extensively, enjoying the society of Dr. Channing. His views of Christianity had diverged considerably from the standard of his sect, and great excitement was occasioned by his sermon "On the Transient and Permanent in Christianity," preached in 1841. Wearied with the bitterness and opposition of his adversaries, he visited Europe in 1843. The prejudice against him led to his quitting West Roxbury, and settling at Boston in 1846, as minister of the Twenty-eighth Congregational Society. In the followiug year he became joint-editor with Emerson and Cabot of the *Massachusetts Quarterly Review.* He distinguished himself as the fearless opponent of the Fugitive Slave Law, and sheltered slaves in his own house. Notwithstanding his failing health he was very active as a public lecturer on various political and social topics, and was the correspondent of many eminent men; among them, Charles Sumner, Buckle, Professor Gervinus, &c. Early in 1859 he was compelled to relinquish his duties and seek health in France and Italy. It was in vain, and he died at Florence, 1860. His earliest published work was the *Discourse of Matters pertaining to Religion*, which appeared in 1847. In this work alone he exhibits his fundamental principles in a systematic form. It has passed through several editions, and has been widely read in Europe as well as in America, and is one of the most important and interesting of recent contributions to religious philosophy, — one of the books which are worth reading for their honesty, earnestness, and beauty, whether we agree or disagree with their conclusions. Among his other works, of which a collected edition has been published by Miss Cobbe, are, *Critical and Miscellaneous Writings; Theism, Atheism, and the Popular Theology; Discourses of Politics; Experience as a Minister*, &c. His *Life and Correspondence*, edited by John Weiss, appeared in 2 vols. in 1863.

Park'er, *n.* The keeper or rauger of a park.

Park'er, in *Illinois*, a township of Clark county.

Parker, in *Pennsylvania*, a village and township of Butler co., abt. 18 m. E S.E. of Pittsburg.

Parker, in *Texas*, a N.E. central co.; *area*, abt. 900 sq. m. *Rivers.* Brazos and Noland's rivers. *Surface*, agreeably diversified; *soil*, generally tertile. *Cap.* Weatherford.

Park'ersburg, in *Illinois*, a post-village of Richland co., abt. 135 m. S.E. of Springfield.

Parkersburg, in *Indiana*, a post-village of Montgomery co., abt. 12 m. S. of Crawfordsville.

Parkersburg, in *Iowa*, a village of Boone co., abt. 6 m. S.E. of Boonesborough.

—A post-town of Butler co., about 18 m. W. of Cedar Falls.

Parkersburg, in *West Virginia*, a city and cap. of Wood co., on the Ohio river, about 100 m. S.W. of Wheeling. It owes its rapid growth and importance to the wells of petroleum which abound in the vicinity. *Pop.* (1897) 9,900.

Parkes'burg, in *Pennsylvania*, a post-borough of Chester co., about 45 m. W. of Philadelphia.

Parkesine', *n.* See PARKESINE.

Parke'ville, in *Indiana*, a village of Parke co., abt. 9 m. E.N.E. of Rockville.

Park'hurst, in *Iowa*, a village of Scott co., abt. 65 m. E. by S. of Iowa City.

Parkinso'nia, *n.* [After *Parkinson*, an ancient writer on plants.] (*Bot.*) A genus of plants, sub-order *Cæsalpiniæ*. *P. aculeata*, the Jerusalem thorn of the W. Indies, is used for making hedges, and is also employed as a febrifuge.

Park'-leaves, *n. pl.* (*Bot.*) The common name of the genus *Hypericum*. See HYPERICACEÆ.

Park'man, FRANCIS, an American historian, B. in Boston, 1823. He graduated at Harvard College in 1844, and in 1846 made a journey across the prairies, and explored the Rocky Mountains. His principal works are, *The Californian and Oregon Trail; Pioneers of France in the New World; The Jesuits in North America; Discovery of the Great West; The Old Regime in Canada; Count Frontenac and New France under Louis XIV.* (Boston, 1877). Died 1893.

Park'man, in *Maine*, a post-town of Piscataquis co.

Park'man, in *Ohio*, a post-township of Geauga co.

Parksine', PARKESINE, *n.* (*Applied Chem.*) A newly invented material, similar to ebonite, consisting of an intimate mixture of vulcanized oil and collodion, and which, in some of its applications, seems destined to take the place of caoutchouc and gutta-percha. For its preparation the oils used may be any of the so-called drying-oils, as linseed-oil, nut-oil, castor-oil, &c.; and for vulcanizing them, chloride of sulphur is used in various proportions, according to the nature of the product desired; for instauce, in greater proportion, if the material is to be solid and hard, and in less if it is to be elastic and extensible. The temperature of preparation varies correspondingly with these different objects, between 200 and 300 degrees Fahreuheit. The collodion is prepared by treating cotton in nitro-sulphuric acid, and then washing with water in a centrifugal apparatus, next pressing out the moisture, and then dissolving the expressed mass in nitro-benzole. The collodion is separated in the form of a pellicle by pouring the solution into water. The two constituents are worked up together, and the mass is then pressed into the desired form and vulcanized. The applications of this material are as varied as those of caoutchouc and gutta-percha, and are adapted even to cases where these substances cannot be well employed. For the imitation of marble, in all shades, as well as of mother-of-pearl, tortoise-shell, and ivory, there is nothing to compare with it. It may be prepared at so low a cost that, in England, knife-handles of great beauty, made of this material, are sold at $4 to $15 per gross.

Parks'ville, in *New York*, a post-village of Sullivan co., abt. 4 m. N. of Liberty Village.

Park'ton, in *Maryland*, a post-village of Baltimore co.

Parlance, (*pär'lans,*) *n.* [Norm.; Fr. *parler, parlant*, to speak.] Conversation; discourse; talk.

In common or *ordinary parlance*, in common phrase; in the customary or usual form of speech.

Par'ley, *v. n.* [Fr. *parler;* It. *parlare*, to speak; Fr. *parole*; Sp. *palaba*, a word, from Lat. *parabola* = Gr. *parabole*, a parable.] To speak or confer with on some point of mutual concern; to discuss orally; — hence, specifically, to confer, as with an enemy; to treat with by words.

—*n.* Mutual discourse or conversation; discussion; appropriately, a conference with an enemy in war.

"Summon a *parley*, we will talk with him."—*Shaks.*

To beat a parley. (*Mil.*) To beat a drum or sound a trumpet, as a signal for holding a conference with the enemy.

Parliament, (*pär'li-ment,*) *n.* [Fr. *parlement*; It. and Sp. *parlemento;* Low Lat. *parlamentum*, a conference. See PARLEY.] The grand assembly of the legislature, or Three Estates, of the united realm of Great Britain and Ireland, consisting of the sovereign with the peers spiritual and temporal, constituting the *House of Lords;* and the knights of shires, citizens, and burgesses, forming the lower chamber, or *House of Commons.* Though the sovereign is virtually one of the three orders which form the British *P.*, the two conditions of the Lords and Commons are supposed legally to comprise the legislature of the State. The term *P.* is

evidently of French origin, and was first applied to general assemblies of the States under Louis VII., about the middle of the 12th century. In England, the term was not used till the reign of Henry III. or Edward I. The institution of *P.*, however, is of a much earlier date; but its origin is lost in the remote ages of antiquity. It has commonly been traced back to the free councils of our Saxon ancestors, which existed under the names of the *michel synoth*, or great council; *michel gemote*, or great meeting; and *wittena gemote*, or assembly of wise men. The popular character of these institutions was subverted for a time by the Norman Conquest; but the people of England, still Saxons by birth, in language, and in spirit, gradually recovered their ancient share in the councils of the state. It is generally agreed that the main constitution of *P.* as it now stands was marked out so long ago as the 17th year of King John (1215), in the Great Charter granted by that prince, wherein he promises to summon all archbishops, bishops, abbots, earls, and greater barons, personally, and all other tenants in chief under the Crown, by the sheriff and bailiffs, to meet at a certain place, within forty days' notice, to assess aids and scutages when necessary; and this constitution has subsisted, in fact, at least from the year 1264 (49th Henry III.) Since that period it has enjoyed supreme political power in the kingdom.

(*French Hist.*) The *P.* of France, like that of England, was in its origin a convocation of the great vassals of the crown, who treated of judicial as well as political matters in their assemblies. St. Louis was the king who first introduced into this body counsellors of inferior rank, chiefly ecclesiastics, as legal assistants; and the earliest registers of the proceedings of the *P.* which afterwards became fixed at Paris, are of the date of 1254. The important step of rendering that court permanent, and fixing its seat in the capital city, is generally attributed to Philip the Fair (1304); from that time the great barons gradually discontinued their attendance, and the lawyers occupied the higher places and more important functions of the court. The twelve peers of France, however, remained constant members of the *P.* after the other great vassals had, by disuse, ceased to be considered as members of it. The *P.* of Paris thenceforward remained the chief tribunal of the country until the revolution, with the exception of the short period of its suppression by Louis XV. in 1771; but as the great fiefs of the French monarchy were successively united to the crown, the supreme feudal court of each was invested with the title and attributes of a *P.* These were fixed at Toulouse, Grenoble, Bordeaux, Dijon, Besancon, Rouen, Aix, Pau, Rennes, Metz, Douay, Nancy. The most remarkable prerogative exercised by the *P.* was that of registering the edicts of the sovereign, and thereby giving them the force of law. Hence the important part which the parliaments, and especially that of Paris, so often enacted in French history, in modifying the otherwise absolute power of the monarchs. (See BED OF JUSTICE.) It was usual for the *P.* of Paris, and undoubtedly legal, although not customary for the other parliaments, to convey remonstrances to the king on the subject of his edicts. But Louis XIV. ordained that these remonstrances should always be presented after they had testified their obedience by registering them. The counsellors of *P.* were, by a law of Louis XI., immovable except in case of legal forfeiture; but the place of counsellors and presidents soon became purchasable, and afterwards transmissible by hereditary descent. Hence, in part, the powerful esprit de corps which distinguished those bodies.

Parliamenta'rian, *a.* (*Eng. Hist.*) Siding with the Parliament in antagonism to King Charles I.

—*n.* (*Eng. Hist.*) An adherent of the Parliament during the time of Charles I.

Parliament'ary, *a.* [Fr. *parlementaire.*] Pertaining to parliament; vested in parliament; as, *parliamentary* authority. — Enacted or done by parliament; as, a *parliamentary* act or constitution. — According to the rules and usages of parliament, or to the established rules and practice of legislative assemblies.

Par'lor, Parlour, *n.* [Fr. *parloir*, from *parler*, to speak.] The apartment in a nunnery where the nuns are permitted to meet and converse with each other, or with friends outside, through a grating. — The room in a house which the family usually occupy, and where they hold their ordinary converse and intercourse.

Parlor boarder, a pupil in a boarding-school who sits at table with the teacher's family.

Par'lous, *a.* [From *perilous.*] Disposed to incur peril; venturesome; notable; keen; sprightly; waggish; as, a *parlous* wit.

Par'ma, in *Michigan*, a post-village and township of Jackson co.

Par'ma, a prov. and former duchy of N. Italy, between Lat. 44° 19′ 30″ and 45° 7′ 45″ N., Lon. 9° 23′ and 10° 40′ E., having N. Lombardy, E. Modena, S. and W. Tuscany. *Area*, 3,766 sq. m. The surface is diversified, and the soil fertile in the plains. The climate is healthy except in the districts along the Po. *Rivers.* Po, Taro, Trebbia, and Enza. *Prod.* Maize, wheat, tobacco, hemp, and fruits. Numerous cattle are also reared; and it is noted for its cheese from the milk of goats. *Min.* Iron, copper, salt, &c. *Manuf.* Silk, linen, and cotton goods, paper, glass, gunpowder, brass, &c. *Cap.* Parma. During the decline of the Roman empire, *P.* became a part of the kingdom of Lombardy. It was taken by Charlemagne, and transferred to the papal see in 774. In 1543 Paul III. erected *P.* and Piacenza into a duchy, which he bestowed upon the Farnese family, whose line became extinct in 1731. The treaty of Aix-la-Chapelle, in 1748, gave possession of *P.* to Philip, son of Philip V. and Elizabeth Farnese. In 1815, *P.*, Piacenza, and Guastalla were formed into a duchy, and bestowed upon Maria Louisa, wife of Napoleon I., with reversion after death to Ferdinand Charles, Duke of Lucca, the son of Maria Louisa of Spain, and the rightful heir. A revolution occurred in 1859, on which Marie Therese de Bourbon, widow of Charles III., and regent for her infant son, left the country, and *P.* was annexed to the kingdom of Italy in 1860. *Pop.* 256,029.

Par'ma, a fortified city, cap. of the above prov., 72 m. S.E. of Milan; Lat. 44° 48′ 15″ N., Lon. 10° 20′ 8″ E. It has a fine Gothic cathedral, and the ducal palace, which contains a library of 90,000 vols. and a museum of antiquities. *P.* has also a public library of 34,000 vols. *Manuf.* Silk, cotton, and woollen goods, lace, cutlery, glass, and musical instruments. *Pop.* 47,067.

Parma, in *New York*, a post-vill. and township of Monroe co., abt. 10 m. W.N.W. of Rochester.

Parma, in *Ohio*, a post-township of Cuyahoga county.

Parmegla'no, Parmigiano, or **Parmigianino.** See MAZZUOLI.

Parme'lin, *n.* (*Bot.*) A genus of lichens, *P. parietina*; was formerly regarded as a valuable febrifuge, astringent, and tonic. It contains a yellow crystalline coloring-matter, called *chrysophanic acid*, which is identical with the coloring principle of rhubarb. *P. perlata* is employed in the manufacture of orchil and cudbear.

Parmenides, (*par-men'i-dees,*) of Elea, in Magna Græcia, B. about 536 B. C., was one of the chiefs of the Eleatic school.

Parmentie'ra, *n.* (*Bot.*) A genus of plants, order *Crescentiaceæ*, q. v.

Parmesan', *n.* (*Geog.*) A native or inhabitant of Parma, Italy.

—*a.* [It. *Parmigiano.*] (*Geog.*) Pertaining, or having reference to Parma or its inhabitants; as, *Parmesan* cheese.

Parnahiba, (*par-na-ee'ba,*) a river of Brazil, rises in abt. Lat. 11° S., Lon. 47° W., and flowing N.N.E. between the provinces of Piauhy and Maranhão, enters the Atlantic Ocean about Lat. 2° 50′ S., Lon. 41° 35′ W. It receives the Uruecuhy, Gurguea, Poty, Balsas, and Piracuruca rivers. *Length*, about 750 m.

Parnas'sia, *n.* [From Mt. *Parnassus*, the abode of the Muses, Graces, &c.] (*Bot.*) A genus of plants, order *Hypericaceæ*. They are perennial herbs, with radical leaves and 1-flowered scape. *P. Caroliniana*, the Grass of Parnassus, is an exceedingly elegant and interesting species, growing in wet meadows and borders of streams in the United States and Canada.

Parnasslan, (*-năsh'i-an,*) *a.* Pertaining, or relating to Parnassus; — hence, poetical.

Parnas'sus, a famous mountain of Greece, govt. of Phocis, N.W. of Mount Helicon; Lat. 38° 35′ 57″ N., Lon. 22° 27′ 36″ E. It has 3 peaks, the highest of which reaches an elevation of 8,068 feet. On the W. side lay Delphi, the seat of the famous oracle, and the fountain of Castalia (see Fig. 791). The highest peak was dedicated to Bacchus, and was the scene of the orgies of his worship. The rest of the mountain was sacred to Apollo and the Muses; hence, poets were said "to climb Parnassus."

Parnas'sus, in *Pennsylvania*, a post-village of Westmoreland co., abt. 19 m. N.E. of Pittsburg.

Parnassus, in *S. Carolina*, a post-village of Marlborough district, abt. 20 m. S.E. of Cheraw.

Parnassus, in *Virginia*, a post-village of Augusta co., abt. 132 m. N.W. of Richmond.

Parochial, (*-rō'kĭ-al,*) *a.* [O. Fr., from L. Lat. *parochia*, parish.] Belonging, or having reference to a parish; parishional; as, *parochial* clergy, *parochial* authorities, *parochial* duties.

Paro'chiallze, *v. a.* To form into parishes. (Eng.)

Paro'chially, *adv.* In a parish; by parishes.

Parod'ic, Parod'lcal, *a.* [Fr. *parodique.*] Relating or pertaining to parody; consisting of, or resembling parody.

Par'odist, *n.* [Fr. *parodiste.*] A writer of parodies.

Par'ody, *n.* [Fr. *parodie*, from Gr. *para*, and *ōdē*, an ode, a song.] A kind of literary composition in which the words of an author or his thoughts are, by some slight alterations, adapted to a different purpose; a kind of poetical pleasantry, in which verses written on one subject are altered and applied to another by way of burlesque. — A popular saying, adage, or proverb.

—*v. a.* [Fr. *parodier.*] To imitate in parody; to write a parody on; to alter, as verses or words, and apply to a purpose different from that of the original.

Par'oket, *n.* (*Zoöl.*) See PAROQUET.

Parol', Parole', *n.* [Fr. *parole*, from *parler*, to speak. See PARLEY.] A word.

(*Law.*) [Written *parol.*] Oral declaration; word of mouth; a pleading in a suit.

(*Mil.*) [Written *parole.*] A promise given by a prisoner of war, when he has leave to depart from custody, that he will return at the time appointed, unless discharged; — hence, word of honor; plighted faith. — A password given to officers of the guard, as distinguished from the *countersign*, or word given to all guards.

—*a.* Given by word of mouth; oral; not written.

Parol evidence. (*Law.*) The oral testimony of witnesses, as opposed to written evidence or record. — *Parol contract*, an agreement by word of mouth, as opposed to a written contract. In the strict legal acceptation of the term, however, everything is *parol*, even in writing, which is not under seal.

Paromol'ogy, *n.* [Gr. *para*, near, and *omologein*, to confer.] (*Rhet.*) A concession to an opponent, made with a view to fortify one's own argument.

Paronoma'sia, Paronom'asy, *n.* [From Gr. *para*, and *onomasia*, a naming, from *onoma*, a name.] (*Rhet.*) A play on words; a figure of speech, by which the same word is used in different senses, or words similar in sound are set in opposition to each other so as to give a kind of antithetical force to the sentence.

Paronomas'tic, Paronomas'tical, *a.* Pertaining, or having reference to paronomasy; consisting in punning.

Paronom'asy, *n.* Same as PARONOMASIA, *q. v.*

Paronych'ia, (*-nĭk'-.*) *n.* [Lat., from Gr. *para*, beside, and *onychos*, a nail.] (*Med.*) A whitlow.

Par'onym, Par'onyme, *n.* A paronymous phrase.

Paron'ymous, *a.* [Gr. *para*, near, and *onoma*, a name; Fr. *paronymique.*] (*Gram.*) Possessing the same derivation; of kindred extraction; — said of certain words, as *priest*, *priestcraft*, *priesthood*.

—Possessing an identical sound, but of different orthography and sense; as, *meet* and *meat*.

Paron'ymy, *n.* Paronymous quality.

Par'oquet, PAROKET, PARRAKEET, PERROQUET, *n.* (*Zoöl.*) A genus of birds belonging to the *Psittacidæ* or Parrot family, distinguished by being smaller than the common Parrots, and having longer tails. There are numerous species: some, distinguished by a very long, pointed tail and collar-like mark around the neck, which inhabit the Asiatic continent and islands; and others, natives of Australia, which are distinguished by their colors being gorgeously variegated, and peculiarly mottled on the back; by their tail-feathers not being pointed; and by their being furnished with elongated tarsi, adapted for running on the ground.

Fig. 2050.
ROSE-RINGED PAROQUET, (*Palæornis torquatus.*)

Pa'ros, an Island of the Grecian Archipelago, 5 m. W. of Naxia; Lat. of Mount St. Elias, 37° N., Lon. 25° 11′ E. *Area*, 100 sq. m. The surface is mountainous, the scenery picturesque, and the soil fertile and in parts well cultivated. *Prod.* Cotton, corn, wine, fruit, and vegetables. It is noted for its famous Parian marble, which was used by many of the greatest sculptors of antiquity. *Chief town.* Naussa, which has an excellent harbor. *Pop.* 6,000.

Parot'id Gland, *n.* (*Anat.*) One of the most important of all the salivary glands of the system. This organ, the chief source of the saliva expended in mastication, is of a quadrilateral shape, situated partly behind and partly under the ear on each side, between the external auditory passage, the mastoid process of the temporal bone, and the angle of the lower jaw, extending above to the *zigoma* of the cheek-bone, and forward to the *masseter* muscle. The *P. G.* lies with its base outwards and the apex inwards, from which proceeds the duct that carries into the mouth the secretion of the organ. This duct, after passing over the masseter, perforates the *buccinator* muscle, and enters the mouth through the lining membrane, exactly opposite the second molar tooth of the upper jaw. The situation and boundaries of this gland, and the position of its duct, are of the utmost importance to all surgeons operating in the neck, as not only the external carotid artery and jugular vein pass through the centre of the gland, but many important nerves are situated about it, demanding the utmost skill and care in operating in a locality so beset with dangers to be avoided.

Paro'tis, *n.*; *pl.* PAROT'IDES. [Gr., from *para*, and *ous*, *otos*, ear.] (*Med.*) A tumor seated under the ear, which is reddish, hard, and attended with obtuse pains; the progress to suppuration being slow and difficult. Sometimes it is of a malignant character, sloughing, and long protracted.

Parotl'tis, *n.* (*Med.*) Same as MUMPS, *q. v.*

Par'owan, in *Utah*, a post-village, cap. of Iron co., about 110 m. S.S.W. of Fillmore City.

Par'oxysm, (*-sizm,*) *n.* [Fr. *paroxisme*; Gr. *paroxysmos* — *paroxynō*, to urge, prick, or spur on — *para*, and *oxys.*] (*Med.*) The severe fit or exacerbation of a disease. — Hence, any spasmodic affection or action; fit; convulsion; as, a *paroxysm* of grief.

Paroxys'mal, *a.* Pertaining to, or caused by paroxysms or fits. — Characterized by paroxysms; as, a *paroxysmal* temperament.

Parquet, Parquette, (*par-kā'*, or *par-kĕt',*) *n.* [Fr.] The pit or lower floor of a theatre, from the orchestra to the dress circle.

Parquetage, (*păr'ket-aj,*) *n.* See PARQUETRY.

Par'queted, *a.* Inlaid with parquetry; as, a *parqueted* room.

Parquetry, Parquetage, (*păr'ket-,*) *n.* [Fr. *parqueterie*, from *parquet*, dimin. of *parc*, an inclosure.] Inlaid woodwork in geometric patterns, generally composed of two different tints, and principally used for floors.

Parr, Par, *n.* A samlet; a young salmon. — An English provincialism for a young leveret.

Par'rakeet, *n.* Same as PAROQUET, *q. v.*

Par'rel, *n.* [From *apparel.*] (*Naut.*) The hoop that confines a yard to its mast at the slings, whereby it may be hoisted or lowered at pleasure.

Par'ret, a river of W. England, rising near Bedminster, co. of Dorset, and after a N.N.W. course of 40 m., falling into Bristol Channel at Bridgewater Bay. It is navigable for vessels of 200 tons.

Parrhesia, (*-rĕ'zhĭ-a,*) *n.* [Gr. *para*, beyond, and *rēsis*, a saying.] Boldness of speech; freedom of utterance.

Parricid'al, *a.* Pertaiuing, or relatlng to parricide; involving the crime of murdering one's father, patron, &c.—Coumitting parricide.

Par'ricide, (*-sīd,*) *n.* [Fr.; Lat. *parricida*—*pater*, and *cædo*, to kill. See PATERNAL.] One who murders his father, ancestor, or any oue to whom reverence is due. The Athenians had no law against parricides, from an opinion that human atrocity could never reach to the guilt of parricide. This was also originally the case at Rome; but at a later period parricide was puuished by the Roman law with greater severity than auy other kind of homicide. The delinquent, after being scourged, was placed in a leathern sack, with a dog, a cock, a viper, and an ape, and so cast into the Tiber. The English and American law treat this crime as simple murder.

Par'rock, *n.* Same as PADDOCK, *q. v.*

Par'rot, *n.* (*Zoöl.*) See PSITHACIDÆ.

Par'rot-fish, *n.* (*Zoöl.*) Sse SCARUS.

Par'rotry, *n.* Servile imitation, afts:r ths manner of a parrot.

Parrott Gun. (*Ord.*) A rifled cannon invented by Capt. R. P. Parrott, an officer iu the U. S. army, (D. 1877,) just previous to the late war with the South, and which differs from other rifled cannon in the mode of rifling and improvement in the projectiles. It is a cast-iron muzzle-loading gun, much lighter than ordiuary, but having a cylinder of wrought-iron shrunk around the breach at the seat of the charge. The method of shrinkiug this cylinder on the cast-iron guu is by placing the gun nearly horizontal with its axis, with the muzzle slightly depressed, and when the cylinder is heated and slipped on, a continuous etream of water is forced into ths bore, and from its slight depression flows out coustantly. Thus ths inner surface of the cylinder is soonest cooled, and contracts closely, also drawing the outer surface closer. The projectiles are conical in form, with a brase ring around the contractsd base, making it cylindrical. The entrance of the gas between ths iron and the braes forces the latter into the groove, giving a rotary motion to ths projectils. Ths ring is prevented from slipping off hy projections on the upper edge, which fit into corresponding notches in the metal of the shell. There are different calibres of thie gun, the 8-inch, or 200-pounder, being used with effect by the government in the siege of Charleston, S. C., with a charge of 16 lbs. of powder, throwing a projectile of 150 lbs. a distance of 5 m. The great defect in this gun, however, is, that it is liable to burst after a brief service, as the experience of the late war has shown. The power of cast-iron to withstand the strain of a rifled projectile seeming to decrease very rapidly with the increase of size.

Parrs'borough, a seaport-town of Colchester co., Nova Scotia, abt. 60 m. N. by W. of Halifax.

Par'ry, *v. a.* [Fr. *parer*, to ward off, as a hlow; Sp. *parar*, to prevent; Lat. *paro*, *parare*, to get ready.] To ward off; to stop or put or turn hy, as a blow or thrust, or anything menacing or harmful.—To evade; to shift off; to elude; as, to *parry* a question.

—*v. n.* To ward off strokes; to put aside thrusts or strokes; to fence; to evade.

Par'ry, SIR WILLIAM EDWARD, an English navigator, b. at Bath, 1790. He entered the navy in 1803, and in 1818 accompanied Sir John Roee, ae second in command, to Baffin's Bay, in an expedition for the discovery of the N.W. Paseage. This expedition returned to Englaud unsuccegsful. But the year following, Lieut. Parry was appointed to the command of the *Hecla* and *Griper* for a similar object; and thie voyage resulted in the discovery of a considerable portion of the N W. Passage, the ships wintering at Melville Island. Capt. Parry afterwards commanded two other expeditions of a similar kind, hut the nature of the ice on both occasions obliged the ships to return. In 1827 he again commanded the *Hecla*, in an attempt to reach tho North Pole. The ship was left at Spitzbergen, and *P.*, with his boats, euceeeded in reaching the highest latitude attained up to that time (82° 45′), hnt the southerly drift of the ice prevented further advance. Died in 1855.

Par'ryville, in *Pennsylvania*, a post-borough of Carbon co., about 7 m. S.E. of Manch Chunk.

Parse, *v. a.* [Lat. *pars*, a part.] (*Gram.*) To resolve, as a sentence, into its parts or elements, or to show the several parts of speech composing a sentence, and their relation to each other hy government or agreement; to make grammatical analysis.

Parsee', *n.* [Hind. and Pere. *pârsi*, a fire-worshipper.] See GUEBER.

Parsee'ism, *n.* The Zoroastrian religion; the customs of the Parsees; fire-worehipping.

Pars'er, *n.* One who parses.

Parsimo'nious, *a.* Very sparing in the use or expenditure of money; covetoue; niggardly; miserly; penurious; frugal.

Parsimo'niously, *adv.* In a parsimonions manner; with a very sparing use of money; covetonely.

Parsimo'niousness, *n.* Sparingness in the use or expenditure of money.

Par'simony, *n.* [Fr. *parsimonie;* Lat. *parsimonia*, from *parco*, to nse sparingly.] Closenese in the expenditure of money or means;—usually in a bad sense; frugality; savingness; niggardliness; illiberality.

Pars'ley, *n.* (*Bot.*) See PETROSELINUM.

Pars'nip, *n.* (*Bot.*) See PASTINACA.

Parson, (*pär'sn,*) *n.* [L. Lat. *ecclesiæ persona*, the person of the church; so called because by his *person*, the church, which is an invisible hody, ie repreeented.] The rector, vicar, or incumbent of a parish; one who has the parochial charge or cure of souls.—A clergyman; one who ie in holy orders, or has been licensed to preach.

Par'sonage, *n.* In England, the benefice of a parish; a rectory endowed with a house, glebe, lands, &c., for the maintenance of the incumbent; ths manslon or dwslling-houss of a pareon.—Money paid for the maintenance of a parson. (R.)

—In the U. States, the glebe and house belonging to a parish or ecclesiastical society, and appropriated to the support of the incumbent or settled pastor of a church. *Webster.*

Par'soned, (*-sond,*) *a.* Performed hy, or suitahls to, a parson. (R.)

Par'sonfield, in *Maine*, a post-township of York co.; *pop.* abt. 2,500.

Parson'ic, Parson'ical, *a.* Clerical; of, or belonging to, a parson.

Parson'ically, *adv.* In ths manner of a parson. (R.)

Par'sonish, *a.* Characteristic of, or belonging to, a parsou;—said in a seuse of humor or derision.

Part, *n.* [Fr. = Sp. *parte;* Lat. *pars*, *partis*, a part, piece, portion, share; Heb. *paras*, to break, to divide.] A portion, piece, or fragment broken off or separated from a whole thing; a portiou or quantity of a thing not eeparated in fact, but considered or mentioned hy itself; a portion or compouent particle; a division; a fraction; a member; a constitusnt; somethiug less than a whole.—A distinct species or sort belonging to a whole; an ingredient in a miugled mass; a portion in a compound, organic element.—Particular division; equal coustituent portion; proportional ingredient.

"I am a *part* of all that I have met."—*Tennyson.*

—Share; lot; portion; proportional quantity.—Participation; luterest; concern; share.

"Achilles had no *part* in his fault."—*Pope.*

—Side; party; intsrsst; faction; clique.

"So quick to take the bully's *part*."—*Prior.*

—Prescribed duty; particular or special office or busiuess; share of labor, action, or influence.

"Act well your *part*, there all the honour lies."—*Pope.*

—Character appropriate in a play or public performance; stage-speech, action, and characteristice of a singlo performance in a drama, &c.

"One man in his time plays many *parts*."—*Shaks.*

(*Mus.*) One set of the succession of souuds which constitute harmony.

(*Math.*) That portion of a given quantity, which, when taken a certain uumber of times, will exactly compoee such quantity; as, 4 is a part of 16;—opposed to *multiple*.

—A line or other element of a figure.

—*pl.* Qualities; powers; faculties; accomplishments; frequently, remarkable mental talents; as, a man of *parts*.

—*pl.* Applied to place; quarters; regions; districte; as, iu foreign *parts*.

For my part, so far as I am concerned; for my share.—*For the most part*, commonly; oftener than otherwise; as, we found them, *for the most part*, to be very decent people.—*In good part*, favorably; propitiously; acceptably; in a friendly manner; as, I took his excuses *in good part*.—*In ill part*, as ill doue; unpleasingly; offensively.

In part, to some degree, extent, or measure; partly.

Part and parcel, an integral part or portion.

—*v. a.* To divide, separate, or break; to sever into two or more pieces.—To divide into portions; to allot; to distribute; to share.—To eeparate; to disunite, as things that are near each other; to sunder; to cause to break connection or contiguity; as, death *parts* all thinge.—To eeparate; to stand hetween; to intervene betwixt; as, to *part* combatants.

"The narrow seas that *part* the French and English."—*Shaks.*

—To secrete; to secern.

"The liver *parts* the vital juices."—*Prior.*

—To disintegrate or purify, as metals.

To part a cable, *rope*, &c. (*Naut.*) To incur the breaking thereof.

—*v. n.* To bo separated, broken off, or detached; to leave.—To quit each other; to break with each other; to take or bid farewell; to become divided.

"When we two *parted* in silence and tears."—*Byron.*

To part with, to quit; to eurrender; to resign; to lose; to be taken away from; ae, he is loth *to part with* his uoney.

Part'able, *a.* Same as PARTIBLE, *q. v.*

Partake', *v. n.* (*imp.* PARTOOK; *pp.* PARTAKEN.) To take a part, portion, or share in common with others; to participate;—generally preceding *of*, and sometimes *in;* us, we *partook of* his hospitality.—To have something of the properties, nature, title, r office;—generally before *of*.—To bo admitted; not to be excluded.

"You may *partake of* anything we say; we speak no treason."—*Shaks.*

—*v. a.* To share; to participate in.

"Let every one *partake* the general joy."—*Dryden.*

Partak'er, *n.* One who partakee; one who receives a part, share, or portion, in unieon with others; a participator; a sharer;—preceding *of* or *in*.—An accomplice; an associate; a partner; a comrade.

"Thon hast been *partaker* with adulterers."—*Psalms* l. 18.

Partak'ing, *n.* An associating; complicity iu an evil intent.

Parta'na, a town of Italy, in Sicily, prov. of Trapani, 19 m. S.E. of Trapani; *pop.* 8,000.

Part'ed, or **Par'tite,** *a.* (*Bot.*) Said of a leaf when the segments extend nearly, but not quite, to the base of the blade or to the midrib.

Parten'ico, or **Partin'ico,** a town of Italy, in Sicily, 14 m. W.S.W. of Palermo. *Manuf.* Woollen and silk fabrics. *Pop.* 11,000.

Part'er, *n.* One who parts, divides, or separates.

Parterre, (*pär-tair',*) *n.* [Fr.; Lat. *par*, equal, and *terra*, ground.] That part of a flower-garden which is laid out in beds of a fanciful form.—The parquet or pit of a theatre.

Parthenay, (*par-teh-nā',*) a town of France, dept. of Deux-Sèvres, on the Thou, 24 m. N.N.E. of Niort. *Manuf.* Cloth and leather. *Pop.* 5,500.

Parthen'ic, *a.* [From Gr. *parthenos*, a virgin.] Belonging, or relating to the Partheniæ, or sons of unmarried women, of Sparta.

Par'theno-gen'esis, *n.* [Gr. *parthenos*, virgin, and *genesis*, generation.] (*Physiol.*) The procreation of offspring by a plant or animal independently of the immediate stimulus of the male principle, which is ons of the phsnomena of ALTERNATE GENERATION, *q. v.* The impregnated eeed of a plant produces a *phyton* of the proper epecies, uenally in the form of a leaf, with a etem and root; from this a succession of *phytons* may be developed by gemmation, most of thsm having the form of leaves; but in the higher species of plante, some may take the form of petals; others of stamens, developing the male principle, or *pollen;* others of pietils, forming the femals principle, or *seed*. By the union of theee two principles the seed is impregnated, and may germinate; but the scries of individuals succeeively developed from the first individual from the seed are procreated by *partheno-genesis*. The different individuals being organically connected, according to a definite pattern for each species, form a compound whole, which is commonly regarded as the individual *tree* or *shrub*. For further information, see Steenstrup, *On Alternate Generation;* and Owen, *On Partheno-genesis*.

Par'thenon, *n.* (*Grecian Arch.*) A celebrated temple at Athens, conecerated to Athena or Minerva, the protectrees of the city. (Fig. 2051.) The Parthenon was built on an elevated rock near ths Acropolis, and has always been regarded as the most exquisite and perfect example of Grecian architecture; it was built in the Doric style, and is one of the noblest monuments of antiquity. The Parthenon was erected about 448 years B.C., in the time of Pericles, Phidias being the chief sculptor. It had a leneth of 228 feet, by a breadth of 100; it had eight columns beneath each pediment, and fifteen on each side, exclusive of those at each end of the pediments, with which they formed sixteen intercolumns, or forty-six columns in all, exclusive of thoee within the building. The principal objects of art were

Fig. 2051.—THE PARTHENON.

a statue of Minerva, twenty-six cubits high, made of ivory and gold, in an erect position, with a lance in her hand, a shield at her feet, and Medusa's head on her chest,—a work regarded as the masterpiece of Phidias. This magnificent fane had resisted the ravagee of time down to the seventeenth century, being by turns a pagan temple, a Christian church, and a Turkish mosque, till at the siege of Athens by the Venetians, in 1687, a shell fell on the roof of the Acropolis or citadel, which, firing the magazine beneath, shattered that building and the Parthenon into blackened ruins. Early in the present century, it was mutilated by Lord Elgin, who removed to England its noblest sculpture.

Parthen'ope, *n.* [Lat. and Gr.] (*Myth.*) One of the Syrens who, from despair of being unable to charm Ulyssee, threw herself into the eea.

(*Zoöl.*) A genus of decapodous, short-tailed crustaceæ.

(*Astron.*) An asteroid discovered by De Gasparis in 1850.

Par'thia. (*Anc. Geog.*) A celebrated country of ancient Asia, called by the Greeks Parthyœa and Parthyene, which was bounded N. by Hyrcania, S. by Carmania Deserta, E. by Asia, and W. by Media. *P.* was a wild and mountainous country of great extent, having 25 large cities, of which the chief, and capital of the country, was Hecatompylon—so named from having 100 gates. When *P.* rose in the scale of nations and became a powerful state, the empire of *P.* was made up of conquered kingdoms, extended from the Caucasus in the N. to the Erythræan Sea in the S., and from the Indus in the E. to the Tigris in the W. The Parthians, originally an offshoot from the Scythians, were noted for their love of war and martial glory; they were the most celebrated horsemen in the world, and euch excellent marksmen with the bow and arrow that, though in full flight and shooting *backwards*, they could hit any object; their storm of arrows, discharged while flying from the field at full speed, being ae fatal as those volleys poured on an advancing foe. The Parthians became snbject to Persia; and their country, with Sogdiana and some other states, were formed into a province called a *satrapy*. When Alexander conquered Persia, he united Parthia and Hyrcania into one satrapy. After the dissolution of the Greek empire, the country became subject to Enmenee; next, to Antigonee and the Seleucidæ—the Syrian kings—till B.C. 255, when, throwing off the yoke of their tyrant masters, the Parthiane established their independence under one of their own chiefs,

Arsaces I., from whom all their succeeding monarchs received the name of Arsacidæ. Under this dynasty, the empire extended from the Indus to the Euphrates, and from the Oxus in the N. to the Persian Gulf in the S. This empire lasted for about 480 years, or from B.C. 256 to A.D. 226, when the last king, Artabanus, was murdered by a chief called Artaxorxes, a descendant of the first founder of the empire, who, usurping the throne, founded the new Persian empire, called the Sassanidæ.

Partial, (*pär'shal,*) *a.* [Fr., from Lat. *pars, partis,* part.] Of, or belonging to a part or portion only; not total or entire; not general or universal; as, a *partial* dissolution of the earth. — Biassed to one side or party; inclined to favor one party in a cause, or one side of a question more than the other; as, a *partial* judge, a *partial* critic. — More strongly inclined to one thing than to others; having a predilection for one thing more than another; disposed to favor without reason; as, to become *partial* to a new acquaintance.

(*Bot.*) Applied to parts which are subdivisions of something similar; subordinate.

Par'tialism, *n.* (*Theol.*) The doctrine held by the partialists.

Par'tialist, *n.* One who exhibits partiality.

(*Theol.*) One who believes in the doctrine of atonement as applying to the elect only.

Partiality, (*par-shi-al'ity,*) *n.* [Fr. *partialité.*] State or quality of being partial; inclination to favor one party or one side of a question more than the other; an undue bias of mind toward one party or side, which is apt to warp the judgment. — Colloquially, a predilection, or stronger inclination to one thing than to another; as, a *partiality* for ladies' society.

Par'tially, *adv.* With undue bias of mind to one party or side; in a partial manner; with unreasonable favor or dislike; as, to look upon *partially.* — In part; not totally or generally: as, the accounts are *partially* true.

Partibil'ity, *n.* Quality of being partible; capability of division, partition, or soverance; divisibility; separability.

Part'ible, Part'able, *a.* [It. *partibile.*] That may be parted or divided: susceptible of severance or partition; separable; divisible.

Partic'ipable, *a.* That may be participated, shared, or partaken.

Partic'ipant, *a.* Participating; sharing: — before *of.*

—*n.* One who participates; a partaker; a sharer.

Partic'ipantly, *adv.* In a manner to share or participate.

Partic'ipate, *v. a.* [Fr. *participer,* from Lat. *pars, partis,* and *capio,* to take.] To partake; to have a share, in common with others; to have part of more things than one: — sometimes preceding *of* or *in;* as I *participate in* your joy.

—*v. a.* To partake; to share; to receive a part of. (R.)

Participa'tion, *n.* [Fr., from L. Lat. *participatio.*] Act of partaking or participating; state of sharing in common with others; to have part of more things than. Distribution; division into shares; as, "convenient *participation* of the general store." — *Raleigh.*

Partic'ipative, *a.* Susceptible of participating.

Partic'ipator, *n.* A partaker; one who shares with another.

Particip'ial, *a.* [Lat. *participialis.*] Having the nature and use of a participle; formed from a participle.

Particip'ialize, *v. a.* To put into the form of participles.

Particip'ially, *adv.* In the sense or manner of a participle.

Participle, (*par'ti-sipl,*) *n.* [Lat. *participium,* from *pars, partis,* and *capio,* to take.] (*Gram.*) A part of speech which partakes both of the properties of an adjective and of a verb. It may be considered as an adjective with the idea of time added, or as a verb without the idea of affirmation. In English there are two participles, the present and past; the former ending in *ing,* the latter in *en, ed, d,* or *t.* The modern languages are much inferior to the ancient in the power and expressiveness derived from their participles.

Particle, (*par'ti-kl,*) *n.* [Fr. *particule;* Lat. *particula,* diuin of *pars, partis.*] A small or minute part or portion of matter; an elementary part of a body, or an assemblage of general atoms of which natural bodies are composed: as, a *particle* of sand.

—Any infinitesimal portion or part; as, he has not a *particle* of generosity in his nature.

(*Gram.*) A general term to express the subordinate or secondary parts of speech — the adverb, the preposition, and the conjunction. But it is more in accordance with grammatical precision to apply this term to those minor words to be met with in all languages which serve to give clearness and precision to a sentence. The term is also applied by grammarians to those words which cannot be used separately, but must form part of the preceding word, as the Latin *que* in *virumque,* and the English *ward* in *backward.*

(*Eccl.*) In the Roman Catholic Church, a crumb of consecrated bread; also, the smaller breads distributed in the communion of the laity.

Par'ti-col'ored, *a.* See PARTY-COLORED.

Partic'ular, *a.* [Fr. *particulier;* Lat. *particularis,* from *pars,* a part.] Pertaining, or having reference to a part or particle: having the nature of a part, or of anything parted or separated; belonging to a single person or thing; individual; special; specific; not general. — Noting or designating a single person or thing by way of distinction; individual; not indefinite; as, a *particular* merit, a *particular* choice. — Noting some peculiar or extraordinary property or quality; notable; singular; removed from the common way or manner; not ordinary; as, a *particular* dispensation of Providence. — Attentive to things single or distinct; exact; precise; minute; scrupulous; — hence, nice; fastidious; difficult to please; as, a *particular* person in dress. — Odd; singular; having something that eminently distinguishes one above others.

(*Law.*) *P. average.* Every kind of expense or damage, short of total loss, which regards a particular concern, and which is to be wholly borne by the proprietor of that concern or interest alone. — *P. custom,* a custom which only affects the inhabitants of some particular district. To be good, a particular custom must have been used so long that the memory of man runneth not to the contrary; must have been continued; must have been peaceable; must be reasonable; must be certain; must be consistent with itself; must be consistent with other customs. — *P. estate.* An estate which is carved out of a larger, and which precedes a remainder; as an estate for years to A, remainder to B for life; or, an estate for life to A, remainder to B in tail: this precedent estate is called the particular estate. — *P. lien.* A right which a person has to retain property in respect of money or labor expended on such particular property. — *P. statement.* In Pennsylvania practice, a statement particularly specifying the date of a promise, book-account, note, bond (penal or single), bill, or all of them, on which an action is founded, and the amount believed by the plaintiff to be due from the defendant. It is founded on the provisions of a statute passed in 1806. It is an unmethodical declaration, not restricted to any particular form.

Particular Baptists. (*Eccl.*) See BAPTISTS.

Partic'ular, *n.* A distinct, separate, or minute part; a single instance, point, or circumstance; a detail; as, he told me all the *particulars.* — A private person; an individual. (R.) — Individuality; special peculiarity, character, business, interest, &c.

"If the *particulars* of each person be considered."—*Milton.*

In particular, peculiarly; specially; distinctly; as, we must not, *in particular,* forget this.

Partic'ularism, *n.* Detailed statement; minute description.

(*Theol.*) The doctrinal tenets of particular election.

Partic'ularist, *n.* One who upholds particularism.

Particular'ity, *n.* [Fr. *particularité.*] State or quality of being particular; distinct notice or specification of particulars; petty account; minute incident. — Individual peculiarity or characteristic. — Minuteness in detail.

Particulariza'tion, *n.* Act of particularizing, or state of being particularized.

Partic'ularize, *v. a.* [Fr. *particulariser.*] To make particular; to enumerate or specify in detail; to mention distinctly or minutely.

—*v. n.* To attend to or recount minute details or single particulars.

Partic'ularly, *adv.* In a particular manner; singly; distinctly. — In an especial way or manner; as, he is *particularly* fond of his pipe.

Part'ing, *n.* Act of dividing; separating; any severance made by such an act; as, the *parting* of friends or lovers, the *parting* of one's hair, &c.

(*Naut.*) The breaking, as of a hawser, by undue strain or other violence.

(*Metall.*) The operation or process of separating gold and silver from each other.

(*Geol.*) A fissure, as in a coal-seam.

Par'tisan, *n.* [Fr., from Lat. *pars, partis,* part.] One who is a devoted adherent to a cause or party; a party man.

(*Mil.*) One skilled in the command of detached troops, who, being well acquainted with the country, is employed to gain intelligence, to surprise the enemy's convoys, and to perform other duties of desultory warfare. — *Worcester.*

—*a.* Steadfastly adhering to a party, or faction; biassed in favor of a particular cause or interest; as, *partisan* enthusiasm.

(*Mil.*) Prosecuting irregular or guerrilla warfare; as, a *partisan* corps.

Partisan ranger. (*Mil.*) A partisan; a member of a partisan force.

Par'tisan, *n.* [From O. Fr. *pertuiser,* to pierce.] A kind of halberd or pike.

"Shall I strike it with my *partisan?*" — *Shaks.*

Par'tisanship, *n.* State or condition of being a partisan; adherence to a cause, party, faction, or interest.

Par'tite, *a.* [From Lat. *partire,* to divide, from *pars, partis.*] (*Bot.*) Cleft nearly to the base; as, a *partite* leaf.

Partition, (*-tish'un,*) *n.* [Fr.; Lat. *partitio,* from *partior,* to distribute, divide.] Act of parting, dividing, or state of being divided, separated, division, separation.

"Seeming parted, but yet an union in *partition.*" — *Shaks.*

—That which divides or separates; dividing line; especially, the wall dividing one apartment of a house from another.

"What thin *partitions* sense from thought divide." — *Pope.*

—Part where separation is made; hence, an apartment; as, "lodged in a small *partition.*" — *Milton.*

(*Mus.*) A score.

(*Law.*) Division of an estate in which several are jointly interested.

—*v. a.* To divide into distinct shares or allotments. — To separate into distinct compartments by walls or bulkheads; as, to *partition* the ground-floor of a house.

Parti'tionment, *n.* Act of partitioning; division.

Par'titive, *a.* [Fr. *partitif.*] (*Gram.*) Denoting a part; distributive; as, a pronoun *partitive.*

—*n.* (*Gram.*) A word denoting a part; a distributive.

Par'titively, *adv.* In a partitive manner; distributively.

Part'ly, *adv.* In part; in some extent, measure, or degree; not wholly or entirely.

Part'ner, *n.* [From *part.*] One who partakes or shares with another; one who acts, enjoys, or suffers with another; an associate. (See PARTNERSHIP.) — A husband or wife; a consort. — One who dances with another, either male or female; as, my *partner* in the quadrille.

—*pl.* (*Naut.*) Thick pieces of wood fitted into a rabbet in the mast carlings, to receive the wedges of the mast; also, temporary pieces nailed to the deck around the pumps.

Part'nership, *n.* (*Law.*) An agreement voluntarily entered into, by two or more individuals, to unite their capital, labor, and skill, all or any of them, for carrying on some business or undertaking in common, each deriving a certain share of the profits, and generally bearing a corresponding share of the loss arising therefrom. As commonly used, *P.* is only applied to the smaller associations of individuals, comprising usually a few members; — where an association, having gain for its object, consists of more than twenty members, it generally takes the shape of a chartered or joint-stock company; otherwise, in general, each partner would be liable, singly, for the debts of the whole partnership. A *P.* is commonly constituted by a written instrument, usually, by deed, the provisions of which are denominated articles of partnership. It may be either for a certain fixed time, or for an indefinite period, and may be dissolved either by the natural expiration of that period or the mutual agreement of the parties, or, in the event of disagreement, by decree of a court of equity. The mere consent of the parties is sufficient to constitute a *P.;* and they may distribute their profits and regulate their affairs in any way they please among themselves; but they cannot, by so doing, limit, defeat, or elude, their responsibility to others. In ordinary *P.,* each member, however small his share, is liable for all the debts of the company. To constitute a person a partner, he must be a participator in uncertain or casual profits depending upon the accidents of trade. Where the premium or profit he is to receive is certain and defined, he is not a partner; and if he is only to receive a portion of the profits as payment for his labor as a servant or agent of the company, he is not a partner. A participation in the profits without a participation in the losses, constitutes a *P.* as regards third parties. Partners are ordinarily divided into *ostensible, nominal,* or *dormant.* Partners whose names appear before the world as such are ostensible partners; but if they have no actual interest in the concern, then they are only nominal partners; those whose name and connection with a firm are purposely concealed from the world are dormant partners. A dormant partner is, in all cases, liable for the contracts of the firm during the time that he is actually a partner; and a nominal partner is, in the same manner, liable during the time that he holds himself out to the world as partner. The rights, duties, and obligations of the partners, *inter se,* are usually laid down in articles of *P.;* and each partner has a right to hold his co-partners to the specified purposes of their union while the *P.* continues. The powers of partners are very extensive, and the contract or other act of any member or members of the associated body in matters relating to the joint concern is, in point of law, the contract or act of the whole, and consequently binding upon the whole, to the extent of rendering each liable for it individually as well as in respect of the partnership property. This power or authority does not extend to matters extraneous to the joint concern, nor even to matters which, though connected with it, are, by the ordinary usage of business, transacted with the express and formal intervention of each partner. Partners, though they should act in a fraudulent manner as respects their co-partners, bind the firm in all matters connected with its peculiar dealings. Should one of the partners enter into a smuggling or other illegal transaction on the *P.* account, the other partners are liable for the duty and penalties. When one of the partners has been made liable for the debts of the firm, he has his relief against the others for a due portion of it. Partners cannot be relieved from future liabilities to third parties without notice to them, and the world in general, that the *P.* has ceased. — *Special P.* The laws of various states provide for the establishment of special partnerships, in which the liability of the special partner is limited in the manner provided in the law. To avoid the liabilities of a general partner, these provisions must be strictly observed. See LIMITED.

Partook', *imp.* of PARTAKE, *q. v.*

Par'tridge, an island of New Brunswick, in St. John Harbor, S. of St. John.

Par'tridge, *n.* (*Zoöl.*) The common name of the *Perdicidæ,* a family of birds, sub-order *Gallinæ,* differing from the grouse in being much smaller, and in their bare tarsi and naked nasal fossæ. This family includes the Quails, chiefly grouped in the genus *Ortyx, q. v.,* and the Partridges, a term so diversely and [illegible]ously applied to birds of different genera, that it is almost impossible to give a satisfactory account of it. So the *Ortyx Virginianus* (Fig. 2009), which is a quail in New England and New York, becomes a partridge in Pennsylvania; the partridge of New England is the ruffed grouse, *Bonasa umbellus;* the spruce partridge is the Canada grouse, *Tetrao Canadensis,* &c. The typical partridge, composing the genus *Perdix* of Linnæus, is an European bird, and is not represented in America. The common, or gray partridge, *Perdix cinerus,* is about 13 inches. The [illegible]eral color of its plumage is brown and ash, bea[illegible]y mixed with black, and each feather streaked [illegible]n the middle with buff; the upper part of the neck [illegible]aversely varied with dusky

Blaise Pascal

1623–1662

gray, and a tinge of red; the sides of the head are tawny; under each eye is a small saffron-colored spot, which has a granulated appearance, and between the eye and the ear a naked skin of bright scarlet, which is not very conspicuous but in old birds; the under part of the neck and breast are bluish-gray, marked with transverse black lines, and sprinkled with small reddish spots; on the lowest part of the breast is a rich gorge of deep chestnut, in form of a horse-shoe; the tail is short and drooping; the legs are greenish-white, and furnished with a small knob behind. Partridges pair early in the spring. The sexual ardor of the male has

Fig. 2052.— RED-LEGGED PARTRIDGE.
(*Perdix rufus.*)

been the theme of many writers on natural history; and there are instances out of number in which the parental solicitation of the female has justly called forth their eulogistic admiration. Gray partridges are found throughout nearly the whole of Europe: while the Red-legged Partridge, *Perdix rufus* (Fig. 2052), a very beautiful and delicate bird, and excellent for the table, chiefly distinguished by having red legs and feet with brown claws, is more common in Southern France and Spain.

Par'tridge, in *Illinois*, a township of Woodford co.: *pop.* abt. 946.

Par'tridge-berry, *n.* (*Bot.*) See MITCHELLA.

Par'tridge Wood, *n.* (*Bot.*) A variegated wood of certain S. American and W. Indian trees, one of which is supposed to be *Andira inermis*.

Part'-song, *n.* (*Mus.*) A song in two or more separate vocal parts.

Partu'riency, *n.* Same as PARTURITION.

Partu'rient, *a.* [Lat. *parturiens, parturio — pario, partus*, to bring forth.] Bringing forth, or about to produce young.

Partu'rition, (*-rish'un,*) *n.* [Late Lat. *parturitio.*] The act of bringing forth, or of being delivered of young.

Par'ty, *n.* [O. Fr. *partie;* Fr. *parti*, from Lat. *pars, partis.*] A number of persons united by some distinguishing tie in opposition to the rest of the community; especially, a body or association of individuals who take a particular part or side in political or public affairs; a faction. — One of two litigants, the plaintiff or defendant in a law-suit, whether an individual, a firm, or an incorporated body; as, a *party* to an action. — One concerned or interested in an affair; a partaker or participator: as, I was not a *party* to the transaction. — A select company invited to an entertainment: a social assembly; a company made up for a given occasion; as, a dinner *party*.

—A single person distinct from or opposed to another; as, he was the *party* affronted. — Hence, an individual; a person; as, "a *party* of the name of Guppy." — *Dickens.*

(*Mil.*) A detachment of troops sent forth on some special service; as, a skirmishing *party*, a foraging *party*.

Par'ty, *n.* [From O. Fr. *partir*, to divide.] (*Her.*) The division of a shield by a line running in the direction of either of these ordinaries; as, in party, per pale, fell, &c.

Par'ty-colored, (*-kŭl'urd,*) **Par'ti-colored,** *a.* Variegated with divers colors; colored with different hues or tints; as, a *party-colored* costume, a *party-colored* flower.

Par'ty-fence Wall, *n.* A wall separating the ground in one person's occupation from that of another.

Par'tyism, *n.* Devoted adherence to party or faction.

Par'ty-jury, *n.* (*Law.*) A jury empanelled of half natives and half foreigners.

Par'ty-verdict, *n.* A joint verdict.

Par'ty-wall, *n.* A brick partition erected between buildings in separate occupations to prevent the spread of fire.

Pa'ru, a river of Brazil, flowing into the Amazons, abt. 280 m. W. of Para; *length*, abt. 350 m.

Paru'lis, *n.* [Gr. *paroulos.*] (*Med.*) A gum-boil.

Paru'ru, a town of Peru, cap. of a prov. of the same name, abt. 18 m. S.S.W. of Cuyco co.; *pop.* of the prov. 20,000.

Par'us, *n.* (*Zoöl.*) A genus of birds, of the Titmouse family. See TITMOUSE.

Parusia, (*-ru'zhi-a,*) *n.* [Gr. *parousia.*] (*Rhet.*) A figure of speech by which the present tense is used for the past or future.

Par va'gum, *n.* [Lat.] (*Anat.*) See PNEUMOGASTRIC.

Parvanim'ity, *n.* [Lat. *parvus*, small, and *animus*, mind.] Little-mindedness; state or quality of being of mean or ignoble disposition.

Par'venu, *n.* [Fr., from *parvenir*, to attain to.] An upstart; one suddenly risen from vulgar obscurity into wealth and position.

Pas, *n.* [Fr., from Lat. *passus*, pace.] A step.

Pascagou'la, in *Mississippi*, a post-village of Jackson co., abt. 175 m. S.E. by S. of Jackson.

Pascagou'la Bay, in *Mississippi*, an inlet of the Gulf of Mexico, in Jackson co., receiving the Pascagoula River.

Pascagou'la River, in *Mississippi*, formed in Greene co., by the union of the Chickasawhay and Leaf Rivers, and flowing S. enters the Mississippi Sound from Jackson co.

Pascal, BLAISE, (*pas'kal,*) one of the most profound thinkers and accomplished writers of France, B. at Clermont, in Auvergne, 1623. His family was one of considerable distinction, his grandfather having been a treasurer of France at Riom, and his father president of the Court of Aids, in Auvergne. From his earliest childhood he exhibited precocious proofs of genius, especially in mathematics. Having been purposely kept in ignorance of geometry, lest his propensity in that direction should interfere with the prosecution of other studies, his self-prompted genius discovered for itself the elementary truths of the forbidden science. At 12 years of age, he was surprised by his father in the act of demonstrating, on the pavement of an old hall where he used to play, and by means of a rude diagram traced with a piece of coal, a proposition which corresponded to the 32d of the first book of Euclid. At the age of 16 he composed a small treatise on comic sections, which excited the mingled incredulity and admiration of Descartes. At 19 he invented his celebrated arithmetical machine, and at the age of 26 he had composed the greater part of his mathematical works, and made those brilliant experiments in hydrostatics and pneumatics, which have associated his name with those of Porricelli and Boyle, and ranked him among the first natural philosophers of his age. But a strong religious impulse having been imparted to his mind at this period, deepened, no doubt, by the attacks of disease, which he had suffered uninterruptedly from his 18th year, he suddenly renounced the career to which his genius so unequivocally invited him, and thenceforward devoted himself to theology and polemics, and to the promotion of the spiritual and temporal welfare of his fellow-men. After a short interval spent at Paris, he retired to Port Royal in 1654, where he spent the remainder of his days. The two works by which he is best known are, his *Provincial Letters*, a caustic satire upon the Jesuits, published in 1656, under the name Louis de Montalte, and his posthumous *Pensées*, which have always been regarded as among the richest repositories of eloquent thought and profound theology. D. 1662.

Pasch, Pas'cha, (*pâsk.*) *n.* Same as PASSOVER, *q. v.*

Pasch egg. Same as PAAS-EGG, *q. v.*

Pasch flower. See PASQUE-FLOWER.

Paschal, (*pâs'kal,*) *a.* [Fr. *pascal;* Low Lat. *paschalis*: Heb. *pisach*, the passover.] Pertaining to the passover, or to Easter.

Paschal, *n.* (*Eccl.*) A stand or candlestick, of large size, used in Roman Catholic worship.

Paschal I., (*pâs'kal,*) Pope, was a Roman, of the name of Paschasius, and succeeded Stephen V. in 817. He crowned Lothaire, the emperor, at Rome. D. 824.

PASCHAL II., was a native of Tuscany, and succeeded Urban II. in 1099. He had a contest with the Emperor Henry IV., and also with Henry I., king of England, respecting the right of investitures. The former visited Rome, to be crowned by the pope, who refused to perform the ceremony unless he yielded the matter in dispute. On this, Henry caused Paschal to be seized by his troops, which gave so much offence to the Romans that they rose in behalf of their pontiff, and Henry retired from Rome, but carried the pope with him. Paschal, after a captivity of two months, conceded his claim to the investitures. This concession was afterwards cancelled in two councils. D. 1118.

PASCHAL III. became Pope in opposition to Alexander III. in 1164, through the influence of the Emperor Frederick I. He remained in possession of the papal chair while Alexander was absent at Benevento. D. 1168.

Pas'co, or CERRO DE PASCO, a town of Peru, cap. of the prov. of its own name, dept. of Junin, abt. 130 m. N.E. of Lima. It is situated 11,000 ft. above sea-level, is badly built, and in a wretched condition. Its former importance was due to the rich silver mines in the vicinity, which have lately ceased to yield so abundantly. *Pop.* abt. 10,000.

Pas'co, in *Missouri*, a village of Dallas co., abt. 20 m. N.N.E. of Springfield.

Pas'co, (Cerro,) a mountain-spur in Peru; unites two ranges of the Andes. Height, 16,000 ft.

Pas'coag, in *Rhode Island*, a post-village of Providence co., abt 20 m. N.W. by W. of Providence.

Pascua'ro, or PASQUARO, or PATYQUARO, a town of Mexico, on a lake of the same name, abt. 28 m. S.W. of Valladolid. *Pop.* 6,000.

Pas-de-Calais', a dept. of the N. of France, between Lat. 50° and 51° N., Lon. 1° 35′ and 3° 10′ E., having N. the strait of Dover, N.E. and E. the dept. Du Nord, S. Somme, and W. the English Channel. *Area*, 2,624 sq. m. The surface is hilly, except along the coasts, which are low. The soil is fertile, and agriculture well conducted. *Rivers.* Scarp, Lys, Aa, Liane, Canche, and Austic. *Prod.* Corn, wheat, hemp, flax, tobacco, and oleaginous plants. *Manuf.* Lace, tulles, linen and cotton stuffs, yarn, leather, glass, gunpowder, earthenware, beetroot-sugar, and spirits. *Chief towns* Arras, (the cap.,) Bethune, Boulogne, Calais, Montreuil, St. Omer, and St. Pol. Calais and Boulogne are the principal seaports. *Pop.* 749,777.

Pasha, Pacha, (*pâ'shah.*) A title of honor given in the beginning of the Turkish empire to the ministers and chief assistants of the Sultan, whether military or learned. In process of time the title was bestowed particularly on the governors of provinces styled *pashalics*. The distinction of rank between the two classes of pashas consists in the number of horse-tails which are carried before them as standards, the higher having three and the lower two. There were, until recently, twenty-five pashalics, subdivided into sandjakates, besides various independent jurisdictions scattered over the empire.

Pa'shalic, Pa'chalic, *n.* [Turk. *pâchâlyk.*] The jurisdiction or territory governed by a pasha.

Pasig'raphy, *n.* [Gr. *pas*, all, and *graphein*, to write.] A system of universal writing.

Pas'ilaly, *n.* [From Gr. *pas*, all, and *lalē*, talk.] A form of universal language.

Pasiphaë. See MINOTAUR.

Pasita'no, a town of S. Italy, prov. of Principato Citeriore, on the Gulf of Salerno, 6 m. W. of Amalfi. *Pop.* 4,000.

Pas'kack, in *New Jersey*, a post-village of Bergen co., abt. 12 m. N.N.E. of Paterson.

Paskewitsch, IVAN FEODORIWITSCH, PRINCE, (*pas'ke-vitch,*) a Russian field-marshal, B. 1782. He distinguished himself in the campaigns against the French which led to the occupation of Paris by the allies. He was appointed by the Czar Nicholas to conduct the war of 1826 against the Persians, whom he thoroughly defeated. He had scarcely signed the treaty of Turkmanshai with them when he led a Russian army against the Turks, and took Kars and Erzeroum from them; he next crushed the Poles, and ruled over them with an iron heel for 16 years, when he was sent to stamp out in Hungary the efforts of another nationality to assert its rights. When the Crimean war broke out, he led the Russian forces into the Principalities, and laid siege to Silistria, but was wounded and obliged to retreat, and D. soon after, 1856.

Pas'palum, *n.* [Gr. *paspalos*, millet.] (*Bot.*) A genus of plants, order *Graminaceæ*. *P. exile* yields the smallest known cereal grain. *Fundi* or *Fundungi*, which is used as food on the W. coast of Africa. In Sierra Leone it is commonly called millet. *P. scrobiculatum* also yields a kind of grain known in India as the *Menya* or *Kodro*.

Pasque, (*pâsk.*) *n.* See EASTER.

Pasque'-flower, or PASCHAL-FLOWER, *n.* (*Bot.*) The common name of several species of the genus *Anemone*.

Pasquil, (*pas'kwil,*) *n.* Same as PASQUIN, *q. v.*

—*v. a.* To lampoon; to make pasquinades.

Pasquin, (*pas'kwin,*) *n.* [It. *pasquino.*] A mutilated statue at Rome, on which it was customary to paste satiric papers. It was so named from *Pasquino*, a satirical cobbler near whose shop it was dug up; — hence, a lampoon; a squib.

Pas'quin, Pas'quinade, *v. a.* To satirize; to lampoon.

Pasquinade', *n.* [Fr.; It. *pasquinata.*] A lampoon; a squib; a written satire.

Pas'quotank, in *N. Carolina*, a river rising in the Dismal Swamp, and flowing S.E. into Albemarle Sound, between Camden and Pasquotank cos.

—A N.E. co. bordering on Albemarle Sound; *area*, abt. 300 sq. m. *Rivers.* Pasquotank River and some less important streams. *Surface*, mostly level and low; *soil*, not very fertile; *cap.* Elizabeth City.

Pass, *v. n.* (*imp.* and *pp.* PASSED, or PAST.) [Fr. *passer;* It. *pasiare;* Sp. *pasar*, to pass; Lat. *pasus*, extending of the legs in walking.] To move; to go; to proceed from one place to another; to make a transit; — generally preceding a verb or preposition denoting the kind of motion; as, to *pass* on, out, in, into, from, &c. — To move from one state to another; to alter or change, or to be changed in condition; to undergo transition; to go from one owner to another.

"A power is *passing* from the earth." — *Wordsworth.*

— To be given and taken; hence, to circulate; to be current; not to be rejected as spurious and worthless; as, to *pass* bad money. — To be regarded; to be received in opinion or estimation; to possess current value or reputation; — usually preceding *for*; as, he *passes for* an honest man. — To proceed from one side to the other, of a person or place specified; to go by; to cross one's notice, &c.; — preceding a preposition, as *over, by*, &c.; as, to *pass over* a river, to *pass by* one in the street. — To go on or away progressively; to be spent; as, time *passes* on. — To happen; to take place; to occur or be present in fact; as, the thing came to *pass*. — To vanish; to disappear; to move or recede out of reach, view, &c.; hence, also, to die; to take leave of life; — with *from, away*, &c.

"Beauty 's a charm, but soon the charm will *pass*." — *Dryden.*

—To go by certain progressive stages; to be accepted or ratified; especially, to receive the sanction of a legislative house or body by a majority of votes; to be enacted; as, the bill has *passed* the Senate. — To bear inspection; to submit to scrutiny with good effect; to be in a passable or receivable condition; to answer; to be in a tolerable state; as, he might *pass* muster in a crowd. — To suffer to go unheeded or neglected; to proceed without check or obstacle; as, to let an affront *pass* without resentment. — To surpass; to outvie; to be in excess, or beyond bounds. — To thrust; to make a lunge or push in fencing or fighting; as, he *passed* his sword through his adversary's body.

To pass into, to change by a gradual transition to, or by progressive absorption with; as, poison *passed* into the blood. — *To pass on* or *upon*, to come upon; to hap-

pen to; to concern. — To resolve; to determine; to deliver judgment; as, to *pass* sentence of death *upon* any one.

Pass, *v. a.* To go by, beyond, through, or over; hence, to spend; to live through; as, we *passed* the season in Paris. — To undergo; to derive experience from.

"She loved him for the dangers he had *passed*." — *Shaks.*

—To omit; to neglect either to do or to mention; to disregard; to go by without heed or notice; as, they *passed* him in selecting officers. — To transcend or go beyond; to surpass, exceed, or excel.

"Whose tender power *passes* the strength of storms." — *Byron.*

—To be carried through, as all the forms necessary to confer validity or ratification; to be enacted by; as, an Act *passed* by Congress. — To cause to move, to go, or to proceed; to deliver; to transmit; to make or transfer from one person, place, or condition to another; as, the troops were *passed* along by railroad. — To utter; to pronounce; to express orally; as, I *passed* my opinion about him long ago. — To approve and receive as valid and just, as accounts; as, to *pass* an amount to one's credit. — To strain; to cause to percolate or trickle; as, water *passed* through a filter. — To approve or sanction by a constitutional or legal majority of votes; to enact; to carry through all the forms necessary to give validity: as, the House *passed* the bill. — To make an end or finish of; to accomplish.

"This night
We'll *pass* the business privately and well." — *Shaks.*

—To give currency to; to place in circulation; as, to *pass* base coin, to *pass* a rumor. — To cause to get admission or conveyance; as, to *pass* a person into a theatre, to *pass* one along by railroad. — To heed; to take care or notice of; to regard; — usually before *for*.

Passed midshipman. (*Naut.*) A midshipman who, after passing his examination, is deemed eligible as a candidate for lieutenancy.

To pass off. To impose fraudulently; to palm; as, he has *passed off* base money. — *To pass on* or *upon.* To practise insidiously or artfully; to put upon, as a cheat, &c.; to palm off; as, she *passed* the child *upon* him for his own. — *To pass over* or *by.* To overlook; to ignore; not to take heed, regard, or notice: as, to *pass* a thing *by* in silence, to *pass over* the work hurriedly.

Pass, *n.* That which may be passed through or along; a passage, road, or way: a narrow passage, entrance, or avenue; a narrow or difficult place of entrance or exit; as, a mountain-*pass*, the *Pass* d'Oo (Fig. 2053). — Permission to pass, to go, or to come; a license to proceed; a passport; a voucher of free conveyance or admission; an order for sending vagrants or impotent persons to their places of abode; a safe-conduct; as, a railroad-*pass*, a *pass* for an exhibition or place of public amusement, a *pass* through the enemy's lines, &c. — State; condition or extreme case; conjuncture; extremity.

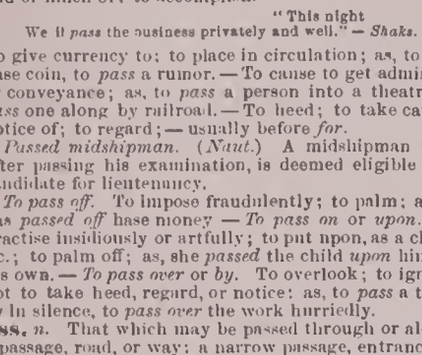


Fig. 2053. — PASS D'OO. (Pyrenées.)

To bring to pass. To bring about; to effect; to cause to happen or occur.

"I am now *brought to such a pass* that I can see nothing at all." *L'Estrange.*

To come to pass. To happen; to occur; to take place.

(*Fencing.*) A thrust; a push; an attempt to pierce or strike.

Pass'able, *a.* [Fr.; It. *passabile.*] That may be passed, travelled, or navigated; that may be traversed, penetrated, or explored; accessible; as, the roads are not *passable*, owing to the snow. — Current; receivable; that may be passed or transferred from hand to hand; as, a *passable* slander, a *passable* opinion. — Supportable; tolerable; admissible; allowable; moderate; pretty good; as, a *passable* performance.

Pass'ably, *adv.* In a passable manner; tolerably; moderately.

Passade, (*-sād'*,) **Passa'do,** *n.* [Fr., from Sp. *pasado.*] (*Fencing.*) A push; a thrust; a lunge.

(*Manège.*) A backward and forward course of a horse on the same limits of ground.

Passadum'keag, in *Maine*, a post-village and township of Penobscot co., abt. 100 m. N.E. of Augusta; *pop.* of township abt. 300.

Passage, (*pas'āj,*) *n.* [Fr., from Lat. *passus*, a step, pace. See Pass.] Act of passing or moving by land or water, or through the air or other substance; motion of any sort from place to place or point to point; a going by, over, or through; as, the *passage* of a man or a vehicle, the *passage* of a ship or a bird, the *passage* of light or of a shooting-star, &c.; — hence, specifically, transit by means of conveyance; journey, as by land or water; travel; course; right of passing; as, a rough *passage* across the Atlantic. — Fare; price paid for liberty to pass; as, a free *passage*. — Transition from life to death; decease; as, "mortal *passage*." (*Milton.*) — Way or course whereby men or things may pass or be conveyed; way; round; avenue; place of entrance or exit.

"A *passage* down to th' earth, a *passage* wide."—*Milton.*

—Specifically, a hall; a lobby; a corridor; an alley; that part of a building allotted for giving access to the different apartments. — Occurrence; event; incident; that which happens.

"It is no act of common *passage*."—*Shaks.*

—Management; manner of being conducted.

"The conduct and *passage* of affairs in former times."—*Davies.*

—Currency; circulation; reception; mental acceptance. — Part of a book or writing; a single clause, place, or part of indefinite extent; an extract; an excerpt.

"How commentators each dark *passage* shun."—*Young.*

—The act of carrying through all the regular forms necessary to give validity; enactment; as, the *passage* of a bill into law by the legislature. — A pass or encounter; as, a *passage* at arms.

Of passage. Migratory; passing from one place to another; not permanently settled; as, a bird *of passage*, i. e., a bird which at certain seasons passes from one climate to another.

Passa'ic, in *New Jersey*, a river which rises in Morris co., and after forming the W., N., and a portion of the E. boundary of Essex co., enters Newark Bay between Essex and Hudson cos. *Length*, abt. 100 m.

—A N. N. E. co., adjoining New York; *area*, about 197 sq. m. *Rivers.* Passaic, Pequannock, Ringwood, and Ramapo rivers. *Surface*, much diversified, and in the W. portion broken and mountainous; *soil*, in some parts fertile, but in general is better adapted to grazing. *Min.* Magnetic iron ore and limestone. *Cap.* Paterson. *Pop.* (1895) 133,227.

—A thriving city of the above co., about 5 m. S. S. E. of Paterson. *Pop.* (1895) 17,894.

Passamaquod'dy Bay, an inlet of the Atlantic Ocean, between Washington co., Maine, and Charlotte co., New Brunswick. It is about 15 m. in length, with an average breadth of 10 m. It receives the St. Croix River, is exceedingly irregular in outline, contains numerous islands, and has several good harbors. It has 3 entrances, called respectively East, Middle, and West passages, the last of which has an alarm-bell. The ordinary tides rise here 25 ft.

Pas'sant, *a.* [Fr., from *passer*, to pass.] Cursory; careless; as, "*passant* view." — *Scott.*

(*Her.*) Applied to a beast when represented in a walking position. — *Passant guardant.* Walking with the full face turned towards the spectator.

En passant, (*aṅg' pas-saṅg'.*) [Fr.] In passing; by the way; casually.

Pas'sarowitz, a town of European Turkey, in Servia, on the Morava, 13 m. E.S.E. of Semendria; *pop.* unascertained.

Pas'sau, a fortified town of Bavaria, cap. of the circle of Lower Bavaria, at the confluence of the Inn and the Danube, 92 m. E.N.E. of Munich. *Manuf.* Porcelain, leather, and tobacco. By the treaty of Passau, 1552, the Protestants of Germany received their religious liberty.

Pass'-book, *n.* A book in which a merchant or trader enters the articles bought on credit, and then passes it to the customer for his information.

Pas'senger, *n.* A traveller; a wayfarer; one who travels in some established conveyance, as a stage-coach, steam-boat, railroad car, &c.

Pas'senger-pig'eon, or WILD PIGEON, the *Ectopistes migratoria*, a bird of the *Columbidæ*, or Dove family, very abundant in N. America, E. of the high central plains, is 17 inches long, and the wing 8½ inches; the upper parts blue, under parts purplish-red, passing into whitish behind, and the sides and back of the neck a glossy golden-violet. The female is smaller and much duller in color. The Passenger-pigeon is extremely rapid in flight, being able to perform a long journey at an average speed of a mile a minute. The migrations are wholly for the purpose of procuring food, and hence do not take place at any particular season of the year. Pigeons go wherever they can find a supply of grain, rice, or nuts. The numbers that sometimes move together are vast beyond conception. Millions associate in a single roost, completely filling a forest for 30 or 40 miles in length and several miles in breadth, and literally loading and breaking down large trees. From their roosts they fly off hundreds of miles, in some cases, to feeding-grounds, and return at night. Sometimes, in their migrations, they fill the air like a cloud, and thus continue to pass for a whole day, and even for 2 or 3 successive days. The nest is built on high trees, and is composed of a few dry sticks and twigs crossing each other, and supported by the forks of the branches; and more than a hundred nests are sometimes placed on a single tree.

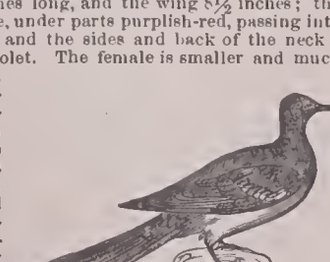


Fig. 2054. — CARRIER-PIGEON, (*Ectopistes migratoria.*)

Passe-partout, (*pas-par-tōō',*) *n.* [Fr., from *passer*, to pass, and *partout*, everywhere.] A master-key; a pass-key.

(*Engraving.*) A plate or piece of wood, whose centre part is entirely cut out; round the interior edge of the outer part a border or ornamental design is engraved, and hence it serves as a frame to whatever may be placed in the centre.

Pass'er, *n.* One who passes; a passenger.

Pass'er-by, *n.* One who passes by; one who passes another on the road.

Pas'seres, *n. pl.* [Lat., sparrows.] (*Zoöl.*) An order of birds, also called Insessores, which is the term generally used in this work. — See INSESSORES.

Pas'serine, *a.* [Fr., from Lat. *passer*, a sparrow.] (*Zoöl.*) Of, or belonging to the sparrows, passeres, insessores, or perchers.

—*n.* A bird of the order *Passeres* or *Insessores.*

Passibil'ity, *n.* [Fr. *passibilité*; Lat. *passibilitas.*] Quality or capacity of receiving impressions from external agents; aptness to feel or suffer.

Pas'sible, *a.* [Fr.; Lat. *passibilis*, from *patior*, to suffer.] Susceptible of feeling, or of impressions from external agents.

Pas'sibleness, *n.* Quality of receiving impressions from external agents.

Passiflo'ra, *n.* [Lat. *flos passionis*; the several parts of the flower were superstitiously compared to the instruments of the Saviour's passion.] (*Bot.*) The typical genus of the order *Passifloraceæ*, characterized by the curious structure of their corona, which is a circle or colored thread-like process surrounding the stigma. *P. cærulea*, the common Passion-flower, is a native of Brazil, where it grows to the thickness of a man's arm, and the height of 30 feet. Flowers large and beautiful, blue externally, white and purple within, continuing

Fig. 2055. — PASSION-FLOWER, (*Passiflora cærulea.*)

but one day. *P. incarnata*, the Flesh-colored Passion-flower, and *P. lutea*, the Yellow Passion flower, are found from Virginia to Florida, and Ohio. The former bears an edible berry, pale-yellow, of the size of an apple, called Granadilla. Other species also bear eatable fruit, as the Water Lemon, Sweet Calabash, &c.

Passiflora'ceæ, *n.* (*Bot.*) An order of plants, alliance *Violales.* DIAG. Polypetalous or apetalous coronetted flowers, perigynous imbricated petals, stamens on the stalk of the ovary, simple terminal styles, arillated seeds, and stipulate leaves. — They are herbs or shrubs, usually climbing by tendrils; flowers perfect, or very rarely unisexual; sepals 5, united below into a tube, the throat of which bears a number of filamentous processes; petals 5, inserted in the throat of the calyx on the outside of the filamentous processes. Stamens usually 5, monadelphous. Ovary stalked superior; placentæ parietal; fruit 1-celled, stalked, generally succulent. The plants of this order are chiefly native of S. America, though a few occur in N. America, the E. Indies, and Africa. The order contains 12 genera and 210 species. — See PASSIFLORA.

Pas'sim, *adv.* [Lat.] Everywhere.

Pass'ing, *a.* Exceeding; surpassing; eminent. — Departing.

—*adv.* Exceedingly; surpassingly.

—*n.* Act of passing or going past. — The act of carrying through all the regular forms to give validity, as a bill in Congress.

Pass'ing-bell, *n.* The bell that is rung at the hour of death, originally designed to obtain prayers for the passing soul, also, one that is rung immediately after death.

Pass'ing-note, *n.* (*Mus.*) In passing from one chord to another, an intervening note, not belonging to either chord, and used to assist the progression.

Passion, (*pash'un,*) *n.* [Fr.; It. *passione*; Lat. *passio*, from *patior*, *passus*, to suffer; Gr. *pathos.*] That which is suffered or received, the impression or effect of an external agent upon a body. — Susceptibility of effect by external action.

—Emphatically, the last sufferings of Christ, which he is described as having endured between the Last Supper and the moment of his death.

—The feeling of the mind, or the sensible effect of impression; excitement; perturbation, or agitation of the mind. — Violent emotion, agitation, or excitement of mind, particularly such as is occasioned by an offence,

injury, or insult; hence, violent anger; excessive feeling. — Zeal; ardor; vehemeut desire. — Love; affection; sager desire.

Passlonal, (*pāsh'unal,*) *a.* [Fr. *passionel;* Lat. *passionalis.*] Rslating to the passions; passionate. (R.)

Pas'sionary, *n.* [L. Lat. *passionarius.*] A book describing the sufferings of saints and martyrs.

Pas'sionate, *a.* Feeling or expressing great commotion of mind; highly excited; vehement; warm. — Easily moved to anger; easily excited or agitated by injury or insult; irascible; choleric; hot-tempered.

Pas'sionately, *adv.* With passion; with strong feeling; ardently; vehemently; angrily; with vehement resentment.

Pas'sionateness, *n.* State of being subjcct to passion or anger; vohemence of mind.

Pas'sion-flower, *n.* (*Bot.*) See PASSIFLORA.

Passion'lsts, *n. pl.* (*Eccl. Hist.*) A congregation of Roman Catholic priests founded by Paul Francis (1694–1775), surnamed Paul of the Cross, in 1737. The first convent was established on the Celian Hill at Rome. It has been revivod since 1830, and new houses have beeu founded in Euglund, Ireland, Belgium, and Australia. They have been introduced lately in this country, where they now possess four monasteries. The special object of the institute was to instil iuto men's minds, by preaching, by example, and by devotional practices, a sense of the mercy and love of God, as manifested in the passion of Christ. Hence the cross appears everywhere as their emblem, in their churches, in their halls, and in the courts and public places of their monasteries. A large crucifix, moreover, forms part of their very striking costume. They go barefooted, and practise many other personal austerities, rising at midnight to recite the canonical hours in the church; and their ministerial work consists chiefly in holding what are called "missions," wherever they are invited by the local clergy, in which sermons on the passion of Christ, on sin, and on repentance, together with the hearing of confessions, hold the principal places.

Pas'sionless, *a.* Not easily excited to anger; of a calm temper.

Pas'siou-week, *n.* Same as HOLY-WEEK, *q. v.*

Pas'sive, *a.* [Fr. *passif;* Lat. *passivus,* from *patior,* to suffer.] Receiving impression from some external agent; not acting. — Suffering without resistance; unresisting; not opposing.

(*Gram.*) See VERB.

Passive prayer. See PRAYER.

Pas'sively, *adv.* In a passive manner; with a passive nature or temper; unresistingly. — After the form of a passive verb.

Pas'siveness, *n.* Ths quality of being passive, or of receiving impressions from sxternal agents or causes. — Passibility; power of suffering. — Patieuce; calmness; unresisting submission.

Passiv'ity, *n.* Passiveness.

Pass'-key, *n.* A master-key; a key capable of opening several locks.

Pass'less, *a.* Without a pass or passage.

Pass'-man, *n.*; *pl.* PASS-MEN. In the University of Oxford, a student who succeeds in obtaining a degree, but without any special distinction.

Pas'so-do-Lu'miar, a town of Brazil, on the Island of, and 20 m. S.E. of ths city of, Maranhão.

Pass'over, *n.* (*Sacred Hist.*) A feast of the Jews, instituted to commsmorate the provideutial deliverance of the Hebrews in Egypt, when the destroyiug angel, smiting the first-born of the Egyptians, passed over the houses of the Israelites, which had been previously marked with the blood of the paschal lamb. The *P.* was observed on the 14th day of the first month (Nisan), and on the 15th day commenced the seven days' feast of unleavened bread. Properly, the term *P.* applies only to the 14th day, but it was commonly used to include also the feast of unleavened bread which followed.

—Ths sacrifice offered at the feast of the passover; the paschal lamb.

Pass-parole', *n.* [Fr. *passe-parole.*] (*Mil.*) A command given at the head of an army, and passed, from mouth to mouth, to the rear.

Passport, *n.* [O.Fr. *passe-porte,* a bill of lading, *passeport,* a safo-conduct.] (*International Law.*) A paper indispensably necessary, in time of war, for the safety of every ueutral vessel, containing permission from the neutral state, to the captain or master of a ship or vessel, to proceed on the voyags proposed.

(*European Law.*) In most countries of Continental Europe, a letter, license, or document, given by an authorized officer of a state, granting liberty to the person or persons therein named, to pass or travel either generally, or through a country named, and to remain there for an indefinite or specified period. In general, the bearer then requires to take his passport to the minister or authorized agent of the country which he is about to visit, and have it signed by him. Such a document states the name, surname, age, and profession of the bearer, and entitles him to ths protection of the authorities of the countries through which he may pass.

Passump'sic, in *Vermont,* a small river flowing into the Connecticut from Caledonia co.

—A post-vill. of Caledonia co., abt. 30 m. E. of Montpelier.

Pass'-word, *n.* A secret word used by the military, secret societies, &c., which must be given or spoken before a person is allowed to pass; a watchword.

Pas'sy, formerly a suburb of Paris, France, adjoining the *Bois de Boulogne;* now included in the precincts of the metropolis.

Past, *a.* Gone by or beyond; not present; not future; spent; ended; accomplished.

—*n.* Past time. — Anything that is past; past state.

—*prep.* Beyond in time; out of the reach of. — Above; more than. (R.)

Pas'ta, JUDITH, a celebrated singer, B. in Italy, 1799. She appeared on the Paris stage in 1821, and she succeeded in winning a first-rate reputation. She first distinguished herself in the operas of Rossini, *Tancredi, La Donna del Lago,* &c., and later in Bellini's *Norma* and *Somnambula,* Pacini's *Niobe,* (the last three being composed for her,) and *Anna Bolena.* She retired to her magnificent villa on the Lake of Como about 1835, and D. there 1865.

Pasta'ça, or PASTAZA, a rivor of Ecuador, S. America, flowing into the Amazous abt. 25 m. above the Huallaga River.

Paste, (*paist,*) *n.* [Fr. *pate;* It. and Sp. *pasta,* from Lat. *pastus,* food.] A soft compositiou of substances, as flour moistened with water or milk, and kneaded; or any kind of earth moistened and formed to the consistency of dough, as in making potter's ware. — Any kind of cement having the power of holding the particles together, as gum, boiled flour, &c.

(*Applied Chem.*) A glass made in imitation of precious stones. The base of all fictitious gems is a combinatiou of silica, potash, borax, red oxide of lead, and sometimes arsenic. Pure boracic acid and colorless quartz ought to be used, and Hessian crucibles in preference to porcelain. The paste requires to be fused in a potter's furnace for 24 hours; and the more tranquil and continued the fusion, the harder is the paste, and the greater its beauty. The proportions of paste, &c., for the principal artificial gems are as follows: *Ruby* — Paste, 2,880; oxide of manganese, 72. *Emerald*—Paste, 4,608; green oxide of copper, 42; oxide of chrome, 2. *Sapphire*—Paste, 4,608; oxide of cobalt, 68; fused for 30 hours. *Amethyst*—Paste, 4,608; oxide of manganese, 36; oxide of cobalt, 24; purple of cassius, 1. See GEMS, ARTIFICIAL.

(*Min.*) The mineral substauce in which other substances are imbedded.

(*Com.*) An inspissated juice of licorics, or of other vegetables.

—*v. a.* To unite or cement with paste; to fasten with paste.

Paste'board, *n.* A species of thick paper, formed of several single sheets pasted one upon auother, or by macerating paper, and casting it into moulds, &c. — A board on which dough is rolled out for pastry.

—*a.* Made of pasteboard.

Pas'tel, *a.* [Fr., from O. Fr. *paste,* paste.] (*Painting.*) A crayon formed with any color and gum-water, for painting on paper or parchment. The great defect of this mode of painting is its want of durability. Pastels must uecessarily be protected by glass.

(*Bot. and Chem.*) *Isatis tinctoria,* and the dye that it yields. See ISATIS.

Pas'tern, *n.* [O. Fr. *pasturen.*] (*Farriery.*) The part of the horse's foot under the fetlock to the heel. [foot.

Pas'tern-joint, *n.* The joint in a horse's leg next the

Pasticcio, (*-tit'chē o,*) *n.* [It., from *pasta.*] An olio; a medley; a mixture.

(*Painting.*) A work of art, of original conception as to design, but a direct copy of the style and manner of some other painter. Such were the pictures of David Teniers, in the manner of Rubens, often mistaken for originals.

Pastil, Pastille, (*pas-tēēl',*) *n.* [Fr. *pastille;* Sp. *pastilla,* a pastil; Lat. *pastillas,* a little roll, from *pastus,* food.] (*Pharm.*) A dry composition of sweet-smelling resins, aromatic woods, &c., burned to clean and scent the atmosphere of a room. — An agreeable kind of bonbon, or sugar confection.

Pas'time, *n.* [*Pass* and *time.*] That which amuses and serves to make time pass agreeably; entertainment; diversion; amusement; recreation; sport; play; frolic.

—*v. a.* To sport; to practise diversion. (R.)

Pas'tinaca, *n.* (*Bot.*) The Parsnip, a genus of plants, order *Apiaceæ.* Tho Common Parsnip, *P. sativa,* (Fig. 2056,) is a biennial, with angular furrowed stem, 2–3 fest high, pinuate leaves with ovate leaflets, rather shining, cut and serrated, and a three-lobed terminal leaflet. The root of ths wild plant is white, aromatic, mucilaginous, sweet, but with some acridness; and injurious effects have followed from its use. By cultivation it becomes more bland and is highly relished by many, though the flavor is disliked by many for its too great sweetness. The *P.* delights in a very open rich soil, but it succeeds well also in clayey soils far too stiff for the carrot. Cattle are very fond of it, and not only the flesh of cattle fed on it is of excellent quality, but the butter of dairy-cows fed on parsnips in winter is far superior to that produced by almost any other kind of winter-feeding.

Fig. 2056. — PARSNIP, (*Pastinaca sativa.*)

Pas'to, a town of the U. S. of Colombia, in a mountainous region, 8,577 ft. above the sea, and abt. 148 m. N.N. E. of Quito; *pop.* 8,000.

Pas'tor, *n.* [Fr. *pasteur;* It. *pastore;* Lat. *pastor,* a herdsman, a shepherd, from *pasco, pastum,* to feed, to pasture.] A shepherd or herdsman; one who has the care of flocks and herds. — A minister of the gospel who has the charge of a church and congregation, whose people, by the same figure, are termed his flock.

Pas'torage, *n.* The office, state, or jurisdiction of a spiritual pastor; pastorate.

Pas'toral, *a.* [Fr.; Lat. *pastoralis.*] Of, or pertaining to shepherds; rustic; rural. — Descriptive of the life of shepherds.

(*Eccl.*) Relating to the care of souls, or to the pastor of a church. A *pastoral letter* is a circular letter, addressed by a bishop to his dioceans, for their religious instruction or guidance in matters of ecclesiastical discipline. The *pastoral staff* is the crosier of a bishop's staff, which, in his public ministrations, he is directed to have in his hand, or else borne or holden by his chaplain. (See CROSIER.) *Pastoral Theology* is that department of theology which has to do with the practical duties of a clergyman as the teacher and spiritual guide of his people.

—*n.* A poem descriptive of shepherds and their occupations, or in which the speakers have the names, and use the idiom of shepherds; an idyl; a bucolic.

Pastora'le, *n.* (*Mus.*) A soft, rural air or movement, generally in 6-8 or in 12-8 measure, and proceeding much by alternate crotchets and quavers.

— A kiud of dance. — A figure in the dance.

Pas'torally, *adv.* In the manuer of a pastor. — Belonging to, or living in the country.

Pastorate, *n.* The state, office, or jurisdiction of a spiritual pastor. — The body of pastors.

Pas'torless, *a.* Without, or destitute of, a pastor.

Pas'tor-like, *a.* Resembling a pastor.

Pas'torling, *n.* An inferior pastor, or minister.

Pas'torly, *a.* Suitable to a pastor; becoming a pastor.

Pas'torship, *n.* The office or rank of a pastor.

Pastour'eaux, *n. pl.* [O. Fr., shepherds.] Insurgent peasants who took up arms in France during the absence of King Louis IX. on his crusade. They were led by a Cistercian monk, who took the name of "Jacob, Master of Hungary," and seduced them to follow him in his fanatical extravagance. They committed various excesses, from the frontier of Flanders, on which they at first assembled, to Bourges, where their leader was killed in a tumult, and his horde dispersed. Seventy years afterwards, a similar insurrection of people calling themselves Pastoureaux broke out under the same pretence of a crusade, and was distinguished by a grand massacre of the Jews.

Pas'try, *n.* [Fr. *pâtisserie.*] Articles of food in general which are made of paste or dough, or of which paste constitutes a principal ingredient, as pies, &c.

Pas'try-cook, *n.* One who makes and sells articles of food made of paste, as pies, &c.

Pas'try-man, *n.* A man who sells pastry.

Pas'turable, *a.* Fit for pasture.

Pas'turage, *n.* The business or act of feeding or grazing cattle. — Grazing-ground; land appropriated to grazing. — Grass for feed.

Pas'ture, *n.* [Fr.; Lat. *pastura,* a feeding-ground.] Grass for the food of cattle; the food of cattle taken by grazing. — Ground covered with grass to be eaten by cattle, horses, &c.; pasturage.

—*v. a.* To supply with pasturage; to feed on grass, or to supply with grass for food.

—*v. n.* To graze; to take food by eating grass from the ground.

Pas'ty, *a.* Like paste; of the consistence of paste.

—*n.* A pie made of paste, and baked without a dish.

Pat, *n.* [O. Fr. *bat,* a stroke or beating.] A light quick blow or stroke with the fingers or hand; a tap. — A small mass which is beat into shape by pats; as, a *pat* of butter.

—*v. a.* To strike gently with the fingers or hand; to tap.

Patago'nia, an extensive country of S. America, comprising nearly the whole of that continent S. of Lat. 38° S., and having N. the territories of La Plata and Chili, S. the Strait of Magellan, separating it from Terra del Fuego, E. the Atlantic, and W. the Pacific. Little is known respecting this region beyond its coast outline. The Andes in Patagonia appear to consist of but one cordillera, the mean heigbt of which may be estimated at 3,000 ft.; but opposite Chiloe there are some mountains probably from 5,000 to 6,000 ft in height. The W. coast is abrupt, very much broken, and skirted with a great number of irregularly shaped rocky islands. The E. coast has been most explored. The surface of the country appears to rise from the Atlantic to the Andes, in a succession of terraces, all of which are alike arid and sterile, the upper soil consisting chiefly of marine gravelly deposits, covered with coarse wiry grass. No wood is seen larger than a small thorny shrub, fit only for the purpose of fuel, except on the banks of a few of the rivers subject to inundation, where herbage and some trees are occasionally found. This sterility prevails throughout the whole plain country of Patagonia, the complete similarity of which, in almost every part, is one of its most striking characteristics. It is stated, however, by the Indians on the Rio Negro, which forms the N. boundary of Patagonia, that near the Andes wheat, maize, beans, lentils, and peas are raised. This latter region is not, however, placed under the same circumstances as the country more to the eastward, nor is it subject to the causes which mainly occasion its sterility. Porphyry, basalt, sandstone, containing numerous organic remains, and a friable rock, greatly resembling, but not identical with, chalk, are among the mineral formations hitherto remarked as the most prevalent in E. Patagonia. The zoölogy of the country is as limited as its *flora.* Guanacos are met with sometimes in herds of several hundreds, and their enemy the puma, and a small kind of fox, are almost the only other wild quadrupeds at all abundant, except mice. The condor and the cassowary are included among the few species of birds. The Patagonian Indians are tall and bulky, and

though not absolutely gigantic, they may be said to be the tallest people of whom there are any accounts, the averaga height of the meu being probably not uuder 6 ft. Their heads and features ara large, but their hands and feet small; and their limbs ara neither so muscular nor so large-boned as their height and apparent stoutness would induce one to suppose. Color, a dark cop-

Fig. 2057. — PATAGONIAN DANCERS.

per-brown; hair, black, lank, and coarse, and tied above the temples by a fillet of plaited sinews. These people live under petty chiefs, who seem to possess but littla authority. *P.* was discovered by Magellan, in 1519. The territory has been in dispute between Chili and Argentine, hut in 1875 tha former made settlements on the Pacific Coast with the consent of the latter, who had a settlement at Santa Cruz for some years. The boundary between them was settled (1883), Chili prolonging her narrow strip on the W. coast to the S. point of the continent, Argentine taking the rest. An active volcano was discovered in 1878. *Pop.* about 25,000.

Pat'any, a seaport town of Siam, in Farther India, Lat. 70° N., Lon. 101° 40′ E. *Pop.* estimated at 100,000.

Patap'sco River, in *Md.*, rises in Carroll co., flowing S.S.E., it expands into Patapsco Bay (an arm of Chesapeake Bay), bet. Baltimore and Anne Arundel cos.

Patch, *n.* [Etymology unknown; perhaps from Fr. *piece*, a piece.] A piece of cloth sewed on a garment to repair it; a small piece of anything used to repair a breach. — A small piece of silk used to cover a defect on the face, or to add a charm. — A piece inserted in mosaic or variegated work. — A small piece of ground, or a small detached piece. — One who deceives by false appearances; a knave; a rogue; a paltry fellow.

—*v. a.* To mend by sewiug on a piece or pieces; to mend with pieces. — To adorn with a patch or with patches. — To repair clumsily; to repair with pieces fastened on; to make up of pieces and shreds. — To make suddenly or hastily. — To make without regard to forms; (in the two last senses followed by *up*.)

Patched, (*pacht,*) *a.* Mended with a patch or patches. — Mended clumsily.

Patch'er, *n.* One who patches or botches.

Patch Grove, in *Wis.*, a post-vill. and twp. of Grant co., abt. 25 m. N. by W. of Potosi.

Patchogue, (*pat-chog'*) in *New York*, a post-villsge of Suffolk co., abt. 60 m. E. of New York city.

Patchouly, (*-choo-*) *n.* (*Bot.*) See POGOSTEMON.

Patch'work, *n.* Work composed of pieces of various figures sewed together. — Work composed of pieces clumsily put together.

Patch'y, *a.* Full of patches.

Pate, *n.* [Ir. *bathas*, the top of a thing, the pate; Sansk. *pâtra*, a vessel, from *pa*, to preserve.] The head; or, rather, the top of the head (now used only in contempt). — The skin of a calf's head.

(*Fort.*) A kind of platform encompassed with a parapet, and having nothing to flank it.

Paté, *n.* [Fr.] A patty; a pie made of game or other meats; as, a *paté de foie gras*.

Pated, *n.* In composition, headed; having a pate.

Pat'ée, or **Patonec,** *n.* (*Her.*) A sort of cross, small at the centre and widening toward the ends, which are very broad.

Patel'la, *n.* (*Anat.*) See KNEE.

Pat'en, *n.* [Fr. *patène*; Lat. *patina*, or *patena*.] (*Eccl.*) The plate employed for the elements of bread in the Encharistic service. In the Roman Catholic Church, it is a small circular plate, always of the same material with the chalice. It is often richly chased or carved, and studded with precious stones. It is used only in the mass.

Pat'ent, *a.* [Fr., from Lat. *patens*, from *pateo*.] Open to the perusal of all —Noting anything patented. — Appropriated by letters-patent, or open letters, granting some privilege or right. — Apparent; conscious.

—*n.* A writing given by the proper authority and duly authenticated, granting a privilege to some person or persons, as, in England, a title of nobility.

(*American Law.*) The title-deed by which a government, state or federal, conveys its lands.

—More usually, an instrument by which the United States secures to inventors for a limited time the exclusive use of their own inventions. The Act of Congress of July 4th, 1836, provides for the granting of a patent to the first inventor or discoverer of any new and useful art, machina, manufacture, or composition of matter, or of any new and useful improvement thereon. There are with us, according to the phraseology of the statute, four classes of inventions, which may be subjects of patents: 1, an art; 2, a machine; 3, a manufscture: and 4, a compositiou of matter. Although the word *discovery* is used in our statute as entitling the discoverer to a patent, still, every discovery is not a patentable invention. The discovery of a mere philosophical principle, or abstract theory, or elementary truth of science, cannot obtain a patent for the same, unless he applies it to some directly useful purpose. The patent can only be for such a principle, theory, or truth, reduced to practice and embodied in a particular structure or combination of parts. An invention, to be patentable, must not only be *new*, but must also be *useful*. But by this it is not meant that it must be more useful than anything of the kind previously known, but that it is capable of use for a beneficial purpose. A mere application of an old device or process to the manufacture of an article is held to constitute only a double use, und not to be patentable, if some new process or machinery is not used to produce the effect. No patent can be grauted in the United States for the mere importation of un invention brought from abroad; although it is otherwise in England. The Constitution only authorizes Congress to grant these exclusive privileges to the inventors themselves. The mera fact of huving obtained a patent tor the same thing in a foreign country, will not prevent the obtaining of a patent here at any time within seventeen years after the date of the foreign patent. But if an invention has been introduced into public and common use in the United States, und if it has also been patented abroad more than six months prior to the date of the application here, the patent will be denied. The twelfth section of the Act of 1836 authorizes the inventor of anything patentabla — provided he be a citizen, or an alien who has resided within the United States for one year next preceding his application, and has made an oath of his intention to become a citizen — to file a caveat in the Patent-Office for his own security. This caveat consists in a simple statement of his invention, in any language which will render it intelligible. It is always well to attach a drawing to the description, in order that it may be more easily and thoroughly understood; but this is not indispensable. A fee of ten dollars must be paid to the office at the same time. The right acquired by tha caveator in this manner is that of preventing the grant of any interfering patent, or any application filed within one year from the day when the caveat was lodged in the Patent-Office, without his being notified of the same, and having an opportunity of contesting the priority of inventiou of applicant, by means of an *interference*. In this way an inventor can obtaiu a year to perfect his invention, without the risk of having the patent to which he is entitled granted to another in the meantime. He can, also, at any time before the expiration of one year, renew the caveat for another year, by paying another fee of ten dollars, and so on from year to year, as long as he feels disposed so to do. The caveat is filed in the confidential archives of the office, and preserved in secrecy. When the invention is complete, and the inventor desires to apply for a patent, he causes a specification to be prepared, setting forth in clear and intelligible terms, tha exact nature of his invention, describing its different parts and the principle and moda in which they operate, and stating precisely what he claims as new in contradistinction from those parts and combinations which were previously in use. This should be accompanied by a petition to the Commissioner of Patents, stating the general nature of his invention and the object of his application. Duplicate drawings should be attached to the specification, where the nature of the case admits of drawings; and where the invention is for a composition of matter, specimens of the ingredients, and of the compositiou of matter, should be furnished. The specification, as well as the drawings must he signed by the applicant and attested by two witnesses; and appended to the specification must be an affidavit of the applicant, stating that he verily believes himself to be the original and first inventor of that for which he asks a patent, and also of whst country he is a citizen. The whole is then filed in the Patent-Office. A model, not to exceed one foot in any of its dimensions, had also to be furnished in all cases admitting representation by model, but by the new rules of the P.-office, issned in 1881, inventors may dispense with this expensive formality. As has been already observed, our law provides for an examination whenever an application is completed in the prescribed manner. And if on such examination it appears that the claim of the applicant is invalid, and would not be sustained by tha conrts, the application is rejected: which rejection is subject to revision on a new application, and to appeal. The rula that the applicant is entitled to a patent whenever he is shown to be the original and first inventor is subject to one important exceptiou. If he has, either actively or constructively, abandoned his invention to the public, he can never afterwards recall it and resume his right of ownership. The obtaining of foreign letters patent does not prevent the granting of a patent here. But in that case the American patent will expire at the end of 14 years from the date of the foreign patent. This limit was thus fixed when tha American patent was ot only 14 years' duration; its extension to 17 years does not seem to enlarge this limitation. Patents were formerly granted for 14 years, the Commissioner of Patents being authorized in special cases to extend the same for seven years longer. But by the Act of 1861 the length of time for the patent to run was extended to 17 years, and the right to an extension on such patents was denied. The eleventh section of the Act of 1836 authorizes the assignment of a patent, either in whole or in part, by any instrument in writing, — which assignment must be recorded in the patent-office within three months from the execution thereof. But it has been held that this provision tor recording is directory merely, for the protection of *bona fide* purchasers without notice, and not an absolute prerequisite to the validity of the assignment. Strictly speaking, the word *assignment* applies to the transfer of the entire interest running throughout the whole United States. A conveyance of an exclusive interest within and throughont any specified part or portion of the United States is more properly denominated a grant. A mere authority or permission to use, sell, or manufacture the thing patented, either in the whole U. States or in any specific portion thereof, is known as a licensa. But all three are sometimes included under the general term of an assigument. An assignment may be made prior to the granting of a patent. And when duly made and recorded, the patent may be issued to the assignees. The tenth section of the Act of 1836 provides that, where an inventor dies before obtaining a patent, his executor or administrator may apply for and obtain such patent, holding it in trust for the heirs at law or devisees, accordingly as the inventor dies intestate or testate. An alien who haa resided one year in the U. States, and who has taken an oath of his intention to become a citizen, stands, so far as the patent laws are concerned, in the same position as a native-born citizen; but other foreigners have not in all respects tha same rights and advantages. The fifth section of the Act of 1842 provides that any person or persons who shall place upon anything manufactured by him, the name or imitation of the name of another person holding a patent for the sole making and selling of such thing, without the consent of the patentee or his legal representatives, or who shall affix the words *patent*, *letters-patent*, or *patentee*, or word of similar import, for the purpose of imitating or counterfeiting the trade-mark of the patentee, or to deceive the public, shall ba liable to a penalty of not less than 100 dollars and costs to be recovered by action in any U. States circuit court, or U. States district court having the powers and jurisdiction of a circuit court, one-half of tha penalty to be paid to the patent fund and the other half to any person who shall sue for the same. The Act of 1836 provides that whenever in any act on for damages for infringement of the rights of a patentee, the verdict is rendered for the plaintiff, the court may render judgment to any sum above the amount found by such verdict as the actual damages sustained by tha plaintiff, not exceeding three times the amount thereof, with costs. The actual damage is all that can be allowed by a jury. In 1870, a supplementary act was passed by Congress; it made but few changes, however. The total applications for patents have been nearly 1,000,000; patents granted, nearly 600,000.

Pat'ent, *v. a.* To grant by patent.

Pat'entable, *a.* That may be patented.

Pat'ented, *a.* Secured by patent, or by law, as an exclusive privilege.

Patentee', *n.* One who has a patent.

Pat'ent-leather, (*-leth'er,*) *n.* Japanned or varnished leather, nsed for boots, shoes, and other purposes.

Pat'ent-office, *n.* An office for the grauting and registry of patents for inventions.

Pat'ent-right, (*-rit,*) *n.* An exclnsive privilege to profit by an invention for a certain number of years.

Pat'ent-rolls, *n. pl.* The registers or records of patents.

Pa'ter, or **Pem'broke Dock,** a town of S. Wales, co. of Pembroke, in Milford Haven, 1 m. N.W. of Pembroke. It has a government dock-yard of 60 acres, in which some of the largest ships are built. *Pop.* 6,500.

Pate'ra, *n.* [Lat., from *patero*, to be open.] (*Archæol.*) A shallow, circular, saucer-like vessel, commonly of red earthenware, sometimes of bronze and other metals, ornamented with a figured pattern. The *P.* was used for holding liquids, and especially employed to contain the wine with which a libation was poured over the head of a victim or on the altar. It is frequently represented in the hands of Roman emperors, to denote the junction of sacerdotal with imperial authority. Handles were occasionally fixed to them.

(*Arch.*) A circular flat ornament, used in classical, and also in Gothic and Italian architecture.

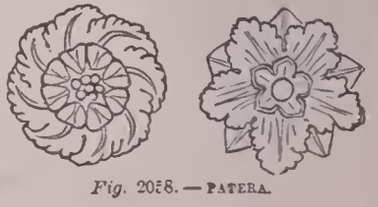


Fig. 2058. — PATERA.

Pater'nal, *a.* [Fr. *paternel*; Lat. *paternus*.] Pertaining, or re-

lating to a father; fatherly; exhibiting the characteristic traits of a father; as, *paternal* affection, rule, care. — Derived from a father; hereditary.

Pater'nally, *adv.* In a paternal manner; father-like.

Pater'nity, *n.* [Fr. *paternité*; Lat., from *paternitas*, from *paternus*, *pater*.] The relation of a father to his progeny; fathership; fatherhood; — hence, source of origin; authorship.

Pater'no, a town of Sicily, prov. of Catania, at the foot of Mount Etna, 10 m. N.W. of Catania; *pop.* 11,000.

Pa'ternoster, *n.* [Lat., our father.] The Lord's Prayer; a rosary; also every tenth bead in the rosary used by Roman Catholics in their devotions.

(*Arch.*) A sort of ornament cut in the form of beads, either round or oval.

Pat'erson, in *New Jersey*, a city, cap. of Passaic co., on the Passaic River, abt. 13 m. N. of Newark; Lat. 40° 55′ N., Lon. 74° 10′ W. It is handsomely built, and contains many fine edifices. *Manuf.* Silk, machinery, locomotives, carriages, guns, paper, &c. *Pop.* (1900) 105,171.

Path, *n.*; *pl.* PATHS, (*pathz.*) [A. S. *pæth*; Gr. *patos*, a trodden way, from *patéō*, to tread.] A way, track, road, route, or passage; — specifically, any narrow way beaten by the feet of man or beast; a foot-way.

"The dewy *paths* of meadows we will tread." — *Dryden.*

—Figuratively, course of action, procedure, or moral or social government.

"The *paths* of glory lead but to the grave." — *Gray.*

—The way, course, or track where a body moves in the atmosphere or in space; as, the *path* of a meteor.

—*v. a.* [A. S. *pedhian*.] To make a path or way for.

—*v. n.* To walk at large. (R.)

Pathemat'ic, *a.* [From Gr. *pathēma*, an attack of sickness.] Pertaining to, or denoting emotional sensation or suffering.

Pathet'ic, Pathet'ical, *a.* [Fr. *pathétique*; Gr. *pathetikos*, from *pathos*, suffering.] Full of pathos; affecting; moving or exciting the tender sensibilities, as pity, sorrow, grief, or other emotional feeling; as, a *pathetic* appeal, a *pathetic* story.

Pathetic muscle. (*Anat.*) The oblique superior muscle of the eye. — *Pathetic nerves.* (*Anat.*) The four pairs of cerebral nerves, being a pair of small nerves, supposed to influence, by certain movements of the eyeball, the expression of the face.

—*n.* (*Painting and Sculp.*) The style or manner employed to awaken the tender or more sorrowful emotions of the soul, is called the *pathetic*.

Pathet'ically, *adv.* In such a manner as to excite the tender emotions.

Pathet'icalness, *n.* State or quality of being pathetic.

Path'etism, *n.* [Fr. *pathetisme*.] Synonymous with MESMERISM, *q. v.*

Path'-fly, *n.* A fly hovering about foot-paths.

Path'ic, *a.* [Lat. *pathicus*, from Gr. *pathein*, to suffer.] Same as BARDASH, *q. v.*

Path'less, *a.* Having no path or beaten way; untrodden; as, a *pathless* waste or forest.

Pathog'enic, *a.* [Gr. *pathos*, suffering, and *genein*, to generate.] Inceptive of diseases.

Pathog'eny, *n.* (*Med.*) That branch of pathology which treats of, or has reference to, the inception, production, and development of disease.

Pathognomon'ic, *n.* [Gr. *pathos*, suffering, and *gnōmōn*, an examiner.] (*Med.*) Typical or characteristic of a disease; as, a *pathognomonic* symptom.

Pathog'nomy, *n.* [From Gr. *pathos*, and *gnōmē*, judgment.] The science of the signs or portents by which the passions of human nature are indicated.

Pathолog'ic, Pathолog'ical, *a.* Pertaining or having reference to pathology or to diseases in general.

Pathолog'ically, *adv.* In the manner of pathology.

Pathol'ogist, *n.* One who is versed in, or who treats of, pathology.

Pathol'ogy, *n.* [Fr. *pathologie*; Gr. *pathos*, suffering, and *logos*, treatise.] (*Med.*) The doctrine of human sufferings or diseases. As physiology teaches the nature of the functions of the body in a state of health, so *P.* relates to the various derangements of these functions which constitute disease. Its objects, therefore, are to ascertain the various causes which interfere with the normal action of each organ of the body, to determine the diagnostic and pathognomonic symptoms, which afford the means of discrimination between diseases closely resembling one another. An important branch of *P.* is that which treats of diseases of the fluids of the body, and more especially of the disordered states of the blood and of the urine (*humoral P.*). The science has made rapid strides during this century, owing chiefly to the advance of animal chemistry, and to the application of the microscope in the examination of diseased secretions and excretions.

Pathopœ'ia, (*-pē'ya,*) *n.* [Gr. *pathos*, passion, and *poieiu*, to make.] (*Rhet.*) A figure of speech, calculated to arouse the passions.

Pa'thos, *n.* [Gr., suffering, sensibility, passion, natural taste, as for art.] (*Lit.*) Feeling; passion; that which excites emotions and passions, especially tender emotions, as those of pity, compassion, sympathy, &c.; hence, pathetic quality: expression of deep or strong feeling.

Path'way, *n.* A path; usually, a narrow path to be traversed on foot. — A course of life or action; as, the *pathway* of righteousness.

Pa'tia, a river of the United States of Colombia, rising around the Andes Mountains, and flowing W. into the Pacific Ocean, abt. Lat. 2° N.

Patib'ulary, *a.* [Fr. *patibulaire*, from Lat. *patibulum*.] Having reference, or pertaining to the gallows, or to crucifixion.

Patience, (*pā'shens,*) *n.* [Fr.; Lat. *patientia*.] The quality of being patient, or of bearing suffering, or enduring; endurance without murmuring or fretfulness; the suffering of pain, toil, calamity, afflictions, provocation, or other evil, with calmness and equanimity of temper; the quality of enduring offences and injuries without manifestations of anger and a disposition to revenge; tranquillity under the sufferance of provocation.

"His rage was kindled, and his *patience* gone." — *Harte.*

—Act or quality of waiting long for justice or looked for good, without discontent or repining; long-suffering.

"'Tis all nuns' office to speak *patience*." — *Shaks.*

—Constancy in labor or exertion; persistence; perseverance.

"He learnt with *patience*, and with meekness taught." — *Harte.*

(*Bot.*) See RUMEX.

Patient, (*pā'shent,*) *a.* [Fr.; Lat. *patiens*, from *patior*, to suffer. See PASSION.] Suffering or enduring any evil with equanimity or fortitude; bearing or supporting trials or reverses calmly; having the quality of sustaining afflictions of body or mind with a calm, unruffled temper; not easily provoked; calm under the sufferance of injuries or offences; not revengeful; not hasty; tranquilly diligent; as, a *patient* husband, a *patient* literary drudge. — Waiting or expecting with calmness or without discontent; not over-eager or impetuous.

—*n.* A person or thing that is the recipient of impressions from external agents; he who, or that which, is passively affected; as, "the *patient* or the subject of passion." — *Watts.*

—A sick person; one diseased or suffering bodily indisposition; — commonly used in a correlative sense to *physician* or *nurse*.

In-patient, a patient in a hospital or infirmary who receives board and lodging in addition to medical treatment. — *Out-patient*, one who receives only advice and medicine from an infirmary.

Pa'tiently, *adv.* In a patient manner; with calmness or composure; without discontent or murmuring; with calm and constant diligence; without agitation, uneasiness, or repining; without undue haste or eagerness; as, to submit *patiently* to evils, to plod on *patiently* at work, to wait *patiently* till something good turns up.

Pat'ile, *n.* A broad flat-bottomed cargo-boat employed on the river Ganges, India.

Pat'in, Pat'ine, *n.* Same as PATEN, *q. v.*

Pati'na, *n.* [Fr. *patine*, from Lat. *patina*, a dish or pan.] (*Fine Arts.*) The fine rust with which coins become covered by lying in peculiar soils, and which, like varnish, is at once preservative and ornamental. It is, says Mr. Pinkerton, a natural varnish, not imitable by any effort of human art; sometimes of delicate blue, like that of a turquoise; sometimes of a bronze brown, equal to that observable in ancient statues of bronze; sometimes of an exquisite green, verging on the azure hue, which last is the most beautiful of all. It is also found of a fine purple, of olive, and of a cream color, or pale-yellow. The Neapolitan patina is of a light green; and, when free from excrescence or blemish, is very beautiful. — The term is also applied to the coat of dirt and varnish which, through time, covers the surface of pictures, and often gives to an old picture an adventitious harmony and effect which does not belong to it.

Pat'ly, *adv.* [From *pat*.] Aptly; fitly; convenient; pat.

Pat'mos, or **Patmo,** an island of the Grecian Archipelago, off the W. coast of Asia Minor, 20 m. S. of Samos; Lat. 37° 17′ N., Lon. 26° 35′ E. It is 30 m. in circumference, and is famous as the place where St. John was banished by Domitian, and where he wrote the Book of Revelations.

Pat'na, a city of British India, pres. of Bengal, cap. of a district of same name, on the Ganges, 300 m. N.W. of Calcutta; Lat. 25° 37′ N., Lon. 85° 15′ E. It contains numerous mosques and temples; and was the first commercial station of the English East India Company. *Manuf.* Table-linen, lacquered-wares, talc goods, and bird-cages. It has a large trade in rice, opium, saltpetre, wheat, indigo, sugar, &c.

Pat'ness, *n.* Appropriateness; especial suitability or convenience.

Patois, (*pat-wah'*,) *n.* [Fr., from Lat. *pagus*, the country.] A rude and unpolished idiom; a rural dialect: a form of speech used in provincial districts, or by the lower orders of society; a corrupted vernacular; as, the *patois* of the Normans.

Pato'ka, in *Illinois*, a post-village of Marion co., abt. 14 m. S. of Vandalia.

Pato'ka, in *Indiana*, a creek rising in Orange co., and flowing W. enters the Wabash River from Gibson co. —

—A township of Crawford co. *Pop.* (1897) 1,980.

—A township of Dubois co. *Pop.* (1897) 4,315.

—A post-village and township of Gibson co., about 4 m. N. of Princeton. *Pop.* (1897) 6,620.

Pa'tos, (Lake,) or LAGO DE LOS PATOS, an expansion of the river Jacuhy, in the prov. of Rio Grande de Sul Brazil. It covers an area of 5,600 sq. m. It receives several streams, and has the city of Rio Grande de Sul at its S. extremity.

Patras', (anc. *Patræ*,) a fortified seaport-town of Greece, in the Morea, cap. of the nomarchy of Achaia, on the Gulf of Patras, 13 m. S.W. of Lepanto; Lat. 38° 33′ N., Lon. 21° 43′ E. *Pop.* 8,000.

Patras', (Gulf of,) an inlet of the Ionian Sea, on the N. coast of the Morea. *Ext.* 22 m. long, breadth 13 m.

Pa'tres Conscrip'ti, *n. pl.* [Lat. *patres*, fathers — the name given by Romulus to the first senators chosen by him — and *conscripti*, the enrolled.] The senators of ancient Rome.

Pa'trial, *a.* [From Lat. *patria*, country.] (*Gram.*) Pertaining, or relating to a family or lineage; designating a race or nation; — applied to a certain class of words.

Patriarch, (*pā'tri-ārk,*) *n.* [Fr. *patriarche*; Gr. *patri-archēs* — *patria*, lineage, from *patēr*, a father, and *archē*, rule.] (*Jewish Hist.*) A name originally given to the heads of the first families who lived in the earliest ages of the world, as Abraham, Isaac, and Jacob, with his twelve sons, and Seth, Enoch, and others. They exercised the offices of priest and king in their respective families; and it has been supposed that the idea of hereditary power and honors was derived from the authority enjoyed by the patriarchs and their first-born after them. The term is also applied to a person invested with a dignity, the origin of which has been the subject of much discussion, some maintaining that it was of very ancient institution, and others that it was not older than the time of Nerva, the successor of Domitian. Whenever established, however, the authority of those who held this office came, in time, to be very considerable. Their chief duty being to instruct the people, they established schools in several cities; and having gained a great reputation for learning, zeal, and piety, at length ventured to levy a kind of tribute to support the charges of their dignity, and of the officers under them. According to the Jewish rabbin, the patriarchal dignity was in existence, in this sense, from 30 years before the birth of Christ down to the 5th century, when it was abolished.

(*Eccl.*) In the Greek Church, a dignitary superior to the order of archbishops, or somewhat analogous to the *cardinal* of the Roman Catholic Church; as, the *patriarch* of Constantinople.

Patriar'chal, Patriar'chic, *a.* Belonging, or relating to, or possessed by patriarchs; as, *patriarchal* age, *patriarchal* jurisdiction. — Subject to a patriarch; as, a *patriarchal* church.

Patriar'chal Cross. (*Her.*) A cross which, like the patriarchal crosier, has its upright part crossed by two horizontal bars, the upper shorter than the lower.

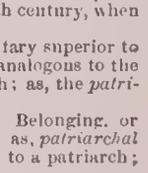


Fig. 2059. PATRIARCHAL CROSS.

Patriar'chate, *n.* [Fr. *patriarchat*.] The office, dignity, or jurisdiction of a patriarch in the Greek Church; as, the *patriarchate* of Syra. — The residence of a patriarch.

Pa'triarchdom, *n.* Power or jurisdiction of a patriarch.

Pa'triarchism, *n.* Government by a patriarch, or the head of a family, who was both ruler and priest, as Noah, Abraham, and Jacob.

Pa'triarchship, Pa'triarchy, *n.* Same as PATRIARCHATE.

Patrician, (*-trish'an,*) *a.* [Fr. *patricien*; Lat. *patricius*, from *patres*, the fathers.] Originally, of or belonging to the fathers or first senators of Rome; hence, noble; senatorial; aristocratic; — correlative of *plebeian*; as, *patrician* blood, the *patrician* class.

—*n.* Primarily, a descendant of the fathers or first senators of Rome; hence, a person of high birth or gentle blood; a nobleman; an aristocrat.

—One versed in, or who adheres to, patristic theology.

Patricianism, (*-trish'an-izm,*) *n.* The rank, status, or characteristic attributes of patricians; aristocracy of birth.

Patriciate, (*-trish'i-āt,*) *n.* The nobility; the patrician order of society; the aristocracy.

Pat'ricidal, *a.* Having reference to patricide.

Pat'ricide, *n.* [Lat. *pater*, father, and *cædere*, to slay.] The murderer or assassin of a father.

Pat'rick, in *Virginia*, a S.W. co., bordering on N. Carolina; *area*, abt. 500 sq. m. *Rivers.* Dan, Smith's, North Mayo, and South Mayo rivers. *Surface*, finely diversified, and in the N.W. mountainous; *soil*, in general fertile. *Min.* Iron. *Cap.* Stuart. *Pop.* (1897) 14,900.

Patrick Court-House, in *Virginia*. See TAYLORSVILLE.

Patrick, (St.,) or PATRICIUS, the apostle or patron saint of Ireland, said to be B. near the site of Kilpatrick, Scotland, whose zeal prompted him to cross the channel for the conversion of the pagan Irish. His arrival in Ireland took place probably between 440–460. His endeavors were crowned with great success, and he established there a number of schools and monasteries. Nennius states that his missions continued 40 years, and various miracles are attributed to him, particularly the expulsion of all venomous creatures from Ireland. He d. at an advanced age. His works, or at least those ascribed to him, were published, with remarks, by Sir James Ware, in 1658. There is a learned and valuable work on *The Life and Mission of St. Patrick*, recently published by J. H. Todd.

Patrick, (St.,) (Order of.) (*Her.*) An Irish order of knighthood, instituted by George III. in 1783, composed of the sovereign, princes of the blood-royal, a grand-master, and fifteen knights; the lord-lieutenant of Ireland for the time being is Grand-Master. The number of knights was increased to twenty-two in 1833.

Pat'ricktown, in *Maine*, a former township of Lincoln co.

Patrimo'nial, *a.* [Fr.] Belonging to a patrimony; inherited from ancestors; as, a *patrimonial* estate.

Patrimo'nially, *adv.* By inheritance.

Pat'rimony, *n.* [Fr. *patrimoine*; Lat. *patrimonium*, from *pater*, father.] A paternal inheritance; a right or estate inherited from one's ancestors. — A church estate or revenue; as, the *patrimony* of St. Peter.

Pat'riot, *n.* [Fr. *patriote*, from Lat. *patria*, one's fatherland or native country, from *pater*.] One who loves his country, and zealously and enthusiastically supports and defends it and its interests.

—*a.* Patriotic; devoted to the honor and welfare of one's own country.

Pat'riot, in *Indiana*, a post-village of Switzerland co., on the Ohio River, abt. 48 m. below Cincinnati, Ohio.

Patriot'ic, *a.* [Fr. *patriotique.*] Full of patriotism; actuated by the love of one's country; inspired by affection for one's country; directed to the public welfare; as, *patriotic* spirit.

Patriot'ically, *adv.* In a patriotic manner.

Pa'triotism, *n.* [Fr. *patriotisme.*] Love of one's country; the passion which aims to serve one's country.

Patris'tic, Patris'tical, *a.* [Fr. *patristique*, from Lat. *pater*, father.] Pertaining to the ancient fathers of the Christian church; as, *patristic* theology, *patristic* literature. See FATHERS (THE.)

Patroci'nio, a town of Brazil, abt. 80 m. N. of Araxas; *pop.* 1,500.

Patro'clus, one of the Grecian chiefs during the Trojan war, son of Menœtius, king of Opas, was slain by Hector, and avenged by his friend Achilles, *q. v.*

Patrol', *n.* [Fr. *patrouille*; Sp. *patrulla.*] (*Mil.*) A walking or marching round by a guard in the night, to watch and observe what passes, and to secure the peace and safety of a camp or other place. — The guard or persons who go the rounds for observation.

—*v. n.* [Fr. *patrouiller.*] (*Mil.*) To go the rounds on foot in camp or garrison; to march about and see what passes.

—*v. a.* To pass through; to go round, as a guard.

Pat'ron, *n.* [Fr.; Lat. *patronus*, from *pater*, a father.] One who countenances, supports, and protects, either a person or a work; one who specially countenauces and supports, or lends aid to advance. — A protector; a defender; an advocate.—One who has the gift and disposition of a benefice or a church-living. — A guardian saint.

(*Naut.*) A name given, in the Mediterraneau, to the master of a small vessel, or to the man who steers a ship's long-boat.

Pat'ronage, *n* [Fr.] Special countenance or support; favor or aid afforded to second the views of a person or to promote a design.

—Guardianship, as of a saint.

(*Canon Law.*) The right of presentation to a church or ecclesiastical benefice.

Pat'ronal, *a.* [Lat. *patronalis.*] Protectiug; favoring; supporting. (R.)

Pat'roness, *n.* A female who patronizes, or who favors, countenances, or supports. — A female guardian saint.

(*Canon Law.*) A female who has the right of presenting to a church living.

Patronliza'tion, *n.* Patronage. (R.)

Pat'ronlze, *v. a.* To support; to countenance; to favor: to defend, as a patron his client; to promote as an undertaking.

Pat'ronizer, *n.* One who patronizes, or who supports, countenances, or favors.

Pa'tronless, *a.* Without a patron.

Patronym'ic, Patronym'ical, *a.* [Gr. *patronimikós*, from *pater*, a father, and *onoma*, a name.] Derived as a name from a father or an ancestor.

Patronym'ic, *n.* [From Gr. *pater*, and *onoma*, a name.] A name which designates a persou in reference to some of his ancestors, either immediate or remote; as Pelides, *i. e.* Achilles, the son of Peleus; Æacides, *i. e.* Achilles, the grandson of Æacus. Such words do not occur in English, but they are common among the classic poets of antiquity.

Patroon', *n.* [Du., a patron.] A grantee of land to be settled under the origiual Dutch governments of New Jersey and New York.

Patsal'iga Creek, in *Georgia*, enters Flint River in Macon co.

Patsaliga River, in *Alabama*, enters the Conecuh River in Covington co.

Pattée, *n.* [Fr. *patte.*] (*Her.*) A cross with its arms expanding towards the ends, and flat at their outer edges. Called also Cros Fermée.

Pat'ten, *n.* [Norm. *patins*; Fr. *patin*, a clog, from Gr *patos*, a step.] The foot, stall, or base of a pillar or column. — A wooden shoe with an iron ring, worn to keep the shoes from the dirt or mud.

Pat'ten, in *Maine*, a post-township of Penobscot co.; *pop.* abt. 639.

Pat'ten-maker, *n.* One who makes pattens.

Pat'ter, *v. n.* [Fr. *patte*, a paw, a foot.] To strike, as falling drops of water or hail, with a quick succession of small sounds.

Pat'tern, *n.* [Fr. *patron*; Du. *patroon.*] An original or model proposed for imitation; the archetype; that which is to be copied or imitated; an exemplar. — A specimen: a sample: a part showing the figure or quality of the whole. — Figure or style of ornamental execution. — An instance; an example. — Anything cut out in paper to direct the cutting of cloth.

—*v. a.* To model; to make in imitation of anything.

—To match; to serve the purpose of a pattern.

Pat'ter's Hill, in *Pennsylvania*, a post-villago of Centre co.

Pat'terson, in *California.* See CHEROKEE.

Patterson, in *Missouri*, a village of Genevieve co., abt 60 m S. of St. Louis.

Patterson, in *New Jersey.* See PATERSON.

Patterson, in *New York*, a post-village and township of Putnam county, about 63 miles north-north-west of New York.

Patterson, in *Ohio*, a twp. of Darke co.; *pop.* aht. 1,100.

—A vill ot Delaware co., abt. 32 m. N.N.W. of Columbus.

—A village of Hardin co., abt. 68 m. S.W. of Sandusky.

Pat'terson, in *Pennsylvania*, a township of Beaver co.; *pop.* aht. 275.

—A post-village and township of Juniata co., ahout 50 m. N.W. of Harrisburg; *pop.* abt. 700.

—A village of Schuylkill co., abt. 68 m. N.E. of Harrisburg.

Pat'terson's Creek, in *W. Virginia*, rises in Hardy co., and flowing N.N.E., enters the North Brauch of the Potomac from Hampshire co.

Pat'tersonville, in *Louisiana*, a post-village of St. Mary's parish, abt. 15 m. S.E. of Franklin.

Pat'ti, ADELINA MARIA CLORINDA, prima donna, was born in Madrid, Spain, March 19, 1843. Her parents were both operatic singers. Her first teachers were her step-brother, Barili, and her brother-in-law, Maurice Strakosch; at 7 years of age she sang in a concert in New York city. She then made a tour of the British provinces with Strakosch and Ole Bull, and accompanied Gottschalk, the pianist, to the West Indies. In 1859 she made her début in Italian opera, as *Lucia*, at the Academy of Music, New York; in 1861 she appeared in London as *Amina* in *La Somnambula.* She afterward sang in all the great cities of Europe and North and South America. In 1868 she married the Marquis de Caux, from whom she was divorced in 1878; in 1886 she married Ernesto Nicolini, a tenor singer. During 1881–87 *P.* appeared in opera in the United States, and afterward in Mexico and South America. Her farewell tour in America was made in 1893. In 1894 she sang for the first time portions of Wagner's compositions. She built a theater at Craig-y-Nos, Wales, her favorite residence.

Pat'ti, (Gulf of,) a semicircular bay of Sicily, 20 m. across, bet. Cape Calava and the promontory of Milazzo.

Pat'ton, in *Pennsylvania*, a township of Alleghany county.

—A township of Centre co.

Pat'tonsburg, in *Missouri*, a post-village of Daviess co., aht. 50 m N.E. of St. Joseph.

Pat'tonsburg, in *Virginia*, a post-village of Botetourt co., abt. 180 m. W. of Richmond.

Pat'tonville, in *Ohio*, a village of Hocking co., abt. 38 m. E.N.E. of Chillicothe.

Pat'ty, *n.* [Fr. *paté.*] A little pie; a pasty.

Pat'ty-pan, *n.* A pan to bake patties in.

Pat'ulous, *a.* [From Lat. *pateo*, to be open.] Slightly spreading; expauded.

Patuurages, (*pa-tü-razh'.*) a town of Belgium, prov. of Hainault, 4 m. S.W. of Mons; *pop.* 7,000.

Pat'zum, or PATSUN, a town of Guatemala, abt. 40 m. W.N.W. of the town of Guatemala; *pop.* 6,000.

Pau, (*po,*) a town of France, dept. of Basse-Pyrénées, former capital of the old Kingdom of Béarn and Navarre, and the birthplace of Henry IV., (*q. v.* p. 1199,) is beautifully situated at the foot of the Pyrénées and is noted for the salubrity of its climate and freedom from winds, and is a favorite winter resort. *Av. Temp.* Nov., Dec., and Jan., 41°.

Pancartam'bo, a town of Pern, on river of same name.

Pancil'oquy, *n.* [Lat. *pauciloquium.*] The speaking or utterance of few words. (R.)

Pau'city, *n.* [Lat. *paucitas*, from *paucus*, little, few.] Fewness; smallness of number.—Smallness of quantity.

Paul, (*pole,*) *n.* [It. *paolo.*] An Italian silver coin current in the former Papal States; value, 10 cents.

Paul I., (POPE,) was the successor of Stephen, in 757. He engaged in dispute with Desiderius, king of the Longobards, but was taken under the protection of Pepin, king of the Franks. D. 768.

PAUL II. succeeded Pius II., 1464. He sought to organize a league of the Christian princes against the Turks, who at the time threatened to invade Italy, and also endeavored to establish peace among the different Italian States. He had a great dislike to profane learning, and shut up an academy which had been formed at Rome for the cultivation of Greek and Roman learning, many members of which were imprisoned and tortured. D. 1471.

PAUL III. His name was Alexander Farnese; and he was elected to the papal chair in succession to Clement VII., 1534. In his reign the Council of Trent was called. He established the Inquisition, confirmed the Society of Jesuits, condemned the interim of Charles V., and acted with rigor against Henry VIII. of England. D. 1550.

PAUL IV., *Giovanni Pietro Caraffa*, B. in Naples, 1476, succeeded Marcellus II., in 1555, and displayed an energy in his administration which had not been expected from his advanced age and previous studious habits. He established a censorship, and completed the organization of the Roman Inquisition; he took measures for the alleviation of the burdens of the poorer classes, and for the better administration of justice, not sparing even his own nephews, whom he banished from Rome on account of their corrupt conduct and profligate life. His foreign relations, too, involved him in much labor and perplexity. He was embroiled with the Emperor Ferdinand, with Philip II. of Spain, with Cosmo, grand-duke of Tuscany. Having condemned the principles of the Peace of Augsburg, he protested against its provisions. Under the weight of so many cares, his great age gave way, and he n. 1559.

PAUL V., *Camillo Borghese*, B. in Rome, 1552, was elected in 1605, after the death of Leo XI. He had a dispute with the senate of Venice, over which he pretended to have a right; but it was so firmly resisted that the pope excommunicated the doge and senate. He also raised forces against the republic; but by the interference of the emperor and other States, peace was restored in 1607. He embellished Rome with many excellent works of sculpture and painting, and an aqueduct. He was the founder of the Borghese family, one of the wealthiest in Italy. D 1621.

Paul I., emperor of Russia, B. 1754. He was the only son of Peter III. and his wife Catharine II. He lost his father when 8 years old, and was brought up by his mother with great harshness, and in entire seclusion from all public affairs. He married the Princess Mary of Würtemberg, in 1776, but did not escape from his solitude and rigorous treatment till, on the death of Catharine, in 1796, he was proclaimed emperor. The hopes excited by some liberal measures in the first days of his reign were soon extinguished; and with arbitrary edicts he made a complete revolution in the administration, interfering even with minute matters of dress and ceremony. He joined the second coalition against France; and Russian armies appeared in Italy under Suwarrof, in Switzerland, and in Holland. But he afterwards withdrew from it, and entered into friendly relations with Napoleon. His rule and all his conduct grew more and more intolerable, and seemed, in fact, that of a madman. At length a conspiracy was formed against him, with Count Pahlen at its head; and he was murdered in his bed-room, March 24, 1801.

Paul de Loan'da, (St.,) a seaport-town of S.W. Africa, cap. of the Portuguese dominions; Lat. 8° 48′ S., Lon. 13° 13′ E.

Paul'ding, in *Georgia*, a N.W. co.; *area*, about 300 sq. m. *Rivers.* Tallapoosa River, and Euharlee, Cedar, Pumpkinvine, and Sweetwater creeks. *Surface*, diversified, being traversed by a range of hills, called Dugdown Mountains; *soil*, in the valleys, generally fertile. *Min.* Limestone, freestone, and iron. *Cap.* Dallas. *Pop.* (1897) 12,640.

Paul'ding, in *Mississippi*, a post-village, capital of Jasper co., abt. 100 m. E. by S. of Jackson.

Paul'ding, in *Ohio*, a N.W. co., adjoining Indiana; *area*, about 414 sq. m. *Rivers.* Maumee, Auglaize, and Little Auglaize rivers, besides Blue and Crooked creeks. *Surface*, generally level and low; *soil*, very fertile, producing fruits and cereals in abundance. *Cap.* Paulding, abt. 30 m. E. by N. of Ft. Wayne.

Pau'llanists, *n. pl.* (*Eccl. Hist.*) See PAUL OF SAMOSATA.

Paulina, (*paw-le'na,*) in *New Jersey*, a post-village of Warren co., abt. 15 m N.E. of Belvidere.

Pauli'na, in *New York*, a village of Delaware co., abt. 160 m. N.W. of New York.

Pau'line, *a.* Relating to St. Paul.

Paulinskill', in *New Jersey*, a small river rising in Sussex co., and flows into the Delaware river from Warren co.

Paullin'ia, *n.* (*Bot.*) A genus of plants, order *Sapindaceæ.* The species *P. sorbilis* is the source of *Guarana*, or Brazilian cocoa. The dried seeds are deprived of their aril, and pounded and kneaded into a mass, which is afterwards made into cakes. These cakes constitute Guarana-bread, and is used precisely in the same manner as we use cocoa and chocolate. The beverage prepared from it is largely consumed in Brazil, on account of its nutritive qualities, and its stomachic, febrifugal, and aphrodisiac effects. It contains an alkaloid, to which the name *guaranine* has been given, but which appears to be identical with *caffeine*, the active principle of both tea and coffee.

Paul of Samosata, an heresiarch of the 3d century, who received his surname from the place of his birth, a city on the Euphrates, and became patriarch of Antioch in 260. Being entertained at the court of Zenobia, queen of Syria, he endeavored to gain her to the Christian faith, by explaining away its mysteries For this purpose, he held that Christ was a mere man, and that the Trinity consisted not of persons, but attributes. His errors were condemned by the council of Antioch, A. D. 270, and Paul was excommunicated. His disciples were called Paulinists. Lived in the 3d century.

Paul, (St.,) one of the apostles of Jesus Christ; originally called Saul; a Hebrew of the tribe of Benjamin, and a native of Tarsus, the capital of Cilicia, and was born at the beginning of the Christian æra His father was a Pharisee of the most rigid cast, and Paul himself, up to the time of his conversion, was a most bitter and intolerant persecutor of the Christian sect; even assisting at the martyrdom of St. Stephen; though his life, in other respects, was blameless, and he appears to have possessed a strong and vigorous mind and resolute will, that would carry out any duty he undertook with rigid probity and energy. The mode of his conversion is fully detailed in the New Testament. After his conversion, he was baptized at Damascus by Ananias; from whence, after a brief sojourn, he proceeded to Arabia, where he is supposed to have been fully instructed in the duties and doctrines of the new faith by special revelation, and where he received the Holy Ghost in a measure equal to the other apostles. The following chronological arrangement will enable the reader to connect the principal events in the life of St. Paul: A. D.

Paul's conversion, (*Acts* ix.,) 21st year of Tiberius, 36

He goes into Arabia, and returns to Damascus: (*Gal.* I. 17;) at the end of three years in all, he escapes from Damascus and goes to Jerusalem, (*Acts* ix. 23,) &c. 39

From Jerusalem Paul goes to Cilicia and Syria, (*Acts* Ix. 30; *Gal.* i. 21.) From Antioch he is sent with Barnabas to Jerusalem to carry alms, (*Acts* xi. 30). 45

The first missionary journey of Paul and Barnabas from Antioch, continued about two years, (*Acts* xiii., xiv.,) commencing 45

After spending several years in Antioch, (*Acts* xiv. 28,) Paul and Barnabas are sent a second time to Jerusalem, to consult the apostles respecting circumcision, &c., (*Acts* xv. 2) 52

The Jews expelled from Rome, A. D. 52-54; Paul, on his second missionary journey, (*Acts* xv. 40,) after passing through Asia Minor to Europe, finds Aquila and Priscilla at Corinth, (*Acts* xviii. 2)..... 54

Paul remains eighteen months in Corinth. (*Acts*

xviii. 11.) After being brought before Gallio, he departs for Jerusalem the fourth time, and then goes to Antioch, (*Acts* xviii. 22)..... 56
The apostle winters at Nicopolis, (*Tit.* iii. 12,) and then goes to Ephesus, (*Acts* xix. 1). 57
After a residence of two years or more at Ephesus, Paul departs for Macedonia, (*Acts* xx. 1).. 59
After wintering in Achaia, Paul goes the fifth time to Jerusalem, where he is imprisoned (*Acts* xxi., xxiii.). 60
The apostle remains two years in prison at Cesarea, and is then sent to Rome, where he arrives in the spring, after wintering in Malta, (*Acts* xxiv. 27; xxv., xxviii.). 63
The history in Acts concludes, and Paul is supposed by some to have been set at liberty..... 65
Probable martyrdom..... 66

Epistles of St. Paul. There are fourteen epistles in the New Testament usually ascribed to Paul, beginning with that to the Romans, and ending with that to the Hebrews. Of these the first thirteen have never been contested; as to the latter, many good men have doubted whether Paul was the author, although the current of criticism is in favor of this opinion. These epistles, in which the principles of Christianity are developed for all periods, characters, and circumstances, are among the most important of the primitive documents of the Christian religion, even apart from their inspired character; and although they seem to have been written without special premeditation, and have reference mostly to transient circumstances and temporary relations, yet they everywhere bear the stamp of the great and original mind of the apostle.

Paul, (St.,) a fine bay of the island of Malta, 8 m. from Valetta, supposed to be the scene of the shipwreck of St. Paul.

Paul, St. Vincent De.) See VINCENT DE PAUL, (ST.)

Paul'ding, JAMES KIRK, an American writer, b. in Pleasant Valley, Dutchess co., N. Y., 1779. After a course of self instruction, he removed to New York about the beginning of the 19th century, and in 1807 began a career of authorship in collaboration with his brother-in-law, Washington Irving. With this celebrated novelist he wrote a series of satirical papers, entitled *Salmagundi*. In 1813, he produced a burlesque poem, called *The Lay of a Scotch Fiddle*, and soon afterwards published a brilliant reply to some aspersions cast upon the American people in the "Quarterly Review." His next effort was an imitation of Swift, in a work entitled, *The Diverting History of John Bull and Brother Jonathan*, published in 1816. During the subsequent twenty years he continued to labor industriously with his pen, and in 1837 was appointed secretary of the navy, under the presidency of Van Buren; upon whose retirement, in 1841, *P.* resigned the post, and again took up his pen. His best works are: *Letters from the South; The Dutchman's Fireside; The Old Continental; John Bull in America; The New Pilgrim's Progress, a Satire; Tales of a Good Woman by a Doubtful Gentleman;* and *Westward Ho.* D. 1860.

Paul's, (St.,) the cathedral church of London, and, in point of size and architectural grandeur, second only to St. Peter's, Rome, is built on the site of the old cathedral destroyed during the great fire of 1666. It was commenced under the auspices of the architect Sir Christopher Wren, in 1675, and completed in 1710. It is built in the form of a Latin cross, with an additional arm or transept at the W., and to give breadth to the front, and has a semicircular projection at the E. end for the altar, and semicircular porticos at either end

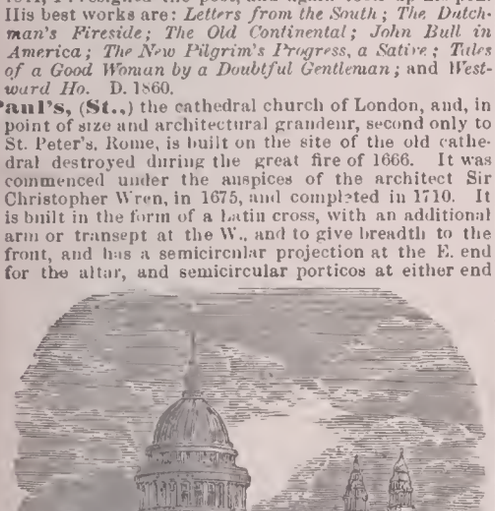


Fig. 2060. — ST PAUL'S CATHEDRAL.

of the transepts. It is 510 ft. in length, E. to W., the length of the cross, exclusive of the circular porticos, is 250 ft., the breadth of the W. façade with the turrets, 180 ft., and the height of the walls, 110 ft. An immense dome or cupola, rising over the centre, is surmounted by a lantern and gilded ball and cross, the latter being elevated 362 ft. above the level of the floor, and 370 ft. above the pavement of the churchyard. The two turrets or belfries, in the W. front, are each 222 ft. in height. The walls are decorated by two stories of coupled pilasters, of the Corinthian and Composite orders, and the whole building, built of Portland stone, presents an ensemble of striking magnificence. The whole cost of this structure was $3,739,770; a great part, however, of the internal decorations, as sketched by Sir C. Wren, having been left incomplete, a national fund, amounting to $200,000, was subscribed for this purpose in 1869–70, and the work completed. The old graveyard was turned into a pretty public park in 1879. Within the cathedral are interred, among other celebrities, the remains of Cornwallis, St. Vincent, Nelson, Wellington, Howard, Dr. Johnson, Sir Joshua Reynolds, and Napier.

Paulus Æmilius. See ÆMILIUS.

Paunch, (*pänch,*) *n.* [Fr. *panse;* It. *pancia;* Sp. *panza;* Lat. *pantex, panticis.*] In ruminating quadrupeds, the first and largest stomach, into which the food is received before rumination; the abdomen; the belly.

(*Naut.*) A thick mat or rope-yarn placed in the slings of a yard, or elsewhere, to prevent chafing; — also called *paunch-mat.*

—*v. a.* To pierce or rip the belly of: to eviscerate.

Pau'pac, in *Pennsylvania,* a township of Wayne co.; *pop.* abt. 700.

Pau'per, *n.* [Lat.] A poor person; particularly one so indigent as to depend on the town for maintenance.

Pau'perism, *n.* The state of being poor or destitute of the means of support; the state of indigent persons requiring support from the community.

Pau'perize, *v. a.* To reduce to pauperism.

Pausa'nias, a general of Cleombrotus, king of Sparta, who distinguished himself at the battle of Plataea, and was afterwards detected in a treasonable attempt to deliver his country to the Persians. Having fled to the temple of Minerva, the sanctity of which secured him from violence, the Greeks surrounded the building with heaps of stones, and thus starved him to death, B. C. 467.

Pausa'nias, a Greek traveller and geographer of the 2d century, whose *Itineracy of Greece* is still extant.

Pause, (*pâwz',*) *n.* [Fr.; Lat. *pausa;* Gr. *pausis,* from *pauo,* to bring to an end.] A cessation or intermission of action, of speaking, singing, playing, or the like. — A temporary stop or rest; a temporary cessation in reading. — A mark of cessation or intermission of the voice. — Cessation proceeding from doubt; suspense. — Break or paragraph in writing.

(*Mus.*) The prolongation of a note, or a rest beyond the regular time of the composition; — a character thus [𝄐] placed over a note or a rest, to show that it may be prolonged at the pleasure of the performer: a hold.

—*v. n.* To make a short stop; to cease to speak for a time; to delay; to desist or forbear for a time. — To deliberate; to demur; to hesitate; to be intermitted.

Paus'er, *n.* One who pauses.

Pausilip'po, a celebrated mountain of Italy, about 5 m. from Naples, near the Lake of Agnano. This mountain is pierced by a subterranean gallery nearly a mile in length, from 25 to 30 feet in width, and from 30 to 60 feet in height. The gallery is known as the Grotto of Pausilippo, and is used as a road through the mountain, being lighted by a number of lamps, which are kept lighted day and night. Above the entrance of the grotto is the pretended tomb of Virgil, and, in a church on the top of the mountain, that of the poet Sannazar.

Paus'ingly, *adv.* After a pause; by breaks.

Panway'gum, now Poy'gan, Lake, in *Wisconsin,* an expansion of Wolf river in Winnebago co. It covers an area of about 40 sq. m.

Pa'van, *n.* [Fr. *pavane;* It. and Sp. *pavana,* from Pavia or Padu, where it is said to originate.] A grave and stately dance formerly practised in Italy, France, Spain, and England.

Pave, *v. a.* [Fr. *paver,* from Lat. *pavio;* Gr. *paio,* to strike.] To make into a hard, level surface, by beating, treading, or ramming down small stones, earth, lime, &c.; to floor with brick, stone, or other solid material.

Pave'ment, *n.* [Fr.; Lat. *pavimentum.*] A floor or covering of brick consisting of brick, stone, or other solid material.

Pav'er, *n.* One who paves or lays stones for a floor, or whose occupation is to pave; a pavier.

Pavesade', *n.* [Fr. *pavois.*] Canvas extended along the side of a vessel in an engagement, to prevent the enemy from observing the operations on board.

Pa'via, (anc. *Ticinum,*) a city of N. Italy, cap. of a prov. of same name, on the Ticino, 19 m. S. of Milan; Lat. 45° 11′ N., Lon. 9° 10′ E. *P.* possesses numerous edifices of historical and artistical interest. In the cathedral, commenced in 1484, but never finished, are the ashes of St. Augustine, in a sarcophagus ornamented with 50 *bassi-rilievi,* 95 statues, and numerous grotesques. The Certosa of *P.,* the most splendid monastery in the world, lies 4 miles N. of the city. It was founded in 1396, contains many beautiful paintings, and abounds in the richest ornamentation. The university of *P.* is said to have been founded by Charlemagne in 774, and was one of the most famous seats of learning during the Middle Ages. It consists of numerous colleges, and attached to it are a library of 120,000 volumes, a numismatic collection, anatomical, natural history, and other museums, a botanic garden, a school of the fine-arts, &c. The university is attended by about 1,600 students. It has numbered among its professors Alciati, Fidelfo, Spallanzani, Volta, Scarpa, Foscolo, and Monti. *Manuf.* Silk. Here, Feb. 24, 1525, took place the *Battle of Pavia* (sometimes called the second battle of Marignano), in which the Imperialists, under Lanney, defeated the French, and took François I. prisoner. *Pop.* 28,670.

Pavier, (*pav'yur,*) *n.* A paver.

Pavil'ion, *n.* [Fr. *pavillon;* Lat. *papilio, papilionis,* a butterfly.] A tent.

(*Arch.*) A portion of a building, under one roof, of a tent-like form, with the slope of the roof either straight or curved. This form is much used in France. The higher parts of the new buildings at the Louvre are good examples of pavilions.

(*Her.*) A covering like a tent, investing the armory of a sovereign.

(*Gems.*) The under side and corner of a brilliant, between the girdle and the collet.

P. of the Ear. (*Anat.*) See EAR.

—*v. a.* To furnish with pavilions or tents. — To shelter with a tent.

Pavil'ion, in *Illinois,* a post-village of Kendall co., abt. 50 m. W.S.W. of Chicago.

Pavilion, in *Michigan,* a post-township of Kalamazoo co.

Pavilion, in *New York,* a post-village and township of Genesee county, about 53 miles south-east of the city of Buffalo.

Pav'ing, *n.* The act of laying a pavement. — Pavement; a floor of stone or brick.

Pav'ior, *n.* A person who paves; a pavier.

Pa'vo, *n.* [Lat., a peacock.] (*Zoöl.*) See PEACOCK.

(*Astron.*) A southern constellation between Sagittarius and the S. pole.

Pavo'nia, *n.* (*Zoöl.*) A genus of *Alcyonaria,* containing many foliated species of great beauty.

Pavoni'næ, *n. pl.* [Lat. *pavo,* a peacock.] (*Zoöl.*) A name for PHASIANIDÆ, *q. v.*

Pav'onine, *a.* [Lat. *pavoninus.*] Iridescent; resembling in colors the tail of a peacock.

—*n.* Peacock-tail tarnish.

Paw, *n.* [W. *pawen,* a paw; Fr. *patte;* Lat. *pes, pedis;* Gr. *pous, podos.*] The foot of beasts of prey having claws. — The hand, in contempt.

—*v. n.* To draw the fore-foot along the ground; to scrape with the forefoot, as a horse.

—*v. a.* To scrape with the fore-foot. — To handle roughly; to scratch. — To fawn upon; to flatter.

Pawcatuck', in *Rhode Island,* a river formed in Washington co., by the union of Wood and Charles rivers, and flowing S. into Long Island Sound.

—A village of Washington co., abt. 28 m. W.S.W. of Newport.

Pawed, (*pawd,*) *a.* Having paws; broad-footed.

Paw'ing, *n.* Scraping with the fore-feet; the act of one who paws.

Pawk, *n.* A small lobster.

Pawk'y, *a.* [A. S *pæcan,* to deceive.] Cunning; artful.

Pawl, *n.* [W.; Lat. *palus,* a poll or stake.] (*Naut.*) A piece which falls between the teeth of a ratchet-wheel; a click or detent; a short bar of iron or wood which prevents a windlass or a capstan from recoiling.

Paw'let, in *Vermont,* a post-village and township of Rutland co., abt. 77 m. S.W. by S. of Montpelier; total *pop.* abt. 1,900.

Paw'let River, rises in Bennington co., Vermont, and flowing N. and N.W. into New York, joins Wood Creek in Washington co.

Paw'ling, in *New York,* a post-village and township of Dutchess co., abt. 67 m. N.N.E. of New York city.

Pawn, *n.* [Lat. *pignus;* Ger. *pfand.*] Something given or deposited as security for the payment of money borrowed; a pledge for the fulfilment of a promise. — A common man at chess.

—*v. a.* To give or deposit in pledge, or as security for the payment of money borrowed; to pledge for the fulfilment of a promise.

Pawn'able, *a.* Capable of being pawned.

Pawn broker, *n.* One who lends money on pledge, or the deposit of goods.

Pawn'ee, in *Illinois,* a post-village of Sangamon co., abt. 14 m. S. of Springfield.

Pawn'ee, in *Nebraska,* a S.E. co., adjoining Kansas; *area,* abt. 432 sq. m. *Rivers.* Nemaha River and its South Fork, besides many smaller streams. *Surface,* diversified; *soil,* generally fertile along the watercourses. *Minerals.* Coal and limestone. *Capital,* Pawnee City.

—A village of Cass co., on the Platte River, abt. 10 m. above its mouth.

Paw'nee City, in *Nebraska,* a post-village, cap. of Pawnee co., abt. 38 m. S.W. of Brownville.

Paw'nees, a tribe of Indians inhabiting the country of the river Platte, and remarkable for endurance, daring, craft, and skill in horse-stealing. They are abt 4,000.

Pawn'er, Pawn'or, *n.* One who pawns, or pledges anything as security for the payment of borrowed money.

Paw'paw, *n.* (*Bot.*) The *Caricapapaya.* See CARICA.

Paw Paw, in *Illinois,* a township of De Kalb co.; *pop.* abt. 2,000.

Paw Paw, in *Indiana,* a post-village of Miami co., abt. 13 m. N.E. of Peru.

Paw Paw, in *Michigan,* a small river rising in Van Buren co., and flowing W.S.W. into the St. Joseph River, near its mouth. — A post-village, cap. of Van Buren co., on the above river, abt. 70 m. W.S.W. of Lansing. It is situated in a fine farming region, and has several extensive manufactories. *Pop.* abt. 1,600.

Paw Paw, in *West Virginia,* a post-town of Morgan co., on the B. & O. R.R., about 48 m. S. E. of Wheeling.

Paw Paw Grove, in *Illinois,* a post-village of Lee co.; also called PAW-PAW.

Pawtuck'et, in *Massachusetts*, a township of Bristol co.

Pawtuck'et, in *Rhode Island*, a city of Providence co., on the Pawtucket River, abt. 4 m above Providence. The river here has a fall of 50 ft, affording immense hydraulic power to the town, which ranks among the leading manufacturing places of New England. *Manuf.* Cotton and woollen goods, machinery, cabinet-ware, carriages, &c. Here was established, in 1790, the first American cloth factory moved by water.

Pawtuck'et River, rises in Worcester co., Massachusetts, and flowing n general S. and S S.E. course into Rhode Island, enters Narragansett Bay between Kent and Bristol cos. Below the town of Pawtucket it receives the name of SEEKONK RIVER, while above it is often called Blackstone River.

Pawtux'et, in *Rhode Island*, a river flowing into Narragansett Bay between Kent and Providence cos.

—A post-village of Providence co.

Pawtux'et River, in *Maryland*, rises in Montgomery co., and flowing a general S.S.E. course, enters Chesapeake Bay between Calvert and St. Mary's cos.; *length*, abt. 90 m. Navigable 45 or 50 m.

Pax, *n.* [Lat. *peace.*] (*Archæol.*) A small plate of gold or silver, or copper gilt enamelled, or else of carved wood or ivory, overlaid with metal. It is a sacred utensil, employed in some of the solemn services of the Roman Catholic Church in the ceremony of giving the so-called "kiss of peace" during the mass.

Pax'ilose, *a.* [Lat. *paxillus*, from Gr. *passalos*, peg.] (*Bot.*) Formed like a little stake.

Pax'o, (anc. *Paxos.*) the smallest of the seven principal Ionian Islands, near the entrance of the Adriatic, 10 m. S E. of Corfu; Lat. of its N. extremity 39° 14′ N., Lon. 20° 9′ E. *Ext.*, 5 m. long from N. to S. and 2 m. broad. The surface is rocky and the soil poor. The climate is mild. *Prod.* Principally oil. *Cap.* GAVO, on the E. of the island. *Pop.* 6,000.

Pax'ton, in *Illinois*, a post-village, cap. of Ford co., abt. 103 m S. by W. of Chicago.

Pax'ton, in *Massachusetts*, a post-vill. and twp. of Worcester co., nbt. 50 m. W. of Boston.

Pax'ton, in *Ohio*, a twp. of Ross co.

Pay, *v. a.* (*imp.* and *pp.* PAID for PAYED.) [Fr. *payer*; Sp. *pagar*; It. *pagare.*] To satisfy, as n claim or claims resting upon a covenant or contract; to discharge a debt or money obligation; to give the equivalent for; to compensate; to reward; to liquidate that which is owing to another. — To retaliate or take revenge upon; to requite with what is deserved; in an ill sense, to punish. — To discharge, as a debt or obligation of moral, social, or religious duty; to make due return for; to render duly; to fulfil or perform, as what is promised or expected.

—[Fr. *poisser*, from *poi*, pitch.] (*Naut.*) To cover or smear over with tar or pitch. or other composition; to bream; as, to *pay* the seams of a ship.

To pay off, to settle the hire, wages, or compensation of, and discharge; as, to *pay off* a ship's crew. — To retort or retaliate upon; to requite; to take punitive revenge for. — *To pay on*, to lay on with successive applications, as blows. — *To pay out.* (*Naut.*) To slacken or cause to uncoil and run out; as, to *pay out* sixteen fathoms of cable.

—*v. n.* To make recompense; to render compensation or requital; to be remunerative or profitable; to be worth the cost of time, trouble, or money which it requires; as, the undertaking *pays* well so far.

To pay for, to atone or make amends for. — To render an equivalent for; to be mulcted in the cost of.

"A man ... very punctual in *paying for* what he buys."—*Law.*

To pay off. (*Naut.*) To sag or fall to leeward; to lose headway; — said of a ship. — *To pay on*, to beat with successive blows. (Used colloquially.)

—*n.* An equivalent rendered for money due, goods purchased, or services performed; salary, stipend, or wages returned for services; hire; reward; compensation; recompense; as, the men receive their *pay* monthly.

Pay'able, *a.* [Fr.] That may or ought to be paid; that is justly due or legally enforceable; that has power to admit or demand payment: as, bills *payable.*

"Thanks are a tribute *payable* by the poorest."—*South.*

Pay'-bill, Pay'-list, Pay'-roll, *n.* A statement of sums of money placed against the names in a list or roll of persons entitled to payment, as soldiers, sailors, laborers, &c.

Pay'-day, *n.* The day on which wages are paid, or debts discharged; — hence, a day of reckoning or retribution.

Payee', *n.* The person entitled to receive payment of n bill drawn in his favor; — opposed to *payor.*

Pay'er, *n.* One who pays; one on whom n bill of exchange is drawn, and by whom the money is paid.

Pay'master, *n.* One from whom wages or compensation is received; an officer in the army or navy whose duty is to pay the officers and men their wages.

Pay'ment, *n.* [Fr. *paiement.*] Act of paying or making compensation. — The thing given in discharge of a debt, or fulfilment of a promise or obligation; reward; recompense; requital.

Payne, JOHN HOWARD, an American actor and dramatist, b. in New York, 1792. From childhood he was n prodigy. In his 13th year he was a writer for the press, and editor of the *Thespian Mirror.* At 16 he appeared as *Norval* in *Douglass*, at the Park Theatre, New York. At Boston he appeared, among other characters, in those of *Hastings*, *Rolla*, *Edgar*, and *Hamlet.* In 1812 he went to England, and made his *début* at Drury Lane, in his 21st year. In 1826 he edited a London dramatic paper called *The Opera Glass.* A great number of dramas were prepared by him when on the London stage, chiefly adaptations from the French, and in some of them Charles Kemble appeared. The air of *Home, Sweet Home* first appeared in Payne's *Clari*, the maid of Milan. In his later years he occupied the post of consul of the United States at Tunis, where he n., 1852. His remains were removed to the U. S. in 1883, and interred in Oak Hill Cemetery, near Washington, D. C.

Payne's Point, in *Illinois*, a village of Ogle co.

Paynes'ville, in *Minn.*, a p. v. of Stearns co., abt. 32 m. W.S.W. of St. Cloud.—In *Mo.*, a p. v. of Pike co., abt. 92 m. E.N.E. of Jefferson City.

Pay'nim, *n.* An old term for a pagan; an infidel.

Payn'tze, *v. a.* [From Mr. *Payne*, inventor of a process of kyanizing wood, &c.] Same as KYANIZE, *q. v.*

Pay'-office, *n.* An office where payment is made.

Pay'or, *n.* (*Law.*) The payer of a note or bill of exchange, as distinguished from the *payee.*

Pay'-roll, *n.* See PAY-BILL.

Pay'son, in *Illinois*, a post-village and township of Adams co., abt. 92 m. W. of Springfield; *total pop.* abt. 4,000.

Pay'son, in *Utah*, a city of Utah co., about 18 m. S. by W. of Provo City.

Payta, (*pi'ta,*) a town of Peru, on Sechura Bay; Lat. 5° 5′ 30″ S., Lon. 81° 8′ 30″ W. It has an extensive commerce in cotton, bark, hides, drugs, &c. *Pop.* 6,000.

Pazaree', *n.* (*Naut.*) A rope attached to the clew of the foresail, and run through a block on the swinging-boom, used for guying the clews out when before the wind.

P. C. Abbreviation of privy councillor, parish-curate, or police-constable.

Pd. A contracted form of *paid.*

Pea, (*pē,*) *n* [A. S. *pisa*; W. *pys*, pease; Fr. *pois*, a pea; Lat. *pisum* = Gr. *pison.*] The common name of leguminous plants of the genera LATHYRUS and PISUM, *q. v.*

(NOTE. In the plural, we write *peas* for two or more individual seeds, but *pease* for an indefinite number or quantity in bulk.)

Pea'body, GEORGE, an American philanthropist, b. in Danvers, Mass., 1795. He was descended from an English family, and his parents being poor, George received but a scanty education, becoming grocer's clerk at the age of 11. Displaying excellent business qualities, he became chief clerk, and, afterwards, partner with his uncle John Peabody in Georgetown, D. C., in 1812. Not satisfied, however, with their business relations, George left his uncle and joined partnership with Mr. Elisha Riggs in the dry-goods business in Baltimore, in 1815. His business increasing, he found occasion to make frequent visits to England, where he finally settled in 1829, having previously become the head of the firm by the retirement of Mr. Riggs. In 1837 he withdrew from the firm, and established himself as banker in London, where he amassed that colossal fortune which enabled

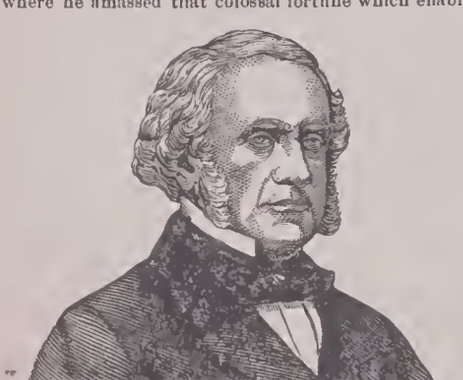


Fig. 2061. — PEABODY.

him to fully carry out those benevolent ideas, which won the admiration of the world. He was particularly devoted to promoting education. Commencing with his native place of Danvers, Mass., where he bestowed $270,000 for the cause of education, his purse was always open to assist the good work, not only in the land of his birth, but throughout the world. To the city of Baltimore he donated for this purpose the sum of $1,400,000; to the Board of Trustees for the promotion of education in the South, he gave $3,500,000; besides other munificent donations throughout the country. In 1862 he established a Board of Trustees for the amelioration of the condition of the poor of London, to which he contributed at various times the amount of $2,500,000, having the satisfaction of seeing his plans in successful operation before his death. Mr. *P.*, the most eminent philanthropist of modern times, D. in London, Nov., 1869. After his decease, his remains were, by command of Queen Victoria, temporarily interred in the royal vault in Westminster Abbey, and, subsequently, conveyed with state by the British ship of war "Monarch," escorted by an American war-steamer, to this country, to be finally deposited, amid imposing manifestations of international respect, at Danvers, (now Peabody,) Mass., in March, 1870.

Pea'-bug, Pea'-weevil, *n.* (*Zoöl.*) The *Bruchus pisi.* See BRUCHUS.

Peace, (*pēs.*) *n.* [A. S. *pais*; Fr. *paix*; It. *pace*, from Lat. *pax, pacis.*] A state of quiet or tranquillity; freedom from agitation, perturbation, or turmoil, applicable to society, to individuals, or to the temper of the mind; calm; repose. — Freedom from war with a foreign nation; freedom from intestine commotion or civil war; exemption from, or cessation of, hostilities.

"There never was a good war, or a bad *peace.*"—*Franklin.*

—Public tranquillity; freedom from private quarrels, suits, or disturbance; as, to keep or break the *peace.* — Freedom from agitation or disturbance by the passions or emotions, as from fear, terror, anger, anxiety, and the like; quietness of mind; calmness; repose of conscience. — A state of reconciliation between parties at variance; harmony; concord; absence of discordant elements.

—*interj.* Silence; hist: be quiet; — used as an exclamation to command peace or order.

"I pry thee, *peace.*"—*Dryden.*

At peace, in a state of peace or tranquillity; not engaged in war, contention, disputation, intestine commotion, &c.; as, to be *at peace* with foreign countries. — *Justice of the peace*, a magistrate, or subordinate judicial functionary. — *To be sworn of the peace*, to be sworn in as a public officer. — *To hold one's peace*, to keep silence; to suppress one's thoughts.

"Let him now speak, or else hereafter forever *hold his peace.*" *Book Com. Prayer.*

To make one's peace, to become reconciled; to be restored to favor.

"I will *make your peace* with him."—*Shaks.*

To make peace, to bring about a cessation or termination of hostilities; to put an end to war, animosity, &c.

"Let him *make peace* with me."—*Is.* xxvii. 5.

Peace'able, *a.* [Fr. *paisible.*] Disposed to peace; as, the men are *peaceable.*

—Pacific: free from war, tumult, or public commotion; without private feuds or quarrels: not engaged in hostilities with others — Peaceful: tranquil; quiet; undisturbed; serene; calm; without excitement; as, "a happy and *peaceable* death." — *Hale.*

Peace'ableness, *n.* State or quality of being peaceable; disposition to peace; quietness.

Peace'ably, *adv.* In a peaceable manner: without war, tumult, commotion, or disturbance; quietly; without discord, agitation, or interruption.

Peace Dale, in *Rhode Island*, a post-village of Washington county, abt. 30 m. S. by W. of Providence.

Peace'ful, *a.* Full of peace; quiet; undisturbed; not in a state of war, commotion, or disturbance; possessing or enjoying tranquillity. — Pacific; serene; calm; mild; without agitation or excitement.

Peace'fully, *adv.* Without war, disturbance, or anxiety; quietly; mildly; gently.

Peace'fulness, *n.* State or quality of being peaceful; peaceableness; quiet; tranquillity; freedom from war, tumult, discord, or disturbance; freedom from mental agitation; as, *peacefulness* of conscience.

Peace'less, *a.* Without peace; perturbed. (R.)

Peace'-maker, *n.* One who makes or promotes peace by reconciling persons or parties that are at varinnce.

Peace'-offering, *n.* Among the Jews, a voluntary offering made to God, in thankfulness for his benefits, or to ask favors from him, or merely to satisfy the desires of a devout mind, and pay him honor; — hence, satisfaction offered to a superior, to seek mitigation of anger.

Peace'-officer, *n.* A civil officer empowered to preserve the public peace, as a sheriff, constable, policeman.

Peace'-parted, *a.* Dismissed from the world in peace: as, "*peace-parted* souls."

Peace River, rises in British Columbia, and flowing a general E course through the Rocky Mountains, enters Lake Athabasca at its W. extremity.

Peach, (*pēch,*) *n.* [Fr. *pêche*; Lat. *persicum*, from *Persicus*, belonging to Persia.] (*Bot. and Hortic.*) The delicious fruit of *Amygdalus Persica*, the peach-tree, gen. AMYGDALUS, *q. v.* It is distinguished by oblongo-lanceolate cerrulate leaves; solitary flowers, of a delicate pink color, appearing before the leaves; and the sarcocarp of the drupe succulent and tender, not fibrous as in the almond. Many varieties are cultivated in the United States, and form an important branch of commerce, chiefly in Pennsylvania, Maryland, New Jersey, Delaware, W. New York, and S Illinois, which possess extensive orchards, sometimes containing no less than 20,000 trees. Much of the fruit is used for making a spirituous liquor called *Peach Brandy*; much of it is dried in ovens, or in drying-houses furnished with stoves, or, in the more Southern States, in the sun, each fruit being divided into two parts, and the stone taken out, and when dried it is sent to market to be used for pies; the refuse of the orchards is used for feeding swine. — The *P.* is a very pleasant and refreshing fruit, and in a stewed form is used in slight cases of constipation. The leaves, when fresh, have the smell and taste of bitter almonds; and by bruising them, mixing the pulp with water, and distilling, the *Peach-water* is obtained, which is so much esteemed by many for flavoring articles of cookery.

Peach, *v. a.* To inform against; to impeach of a crime or misdemeanor; — with *on* or *against*: as, to *peach on* an accomplice.

Peach'am, in *Vermont*, a post-village and township of Caledonia co., abt. 20 m. E by N. of Montpelier; *pop.* abt. 1,247.

Peach Bottom, in *Pennsylvania*, a post-township of York co.; *pop.* abt. 2,250.

Peach'-color, *n.* The pale red color of the peach-blossom.

Peach'-colored, (*-kŭl-erd,*) *a.* Of the color of a peach-blossom; of a pale red color; as, *peach-colored* satin.

Peach Creek, in *Texas*, enters the San Jacinto River from Harris co.

—Enters the St. Bernard River from Matagorda co.

—Enters the Guadalupe River from Gonzales co.

Pea'-chick, *n.* The young of the peacock.
Peach-tree Borer, *n.* (*Zoöl.*) See TROCHILIUM.
Peach'y, *a.* Resembling, containing, or consisting of, peaches.
Peacock, (*pē'kok,*) *n.* [*Pea*, in this word = A. S. *pawa*; Gsr. *pfau*; Icel. *pá*; L. Lat. *pavo*; Fr. *paon* = Gr. *taōs.*] (*Zoöl.*) This splendid bird, comprising the genus *Picus*, family of the *Phasianidæ*, is a native of India. It is said to have been brought to Palestine by the fleets of Solomon, and to Europe at a very early period. It is now dispersed in a domesticated state all over Europe and the United States. Its head is adorned with an aigrette or crest of the most exquisite green and gold; its body is brilliantly variegated; but its distinguishing feature is its train, which rises just above the tail, and, when erected, forms a circular fan of the most resplendent hues; the two middle feathers are sometimes four feet and a half long, the others gradually diminishing on each side, all spangled with eyes, which, when pleased or in sight of his females, he displays in all its loveliness, strutting slowly, and frequently turning round, as if conscious of his elegant dress, and desirous of exhibiting himself to the greatest advantage. The plumes are shed every year, and the bird, while moulting, keeps

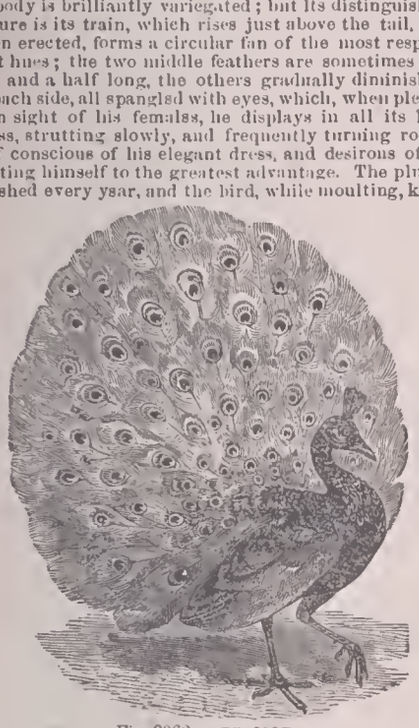


Fig. 2062. — PEACOCK.

out of sight, as if ashamed. The *P.*, in former times, has been served up at baronial feasts, but its flesh was never esteemed; and it more frequently was exhibited as an article of show or veneration; for sometimes, with the Holy Virgin, vows were addressed to it by chivalrous knights. Like other birds of the poultry kind, it feeds chiefly on corn, preferring barley; but at other times it seeks insects and worms, and is very mischievous, if it can find any admission into a garden. It always roosts high, and is a proud and quarrelsome bird. The female lays five or six eggs, which she hatches in twenty-seven to thirty days. The plumage is in its perfect state in the third year. It lives 25 years. The harsh cry of the *P.* seems to have been imitated in its Greek name *taōs*, and probably has given rise also to the Latin *pavo*, and the English *pea*-cock.
Pea'-fowl, *n.* The peacock or pea-hen.
Pe'age, *n.* Same as PEDAGE, *q. v.*
Pea'-hen, *n.* The hen or female of the peacock.
Pea'-jacket, *n.* A thick woollen overcoat worn by seamen, &c.
Peak, (*peek,*) *n.* [A. S. *peac*; Fr. *pique.*] To point; the end of anything that terminates in a point; especially, the top of a hill or mountain culminating in a point; as, the *peak* of Teneriffe.
(*Naut.*) The upper, outer corner of a sail, which is extended by a gaff or yard; also, the extremity of the gaff or yard.
—*v. n.* To make a mean figure; to sneak.
—*v. a.* (*imp.* and *pp* PEAKED (*peekt.*) (*Naut.*) To raise to a vertical position or thereabouts; as, to *peak* oars.
Peaked, (*peekt,*) *a.* Pointed; ending in a point.
Peak'ing, *a.* Mean; sneaking; paltry. (Vulgar.)
Peak'ish, *a.* Having a peak or peaks; acuminated.—Having weazened or angular features.
Peal, (*peel,*) *n.* A loud sound; usually, a succession of loud, reverberating sounds, as of thunder, bells, &c.

"the deep thunder, *peal* on *peal*, afar." — *Byron.*

—A set of bells harmonically attuned; also, the changes rung upon such bells.
—*v. n.* [Icel. *bialla*, a bell; *oyl*, or *bylia*, to resound. See BELL.] To utter loud and solemn sounds; to resound.
—*v. a.* To assail with noise.

"Nor was his ear less *peal'd* with noises." — *Milton.*

—To celebrate with resonant sounds; to cause to ring, reverberate, or sound.
Pean'ism, *n.* [From Gr. *paianzein*, to chant the pæan.] Songs of praise; shouts of acclaim or triumph.
Pea'-nut, *n.* Same as EARTH-NUT, *q. v.*
Pea'-ore, *n.* (*Min.*) Argillaceous oxide of iron, occurring in pea-like grains.
Pea'pack, in *New Jersey*, a post-village of Somerset co., abt. 11 m. N.N.W. of Somerville.
Pear, (*pêr,*) *n.* [A. S. *pera*; Fr. *poire*; Lat. *pirum.*] (*Bot.*) See PYRUS.
Pear'-gage, *n.* An instrument for measuring the exhaustion of a receiver
Pea Ridge, in *Arkansas*, a post-village of Benton co., abt. 8 m. E. of Bentonville. Here, on March 6, 7, and 8, 1862, occurred one of the most desperate battles of the late civil war. Gen. Samuel B. Curtis, in command of abt. 11,000 Union troops, with 49 pieces of artillery, was attacked by a superior force of Confederates (said to number 20,000) under Gen. Earl Van Dorn, and a series of obstinate and sanguinary conflicts ensued; which lasting through three days, often favoring each army with temporary success, finally ended with the withdrawal of Van Dorn. The total Union loss was 1,351; that of the Confederates, though never officially reported, is supposed to have been more severe.
Pea Ridge, in *Illinois*, a township of Brown co.; *pop.* abt. 1,700.
Pea Ridge, in *Tennessee*, a village of Montgomery co., abt. 52 m. N.W. of Nashville.
Pea'-rifle, *n.* A small-bore rifle, carrying a bullet the size of a pea.
Pearl, (*pêrl,*) *n.* [Fr. *perle*; It. and Sp. *perla*; A. S. *pærl.*] A substance formed by certain bivalve molluscs allied to the oyster, and consisting of alternate concentric layers of membrane and carbonate of lime. The true pearl-oyster, *Avicula margaritifera*, has an equivalve shell, nearly semicircular in form, greenish in appearance without, and ornamented with the most beautiful nacre within. The shell is furnished with a rectilinear hinge, frequently extending into rings by its extremities, and furnished with narrow elongated ligaments, and occasionally with small notches near the mouth of the animal. In the interior side there is a notch for the byssus, a little beneath the angle of the mouth. The pearl oysters live in the warm seas of the E. and W. Indies, and they are found in large clusters, hanging on to rocks, and other substances at the greatest depths. The places which they inhabit are termed "pearl-banks," and the most famous of these are off the W. coast of Ceylon, at Tuticorem on the Coromandel coast, at the Bahrein Islands in the Gulf of Persia, at the Sooloo Islands, off the coast of Algiers, off St. Margareta in the W. Indies, and in the Bay of Panama. They have also been found off the Scotch coast, and indeed in various other places, but not in numbers sufficient to be noted, or to cause the fishery to be prosecuted. It used to be a popular superstition, before science was brought into play to destroy the illusion, that pearls are produced by the oyster swallowing the dew early in the morning, and that this dew was then converted by the marine animal into pearls. According to Dr. Baird, it appears, however, that the ultimate cause of the oyster forming this beautiful substance is to get rid of a source of irritation. "Sometimes," he observes, "this happens from a grain of sand, or some such small foreign body, which has insinuated itself between the mantle of the oyster and the shell, and which, proving a great annoyance, the animal covers with a smooth coat of membrane, over which it spreads a layer of nacre. At other times, it is caused by some enemy of the inhabitant of the shell perforating it from the outside to get within reach of its prey. With a plug of this same matter, the oyster immediately fills up the opening made, and shutting out the intruder, balks it of its nefarious design. In both these cases we find the pearl usually adhering to the internal surface of the shell. The best, however, and the most valuable specimens, are generally found in the body itself of the animal; and the source of irritation is here proved, according to the observations of Everard Home, who has paid great attention to this subject, to be the ovum or egg of the animal, which, instead of becoming ripe, proves abortive, and is not thrown out by the mother along with the others, but remains behind in the capsule in which the ova are generally contained. This capsule being still supplied with blood-vessels from the parent animal, goes on increasing in size for another year, and then receives a covering of nacre, the same as the animal spreads over the internal surface of the shell." The pearls found in the substance of the animal are generally round, but they are occasionally pear-shaped, in consequence of the pedicle by which the egg is attached being covered by the nacre as well as the egg itself. The pearl-fishery forms a source of considerable commercial speculation. As the Ceylon pearls are the most esteemed in England, a description of the fishery carried on in the Bay of Condatchy will be given. The banks here extend several miles along the coast, from Manaar southwards, off Arippo, Condatchy, and Pomparipoo, the principal bank being opposite Condatchy, lying some 20 m. out to sea. After the banks have been surveyed, and a report made to government on the subject, they are sold for the season by auction to the highest bidder. The banks themselves are divided into five portions, which are fished annually in succession, in order that the oysters may have time to arrive at maturity, which they do in about six or seven years. The season for fishing commences in February, and ends about the beginning of April.
—In a figurative sense, something very estimable or precious; a gem; a jewel.

"Neither cast ye your *pearls* before swine." — *Matt.* vii. 6.

—Something round and pellucid, as a globule of water;—used in a poetical sense.

"Dropping liquid *pearl* before the queen." — *Drayton.*

—Cataract of the eye. See CATARACT.
(*Printing.*) A size of printing-type between Agate and Diamond.

(NOTE. This line represents the type called *Pearl.*)

Artificial pearls, small globules of thin glass, made to present the lustre and appearance of pearls.
—*v. a.* To set or embellish with pearls; as, "*pearled* wrists." (*Milton.*) — To make to resemble pearls in form and appearance; as, to *pearl* barley.
—*v. n.* To resemble pearls.
—*a.* Relating to, or made of pearl, or mother-of-pearl; as, a *pearl* necklace.
Pearlaceous, (*-ā'shus,*) *a.* Like mother-of-pearl.
Pearl'-ash, *n.* Purified potash.
Pearl'-barley, *n.* A variety of pot-barley, produced by grinding off the husks.
Pearl'-button, *n.* A button manufactured of mother-of-pearl.
Pearl'-diver, *n.* A diver for pearls.
Pearl'-edge, (*-ĕj,*) *n.* A selvage on some kinds of ribbon and thread.
Pearl'-eyed, (*-īd,*) *a.* Having cataract in the eye or eyes.
Pearl'iness, *n.* State or quality of being pearly.
Pearl'ins, Pearl'ings, *n. pl.* A kind of silken or thread lace.
Pearl Islands, a group belonging to the U. States of Colombia, in the Bay of Panama, abt. 60 m. S.E. of the city of Panama. They comprise the Islands of Del Rey, San Jose, and Pedro Gonzales, besides several small islets. Pearl fishery is carried on here; hence their name.
Pearl Lagoon, an inlet of the Caribbean Sea, in the Mosquito Territory, about 30 m. N. of Bluefields. PEARL KEYS are off its entrance.
Pearl'-oyster, *n.* See PEARL.
Pearl'-powder, *n.* See BISMUTH.
Pearl Prairie, in *Illinois*, a township of Pike co.; *pop.* abt. 900.
Pearl River, in *Mississippi*, rises in Winston co., and flowing a general S. course, enters the Gulf of Mexico through Lake Borgne, on the boundary line between Louisiana and Mississippi. *Length*, abt. 250 m.
Pearl'-sago, *n.* Finely granulated sago.
Pearl'-sinter, *n.* (*Min.*) A variety of opal; the same as FIORITE, *q. v.*
Pearl'-spar, *n.* (*Min.*) The name applied to rhombohedral crystallizations of dolomite, or magnesian carbonate of lime, when they have curved faces, and a pearly lustre.
Pearl'-stitch, *n.* An ornamental stitch on knit stockings.
Pearl'-stone, *n.* (*Min.*) A variety of Obsidian of a pearly lustre, and of various tints of gray, yellow, brown, or red.
Pearl'-studded, *a.* Studded with pearls. (Tautological.)
Pearl'-white, *a.* (*Painting, &c.*) A denomination applied to two pigments: one, falsely so called, prepared from bismuth, which turns black in sulphuretted hydrogen gas or any impure air, is employed as a cosmetic; the other, prepared from the waste of pearls and mother-of-pearl, is exquisitely white and of good body in water, but of little force in oil or varnish; it combines, however, with all other colors, without injuring the most delicate, and is itself perfectly permanent and innoxious.
Pearl'-wort, Pearl'-grass, *n.* (*Bot.*) See SAGINA.
Pearly, (*pêrl'e,*) *a.* Containing pearls; abounding with pearls; as, a *pearly* stream.—Resembling pearls; clear; pellucid; pure; transparent.
Pear'main, *n.* A variety of the apple.
Pear'-shaped, (*-shāpt,*) *a.* Having the form of a pear; ovate-conical.
Peart, (*peert,*) *a.* [A corruption of *pert.*] Lively; brisk; frolicsome; active;—often applied to convalescent persons; as, a *peart* young fellow.
Peasant, (*pĕz'ant.*) *n.* [O. Fr. *paisant*; Fr. *paysan*; Sp. *paisano*, from Lat. *paganus*, from *pagus*, village.] A countryman; a rustic; a hind; one whose business is rural labor.
—*a.* Rustic; rural; countrified.
Peas'ant-like, Peas'antly, *a.* Clownish; rude; illiterate; rustic; after the manner of peasants.
Peas'antry, *n.* The lower body of the country-people; rustics.
Peasants' War. (*Hist.*) A struggle, called the *Bundschuh*, broke out in 1502, and another, the War of Poor Conrad, in Würtemberg, in 1514. The peasants of the small towns rebelled in Swabia, and those of the Thurgau rose in arms in June, 1524, when many outrages were committed. After a temporary lull it broke out again early in 1525, on a more extended scale, the peasants of Alsace, Franconia, Lorraine, the Palatinate, and Swabia joining in the movement. They published a manifesto containing their demands, embodied in 12 articles. The insurgents, after some successes, were defeated by the army of the Archduke Ferdinand, May 2; again at Königshofen, June 2; and were put down after 100,000 persons had perished, in June, 1525. The Anabaptists (*q. v.*) took part in the movement. — See JACQUERIE, PRAGUERIE, &c.
Peas'-cod, *n.* The legume or shell of the pea.
Pease, (*pēz,*) *n. pl.* Peas collectively or in bulk, or used as food. See PEA.
Pease, in *Ohio*, a twp. of Belmont co.
Pea'-shell, *n.* Same as PEAS-CON, *q. v.*
Pea'-shooter, *n.* A small tin tube for blowing peas through.
Pea'-stone, *n.* (*Min.*) Same as PISOLITE.
Peat, (*peet,*) *n.* [A word of doubtful origin.] A substance composing the soil of swamps, and consisting of the twigs, leaves, and roots of trees, mixed with grass, plants, weeds, earth, &c., that have long lain in water, and thereby become decomposed into a blackish-brown mass that may be cut with a spade, and dried for fuel.
Peat'-bog, *n.* A peat-moss; a bog or morass containing peat. See SECTION II.

Peat'-moss, *n.* The vegetable substances which, after decomposition, form peat; a ten or bog producing peat.

Peat'-reek, *n.* In Scotland, the smoke or *reek* of burning peat; — hence, the peculiar smoky flavor imparted to whisky by being distilled with peat as fuel.

Peat'y, *a.* Consisting of, containing, or resembling peat; as, a *peaty* soil.

Pea'-vine, *n.* (*Bot.*) See AMPLICARPEÆ.

Pe'ba, *n* (*Zoöl.*) A species of armadillo (*Dasypus peba*), also called *tatoohou, tatu,* and *tatu-peba;* found in South America

Peb'ble, Peb'ble-stone, *n.* [A. S. *pabob.*] A name given to roundish nodules and geodes, especially of silicious minerals, such as rock-crystal, agate, &c.; but commonly and more correctly applied to small fragments of rocks and minerals which have become rounded and water-worn, like the shingle forming the beach on a seashore. Thus, pebbles may be composed of any rock or mineral; as, for example, of sandstone, quartz, limestone, flint, &c. When of considerable size, they are called *boulders,* or *boulder-stones.* Pebbles of gold are known by the name of *nuggets* or *pepitas.* In a technical sense, the term *pebble,* among opticians, generally means the transparent and colorless rock-crystal or quartz (pure silica) which is used as a substitute for glass in spectacles; its extreme hardness renders it more durable, and less liable to become scratched.

Peb'ble-crys'tal, *n.* See PEBBLE.

Peb'bled, *a.* Full of pebbles.

Peb'bles, in *Ohio,* a flourishing township of Pike co.

Peb'bly, *a.* Abounding with pebbles, or small, roundish stones; as, a *pebbly* brook.

Pecan, PECANE, or PECAN-NUT, *n.* (*Bot.*) The fruit of *Carya olivæformis.* See HICKORY.

Peccabil'ity, *n.* State of being peccable or subject to sin; capacity of sinning.

Pec'cable, *a.* [Fr.; It. *peccabile,* from Lat. *pecco, peccatum,* to transgress.] Liable to do amiss or to sin; subject to transgress or violate the divine law.

Peccadil'lo, *n.* [Sp. *pecadillo,* dimin. of *pecado*—Lat. *peccatum,* a fault, sin; It. *peccadiglio.* See PECCANT.] A slight trespass or offence; a petty crime or fault.

"'T is low ebb with his accusers, when such *peccadillos* as these are put in to swell the charge."—*Atterbury.*

Pec'cancy, *n.* [Lat. *peccantia.*] Bad quality; also, offence

Pec'cant, *a.* [Fr.; Lat. *peccans,* from *pecco,* to go wrong, to err, to sin; akin to W. *pechawd,* sin.] Transgressing; sinning; guilty of sin or transgression; criminal; as, *peccant* angels. (*Milton.*)— Morbid; bad; corrupt; tainted; not sound or healthy; as, "bile *peccant* or deficient." — *Arbuthnot.*

Pec'cantly, *adv.* Criminally; corruptly; badly.

Pec'cary, Pec'ary, *n.* [Sp.] (*Zoöl.*) A pachydermatous quadruped allied to the hog; but generically distinguished by the absence of the outer toe of the hind foot, and the presence of a peculiar gland, which exudes its secretion by an orifice situated on the back; whence Cuvier devised the name *Dicotyles* (two navels) for the gen. The incisor and molar teeth resemble those of the hog, but the canines do not project from the mouth. The metacarpal and metatarsal bones of their two middle and largest toes are confluent, as in the Ruminants, with which their stomach also, divided into three compartments with cæcal appendages, presents a marked analogy. Two species of peccary are known, both natives of South America; viz., the colored peccary (*Dicotyles torquatus*) and the white-lipped peccary (*Dicotyles labiatus,* Cuv.).

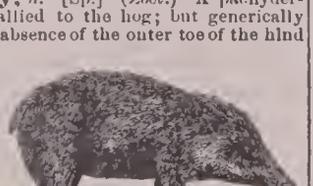


Fig. 2063.
WHITE-LIPPED PECCARY.

Pecca'vi. [Lat., I have sinned.] I have sinned or transgressed; — a colloquialism employed to express acknowledgment of an offence.

Pee co, *n.* See PEKOE.

Pech'blende, *n.* [Ger.] (*Min.*) Same as PITCHBLENDE, *q. v.*

Peck, *v. a.* (*imp.* PECKED (*pekt.*) [It. *beccare,* to peck, *becco,* the bill of a bird; O. Fr. *becquer,* from *bec,* the beak.] To strike with the beak; to thrust the beak into; as, a bird that *pecks* a hole in a fruit. — Hence, to strike with a pointed instrument, or to delve or dig with anything pointed, as with a pickaxe. — To strike with a repetition of light blows: as, two contrary factions are perpetually *pecking* at one another. — To pick up food with the beak, as fowls

—*v. n.* To deal strokes with the beak, or something resembling such. — *To peck at,* to gird or carp at petulantly; to assail with petty criticism; as, *to peck at* trifles.

—*n.* [Ir. *pic;* Fr. *picotin,* a peck: O Fr. *picotin,* the fourth part of a bushel. Etymol. uncertain.] The fourth part of a bushel; a dry measure of eight quarts: as, a *peck* of oats, a *peck* of potatoes. — Hence, a considerable amount or quantity; a great deal; as, to be in a *peck* of difficulties; — used colloquially

Peck'er, *n.* He who, or that which, pecks; especially, a bird that pecks holes in trees; a woodpecker.

—Stamina of body; appetite; spirit. (Vulgar.)

Peck'ham, a suburban village of London, England, co. of Surrey, 3 miles S.S.E. of St. Paul's cathedral; pop. 20,000.

Pecks'ville, in *New York,* a village of Dutchess co., abt. 80 m. S. of Albany.

Pecop'sen, in *Pennsylvania,* a township of Chester co.

Pe'cora, *n.* [Lat., cattle.] (*Zoöl.*) The name given by Linnæus to an order of Mammals correspondiug with the Ruminantia of Cuvier.

Pec'tate, *n.* (*Chem.*) A compound of pectic acid with a base.

Pec'ten, *n.* [Lat., a comb.] (*Zoöl.*) A genus of lamellibranchiate molluscs, commonly referred to the same family with the oyster. The shell has neither teeth nor lamnæ in the hinge; the valves are unequal, one of them being often much more convex than the other; the shape is regular; the hinge is extended by *ears,* and in most of the species both valves have ribs radiating from the umbo to the margin. The animal has a small foot; some of the species are capable of attaching themselves by a byssus; they are capable also of locomotion by opening and rapidly closing the valves, and in this way can even regain the sea from a short distance by leaping on the shore. Some of the larger species are often popularly called *Argus-shells,* and also *clams,* a name shared by other bivalves. *P. Jacobæus,* a native of the Mediterranean, is the *Scallop-shell,* which pilgrims were accustomed to wear in front of their hat, in token of their having visited the shrine of St. James at Compostella. It attains a size of about 4 inches long and 5 inches broad. It is sometimes eaten, but it is hard and indigestible.

Fig. 2064. — SCALLOP-SHELL.
(*Pecten Jacobæus.*)

(*Comparative Anatomy.*) The vascular membrane, in structure resembling the choroid, plicated with parallel folds like the teeth of a comb, and extending, in the eyes of birds, from the back of the retina through the vitreous humor to, or near to, the crystalline lens, where it mostly terminates in a point. This organ resembles a flattened conical bag, whence it is also termed *marsupium.*

Pec'tic Acid, *n.* [Gr. *pektos,* coagulated.] (*Chem.*) A gelatinous principle has long been recognized as one of the proximate components of vegetables; it is derived, according to Frémy, from the presence of *pectose,* a substance usually associated with the cellular tissue, and which is insoluble in water, alcohol, and ether, but which under the influence of acids, aided by a gentle heat, becomes converted into a soluble gelatinous substance, *pectine,* represented by the formula $C_{64}H_{40}O_{56}$. *Pectine* is found ready formed in the juices of ripe fruits, in consequence of the action of their acids upon the original *pectose.* It may be obtained from the expressed juice of ripe pears or apples (after the lime which it contains has been precipitated by oxalic acid, and the albumen by a strong solution of tannin), by means of alcohol, which throws it down in gelatinous filaments. When pure it is white, neutral, not crystallizable, soluble in water, but insoluble in alcohol and in ether; it is precipitated by subacetate, but not by neutral acetate of lead. When its aqueous solution is long boiled, it loses viscosity, and is changed into *parapectine.* Pectine and its modifications are changed into *pectic acid* by the action of weak alkaline solutions. Pectic acid is generally obtained by boiling the pulp of certain roots, of carrots, for instance, with a very weak solution of an alkaline carbonate, and precipitating by chloride of calcium; the precipitate, after having been well washed, is decomposed by dilute hydrochloric acid, which leaves the pectic acid in the form of a jelly, insoluble in cold water.

Pectic Fermentation. Pectose is always associated with a substance which Frémy calls *pectose,* having a special action upon it (as diastase has upon starch), and which he represents as the *ferment* of the gelatinous products. It is obtained by adding to fresh carrot-juice, alcohol, which throws it down in an insoluble form, but it retains its characteristic properties. It transforms pectine (at a temperature between 80° and 90°) into a substance insoluble in cold water (*pectosic acid*), and subsequently into pectic acid, as above described.

Pec'tinal, *a.* [Lat. *pecten,* comb, *pecto*—Gr. *pĕkō,* or *pekteō,* to comb.] Pertaining, or relating to, or resembling, a comb.

—*n.* (*Zoöl.*) Any fish whose bones resemble the teeth of a comb.

Pec'tinate, PECTINATED, *a.* [Lat. *pectinatus,* from *pecten,* a comb.] (*Bot.*) A term applied to that form of marginal division in which the segments are numerous, narrow, and closely placed, so as to resemble the teeth of a comb.

(*Zoöl.*) Edged like the tooth of a comb; as, a *pectinate* muscle.

Pectinate claw, a claw with a serrated edge.

Pec'tinately, *adv.* In a pectinate form or manner.

Pectina'tion, *n.* State or quality of being pectinated. — Combing of the head; a combing.

Pec'tine, *n.* [Fr.; from Gr. *pektos,* coagulated.] (*Chem.*) Vegetable jelly. See PECTIC ACID.

Pectinibran'chiate, *a.* [Lat. *pecten, pectinis,* a comb, and Lat. *branchiæ.*] (*Zoöl.*) The name given by Cuvier to an order of Gasteropods. It includes almost all the spiral univalve shells, as well as several which are merely conical. The animals of this order are so named from the comb-like form of the gills, which are usually situated in a cavity behind the head.

Pectization, (*pec-ti-zai'shun.*) *n.* [Gr. *pektis,* congealed, thickened.] (*Chem.*) A term applied by Graham to the sudden change from the liquid to the solid form which takes place in certain solutions. The solution of hydrated silicic acid, for instance, may be preserved in a fluid state for days and weeks in a sealed tube, but it is sure at last to assume the *pectous* or gelatinous form.

Pec'tolite, *n.* [Lat. *pecten,* comb, and Gr. *lithos,* stone.] (*Min.*) A hydrated silicate of lime and soda, which occurs in white or grayish spheroidal masses, composed of an aggregate of acicular crystals, or of delicate fibres, arranged in a radiated or stellar form.

Pec'toral, *a.* [Fr.; Lat. *pectoralis,* from *pectus, pectoris,* the breast.] Pertaining or relating to the breast; as, the *pectoral* muscle. — Pertaining or having reference to the chest, or of diseases of the chest

Pectoral fins, those fins belonging to a fish which are placed on the sides, behind the gills. (Sometimes called simply *pectoral.*)

—*n.* A breastplate worn by the Jewish high-priest. — A medicine calculated to cure or remedy diseases of the chest and lungs.

(*Zoöl.*) The pectoral fin of a fish.

Pec'torally, *adv.* By connection with the breast.

Pectoriloʻquial. Pectoriloʻquous. *a.* [Fr. *pectoriloque.*] Belonging, or relating to, or possessing the nature of pectoriloquy.

Pectorilʻoquy, Pectorilʻoquism. *n.* [From Lat. *pectus, pectoris,* the breast, and *loquo,* to speak.] (*Med.*) A peculiar sound emitted from the chest in speaking when the lungs are ulcerated, or cavities formed in their substance. One of the sounds indicated by the stethoscope, or to the ear, if placed over the part, and the patient is requested to speak, is that the voice to the listener seems to come from the chest instead of the mouth; hence the term *pectoriloquy,* speaking from the breast. See STETHOSCOPE.

Pec'tose, *n.* (*Chem.*) See PECTIC ACID.

Pe'culi, *n.* Same as PICUL, *q. v.*

Pec'ulate, *v. n.* [Lat. *peculium,* a small property.] To defraud the public of money or goods intrusted to one's care by appropriating the property to one's own use; to defraud by embezzlement; to steal.

Peculaʻtion, *n.* [Fr. *peculat;* Late Lat. *peculatio.*] Act of peculating, or of defrauding the public by appropriating to one's own use the money or goods intrusted to one's care; embezzlement of public money or goods.

Pec'ulator, *n.* [Lat.] One who peculates.

Pecuʻliar, (*-kūl'yer,*) *a.* [Sp.; Lat. *peculiaris.* from *peculium.*] Of or relating to private property; one's own; appropriate; belonging to a person, and to him only; belonging to a nation, system, or other thing, to the exclusion of all else; not general or universal. — Particular; special; individual.—Singular; phenomenal; unfrequent and striking. (R.)

—*n.* Private or exclusive property; that which pertains to a person in exclusion of others.

Pecuʻliarity, (*pe-kūl-yăr'ĭ-tў,*) *n.* [Low Lat. *peculiaritas.*] A quality of being peculiar; specialty; individuality. — Something peculiar to a person or thing: that which belongs to or is found in one person or thing, and in no other; particularity; distinctive characteristic or foible; as, *peculiarity* of appearance, speech, manner, temper, &c.

Pecuʻliarize, *v. a.* To render peculiar; to appropriate.

Pecuʻliarly, *adv.* Particularly; singly; in a manner not common to others; especially; as, their vanity is *peculiarly* their own.

Pecuʻliarness, *n.* State of being peculiar; peculiarity. (R.)

Pecuʻlium, *n.* [Lat., private property.] (*Rom. Law.*) Private, exclusive, or separate property, more especially the property which a son or a slave might acquire independent of the control of his father or his master. — Hence, a particular fund for one's own private needs or uses.

Pecuniarily, *adv.* In a pecuniary manner.

Pecuniary, (*pe-kūn'ya-ry,*) *a.* [Lat. *pecuniarius,* from *pecunia,* property, money, from *pecus, pecous,* sheep, cattle, because the wealth of the ancients consisted in their herds and flocks.] Pertaining or having reference to money, or to money's worth in property; as, *pecuniary* matters, *pecuniary* difficulties. — Consisting of money; as, a *pecuniary* compensation, a *pecuniary* penalty.

Ped'age, *n.* [L Lat. *pedagium,* from Lat. *pes, pedis,* foot.] A toll paid by passengers to entitle them to safe-conduct.

Pedagog'ic, Pedagog'ics, *n. sing.* The art, science, or operation of successful scholastic instruction.

Pedagog'ic, Pedagog'ical, *a.* [Gr. *pedagōgikos.*] Befitting or pertaining to a pedagogue, or to a teacher or instructor of children.

Pedagog'ics, *n. sing.* See PEDAGOGIC, (the noun.)

Ped'agogism, *n.* Vocation, characteristics, and manners of a pedagogue.

Pedagogue, (*pĕd'a-gŏg,*) *n.* [Fr.; Gr. *pedagōgos*—*pais, paidos,* a child, a boy, and *agō,* to lead.] Primarily, one who led children to school, and brought them back again; in the modern and specific sense, a teacher; a preceptor; a schoolmaster; one whose occupation is to instruct young children. — Hence, one who by teaching has become dogmatic, precise, or pedantic in his manners or habits; a pedant; a precisian

Ped'agogy, *n.* [Gr. *paidagōgia.*] Office or practice of a pedagogue; pedagogism; as, "the *pedagogism* of tutors." — *South.*

Pe'dal, *a.* [Fr. *pédale*, a large organ-pipe played with the foot; Lat. *pedalis*, belonging to the foot; from *pes, pedis* = Gr. *pous, podos;* Sansk. *poda*, a foot.] Pertaining to a foot, or to a pedal.

—*n.* (*Mus.*) A contrivance attached to the harp, organ, piano-forte, &c., acted upon by the foot, and designed to modify the tone or swell of the instrument. — On the organ, a row of keys intended to be played on with the feet, and which, in large instruments, actuate a separate organ, called the pedal organ. The invention of the pedals, or foot-keys of the organ, is attributed to a German named Bernhard, who lived in the 15th century. It was long, however, before their utility and importance were generally acknowledged. Within the last 20 years, the use of the foot-keys has been much extended, and few organs are now built without them.

Pedalia'ceæ, *n.* (*Bot.*) An order of plants, alliance *Bignoniales*. DIAG. Parietal placentæ, bony or capsular fruit, an amygdaloid embryo, and short radicle. — They are glandular herbs, found chiefly in the tropics, with entire exstipulate leaves and axillary flowers, usually large and irregular Chiefly remarkable for their oily seeds. The fresh branches of *Pedalium murex* render water or milk mucilaginous. The order includes 14 genera and 25 species. See MARTYNIA and SESAMUM.

Pedalian, *a.* Pedal; having reference to feet.

Pedaneous, *a.* [Lat. *pedaneus.*] Pedestrian; going afoot.

Pedant, *n.* [Fr.; It. and Sp. *pedante.* See PEDAGOGUE.] A person who makes a vain and pretentious display of learning; one who assumes an air of superior knowledge in an awkward or unsuitable manner; a make-believe scholarly individual.

Pedan'tic, Pedan'tical, *a.* Pertaining or suitable to a pedant; ostentatious of scholarship or learning; vainly parading or making exhibition of usually superficial knowledge; as, a *pedantic* speech or sentence.

Pedan'tically, Pedan'tiely, *adv.* In the manner of a pedant; with a vain or inappropriate display of erudition.

Pedant'ism, *n.* Same as PEDANTRY, *q. v.*

Ped'antize, *v. a.* [Fr. *pédantiser.*] To play the pedant; to employ erudite words or expressions; to act the pedagogue over pupils.

Ped'antry, Ped'antism, *n.* [Fr. *pedanterie;* It. *pedanteria.*] Manners, qualities, or character of a pedant; vain or ostentatious display of learning or erudition; the use of words or terms unsuitable to the time, place, and company; pedantic acts or practices.

Ped'ate, *a.* (*Bot.*) A palmate leaf, with the two lateral lobes themselves divided into smaller segments, the midribs of which do not run directly into the common central point; as in the leaf of *Dracunculus vulgaris* or *Helleborus fœtidus.*

Pedat'ified, *a.* [Lat. *pedatified*, and *findere, fidi*, to cleave.] (*Bot.*) Irregularly lobed; — said of a leaf.

Peddle, (*pĕd'l,*) *v. a.* [Probably from Fr. *pied*, the foot. See PEDAL.] To travel about the country on foot, and sell small wares, notions, &c. — To be busy about small matters or trifles.

—*v. a.* To go about and sell; to sell or retail, as small wares, &c., usually by travelling about the country on foot.

Ped'dler, Ped'lar, Ped'ler, *n.* One who carries about small commodities for sale; a peripatetic dealer in odds and ends, knick-knacks, &c.

Ped'dlery, Ped'lary, Ped'lery, *n.* Vocation or practice of a peddler; small wares, notions, &c., sold or carried about for sale by peddlers.

Pedee', in *Iowa*, a post-village of Cedar co., abt. 20 m. E. of Iowa City.

Pedee, (Great,) or YADKIN, a river rising in Caldwell co., N. Carolina, and flowing a general N.E. course to Stokes co., turns to the S.E., and following this direction rather tortuously, receiving several small tributaries on its way, it enters S. Carolina, and takes the name of GREAT PEDEE. Thence S.S.E. through this State, it enters the Atlantic Ocean by Winyaw Bay in Georgetown dist. — LITTLE PEDEE rises in Richmond co., N. Carolina, and flowing S. by E. into S. Carolina, enters the main stream from Horry co.

Ped'erast, *n.* [Gr *pais, paidos*, boy, and *eran*, to love.] One who commits pederasty.

Pederast'ic, *a.* [Gr. *paiderastikos.*] Pertaining or relating to pederasty.

Ped'erasty, *n.* [Gr. *paiderastia.*] Sodomy.

Pederna'les, in *Texas*, a small river flowing into the Colorado in Travis co.

Pedernelra, (*pa-der-na'e-ra,*) a seaport-town of Portugal, prov. of Estremadura, on the Bay of Pederneira, 5 m. W.N.W. of Alcobaza. Near it is a sanctuary of the Virgin Mary, much frequented by pilgrims. *Pop.* 2,000.

Ped'estal, *n.* [Sp.; It. *piedestallo—piedo*, foot, and *stalla*, a standing.] (*Arch.*) The lower part of a column or pillar. It consists of three principal parts: a square trunk, dado, or dye, which makes the body; a cornice, the head; and a base, the foot of the pedestal. The *Tuscan pedestal* is the simplest and lowest of all, and is only three modules high. The *Doric pedestal* is from four to five modules high, as made by the moderns. The *Ionic pedestal* is from five to seven modules high. The *Corinthian pedestal* is the richest and most delicate of all, and is from four to seven modules high.

(*Mach.*) An axle-guard. See JAW.

Pedes'trial, *a.* [Lat. *pedestris*, from *pes, pedis*, foot.] Pertaining or relating to the foot.

Pedes'trially, *adv.* In a pedestrial manner.

Pedes'trian, *a.* [Fr. *pédestre;* Lat. *pedestris*, from *pes, pedis*, a foot.] Going on foot; walking; performed on foot; as, a *pedestrian* tour.

—*n.* One who walks or journeys on foot; a foot-traveller, —One who walks or runs for a wager; a person remarkable for speed and endurance in walking or running.

Pedes'trianism, *n.* Act or practice of a pedestrian; a going on foot; walking or foot-racing for a wager.

Pedeten'tous, *a.* [Lat. *pes, pedis*, foot, and *tendere*, to stretch out.] Advancing with caution; going forward step by step; as, a *pedetentous* pace.

Pe'dial, *a.* Pertaining or having reference to a foot, or anything called a foot.

Ped'icel, Ped'icle, *n.* [Fr. *pédicelle;* Lat. *pediculus*, from *pes, pedis*, foot.] (*Bot.*) One of the ultimate ramifications of that part of the inflorescence called the *peduncle.* Hence the term *pedicellate*, applied to stalked flowers borne on branched inflorescence.

Ped'icellate, Ped'icelled, (*-sĕld,*) *a.* [Fr. *pedicellé.*] See PEDICEL.

Pedicel'lates, *n. pl.* (*Zoöl.*) A division of echinoderms, comprehending those which have the vesicular pedicellate organs, which are termed feet in this class, but which project from various parts of the surface of the body.

Ped'icelled, *a.* (*Bot.*) Having, or growing upon a pedicel.

Pedicle, (*ped'i-kl,*) *n.* (*Bot.*) Same as PEDICEL, *q. v.*

Pedic'ular, Pedic'ulous, *a.* [Lat. *pedicularis*, from *pediculus*, a louse.] Lousy.

Pedicula'ris, *n.* [Lat. *pediculus*, a louse; probably from its efficacy in destroying that insect.] (*Bot.*) A genus of plants, ord. *Scrophulariaceæ.* They are herbs, with alternate, rarely sub-opposite, often pinnatifid leaves, and spicate flowers. *P. Canadensis*, the Lousewort, is common in pastures and low grounds.

Pedicula'tion, *n.* (*Med*) Same as PHTHEIRIASIS, *q. v.*

Pedic'ulus, *n.; pl.* **Pedic'ulidæ,** (*Zoöl.*) See ANOPLURA.

Pedigerous, (*-dĭj'-,*) *a.* [Lat., from *pes, pedis*, foot, and *gerere*, to bear.] Possessing feet.

Ped'igree, *n.* [Probably from Fr. *per*, through, and *degré*, a stair, step — *de*, from, and *gradus*, a step. See GRADE.] An account of lineage through its different steps or degrees; line of ancestors from which a person, family, or tribe descends; descent; lineage; genealogy; an account or register of a line of ancestors; a genealogical chart.

"Few men of his time could show such a *pedigree* as the Earl of Oxford, himself the twenty-second peer of his line." *Macaulay.*

Pedim'anous, *a.* [Lat. *pes, pedis*, foot, and *manus*, hand.] With the feet hand-shaped, as monkeys.

Ped'iment, *n.* [From Lat. *prs, prdis.*] (*Arch.*) The triangular termination used in Classical architecture at the ends of buildings, over porticos, &c., corresponding to a gable in Middle Age architecture: it is much less acute at the top than a gable. Most of the porticos on the fronts of Greek and Roman buildings support pediments (see Fig. 2039); in Roman work the dressings over doors and windows are sometimes arranged in a similar form, and called by the same name; in debased Roman work, pedimeots of this last mentioned kind are occasionally circular instead of angular on the top, a form which is also common in Italian architecture. The term is sometimes applied by modern writers to the small gables and triangular decorations over niches, doors, windows, &c., in Gothic architecture.

Pedipal'pi, *n. pl.* [Lat. *pes, pedis*, a foot, and *palpare*, to touch gently.] (*Zoöl.*) The Scorpion family. See SCORPION.

Ped'lar, Ped'ler, *n.* Same as PEDDLER, *q. v.*

Pedobap'tism, *n.* [Gr. *pais, paidos*, a child, and *baptismos*, baptism.] The baptism of infants or of children.

Pedobap'tist, *n.* One who advocates or practises infant baptism.

Pedom'eter, *n.* [Fr. *pédometre*, from Lat. *pes, pedis*, foot, and Gr. *metron*, measure.] (*Mech.*) An instrument in the form of a watch, consisting of various wheels, with the teeth catching in each other, and which, by means of a string fastened to anything in motion, numbers the paces gone over from one place to another.

Pedomet'rie, Pedomet'rieal, *a.* Belonging to, or measured by, a pedometer.

Pedot'rophy, Pædot'rophy, *n.* [Gr. *pais, paidos*, a child, and *trephein*, to nourish.] The theory of the nourishment of children.

Pe'dra-Bran'ca, a town of Brazil, about 90 m. W. N.W. of Bahia.

Pedra'za, a town of Venezuela, about 38 miles W. of Varinas; *pop.* 4,000.

Pedro I., (Dom,) ANTONIO JOSE D'ALCANTARA, (*pa'dro,*) Emperor of Brazil, was eldest son of John VI., king of Portugal, elder brother of Don Miguel, and nephew to Ferdinand VII., king of Spain. He was B. in 1798, and was taken, in 1808, with the rest of the royal family, to Brazil. In 1822, the Brazilians having proclaimed their independence, chose *P.* for their emperor. The death of John VI., in 1826, left Don Pedro the crown of Portugal; he soon afterwards established a liberal govt. in that country, and granted it a charter. After abdicating the crown of Portugal in favor of his daughter, Donna Maria, he nominated his brother, Don Miguel, regent; but scarcely had he quitted Portugal, than Don Miguel took possession of the throne. In 1831 he was compelled to abdicate the throne of Brazil in favor of his son, Don Pedro II. Returning to Europe, he raised troops in France and England, with which he, in 1833, drove Don Miguel from the throne of Portugal, and placed the crown upon the head of his daughter. He was twice married; his first wife being Maria Leopoldina, archduchess of Austria, and the second, Amelia, daughter of Prince Eugéne de Beauharnais. D. 1834.

PEDRO II., was son of the preceding, who abdicated the throne in his favor when he was only in his sixth year. The govt. was administered by a council of regency, and afterwards by one regent. In July, 1840, *P.* — although he had not attained his majority — was declared of age by the Chambers, and assumed the sovereign power when not quite fifteen. In 1843 he was married to the Princess Theresa Christina Maria, daughter of Francis I., King of Naples; from which union were born two princes, who died young, and two princesses. He was a liberal patron of industrial enterprises, encouraging public works, seeking to improve the navigation of rivers. His aid to Gen. Urquiza contributed to the overthrow of Rosas, the result being a territorial addition to Brazil and the free navigation of the Rio Plata. In 1865 a war began with Paraguay, which ended in 1870 with the death of Lopez. In 1889, a revolution having broken out in Rio Janeiro, *P.* was seized and sent to Europe, and Brazil was declared a republic, with the title of "United States of Brazil." He made no attempt to regain the throne, but resided quietly in Europe, where he died, Dec. 5, 1891. *P.* was an earnest patron of literature and the arts, and visited the U. S. in 1876, where he displayed intelligent interest in the Centennial Exhibition of arts and industries.

Pe'dro V., King of Portugal, born 1837, was the son of Donna Maria II. and Fernando of Saxe-Coburg-Gotha, king-consort. He ascended the throne in 1855, and D. 1861.

Pedro, (THE CRUEL,) king of Castile and Leon, B. 1334. He succeeded his father, Alfonso XI., in 1350, and in 1353 married Blanche de Bourbon, sister of the king of France, but in 3 days deserted her, and devoted himself to his mistress, Donna Maria Padilla. Subsequently he poisoned his queen, and cruelly persecuted members of his own family and Castilian grandees, until an insurrection was raised against him under the lead of Harry of Trastamara, who finally defeated and slew him in the battle of Montiel, March 14, 1369.

Pedun'cle, *n.* [Lat. *pes*, a foot.] (*Bot.*) That part of an inflorescence which proceeds immediately from the stem, and forms the support of a solitary single flower. Hence *pedunculate*, applied to stalked solitary flowers, as petiolate is to stalked leaves. A *P.* supporting several flowers at its apex is called a *scape.*

(*Anat.*) A certain nervous strand of the brain.

(*Conch.*) A kind of foot or stem by which certain shells are attached to various objects.

Pedun'cular, *a.* Pertaining or relating to, or springing from, a peduncle.

Pedun'culate, Pedun'culated, *a.* Having, or growing on, a peduncle; as, a *pedunculated* bud.

Peebles, (*pee'bels,*) an inland co. of Scotland, having N. Mid-Lothian, E. Selkirk, S. Dumfries, and W. Lanark; *area*, 356 sq m.; *pop.* 11,500.

Pee'bles, in *Pennsylvania*, a township of Alleghany co; *pop.* abt. 2,770.

Peek, *v. a.* To peep; to peer; to look with the eyes half closed. (Used colloquially.)

Peeks'kill, in *New York*, a post-village of Westchester co., abt. 100 m. S of Albany.

Peek'y, *a.* Having small decayed spots; affected with incipient decay; — said of timber when signs of decay first appear. (An Americanism.)

Peel, *v. a.* [Fr. *peler;* D. *pellen;* Sp. *pelar*, from Lat. *pellis.*] To strip off, as skin, bark, or rind, without the application of a cutting instrument; to strip by drawing or tearing off the skin of; to skin; to bark; to flay; to decorticate; as, to *peel* an orange.

(NOTE. When the knife only is used, the operation is called *paring;* as, to *pare* an apple.)

—To strip or tear, as the skin of an animal, or bark of a tree; — preceding *off.*

—[Fr. *piller;* Lat *pilare.*] To strip; to pillage; to plunder; to devastate by making bare; as, to *peel* a conquered territory.

—*v. n* To lose the skin, bark, or rind; — frequently used in conjunction with an adverb; as, it *peels readily.*

—*n.* The skin, rind, bark, or integument; as, the *peel* of an orange.

Peel, *n* [Fr. *pelle;* Lat. *pala.*] A baker's wooden shovel for putting in and withdrawing bread from an oven.

—A fortalice; a small fortress; — A term peculiar to the Scottish border; a peel-house.

Peel, SIR ROBERT, prime-minister of England, son of Sir Robert Peel, a wealthy manufacturer, was B. in 1788, and studied at Harrow and Oxford. When just 21 years of age he entered Parliament, and thenceforth the sphere of his exertions and triumphs was in the House of Commons, in the history of which his career will form a large feature. He was no orator, nor was he, properly speaking, a natural and simple debater. His manner was the artificial one of thorough training; but for an artificial manner it was a good one, and the House from his practice got to like it, though to a stranger it was generally unpleasant. He could state his case clearly and forcibly, but he seldom liked to abandon a subject until he had discussed it at great length. He avoided, in a marked manner, the statement of general principles, as if he feared that he might afterwards have to say or do something inconsistent with them, and he generally made out his case on the details of the matter, rather than on any wide rule or principle of political opinion. In 1811 he was made under-secretary for the Colonies, and in 1812, when only 24, he received the very responsible appointment of chief secretary for Ireland. After carrying his celebrated currency measure of 1819, he became, in 1822, home secretary. Refusing to take office under Canning, he joined the ministry of the Duke of Wellington in 1828. Here, by conceding Catholic emancipation (against which he had previously protested), he did one of those acts which have been

called tergiversation by some, and the result of honest conviction, rising above original prepossession, by others. He still, however, professed to belong to the Conservative party, and he became a strenuous opponent of Earl Grey's ministry, and the Reform Bill. When a Conservative government was, from mere accidental and personal causes not well explained, established in 1834, he gallantly undertook the attempt to work it, though conscious that the task was hopeless. He became prime-minister in 1841, with better prospects. The position in which he was placed was that of the head of a protectionist government, established to defeat and suppress the free-trade party. As circumstances developed themselves in the few critical years from 1841 to 1846, some indications of opinion created alarm among the thorough protectionists, and it was seen that the prime-minister, becoming convinced of the truth of free-trade, was determined to carry its principles into practice. After the repeal of the Corn Laws and other measures in the same spirit, he resigned office to a party to whom his later opinions legitimately belonged, in the summer of 1846. D. 1850, of internal injuries caused by a fall from a horse.

Peel, a seaport-town of the Isle of Man, on an inlet of its W. coast, 10 m. N.W. of Douglas; *pop.* 2,500.

Peel, a S. co. of pr. of Ontario, bordering on Lake Ontario; *area*, abt. 450 sq. m. *Cap.* Brampton.

Peel'er, *n.* One who peels, strips, or flays; — hence, a pillager; a plunderer.

—In England, a cant term for a policeman: — so called from Sir Robert *Peel*, the originator of the modern police force.

Peel River, rises on the W. slope of the Rocky Mountains in British N. America, and flowing N.W., then N. E., joins the æstuary of the Mackenzie River.

Peep, *v. n.* [D. *piepen*; Lat. *pipo*, to pip, to chirp. Said to be transferred from the *cry* to the appearance and cluck of a chicken when it first breaks the shell.] To cry as a chicken; to utter a fine, shrill sound; to chirp. — To begin to appear; to make the first appearance; to issue or come forth from concealment; to look through a crevice or small opening; to look narrowly, closely, slily, or furtively; to peer.

—*n.* The chirp or cry of a young chicken. — A sly, furtive look; a look through a hole or crevice; first appearance; as, to take a *peep*, the *peep* of day.

Pee'pee, in *Ohio*, a township of Pike co.

Peep'er, *n.* A chicken just breaking the shell; hence, one who peeps, or looks slily or furtively; a spy; a prying person.

—A cant term for the eye; as, to damage one's *peepers*.

Peep'hole, Peep'ing-hole, *n.* A hole or crevice through which one may peep without being observed.

Peep'-o'-day Boys, *n. pl.* (*Hist.*) The name assumed by the members of a former secret society in Ireland, who sallied forth before the dawn of day to commit agrarian outrages.

Peep'-show, *n.* A small object or series of objects, to be inspected by applying the eye to a small orifice.

Peer, *n.* [Fr. *pair*; Lat. *par*, equal. See PARITY.] An equal; one of the same rank, grade, or condition; an equal in excellence or endowments; a match; a mate.

"Know, I am *peer* with any lord in Scotland here." — *Scott.*

—A companion; an associate, comrade, or fellow.

"Twelve were the *peers* of Charlemagne." — *Dryden.*

—A nobleman: as, a *peer* of the realm. — In England, a nobleman sitting in the House of Lords; as, *peers* spiritual and temporal.

House of Peers, in England, the House of Lords; the upper chamber of the legislative body.

—*v. n.* [Lat. *pareo*, to come forth, akin to *pario*, to bring forth.] To peep out, as the sun over a mountain.

"See how his gorget *peers* above his gown." — *Ben Jonson.*

—To look narrowly or furtively; to peep.

"*Peering* in maps for ports, and piers, and roads." — *Shaks.*

Peer'age, *n.* The collective body of peers.

"When Charlemagne with all his *peerage* fell." — *Milton.*

—Rank, dignity, or condition of a peer; as, a *peerage* was conferred on him. — A book containing the heraldic arms and genealogies of peers; as, "Burke's *Peerage* and Baronetage."

Peer'ess, *n.* The consort of a peer; a noble lady; as, a *peeress* in her own right.

Peer'less, *a.* Without a peer or equal; matchless; superlative.

"With such a *peerless* majesty she stands." — *Dryden.*

Peer'lessly, *adv.* In a peerless or unequalled manner; matchlessly.

Peer'lessness, *n.* State of being peerless, or of having no equal

Peert, *a.* Same as PEART, *q. v.*

Peer'y, *a.* Looking sharply, furtively, or inquisitively; as, *peery* eyes.

Pee'vish, *a.* Fretful; querulous; apt to mutter, grumble, or complain; easily vexed or fretted; hard to please; morose; petulant; as, a *peevish* temper.

—Expressing discontent or fretfulness; silly; childish.

"I will not send such *peevish* tokens to a king." — *Shaks.*

Pee'vishly, *adv.* In a peevish manner; querulously; petulantly; fretfully; as, he is *pervishly* opinionative and proud.

Pee'vishness, *n.* Fretfulness; petulance; querulousness; disposition to murmur or grumble; sourness of temper; as, childish *peevishness*.

Pee'vit, *n.* (*Zoöl.*) See PEWIT.

Pee'wit, *n.* (*Zoöl.*) See LAPWING.

Peg, *n.* [Akin to Gr. *pegnūmi*, Sansk. *pash*, to fix, to fasten together.] A small pointed piece of wood, used in fastening boards or other work of wood; a wooden nail or pin; a pin on which to hang anything; as, a clothes *peg*. — One of the pins of an instrument on which the strings are strained.

"I'll let down the *pegs* that make this music."—*Shaks.*

To take a peg lower, or *a peg down*. To depress; to humble or mortify by reducing to a lower grade of rank, degree, or position.

"We *took* your grandees *down a peg*."—*Hudibras.*

—*v. a.* To fasten with pegs; — hence, to restrain, restrict, or limit.

Pega'sean, *a.* Pertaining or relating to, or resembling, Pegasus.

Peg'asus, *n.* [Lat.; Gr. *Pēgasos.*] (*Myth.*) A winged horse, which sprang from the blood of the Gorgon Medusa when Perseus cut off her head. As soon as this animal came into existence, he flew up to heaven; though Ovid says *P.* lighted on Mount Helicon, where, on striking the earth with his foot, he raised the famous fountain called *Hippocrene*. *P.* became the pet of the gods; and Minerva and Neptune, having tamed him, gave him to Bellerophon as a charger when he went on his Chimæra expedition. After the victory, *P.* threw his rider, and flew up to heaven, where Jupiter placed him among the constellations. Ovid makes Perseus to have been mounted on *P.* when he rescued Andromeda.

(*Astron.*) A constellation which occupies a large space in the N. hemisphere, between the Swan, the Dolphin, and the Eagle on the W., and the Northern fish and Andromeda on the E. It contains 89 stars, of which 4 are of the second magnitude.

Fig. 2065. — SEA-DRAGON, (*Pegasus draco.*)

(*Zoöl.*) A genus of lophobranchiate fishes, with large pectoral fins, by means of which they are enabled to take short saltatory flights through the air.

Peg'ger, *n.* One who makes fast with pegs.

Peg'matite, *n.* (*Min.*) Graphic granite.

Pe'go, a town of Spain, prov. of Alicante, 38 m. N.E. of Alicante. *Manuf.* Woollens and basket-work. *Pop.* 6,000.

Pegu', a prov. of British Burmah, formerly a powerful kingdom, occupying the whole delta of the Irrawaddy. *Cap.* Pegu. *Pop.* Estimated at 70,000. — It was annexed to British India in 1853.

PEGU', a decayed city, cap. of the above prov., on the Pegu, a tributary of the Irrawaddy, 50 m. N.E. of Rangoon; Lat. 17° 40′ N., Lon. 96° 12′ E. It contains the famous *Shoe-madoo*, or Great Pagoda, the most celebrated temple of the former Burman empire. *Pop.* Unknown.

Peiho, (*pa-ho′*,) ["white river,"] (called also *North River*,) a river in China, prov. of Chih-le, rising near the great wall, and after a S.E. course falling into the Gulf of Pecheelee, Lat. 38° 33′ N. It is navigable for boats for 20 m. to Pekin.

Peipus, or Peipous, (Lake of,) (*pa′e-pooce*,) a lake of European Russia, between Lat. 57° 52′ and 59° N., Lon. 26° 55′ and 27° 55′ E. *Ext.* 80 m. long, and 32 m. broad. It receives the Embach, Kosa, and other rivers, and discharges its surplus waters into the Gulf of Finland by the river Narova.

Peirameter, (*pī-ram′e-ter*,) *n.* [Gr. *peira*, a test, and *metron*, measure.] An instrument for measuring the amount of resistance to wheel-carriages on roads of different construction.

Peiras'tic, *a.* [From Gr. *peira*, trial.] Tentative; experimental; making trial.

Pekah, (*pe′ka*,) king of Israel, was captain in Pekahiah's army; but having slain that monarch, he ascended the throne in 759 B. C. He entered into an alliance with Rezin, king of Syria, and made war upon Ahaz, king of Judah, whom he defeated and killed. In the 20th year of his reign, Hoshea formed a conspiracy against him, and slew him 739 B. C.

Pekahi'ah, king of Israel, succeeded his father Menahem, 761 B. C. Very little mention is made of him in the Holy Scriptures, further than that he "departed not from the sins of Jeroboam, the son of Nebat, who made Israel to sin." After a reign of only 2 years, he was slain by Pekah, a captain of his army, 759 B. C.

Pekalongan', a town of Java, dist. of Pekalongan, on the N. of the island; Lat. 6° 55′ N., Lon. 109° 40′ E. *Pop.* of the residency 224,000.

Pekaton'ica, in *Illinois*, a post-village of Winnebago co., abt. 14 m. W. of Rockford.

Pekaton'ica Riv'er, rises by two branches in Iowa co., Wis., and flowing S.E. into Illinois, turns to the E., then N.E., and enters Rock River in Winnebago co.

Peke'a, *n.* (*Bot.*) The same as CARYOCAR, *q. v.*

Pekin', or PEKING'. [Chin. *Pih-king*, meaning "the northern capital."] The cap. of the Chinese empire, prov. of Chih-le, or Pecheelee. In a vast sandy plain, between the Pei-ho and its important affluent, the Hoang-ho, 562 m. N.W. of Nankin, and 100 m. W.N.W. of the Gulf of Pecheelee, in the Yellow Sea; Lat. 39° 54′ 12″ N., Lon. 116° 28′ 54″ E. It consists of two contiguous cities, each separately surrounded by walls, and together entered by 16 gates. The entire circumference is 25 m. The N. city, which is nearly a perfect square (called *Nei-tching*, or the inner city, and sometimes the "Imperial" and "Tartar City"), consists of 3 enclosures. The outer one, formerly occupied by the Tartar garrison, is now used by Chinese traders. The second enclosure contains the residences of the dignitaries of the empire and foreign legations, the national literary institutions, and the temples of Ancestors and Peace, and is inhabited mostly by the Mantchoos. The inner enclosure, or "forbidden city," surrounded by walls of yellow tiles, 2 m. in circumference, hence called the "Yellow Wall," contains the palaces of the emperor and empress. The S. city, called the *Wai-ching*, or "outer city," is also square, and occupied by the Chinese, and is both the seat of business and the residence of most of the population. The wall is 30 ft. high, 25 ft. thick at the base, and 12 ft. at the top. That of the imperial city is 40 ft. high. Square towers project from the outer side at intervals of 70 yds. from each other; and each of the 16 gates is surmounted by a tower 9 stories high, with port-holes for cannon. The principal streets are very wide and regular, running between opposite gates. These are mostly filled with shops, extravagantly gilded and ornamented with blue and gold, flags, &c., and are almost always crowded, in consequence of the numbers of trades carried on in the open air. The houses are generally 1 story high, and built of brick. Of the ornamented buildings, the most conspicuous are those commonly called triumphal arches. They consist of a large central gateway, with small ones on each side, all covered with narrow roofs, and like the houses are splendidly gilded, varnished, and painted. Besides these, there are numerous pagodas, a beautiful mosque, Greek church, and convent. *P.* is indebted for its importance to its being the residence of the emperor and the seat of government. It is not distinguished by any peculiar manufacture: nor has it any foreign commerce or trade other than that directed to the supply of its own wants. This, however, is necessarily very considerable. The country round the city being sandy and poor, a large portion of its supplies are brought from a distance, — partly from sea by the Pei-ho, but principally by the Grand Canal and the Eu-ho, which connect it with Nankin and most of the E. provinces. The early history of *P.* is involved in obscurity. It was besieged and taken by the Mongols, led by Zinghis Khan, when the inhabitants, for want of ammunition, are said to have discharged ingots of gold and silver upon their assailants. Kublai Khan rebuilt it, and made it his capital in 1260. The Mongol dynasty, founded by Kublai Khan, continued to occupy this city till it was expelled from China, in 1367. In 1421, the third emperor of the Chinese dynasty of Ming transferred his residence thither from Nankin, since which it has been the capital of the empire. It surrendered to the allied armies of France and England in 1860, on which occasion the *Yueng-ming*, or summer palace of the emperor, situated in the vicinity of the city, was destroyed. *Pop.* (1897) about 1,700,000.

Pe'kin, in *Illinois*, a thriving city, cap. of Tazewell co., on the Illinois river and 5 R. R. lines, 10 m. S. by W. of Peoria; has extensive manufactures, and a coal supply. *Pop.* (1897) about 7,500.

Pe'kin, in *Indiana*, a post-village of Washington co., abt. 24 m. N.W. of New Albany.

Pe'kin, in *N. Carolina*, a post-village of Montgomery co., abt. 56 m. E. of Charlotte.

Pe'kin, in *New York*, a post-village of Niagara co., abt. 10 m. W. of Lockport.

Pe'kin, in *Ohio*, a village of Carroll co., abt. 138 m. E. N.E. of Columbus.

Pe'kin, in *Pennsylvania*, a village of Jefferson co., abt. 6 m. N.N.E. of Brookville.

Pe'kin, in *Tennessee*, a village of Putnam co., abt. 64 m. E. of Nashville.

Pek'oe, Pec'co, *n.* [Chin. *Pih-ham.*] A kind of black tea brought from China, and said to be scented with a shrub called *pekoe*.

Pela'gian, *a.* Pertaining or relating to Pelagius or his doctrines. See PELAGIANS.

Pela'gianism, *n.* The doctrines of Pelagius. See PELAGIANS.

Pelagius, (*pe-lai′je-ănz.*) (*Eccl. Hist.*) A sect of heretics that arose in the Church about the beginning of the 5th century. Their founder was Pelagius, a monk, a native of Britain, whose original name was Morgan. He is said to have been characterized by great earnestness of character and moral strictness of life. He was greatly scandalized by the gross sensualities and immoralities that prevailed in the Church, and was of opinion that they arose from a belief in the efficacy of the sacraments and the sufficiency of faith. The remedy for all, he thought, would be a creed holding man's salvation to be dependent on his own exertions. Pelagius went to Rome, and afterwards to Carthage, where he was condemned by a council as holding the following heresies: — 1. That Adam was by nature mortal, and would have died whether he had sinned or not; 2. that the consequences of Adam's sin were confined to himself, and did not affect the human race; 3. that newborn infants are in the same condition as Adam was before his fall; 4. that the law qualified men for heaven, as well as the gospel; and that before Christ some men had lived without sin; 5. that a man may keep the commandments of God without difficulty, and preserve himself in a state of perfect innocence; and that the grace of God is given in proportion to our merits. These are the chief errors which are generally reckoned under the name of Pelagianism, though it is doubtful how far they were held by Pelagius himself, as he always expressed himself very cautiously. Pelagius was arraigned before two ecclesiastical councils at Jerusalem and Diospolis,

in 415; but with sophistry and equivocation, he succeeded in baffling his accusers. One of his most powerful opponents was Augustine, and Pope Innocent I., in 417, was induced to anathemize the rising heresy. His successor, Zosimus, also condemned the obnoxious doctrine, and the emperor promulgated decrees of confiscation and banishment against them. Pelagius retired into exile, where he died. His followers never formed a sect properly so called; but Pelagianism, as a theological system, has never been without its advocates. The ninth article of the English Church is directed against the Pelagian error respecting original sin.

Pela'gic, *a.* [From Gr. *pelagos*, sea.] Pertaining to the sea; marine.

Pelagius, (*pe-lai'ji-us.*) The founder of Pelagianism. See PELAGIANS.

Pela'gius, (POPE,) was a native of Rome, and ascended the papal chair in succession to Virgilius, in 555. He endeavored to reform the clergy; and when Rome was besieged by the Goths, he obtained from Totila, their general, many concessions in favor of the citizens. D. 560.

PELAGIUS II., ascended the papal chair, in succession to Benedict I., in 578. He opposed John, patriarch of Constantinople, who had assumed the title of œcumenic or universal bishop. D. of the plague, 590.

Pela'go, a town of Italy, in Tuscany, prov. of Florence, 12 m. E. of Florence. *Manuf.* Woollens. *Pop.* 5,000.

Pelargo'nium, *n.* [Gr. *pelargos*, a stork; from the resemblance of the beaked fruit to the stork's bill.] (*Bot.*) The Stork's Bill, a genus of plants, order *Geraniaceæ*. They are herbs or shrubs, with the lower leaves (in plants raised from the seed) opposite, upper ones alternate. It is an extensive genus, embracing more than 300 species and innumerable varieties, nearly all native of the Cape of Good Hope. They form, in fact, the Geraniums of our green-houses and summer garden flowers, though the true Geraniums are somewhat different. Few of our garden-flowers are more popular than these, which now appear in at least four principal sub-divisions, known as *Show P.*, in which the two upper petals are usually clouded or veined, and dissimilar from the three lower ones; *Fancy P.*, a smaller growing race, chiefly with lighter colored flowers; *French P.*, in which appear brighter tints of color, often shaded; and *Scarlet P.*, as they are called, but which vary with colors of almost every shade, the flowers of which are nearly whole colored, and the stems and leaves more succulent. In their properties they are generally astringent. One species, *P. triste*, has tubers, which are eaten at the Cape of Good Hope.

Pel'ecoid, Pel'icoid, *n.* [Gr. *pelekos*, a hatchet, and *eidos*, form.] (*Geom.*) A curve somewhat resembling the head of a hatchet, consisting of two inverted quadrantal arcs and a semi-circle.

Pele'le, *n.* See MANGANJA.

Pel'erine, *n.* [Fr., a tippet, from Lat. *peregrinus*, foreign.] A lady's tippet, with long ends coming down before.

Pe'leus, (*Myth.*) King of Thessaly. He married Thetis, one of the Nereids, and was the only one among mortals who married an immortal. Being accessory to the death of his brother Phocus, he retired to the court of Eurytus, who reigned at Phthia. He was purified of his murder by Eurytus, who gave him his daughter Antigone in marriage. Peleus subsequently killed Eurytus by accident, while in the chase of the Calydonian boar. This event obliged him to retire to Iolchos, when the wife of Acastus, king of the country, brought certain charges against him, which caused him to be tied to a tree on Mount Pelion, that he might become the prey of the wild beasts of the place; but Jupiter, aware of the innocence of Peleus, ordered Vulcan to set him at liberty. Peleus afterwards revenged himself upon Acastus, by driving him from his possessions, and putting to death his wife. After the death of Antigone, Peleus fell in love with Thetis, who rejected his suit because he was a mortal. Having offered a sacrifice to the gods, Proteus at length informed him, that to obtain Thetis he must surprise her asleep in her grotto, near the shores of Thessaly. This advice was followed; and Thetis, unable to escape from the grasp of Peleus, at last consented to marry him. Their nuptials were celebrated with the greatest solemnity by all the gods, who made them each the most valuable presents. The goddess of discord was the only one of the deities who was not present. From the marriage of Peleus and Thetis was born Achilles. The death of Achilles was the source of so much grief to Peleus, that Thetis, to comfort her husband, promised him immortality, and commanded him to retire to the grottos of the island of Leuce, where he would see and converse with the manes of his son.

Pelf, *n.* [Probably allied to *pilfer*, and originally signifying wealth or riches acquired by pilfering.] Money; riches; wealth; lucre; — generally in the sense of ill-gotten.

Pel'ham, in *Massachusetts*, a post-township of Hampshire co.

Pel'ham, in *New Hampshire*, a post-village and township of Hillsborough county, about 38 miles S.S.E. of Concord.

Pelham, in *New York*, a post-township of Westchester co.

Pelham, in *Tennessee*, a post-village of Grundy co., abt. 40 m. N. of Chattanooga.

Pel'ican, *n.* (*Zoöl.*) A genus of birds, family *Pelicanidæ*, containing several large web-footed species of birds, residing on rivers, lakes, or along the sea-coast, and preying on fish. They have a long, straight, broad, and much depressed bill; upper mandibles flattened, terminated by a nail, or very strong hook, the lower formed by two bony branches, which are depressed, flexible, and united at the tip; and from these branches is suspended a naked skin in form of a pouch; face and throat naked; nostrils basal, in the form of narrow longitudinal slits; legs short and strong; all the four toes connected by a web; wings of moderate dimensions. "The expansive pouch, whose elasticity is well known to all who have witnessed the shapes into which it is stretched and formed by the itinerant shewmen, will hold a considerable number of fish, and thus enables the bird to dispose of the superfluous quantity which may be taken during fishing excursions, either for its own consumption or for the nourishment of its young. In feeding the nestlings — and the male is said to supply the wants of the female when sitting in the same manner — the under mandible is pressed against the neck and breast, to assist the bird in disgorging the contents of the capacious pouch, and during this action the red nail of the upper mandible of the bird appears to come in contact with the breast, thus laying the foundation, in all probability, for the *fable* that the *P.* nourishes her young with her blood, and for the attitude in which the imagination of painters has placed the bird in books of emblems, &c., with the blood spirting from the wounds made by the terminating nail of the upper mandible into the gaping mouths of her offspring." — *Broderip.* *P.* are gregarious, and fish is their favorite food; they store up their prey in their gular pouch, from which it is gradually transferred to the *œsophagus*, as the process of digestion goes on; but, when harassed, or pursued, they readily reject the contents of the stomach, like the Gull tribe. Though remarkable for their voracity, some of the species have been trained to fish in the service of man. The species are widely spread throughout the world, but are not numerous. The common *P.*, *Pelicanus onocrotalus* (Fig. 2066), is as large as a swan, white, and slightly tinged with flesh color. It is a native of E. Europe, Asia, and Africa. The Rufus-necked *P.*, *Pelicanus fuscus*, the prevailing color of which is white, is found in the United States.

Fig. 2066. — COMMON PELICAN, (*Pelicanus onocrotalus.*)

Pel'ican (or ALCATRAZ) **Island,** in *California*, a small rocky islet in the bay, and abt. 2½ m. N. of the city of San Francisco. It has an elevation of abt. 140 feet above the sea, is strongly fortified, and commands the entrance of the Golden Gate.

Pelicani'dæ, *n. pl.* (*Zoöl.*) A family of birds, order *Anseres* or *Natatores*, which have the bill long, hooked at the end, nostrils hardly perceptible, wings long, pointed, and tail rather short. They have a pouch under the lower mandible and opening into the throat, which is capable of great distention. The flight is heavy.

(*Surg.*) An instrument for extracting teeth, curved at the end as the beak of a pelican.

(*Chem.*) A kind of alembic from which two opposite beaks or tubes pass out and reënter at the belly of the cucurbit.

Pel'ion, *n.* (*Min.*) A smoky blue variety of jelite.

Pelio'ma, *n.* (*Med.*) A livid spot on the skin.

Pel'ion. (*Anc. Geog.*) The ancient name of a wooded mountain range in Thessaly, extending along the east coast. Its eastern side descends in steep and rugged precipices to the sea. Further to the north, near the mouth of the Peneus, is the steep conical peak of Ossa (*q. v.*), which, according to the classic myth, the Titans placed upon the summit of *P.*, in order to scale Olympus, the abode of the gods. The modern name is Zagorá, and as of old, its sides and summit are clothed with venerable forests of oak, chestnut, beech, elm, and pine.

Pelisse, (*pe-lees'*) *n.* [Fr., from Lat. *pellis*, a skin, a hide.] Originally, a furred robe or coat, now a silken coat or habit worn by females.

Pelis'sier, AIMABLE JEAN JACQUES, duke of Malakoff, marshal of France, was b. near Rouen in 1794. He entered the army at the age of 19, and distinguished himself in Africa, and was created lieutenant-general in 1848, and was called in 1855 to take a command in the Crimea under General Canrobert, whom he soon superseded as commander-in-chief. He distinguished himself in the successful attack on Kertch, in the battle of the Tchernaya, and above all in the storming of the Malakoff Tower at Sebastopol, September 8, 1855. He was soon after created marshal and Duke of Malakoff. In 1858 he was ambassador to London; was subsequently appointed governor-general of Algeria, and d. there 1864.

Pell, *n.* [Lat. *pellis*, a skin or hide; It. *pelle.*] A skin or hide; also, a roll of parchment.

Pel'la, in *Iowa*, a city of Marion co., on the Chic., R. I. & Pacific R.R., 47 m. E.S.E. of Des Moines; has some manuf. and a fine trade. Seat of Central University of Iowa (Baptist). *Pop.* (1895) 2,606.

Pellag'ra, *n.* [Gr. *pella*, skin, and *agra*, attack.] (*Med.*) A disease of the skin somewhat resembling *elephantiasis*, and occasionally producing great constitutional derangement.

Pel'let, *n.* [Fr. *pelote*, from Lat. *pila*, a playing-ball.] A little ball; a bolus; as, a *pellet* of bread crumb.

Pel'leted, *a.* Made of, resembling, or supplied with, pellets.

Pel'lew Islands, a group of the Carolines, in the N. Pacific Ocean, Lat. between 7° and 9° N., Lon 130° and 136° E. They are about 20 in number, and extend 87 m. from N.N.E. to S.S.W.

Pellicle, (*pel'likl,*) *n.* [Lat. *pellicula*, dimin. of *pellis*, a hide, skin.] (*Surg.*) The first delicate formation of the skin that appears over a healing ulcer or open sore.

(*Chem.*) The film that rises on certain fluid preparations, like that which may be observed forming on a bowl of boiled milk set aside to cool, before the firm skin is established, that is certain to rise when the milk becomes cold. Any very thin, transparent membrane, like that which encloses the yolk of an egg.

Pel'lico, SILVIO, the celebrated Italian patriot, and victim of Austrian tyranny, author of *Mie Prigioni*, was b. at Saluzza, in Piedmont, in 1789. In early life he gained considerable distinction as a writer for the stage; and his tragedy, *Francesca da Rimini*, may still be read with interest. In 1819 he became connected with the press, at the same time that he was tutor in the family of Count Porro; and in 1820 he was seized as a carbonaro by the Austrians at Milan, and confined in the fortress of Spielberg for ten years. The volume on which his fame rests tells the story of his imprisonment. His treatment was not distinguished by the most terrible hardships or tortures which other more illustrious persons have undergone, but it tells a tale of solitude, of patient endurance, and of pleasing sentiments continually keeping alive the strength of hope and affection, which has endeared the volume and the writer to numbers who could scarcely grasp the political idea involved. Released by the amnesty of 1830, he found shelter at Turin, and was employed as librarian in the house of the Marchesa Barolo until he died. His imprisonment had ruined his health, and he took no further part in politics. D. 1854.

Pellic'ular, *a.* Pertaining, or having reference to, a pellicle.

Pellitory, *n.* (*Bot.*) See PARIETARIA.

Pellitory of Spain, *n.* (*Pharmacy.*) The root of *Anthemis pyrethrum*. It has a pungent flavor, and when chewed promotes the flow of saliva, and is often useful in toothache.

Pell-mell', *n.* See PALL-MALL.

—*adv.* [Fr. *pêle-mêle.*] In complete confusion or disorder; with confused violence; with mixture at random; helter-skelter; as, the troops retreated *pell-mell*.

Pellu'cid, *a.* [Lat. *pellucidus* — *per*, through, and *lucidus*, shining, from *lux*, *lucis*, light.] Perfectly clear; translucent; diapheneus; not opaque; as, a *pellucid* stream.

Pellucid'ity, Pellu'cidness, *n.* Perfect clearness; translucence; partial transparency.

Pellu'cidly, *adv.* With clearness; diaphonously.

Pelop'idas, a valiant and patriotic Theban general, was the friend of Epaminondas and the associate of his victories. When the Spartans conquered Thebes, *P.* went to Athens, where he assembled his exiled countrymen, with whom he returned, seized upon Thebes, and expelled the invaders. Afterwards he defeated the Lacedæmonians at Tegyra, and shared with Epaminendas the victory of Leuctra. *P.* being sent ambassador to Alexander, the tyrant of Pheræ, was thrown into prison; but on the appearance of Epaminondas he obtained his release. He went next to the court of Persia, and after his return commanded the forces sent to the relief of Thessaly, where he fell, B. C. 364.

Peloponne'sian, *a.* Relating or pertaining to Peloponnesus.

—*n.* (*Geog.*) A native or inhabitant of the Peloponnesus.

Peloponne'sus. [Said to be so called from *Pelops*, son of Tantalus, king of Phrygia, who settled in that country.] The ancient name of the Morea (*q. v.*). Among its most important cities were Sparta in Laconia, and Argos the capital of Argolis. Sparta acquired, after the Messenian war, a decided supremacy over the other states, and disputed the supremacy with Athens in a war of almost thirty years' duration (431–404 B. C.) — the famous *Peloponnesian War*, of which the history has been written by Thucydides. After the Roman conquest, the *P.* formed part of the province of Achaia, and subsequently belonged to the Byzantine empire. — See MOREA.

Pelo'ria, *n.* [Gr. *pelor*, a monster.] (*Bot.*) A term applied to those flowers which change from their usual normal irregular form to one which is abnormal in development as regards the particular family to which they belong. Instances occur in the Snapdragon and the Toad-flax, which, being normally irregular, sport to a regular form. The erect-flowered Gloxiuias of modern times.

Pel'otage, *n.* Bales of Spanish wool.

Pelt, *n.* [Ger. *pelz*; Lat. *pellis*, a hide.] The skin of a beast with the hair on it; a raw hide.

(*Falconry.*) The quarry of a hawk all torn.

Pelt-rot. A disease which rots the hair or wool of a beast.

—*v. a.* [Fr. *peloter*, from *pelote*, a pellet.] To strike with pellets, or with something thrown, driven, or falling; to drive by threwing something; as, to *pelt* with stones, a *pelting* storm. — To cast or use as a missile.

—*n.* A blow or stroke from a pellet, or from something hard, solid, or semi-liquid; a knock; a blow or stroke from something thrown.

Pel'ta, *n.* [Lat., a shield] (*Bot.*) A term used in describing lichens, to denote a flat shield without any elevated rim.

Pel'tate, Pel'tated, *a.* (*Bot.*) A leaf or any other organ which is fixed to the stalk by the centre, or by some point distinctly within the margin.

Pelt'er, *n.* One who pelts or hurls missiles.

Peltig'era, *n.* (*Bot.*) The Ground-liverwort, a genus of plants, order *Lichenales*. *P. canina* and *rufescens* were formerly officinal, and regarded as a specific for hydrophobia.

Pel'tinerved, *a.* (*Bot.*) Peltately veined.

Pelt'-monger, *n.* One who deals in pelts or raw hides.

Pel'tonville, in *New York*, a village of Steuben co., abt. 18 m. N. by E. of Bath.

Peltoph'ornm, *n.* [Gr. *peltophoros*, shield-bearing.] (*Bot.*) A genus of plants, sub-order *Cæsalpinieæ*. The species *P. Linnæi*, formerly *Cæsalpinia brasiliensis*, a native of the W. Indies, yields the orange-colored dye-wood called Braziletto.

Pel'try, *n.* [Lat. *pellis*, a skin.] The name given to the skins of different kinds of wild animals found in high N. latitudes, particularly in America, such as the beaver, sable, wolf, bear, &c. When the skins of such animals have received no preparation, they are termed *peltry;* but when the inner side has been tanned by an aluminous process, they are denominated *furs*.
—A mean or worthless object.

Pelt'-wool, *n.* Wool plucked from the pelts of dead sheep.

Pel'vic, *a.* Pertaining or having reference to the pelvis.

Pel'vis, *n.* [Lat., a laver.] (*Anat*) The inferior part of the abdomen, the bony circumference of which is

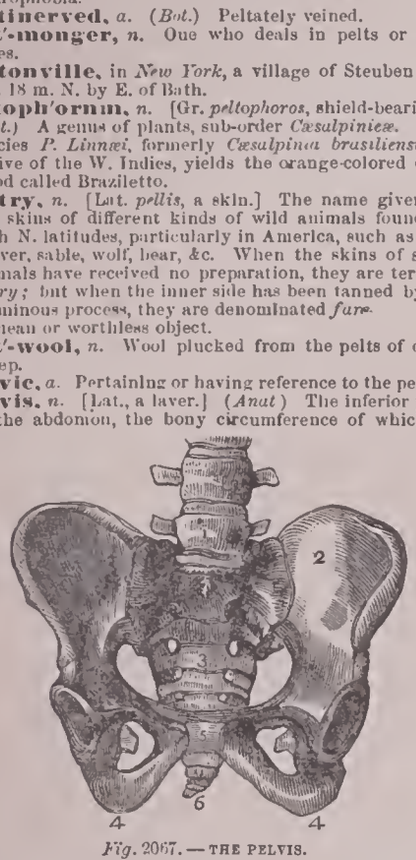


Fig. 2067. — THE PELVIS.

1, the last Lumbar Vertebræ; 2. the Ilium; 3, Os Coccygis, slightly elongated, to show, 5. the point or beak; 4. the Ischium; 5. the Symphysis, or junction of the two bones of the Pubes; 7, the Sacrum.

formed by the 2 *ossa innominata*, each composed of an *ilium*, an *ischium*, and *pubis*, the *sacrum*, and the *os coccygis*. It contains the rectum, the urinary bladder, and internal organs of generation.

Pemadum'cook, in *Maine*, a lake of Piscataquis co., receives the surplus waters of Lake Chesuncook, and discharges by a small outlet into Penobscot River.

Pem'aquid, in *Maine*, a post-village of Lincoln co., abt. 18 m. E. of Bath.

Pem'berton, a township of England, co. of Lancaster, 2 m W of Wigan. *Manuf.* Cotton goods. *Pop.* 5,500.

Pemberton, in *New Jersey*, a post-village and township of Burlington county, abt. 20 m. E. by S. of Trenton, intersected by Rancocas creek.

Pemberton, in *Ohio*, a post-village of Shelby co., abt. 16 m. W. of Bellefontaine.

Pembi'na, in *North Dakota*, a lake of the salt-water region, giving rise to Pembina river, which flows E. into the Red River of the North.
—An extreme N.E. co.; *area*, 1,120 sq. m. It is bounded on the N. by the Red River of the North, and is intersected by the Pembina river. *Surface*, undulating prairie; *soil*, fertile. *Products*. Wheat, barley, corn; live stock; hay in considerable quantity. *Cap.* Pembina. *Pop.* (1890) 14,334.
—A city, cap. of Pembina co., on the Red River of the North, at the mouth of Pembina river, and the Northern Pacific R.R. Has a good local trade and is a grain shipping point. *Pop.* (1897) 1,000.

Pem'broke, a seaport-town of S. Wales, cap. of the county of same name, on a navigable creek of Milford Haven, 7 m. S.E. of Milford. Most of the shipping-trade is carried on at Pater, or Pembroke Dock, 1 m. N.W. *Pop.*, including Pater, 15,500.

Pembroke, in *Maine*, a post-township of Washington co.

Pembroke, in *Massachusetts*, a post-village and township of Plymouth county, about 27 miles S.E. of Boston.

Pembroke, in *New Hampshire*, a post-village and township of Merrimack county, about 7 miles S.E. of Concord.

Pembroke, in *New York*, a p. v. of Genesee co.

Pembroke, in *New York*, a post-township of Genesee co.

Pemigewas'set, in *New Hampshire*, a small river joining the Winnipiseogo River to form the Merrimack River, opposite Plymouth, in Grafton co.

Pemis'cot, in *Missouri*, an extreme S.E. co., adjoining Tennessee on the E. and Arkansas on the S.; *area*, abt. 300 sq. m. *Rivers*. Mississippi and Whitewater rivers. Lake Pemiscot occupies in the central part of the co. an area of abt. 90 sq. m. *Surface*, level and generally low, occupied for the most part by shallow lakes and swamps. *Cap.* Gayoso.

Pem'maquid Point, in *Maine*, a promontory and light-house of Lincoln co., on the W. side of the entrance to George's River.

Pem'mican, Pem'ican, *n.* Among the N. American Indians, meat cut in long thin strips without fat, and dried in the sun; charqui. — Meat prepared by drying in the sun, pounded, and compressed into bags for use as an article of provision in long voyages, journeys, &c.

Pen, *n.* [A.S. *pinn;* Dan. *pen;* Icel. *penni;* It. = Lat. *penna;* Gr. *pelomad.*] A feather or quill prepared as an instrument for writing; an instrument used for chirography made of steel, gold, &c.; — also used figuratively for a person who uses a pen; a writer.

"The *pen* is mightier than the sword." — *Bulwer-Lytton.*

(*Manuf.*) Steel pens, which have almost superseded quill pens, are made in great quantities, and, like pins and needles, can only be produced, at a sufficiently low price to meet the requirements of the people, by those who have erected buildings and fitted up machinery so as to make the process sufficiently cheap and rapid. The steel is first selected of a proper quality, and rolled out into sheets of the thickness required, and of breadth sufficient for the length of a pen; these are punched out to the proper shape by a punch worked by a screw, which cuts out a piece at every blow, and also the perforation which terminates the split; the maker's name, or any other device, is stamped on this flat piece of steel, called a *blank*, which is then coiled up into the shape required, whether a *barrel* pen, or a *nib*, by a sort of press, worked by a girl. The pens have next to be tempered, by being made red-hot and then thrown into water or oil, and are afterwards polished by putting them into a barrel with fine sand, which is turned round for several hours; the nibs or points are then finished on an emery wheel, against which the pens are held as it revolves. They are then slitted, and varnished by dissolving shellac and asphaltum in naphtha, which keeps them from rusting. Pens are sometimes made of brass, zinc, silver, and gold. Those made of gold are, of course, too expensive for general use, but, as they are never corroded by ink, they last a very long time, and can always be cleaned by washing, and as the whole wear is at the point, this is tipped with an alloy which is exceedingly hard, composed of osmium and iridium. Steel pens were first produced in 1803 by Mr. Wise, of Great Britain, but it is to the improvements introduced in 1822 by Mr. Gillott, of Birmingham, that this branch of manufacture owes its immense development. There are in this country, chiefly in Philadelphia, Camden, and Meriden, Conn., extensive factories devoted to the production of steel pens. Diamond-pointed and Iridium-pointed gold pens are produced in such perfection as to give them a large sale in Europe. A recent invention of great value is the fountain pen, in which a hollow barrel holds the ink and supplies it gradually to the point.

—*v. a.* (*imp.* and *pp.* PENNED, (*pend.*) To write; to compose and commit to paper.

Pen, *v. a.* (*imp.* and *pp.* PENNED, or PEND.) [A.S. *pyndan, gepyndan.*] To coop; to shut or close up; to confine in a small inclosure or narrow place.

"Where shepherds *pen* their flocks at eve." — *Milton.*

—*n.* A small inclosure for domestic animals, as for cows, or sheep. — A house with its offices and out-buildings within an inclosure; — used in Jamaica.

Penæa'ceæ, *n.* (*Bot.*) The *Penæa* or *Sarcocolla* family, an order of plants, alliance *Rhamnales*. DIAG. Apetalous flowers, an ovary composed of 4 carpels, a tubular calyx, with definite divisions, and rudimentary cotyledons.

Pe'nal, *a.* [Fr.; Lat. *pœnālis*, from *pœna*, pain, expiation = Gr. *poinē*, penalty.] Pertaining or having reference to punishment; inflicting punishment; incurring punishment; enacting the punishment of offenders; subject to a penalty; as, a *penal* code, a *penal* offence, *penal* servitude.

Penal code, a code of laws having application to the punishment of criminals. — *Penal laws*, laws forbidding an act, and exacting punishment for committing it.

Pe'nally, *adv.* As a penalty.

Pen'alty, *n.* [Fr. *penalité*, from Lat. *pœna.*] Pain or punishment, suffered in person or property; which is annexed by law or judicial decision to the commission of a crime, offence, or trespass; penal retribution; — generally applied in a pecuniary sense; as a *penalty* of five thousand dollars, *penalty* of death. — Forfeiture; fine; mulct for non-performance of something stipulated.

"The *penalty* and forfeit of my bond." — *Shaks.*

On or *under penalty* of, on pain of; in case of transgression or non-performance.

Pen'ance, *n.* [O. Fr. = Fr. *penitence*, from Lat. *peeritencia*] The pain, suffering, or labor to which a person voluntarily subjects himself, or which is imposed on him by authority, as a punishment for his faults, or as an expression of penitence.

"When the torturing hour calls us to *penance*." — *Milton.*

Penanced, (*pĕn'anst,*) *a.* Having performed or suffered penance.

Pen'anceless, *a.* Free from penance.

Penang', Pinang, or **Prince of Wales Island,** in the Strait of Malacca, off the W. coast of the Malay Peninsula, from which it is separated by a channel from 2 to 5 m. wide, and belonging to the presidency of Bengal; Lat. between 5° and 5° 16′ N., Lon. 100° 9′ and 100° 25′ E. *Area*, 160 sq. m. The surface is hilly and well wooded, and the soil fertile. The climate is very healthy. *Prod.* Rice, cotton, tobacco, coffee, sugar, indigo, cocoa-nuts and spices. *Cap.* George Town. *Pop.* 50,000.

Penan'nular, *a.* [Lat. *pene*, almost, and *annularis*, circular, from *annulus*, a ring.] Possessing very nearly the circular form of a ring.

Pena'tes, *n. pl.* [Lat.] The household gods of the ancient Romans, distinguished from the *lares* by their divine origin, and believed to have power over the events which happened in a household; they were thus controllers of fate, as the Lares were protectors of property. The Penates take the figure of the gods, or are represented as old men in priestly costume. — See LAR.

Pen'case, *n.* A case or holder for a pen.

Pence, *n.*; *pl.* of PENNY, *q. v.*

Penchant, (*pŏng'shŏng'.*) *n.* [Fr.] Predilection; inclination; preference; decided taste; as, a *penchant* for the fair sex.

Pen'cil, *n.* [Fr. *pinceau;* Sp. *pincel;* Lat. *penicillum*, from *peniculus*, dimin. of *penis*, a tail, from *pendeo*, to hang.] A name applied to instruments for writing, drawing, or painting, differing as much in their construction as in the use to which they are applied. There are now in use the following kinds of *P.: hair-P., black-lead-P., chalk-P.*, and *slate-P.* The first are used for painting or writing with fluid colors, either oil or water, and in China and Japan are employed almost entirely instead of pens for writing; the color used being the black or brown pigment obtained from various species of sepia or cuttle-fish. The well-known *black-lead-P.* is made by cutting black-lead or plumbago (see BLACK-LEAD) into thin plates with a saw, and again into strips as wide as the plate is thick. These strips are then laid in a groove in a piece of cedar, upon which is glued another and thinner piece: the whole is afterwards rounded by a plane adapted to that purpose. Some *P.* are filled with colored chalk instead of black-lead. The *ever-pointed P.* is an instrument for using cylindrical pieces of black-lead, which are forced forward in the *P.* just so far as to allow them to be used without breaking. The leads are manufactured of different thicknesses, and the *P.*-cases are marked with a letter to correspond with the lead required for it. The *P.* for using liquid colors or paints are of course wholly different from those just described. They are made of hog's bristles, camel's hair, fitch, sable, &c. Those of a large and common kind are described under BRUSH. The sott *P.* for artists are made as follows: — The tail of the animal (sable, badger, marten, &c.) is scoured in a solution of alum; then steeped for several hours in lukewarm water; then dried in linen cloths; and finally combed out regularly. The hairs are seized with pincers, and cut off near the skin; and the little parcels of hair are sorted into groups according to their length. A few hairs are then taken — enough for one pencil — and placed in a little receptacle, which holds them while a thread is bound round near the roots. The base of the *P.* is then trimmed flat by scissors. The hairs thus prepared are fitted either into quills or into tin tubes. The quills are those of swans, geese, ducks, lapwings, pigeons, or larks, according to the size of the pencil. Each quill is softened and swelled in hot water: and the bunch of hairs is introduced at the larger end, and pulled forward by a simple apparatus to the smaller end, where the shrinking of the quill binds the hairs closely. The great art in *P.*-making is so to arrange the hairs that their ends may be made to converge to a fine point when moistened and drawn between the lips. Females are generally more successful than men in preparing the small and delicate pencils. Slate-*P.*, for writing on slate, are made either by cutting slate into thin sticks, and rounding them, or by cutting it into fine square slips, and encasing them in wood, as in the case of black-lead, &c.

—Figuratively, art, capacity, or instrument of painting, drawing, or delineating.

"Nature's ready *pencil* paints the flowers." — *Dryden.*

(*Optics.*) An aggregate or collection of rays of light which converge to, or diverge from, the same point.

—*v. a.* To write or mark with a pencil; to paint or draw; to delineate.

Pencilled, (*pen'sild,*) *a.* Painted, drawn, or marked with a pencil. — Radiated; having pencils of rays.

(*Bot.*) Characterized by fine lines, as if with a pencil.

Pen'cilling, *n.* The act of painting or sketching; a sketch.

Pen'craft, *n.* Chirography; handwriting; penmanship.

—Art of composing; authorship; literary writing.

Pen'-cutter, *n.* One who cuts or makes pens for use.

Pend, *n.* An Oriental term for oil-cake.

—*v. n.* To depend; to hang. (R.)

—To be unsettled; to be in process of adjustment; to be in abeyance.

Pen'dant, *n.* [Fr.; Lat. *pendens*, from *pendeo*, to hang down.] Anything hanging, as by way of ornament; a hanging appendage; — also, an appendix or supplement. —

Fig. 2068. — PENDANT.

(From Henry VII.'s Chapel, Westminster, A. D. 1512.)

An ornament or jewel depending from the ear; an earring. — A picture, print, &c., which hangs as a match to a kindred piece of art.

(*Arch.*) A term applied in Gothic architecture to those pieces of ornamented stone hanging down from the intersections of a groined roof, and of which Fig. 2068 gives one of the finest examples.

(*Her.*) Anything hanging down, as the badge of an order pendant to the chain or ribbon.

(*Naut.*) A rope to which a purchase is hooked; also, a long, narrow piece of bunting. See PENNANT.

Pen'deney, *n.* [Sp. *pendencio*, quarrel, dispute, from Lat. *pendens.*] A hanging in uncertainty; suspense; state of being in doubt or undecided; as, the *pendency* of a law suit.

Pen'dent, *a.* [Lat. *pendens.*] Hanging from above; suspended; depending; pendulous. — Jutting out or over; projecting; overhanging; as, a *pendent* rock.

Penden'te Li'te, *n.* [Lat.] (*Law.*) Pending the progress of a suit or action.

Pen'dentive, *n.* [Fr. *pendentif*, from Lat. *pendere*, to hang.] (*Arch.*) The portion of a vault resting on one pier, and extending from the springing to the apex. — The word *pendentive* is also applied to the portions of vaults introduced in the angles of rectangular compartments, in order to reduce them to a circular or other suitable form to receive a dome.

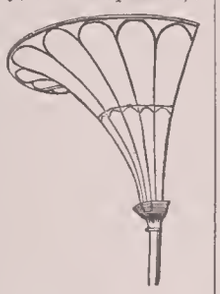


Fig. 2069.—PENDENTIVE. (Byzantine.)

Pen'dently, *adv.* In a pendent or projecting manner.

Pendice, (*pend'is,*) *n.* A sloping roof; a pentice; also, a pent-house.

Pendicle, (*pen'dik-l,*) *n.* A pendant, appendage, or appurtenance.

Pen'dicler, *n.* In Scotland, a sub-tenant.

Pend'ing, *p. a.* [Fr. *pendant*, during.] Remaining undetermined; in suspense; as, a *pending* suit.

—*prep.* During; for the time of the continuance of; as, *pending* the result of the battle.

Pen'dleton, EDMUND, an American statesman and jurist, b. in Virginia, 1721, who, after the inauguration of the commonwealth, was called to preside over the first house of delegates, and was appointed by that body, in conjunction with Chancellor Wythe and Jefferson, to revise the colonial laws. In 1777, by a fall of his horse, he received an injury which made him a cripple for life. In 1779 he became President of the Court of Appeals; and presided in 1788 at the State Convention in which was to be considered the proposed constitution of the U. S., and masterly advocated the national compact. D. 1803.

Pendleton, (*pen'del-ton,*) a suburban village of Manchester, England, co. of Lancaster, 2½ m. W.N.W. of Manchester. *Manuf.* Cotton and silks. In the vicinity are numerous collieries. *Pop.* 15,000.

Pen'dleton, in *Indiana*, a post-village of Madison co., abt 26 m. E.N.E. of Indianapolis.

Pendleton, in *Kentucky*, a N. co., adjoining Ohio. *Area*, abt. 300 sq. m. *Rivers.* Ohio, Licking, and South Licking rivers. *Surface*, level or gently undulating; *soil*, mostly fertile, and well adapted to the production of cereals. *Cap.* Falmouth.

Pendleton, in *Missouri*, a post-village of Warren co., abt. 63 m. W.N.W. of St. Louis.

Pendleton, in *New York*, a post-township of Niagara co.

Pendleton, in *Ohio*, a post-village of Putnam co., abt. 58 m. S.S.W. of Toledo.

Pendleton, in *W. Virginia*, an E. by N. co., adjoining Virginia. *Area*, abt. 620 sq. m. *Rivers.* South Branch of the Potomac River, and North and South Forks. *Surface*, elevated, mountainous, the main range of the Alleghany Mountain forming the N.W., as does the Shenandoah Mountain the S.E., boundary of the co.; *soil*, in some parts fertile. *Cap.* Franklin.

Pen'dleton Centre, in *New York*, a post-village of Niagara co., abt. 17 m. N.N.E. of Buffalo.

Pendulos'ity, *n.* State or quality of being pendulous; pendulousness.

Pend'ulous, *a.* [Lat. *pendulus*, from *pendeo*, to hang down.] Hanging; pendent; swinging; fastened at one end, the other being movable; depending.

Pend'ulously, *adv.* In a pendulous or swinging manner.

Pendulous'ness, *n.* Same as PENDULOSITY, *q. v.*

Pend'ulum, *n.* [It. *pendulo*, from Lat. *pendŭlus*, hanging down.] (*Physics.*) A heavy body so suspended that it may vibrate or swing backwards and forwards about a fixed point by the action of gravity, when it is once raised by an external force, to the right or left of its quiescent position. The regulation of the motion of clocks is effected by means of pendulums, that of watches by balance-springs. *P.* were first applied to this purpose by Huyghens in 1658, and in the same year Hooke applied a spiral spring to the balance of a watch. The manner of employing the *P.* is shown in Fig. 2070. The *P.*-rod passing between the prongs of a fork, *a*, communicates its motion to a rod, *b*, which oscillates on a horizontal axis, *o*. To this axis is fixed a piece, *m n*, called an *escapement* or *crutch*, terminated by two projections or *pallets*, which work alternately with the teeth of the *escapement-wheel*, R. This wheel being acted on by the weight tends to move continuously, let us say, in the direction indicated by the arrow-head. Now if the *P.* is at rest, the wheel is held at rest by the pallet, *m*, and with it the whole of the clockwork and the weight. If, however, the *P.* moves and takes the position shown by the dotted line, *m* is raised, the wheel *escapes* from the confinement in which it was held by the pallet, the weight descends, and causes the wheel to turn until its motion is arrested by the other pallet, *n*; which, in consequence of the motion of the *P.* will be brought into contact with another tooth of the escapement-wheel. In this manner the descent of the weight is alternately permitted and arrested — or, in a word, regulated — by the *P.* By means of a proper train of wheelwork the motion of the escapement is communicated to the hands of the clock; and consequently their motion, also, is regulated by the *P.* The peculiarly valuable property of the *P.* is called *isochronism*, and consists in its disposition to vibrate different arcs in very nearly the same time, provided the arcs are none of them large. In demonstrating the theory of the motion of the *P.*, mathematicians are obliged to assume that there is no rigidity in the cord, no friction at the axis of suspension, no resistance to motion made by the air, and no variation in the total length of the cord, arising from the variable temperature or moisture of the atmosphere; and if these assumptions were strictly correct, a *P.* once put in motion, would continue to move *ad infinitum*, without a further accession of external force; but when the pendulum is applied as the regulator of a clock, the assumptions just stated require an equal number of mechanical corrections. The wheelwork of a common clock is merely employed to produce a given number of oscillations in the *P.*; and as the period of those oscillations depends on the length of the pendulous body, it will be obvious that one of the first essentials in the construction of a clock is to make the *P.* of a determinate length. It must be observed, however, that the time does not vary as the length, but only as the square-root of the length, *i. e.*, a *P.* to vibrate 2 seconds must be four times as long as a second's pendulum. As the length of a *P.* increases with heat, and a brass rod equal in length to a second's *P.* will expand or contract 1-1000 part of an inch by a change of temperature of 1° in Fahr.'s thermometer, and since the times of vibration are in a subduplicate ratio of the lengths of the *P.*, an expansion or contraction of 1-1000 part of an inch will answer nearly to 1 second daily; therefore a change of 1° in the thermometer will occasion a difference in the rate of the clock equal to 1 second daily; hence the daily variation of the rate of the clock from summer to winter will be very considerable; and in order to avoid this, several contrivances have been employed, among which is the *gridiron-pendulum*, composed of any convenient odd number of rods of different metals, as 5, 7, or 9, being so connected that the effect of one set of them counteracts that of the other set; this form of *P.*, however, is liable to several objections, and is now almost obsolete. If the expansion of wooden rods could be depended on, or if it were not modified by absorption of moisture, or something else, which renders their action uncertain, the simplest of all compensation pendulums would be a wooden rod with a lead-bob 14 inches long. But all attempts to make the rod damp-proof have failed. The most recent compensation-*P.* is one analogous to the *gridiron-P.*, and composed of zinc and iron, which would probably have been discovered long ago if the mode of working zinc had been known. In these *P.* the sum of the iron rods must be to the zinc as 17 to 7. The best mode of suspending clock-*P.* is by a thin spring; not that the elastic force of the spring is of any use; but it has the advantage of being perfectly free from friction. In common clocks, the cock from which the *P.* hangs is screwed to the back-plate of the clock-frame, and has merely a slit in it, through which the spring hangs by a pin or rivet through its top; but in all the better class of clocks, which have heavy *P.* for their size, the spring is screwed fast between two brass or iron chops, and there is a large pin through them and the spring, with shoulders, so that it will just drop tightly into V's in the two sides of the cock. A spring does not bend only at one point, as a string does; and therefore a *P.*-bob hung by a spring does not move exactly in a circle, but in a cycloidal curve; and it was the celebrated Huyghens, already mentioned, who first explained that *P.* swinging in this curve have greater isochronal properties than those vibrating in arcs of a circle. To explain this geometrical curve, however, would here be out of place. As the action of gravity is not the same in all latitudes, nor yet at all heights above the earth's surface in the same latitude, the vibrations of the *P.* are slower at the equator than at the poles, and increase in quickness with the latitudes N. or S., as the centrifugal force decreases, and *vice versa.*

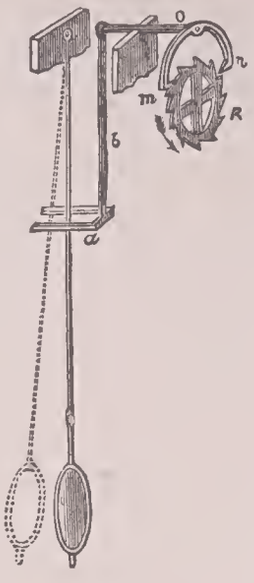


Fig. 2070.

Penedo, (*pa-na'do,*) a city of Brazil, on the São Francisco River, abt. 55 m. S.W. of Alagoas. It is generally well built, and carries on an extensive trade. *Pop.* 14,000.

Penel'ope, a celebrated Grecian princess, daughter of Icarius, wife of Ulysses (*Odysseus*), and mother of Telemachus. According to the Homeric legend, Ulysses, during his long wanderings after the fall of Troy, was generally regarded as dead, and *P.* was vexed by the urgent suits of many lovers, whom she put off on the pretext that she must first weave a shroud for Laertes, her aged father-in-law. To protract the time, she undid by night the portion of the web which she had woven by day. When the suitors had discovered this device, her position became more difficult than before; but fortunately Ulysses returned in time to rescue his chaste spouse from their distasteful importunities.

(*Zoöl.*) See PENELOPIDÆ.

Penelo'pidæ, *n. pl.* (*Zoöl.*) A fam. of gallinaceous birds, peculiar to Guiana and Brazil. They are generally as large as turkeys, move in flocks, build their nests among, and often upon, the trees, and with proper care are capable of domestication. They are known under the names of Curassows, Hoccos, and Guans. The Common Guan (*Penelope cristata*), represented in Fig. 2071, may be taken as the type of this family, to which belong also the Chiacalaica (*Ortalida McCalli*) of New Mexico.

Fig. 2071. — GUAN. (*Penelope cristata.*)

Penetrabil'ity, *n.* [Fr. *penetrabilité.*] Susceptibility of being penetrated, or of being entered or passed through by another body.

Pen'etrable, *a.* [Fr.; Lat. *penetrabilis.*] That may be penetrated, entered, or pierced by another body. — Susceptible of moral or intellectual impression.

Pen'etrableness, *n.* State or quality of being penetrable; penetrability.

Pen'etrably, *adv.* In a penetrable manner.

Pen'etrance, Pen'etraney, *n.* Quality or power of entering or penetrating.

Pen'etrant, *a.* [From Lat. *penetrans.*] Sharp; subtle; piercing; penetrating.

Pen'etrate, *v. a.* [Lat. *penetro, penetratus.*] To enter or pass into the interior of; to enter or pierce, as into another body. — To affect, as the mind; to cause to feel; to make sensible of. — To reach by the intellect; to understand.

"Things which were too subtle for us to *penetrate.*"—*Ray.*

—*v. n.* To enter; to pass into; to pierce; to make way intellectually.

"We are not yet *penetrated* into the reality of the thing." — *Locke.*

Pen'etratingly, *adv.* In a penetrating manner; discerningly.

Penetra'tion, *n.* [Fr.; Late Lat. *penetratio.*] Act of penetrating or of entering a body. — Mental entrance into anything abstruse; the power by which the mind sees through anything difficult or complex; acuteness; sagacity; discernment; discrimination; as, a man of great *penetration.*

Pen'etrative, *a.* [Fr. *penetratif.*] That penetrates; piercing; sharp; subtle; acute; discerning.

Pen'etrativeness, *n.* Quality of being penetrative.

Peneu'ach, in *Iowa*, a village of Dallas co., abt. 14 m. W. by S. of Iowa City.

Pen'field, in *Michigan*, a township of Calhoun county.

Penfield, in *New York*, a post-village and township of Monroe co., abt. 7 m. E. of Rochester.

Penfield, in *Ohio*, a post-township of Lorain county, on Black river.

Pen'field, in *Pennsylvania*, a post-village of Clearfield co., abt. 18 m. N.N.W. of Clearfield.

Pen'-fold, *n* A fold or corral for cattle.

Pen'guin, *n.* (*Zoöl.*) A genus of swimming birds, family *Alcidæ*, which are in the Antarctic what the auks are in the Arctic regions. Their bills are similar, but they are even less capable of flying than the auks, their side appendages being mere apologies for wings, covered with scale-like vestiges of feathers, serving them, however, as paddles in the water, through which they skim with great celerity. They never venture to land except to breed, and can only reach their shallow nests on the shore by drawing themselves on their bellies. They hatch the one egg erect, and they cackle like geese. The largest, the Patagonian. (*Aptenodytes Patagonica*, Linn., Fig. 75,) is found in immense flocks near the Straits of Magellan, and as far as New Guinea. It is of the size of a goose, of a dark-ash color above and white beneath; the head and neck, which approach to black, are separated by a golden-colored spot at the ears. Its flesh is black and oily, but eatable.

Pen'-holder, *n.* A handle or case for a pen.

Penicil, (*pĕn'-i-sil.*) *n.* [Lat. *penicillus*, a tail, a roll of lint, &c.] (*Zoöl.*) A small tuft of diverging hairs.

(*Med.*) A pledget for wounds or sores.

Penicil'late, Penicilli'form, *a.* (*Bot.*) Tipped with a brush of hairs like a camel's-hair pencil.

Penicil'linm, *n.* (*Bot.*) A genus of plants, order *Fungales.* Certain moulds found on bread, preserves, &c., are produced by species of this genus. The so called Vinegar-plant, which, by its growth in saccharine liquids at moderate temperatures, converts them into vinegar, appears to be a mycelial state of *P. glaucum*; and the Yeast-plant, which by its vegetation at a high temperature, causes fermentation in bread, beer, &c., would seem likewise to be a mycelial state of a species of this genus.

Penin'sula, *n.* [Lat. *pæne*, nearly, and *insula*, island.] A tract or tongue of land almost surrounded by the sea, or connected with the continent by a narrow neck or isthmus; a large extent of country joining the mainland by a part narrower than the tract itself, as the territory constituting Spain and Portugal.

Peninsula, in *Michigan*, a township of Grand Traverse co.

Penin'sula, in *Ohio*, a post-village of Summit co., abt. 136 m. N.E. of Columbus.

Penin'sular, *a.* In the form or state of a peninsula; pertaining to or inhabiting a peninsula; as, the *Peninsular War*.

P. War. (*Hist.*) The name given to the struggle so long maintained between Spain and Portugal, aided by the British, and the French, at the commencement of the present century.

Penin'sulate, *v. a.* To form into a peninsula; to encompass almost with water.

Pe'nis, *n.* [Lat.] The male organ of generation.

Pen'istone, a town and parish of England, co. of York, on the Don, 7 m. W.S.W. of Barnsley. *Manuf.* Woollen and cotton goods. *Pop.* 6,500.

Pen'itence, *n.* [Fr.; Lat. *pœnitentia.*] Sorrow or grief of heart for sins or offences; contrition; repentance; compunction; remorse.

Pen'itent, *a.* [Fr.; Lat. *pœnitens.*] Repentant; contrite; suffering pain or sorrow of heart on account of sins, crimes, or offences.

—*n.* One who repents of sin; one contrite or sorrowful on account of his transgressions. — One under church censure, but admitted to penance. — One under the direction of a confessor.

Order of Penitents of St. Magdalen. (*Eccl. Hist.*) An order established at Marseilles for the suppression of vice.

Peniten'tial, *a.* [Fr. *pénitentiel.*] Proceeding from or expressing penitence or contrition of heart.

—*n.* (*Eccl.*) A Roman Catholic book containing the rules which relate to penances and the reconciliation of penitents.

Peniten'tially, *adv.* In a penitential manner; with contrition.

Penitentiary, (*-ten'shĭ-a-rў,*) *a.* [Fr. *pénitentiaire.*] Relating to penitence or penance, or to the rules and measures of penance.

—*n.* One who prescribes the rules and measures of penance. — A penitent; one who does penance. — A place where penance is enjoined; — hence, a house of correction, or reformatory, in which prisoners are incarcerated for punishment and amendment, and compelled to labor; a workhouse or state-prison. See PENITENTIARY SYSTEM.

(*Eccl.*) An office at the Papal court, in which are examined and delivered out the secret bulls, graces, or dispensations relating to cases of conscience, confession, &c.

Peniten'tiaryship, *n.* Office or condition of a penitentiary.

Peniten'tiary System. There are notably two systems of penitentiaries in the United States, each of which is claimed to be the best by its partisans, — the Pennsylvania system and the New York system. By the former, convicts are lodged in separate, well-lighted, and well-ventilated cells, where they are required to work during stated hours. During the whole time of their confinement they are never permitted to see or speak with each other. Their usual employments are shoemaking, weaving, winding yarn, picking wool, and such like business. The only punishment to which convicts are subject are the privation of food for short periods, and confinement without labor in dark but well-aired cells; this discipline has been found sufficient to keep perfect order; the whip and all other corporeal punishments are prohibited. The advantages of the plan are numerous. Men cannot long remain in solitude without labor; convicts, when deprived of it, ask it as a favor, and, in order to retain it, use, generally, their best exertions to do their work well; being entirely secluded, they are of course unknown to their fellow-prisoners, and can form no combination to escape while in prison, or associations to prey upon society when they are out; being treated with kindness, and afforded books for their instruction and amusement, they become satisfied that society does not make war upon them, and more disposed to return to it, which they are not prevented from doing by the exposure of their fellow-prisoners when in a strange place; the labor of the convicts tend greatly to defray the expenses of the prison. The disadvantages which were anticipated have been found to be groundless. Among these were that the prisoners would be unhealthy; experience has proved the contrary: that they would become insane; this has also been found to be otherwise: that solitude is incompatible with the performance of business; that obedience to the discipline of the prison could not be enforced. These, and all other objections to this system, are by its friends believed to be without force. The New York system, adopted at Auburn, which was probably copied from the Penitentiary of Ghent, in Belgium, called La Maison de Force, is founded on the system of isolation and separation, as well as that of Pennsylvania, but with this difference, that in the former the prisoners are confined to their separate cells during the night only; during the working-hours in the daytime they labor together in work-shops appropriated to their use. They eat their meals together, but in such a manner as not to be able to speak with each other. Silence is also imposed upon them at their labor. They perform the labor of carpenters, blacksmiths, weavers, shoemakers, tailors, coopers, gardeners, wood-sawyers, &c. The discipline of the prison is enforced by stripes, inflicted by the assistant keepers, on the backs of the prisoners; though this punishment is rarely exercised. The advantages of this plan are that the convicts are in solitary confinement during the night; that their labor, by being joint, is more productive; that, inasmuch as a clergyman is employed to preach to the prisoners, the system affords an opportunity for mental and moral improvements. Among the objections made to it are that the prisoners have opportunities of communicating with each other and of forming plans of escape, and, when they are out of prison, of associating together in consequence of their previous acquaintance, to the detriment of those who wish to return to virtue, and to the danger of the public, that the discipline is degrading, and that it engenders bitter resentment in the mind of the convict.

Pen'itently, *adv.* With penitence; with repentance, sorrow, contrition, or remorse for sin.

Penk, *n.* A minnow.

Pen'llyn, in *Pennsylvania*, a post-village of Montgomery co., abt. 17 m. N. of Philadelphia.

Pen'knife, (*-nīf,*) *n.*; *pl.* PENKNIVES, (*-nīvs.*) A small knife used for making or mending pens.

Pen'man, *n.*; *pl.* PENMEN. A man who professes or teaches the use of the pen in writing or chirography, especially, one who writes a good hand; a calligrapher. — An author; a literary writer.

Pen'manship, *n.* The use of the pen in writing; art of writing. — Chirography; manner or style of writing; as, fine or bad *penmanship*.

Penn, SIR WILLIAM, an English admiral who greatly distinguished himself against the Dutch in the 17th cent. Admiral Penn was B. at Bristol in 1621, entered the navy at an early period, and was captain at the age of 23. After the restoration he was knighted, and D. in Essex in 1670.

PENN, William, an eminent member of the Society of Friends, and founder of the State of Pennsylvania, was the son of the preceding, and was B. at London, 13th October, 1644. He received a good education, which was completed at Christ Church, Oxford; but he disappointed his father's expectations by turning Quaker, and was discarded by him. Sir William afterwards relented, and sent his son abroad. Young Penn visited

Fig. 2072. — WILLIAM PENN.

France and Italy, and returned to his native country in 1664. He spent two years in the study of the law at Lincoln's Inn, and was then sent to Ireland to manage his father's estates; but, happening to hear a discourse at Cork, by Thomas Loe, a leading Quaker, he reverted to his former opinions, and travelled to propagate this new faith. He was taken up for preaching, and sent to prison; but was released through the interest of his father. After his return to England, he was sent to the Tower, on account of a book which he had written; and, while there, he composed his principal work, entitled *No Cross, no Crown*, intended to show the benefit of suffering. On his release, he resumed his former labors, and was apprehended, with some others, and tried for preaching at a conventicle in Gracechurch Street. The jury persisted in finding them not guilty, and were fined for acting contrary to the dictates of the judge. Admiral *P.* was reconciled to his son before his death, and left him all his property. He continued firm in his attachment to the Society of Friends, and, in 1677, went on a mission to Holland and Germany, with Fox and Barclay. In 1681 he obtained from the Crown, in lieu of the arrears due to his father, the grant of the province in N. America, and it was Charles II. who, in honor of *P.*, proposed the name Pennsylvania. The code of laws which *P.* prepared for the province was exalted in aim, comprehensive in scope; yet with slender exceptions, its details were marvellously practical, and if Penn had not the genius of the ruler, he had, as few have had, the genius of the legislator. Accompanied by emigrants., *P.* sailed from Deal the 5th Sep., 1682, for America, and landed at New Castle, Del., Oct. 24th, and at Upland, Pa. (now Chester,) Oct. 29th, 1682. (o. s.) Nov. 8th. The work of organization was rapid. A few Swedes and Dutch had previously settled in Pennsylvania, but colonists from most various regions of the Old World now poured in. Universal toleration was proclaimed, a charter of liberties was solemnly consecrated, and a democratic government was established. In his dealings with the Indians and their chiefs, *P.* manifested his accustomed magnanimity and justice. The capital city, Philadelphia, was planned on a scale commensurate with Pennsylvania's expected greatness. *P.*'s family was in England. Hearing that his wife was ill; hearing that his friend Algernon Sidney had perished on the scaffold; hearing that the fury of fanaticism was rivalling with the fury of vice; he, intrusting his unfinished undertakings to such men as he deemed competent, hurried anxiously back. During the reign of James II. *P.* was continually at court, yet from no selfish or servile reasons. James had been his father's friend, and he had always been glad and prompt to help *P.* himself. *P.* therefore entered the palace that he might give the king wise counsels, and counsels tending toward mercy. Confiding both in *P.*'s fidelity and skill, James commissioned him to visit the Prince of Orange at the Hague, to ascertain the prince's views on some points, to furnish him with clearer, correcter notions on others, — a mission in which *P.* succeeded indifferently. The overthrow of James was in more than one respect a misfortune for *P.* In the spring of 1690 he was arrested on the charge of holding treasonable correspondence with the dethroned monarch. The absurdity of the charge being swiftly and glaringly evident, *P.* was set at liberty. Yet, though his conduct continued to be blameless, he was, by an order in council, stripped, March 14th, 1692, of his title to the Pennsylvanian government — a tyrannical act involving his utter ruin; for, besides that he had risked his whole substance in the Pennsylvanian experiment, his estates, both in England and in Ireland, had been grievously mismanaged by incompetent or dishonest overseers. An order in council capriciously restored to Penn, in 1694, that Pennsylvanian government of which an order in council had so capriciously robbed him. But the ownership of territories so extensive was almost barren to him. His agents were faithless, and the colonists, though profuse in expressions of regard, were in reality ungrateful and grasping. A visit to his Irish estates preluded *P.*'s second expedition to the New World. His family went with him to America, though rather from necessity than choice. *P.*'s residence in the colony was more beneficial to the colonists than to himself. He suggested, he promoted, many reforms; above all, he inculcated and gave the example of that humane spirit in which he was so far before his age. He branded as iniquitous negro slavery, and to the aged, the sick, and the destitute he was a bountiful almoner. In 1701 he returned to England, and, being encumbered with debts, endeavored to negotiate the sale of Pennsylvania to the crown for £12,000. This negotiation was interrupted in 1712, through his being attacked by an apoplectic fit, which, happening twice afterwards, greatly impaired his mental faculties. He survived for six years longer, but with a constitution much shattered, and quite unfitted

Fig. 2073.
FRIEND'S MEETING-HOUSE AT JORDAN'S, NEAR LONDON, WITH GRAVES OF WILLIAM PENN, THOMAS ELLWOOD, AND OTHERS

for any serious employment. Penn died on the 29th of July, 1718; and he was buried at the village of Jordan, Buckinghamshire. Recent attacks on this great man have been victoriously refuted. Free from frailty no man is; free from vanity perhaps Penn was not. But his integrity is unimpeachable. Penn cried "No Cross, no Crown." He bore the cross, and let us not snatch from him the crown, which the unanimous veneration of mankind has bestowed. *P.* was twice married, and he left several children, to whom he bequeathed his

PENNSYLVANIA

ENGLISH STATUTE MILES

0 10 20 30 40 50 60 70

Hammond's 8 x 11 Map of Pennsylvania 1903.
C.S.Hammond & Co., New York

Longitude West from Greenwich

PENNA.

Land surface, Sq. m. 44,985
Water surface, Sq. m. 230
Pop. 1900..6,302,115
White...6,141,664
African...156,845
Indian ... 1,639
Chinese ...1,927
Japanese.....40
Native-born, 5,316,865
Foreign-born, 985,250
Males...3,204,541
Females 3,097,574

COUNTIES.

Adams .....D 4
Allegheny.....B 3
Armstrong... B 3
Beaver .....A 3
Bedford .....C 4
Berks ..... F 3
Blair ..... C 3
Bradford .....E 2
Bucks ..... F 3
Butler.....B 3
Cambria .....C 3
Cameron.....C 2
Carbon.....F 3
Center .....D 3
Chester.....F 4
Clarion.....B 2
Clearfield . ...C 2
Clinton.....D 2
Columbia .....E 2
Crawford.. . A 2
Cumberland..D 3
Dauphin .....D 3
Delaware.....F 4
Elk .....C 2
Erie.....A 2
Fayette .....B 4
Forest.....B 2
Franklin .....D 4
Fulton.....C 4
Greene .....A 4
Huntingdon...D 3
Indiana .....B 3
Jefferson.....B 2
Juniata ... ...D 3
Lackawanna..F 2
Lancaster.... E 3
Lawrence .....A 3
Lebanon.....E 3
Lehigh .....F 3
Luzerne.....F 2
Lycoming.....D 2
McKean.....C 2
Mercer .... .. A 2
Mifflin .....D 3
Monroe ..... F 2
Montgomery..F 3
Montour.....E 2
Northampton.F 3
Northumberland E 3
Perry .....D 3
Philadelphia..F 4
Pike .....F 2
Potter .....D 2
Schuylkill .... E 3
Snyder .....D 3
Somerset.....B 4
Sullivan. .....E 2
Susquehanna..F 2
Tioga.. .....D 2
Union .....C 3
Venango .....B 2
Warren.....B 3
Washington ..A 3
Wayne .....F 2
Westmoreland B 3
Wyoming.....E 2
York .....E 4

CITIES-TOWNS

Pop.	Millions.		
1	Philadelphia	F	4

Pop.	Thousands.		
321	Pittsburg	B	3
129	Allegheny	A	3
102	Scranton	F	2
78	Reading	F	3
52	Erie	A	1
51	Wilkesbarre	F	2
50	Harrisburg	E	3
41	Lancaster	E	3
38	Altoona	C	3
35	Johnstown	C	3
35	Allentown	F	3
34	McKeesport	B	3
33	Chester	F	4
33	York	E	4
28	Williamsport	D	2
28	Newcastle	A	2
25	Easton	F	3
22	Norristown	F	3
20	Shenandoah	E	3
18	Shamokin	E	3
17	Lebanon	E	3
15	Pottsville	E	3
15	Braddock	B	3
15	Bradford	C	2
14	Hazleton	F	3
13	Pottstown	F	3
13	Plymouth	F	2
13	Carbondale	F	2
13	Mahanoy Cy.	E	3
13	Oil City	B	3
13	So. Bethlehem	F	3
13	Mt. Carmel	E	3
12	Meaux	D	5
12	Dunmore	F	2
12	Pittston	F	2
12	Homestead	B	3
12	Columbia	E	3
12	Nanticoke	F	2
12	Steelton	E	3
11	Wilkinsburg	B	3
10	Butler	B	3
10	Meadville	A	2
10	Beaver Falls	A	3
9	Sunbury	E	3
9	Carlisle	D	3
9	Westchester	F	4
9	Duhois	C	2
9	Phoenixville	F	3
9	Duquesne	B	3
8	Sharon	A	2
8	Chambersburg	D	4
8	Titusville	B	2
8	Warren	B	2
8	Danville	E	2
7	Washington	A	3
7	Uniontown	B	4
7	Carnegie	A	3
7	Franklin	B	2
7	Bethlehem	F	3
7	Tamaqua	F	3
7	Lock Haven	D	2
7	Connellsville	B	3
7	Bristol	G	3
6	Sharpsburg	B	3
5	New Brighton	A	3
6	Greensburg	B	3
6	Ashland	E	3
6	Olyphant	F	2
6	Milton	E	2
6	Bloomsburg	E	3
6	Huntingdon	C	3
5	Charleroi	B	3
5	Jeannette	B	3
5	Tyrone	C	3
5	W. Pittston	F	2
5	Conshohocken	F	3
5	Coatesville	F	4
5	Middletown	E	3
5	Tarentum	B	3
5	Waynesboro	D	4
5	Archbald	F	2
5	Etna	B	3
5	Corry	B	2
5	Hanover	E	4
5	Kane	C	2
5	Freeland	F	2
5	Sayre	E	2
5	Monongahela	B	3
5	Clearfield	C	2
4	Dickson Cy.	F	2
4	Minersville	E	3
4	Greenville	A	2
4	Marietta	E	3
4	Mt. Pleasant	B	3
4	Rochester	A	3
4	New Kensington	B	3
4	Towanda	E	2
4	Lehighton	F	3
4	Latrobe	B	2
4	Lewistown	D	3
4	Punxsutawney	C	3
4	Forest City	F	2
4	Scottdale	B	3
4	Bellefonte	D	3
4	Taylor	F	2
4	Wilmerding	B	3
4	Indiana	B	3
4	Bangor	F	3
4	Renovo	D	2
4	Ashley	F	2
4	Mauch Chunk	F	3
3	Catasauqua	F	3
3	Berwick	E	2
3	Kittanning	B	3
3	Johnsonburg	C	2
3	Kingston	F	2
3	Mechanicsburg	D	3
3	Luzerne	F	2
3	Susquehanna	F	2
3	Slatington	F	3
3	Hellertown	F	3
3	Athens	E	2
3	Girardville	E	3
3	Schuylkill Haven	E	3
3	Sewickley	A	3
3	Ridgway	C	2
3	Gettysburg	D	4
3	East Mauch Chunk	F	3
3	Lewisburg	E	3
3	Stroudsburg	F	3
3	Reynoldsville	C	2
3	Winton	F	2
3	Bellevue	A	3
3	Blairsville	B	3
3	South Williamsport	D	2
3	Phillipsburg	C	3
3	Turtlecreek	B	3
3	Shippensburg	D	4
3	Coudersport	C	2
3	Union City	B	2
3	Media	F	4
3	Jersey Shore	D	2
3	Doylestown	F	3
3	Meyersdale	B	4
3	Quakertown	F	3
2	Hollidaysburg	C	3
2	Summithill	F	3
2	Sharpsville	A	2
2	Wellsboro	D	2
2	Sheridan.	A	3
2	Williamstown	E	3
2	Apollo	B	3
2	Ford	B	3
2	Honesdale	F	2
2	Pen Argyl	F	3
2	Lykens	E	3
2	Gallitzin	C	3
2	Lansdale	F	3
2	Northumberland	E	3
2	Canonsburg	A	3
2	Pattou	C	3
2	E. Stroudsburg	F	3
2	Southfork	C	3
2	Royersford	F	3
2	Jermyn	F	2
2	Spring Cy.	F	3
2	Coraopolis	A	3
2	Waynesburg	A	4
2	Brookville	C	2
2	Weatherly	F	3
2	Emporium	C	2
2	Leechburg	B	3
2	Irwin	B	3
2	Ephrata	E	3
2	Blossburg	D	2
2	Galeton	D	2
2	Beaver	A	3
2	Derry	B	3
2	Nazareth	F	3
2	Mayfield	F	2
2	Austin	C	2
2	Wrightsville	E	3
2	Birdsboro	F	3
2	Elwood City	A	2
2	Miners Mills	F	2
2	Dorrance	F	2
2	Pt. Carbon	E	3
2	Bedford	C	4
2	Tower Cy.	E	3
2	St. Marys	C	2
2	Downingtown	F	4
2	Northeast	B	1
2	Centralia	E	3
2	Osceola	C	3
2	Catawissa	E	3
2	Manheim.	E	3
2	Mt. Joy	E	3
2	California	B	3
2	Monaca	A	3
2	Clarion	B	2
1	Exeter	F	2
1	Tremont	E	3
1	Curwens V.	C	3
1	Muncy	E	2
1	Hawley	F	2
1	Verona	B	3
1	Bellevernon	B	3
1	Watsontown	E	2
1	Ambler	F	3
1	Myerstown	E	3
1	Gilpin	B	3
1	Elizabeth	B	3
1	Everett	C	3
1	Port Allegany	C	2
1	Somerset	B	3
1	Montrose	F	2
1	Mansfield	D	2
1	Mercer	A	2
1	Perkasie	F	3
1	Parnassus	B	3
1	Parkesburg	F	4
1	Freedom	A	3
1	Brockwayville	C	2
1	Newport	D	3
1	Hummelstown	E	3
1	Dushore	E	2
1	Smethport	C	2
1	Millersburg	E	3
1	Bryn Mawr	F	3
1	Montoursville	E	2
1	Dunbar	B	4

estates in England, Ireland, and what remained to him in America. The government and quit-rents of Pennsylvania devolved to the sons of the second marriage, and by their heirs were sold to the State of Pennsylvania, after the War of Independence, for $650,000. Montesquieu calls Penn "the modern Lycurgus." Penn wrote a number of works, which were collected and published in two vols. in 1728.

Penn, in *Indiana*, a township of Jay county.—A township of Park county.—A township of St. Joseph county.

Penn, in *Iowa*, a village of Fayette county, about 22 miles north-east of Waterloo.—A township of Guthrie county.—A township of Jefferson county.—A township of Johnson county.—A township of Madison county.

Penn, in *Michigan*, a twp. of Cass co.

Penn, in *Minnesota*, a township of McLeod county.

Penn, in *Ohio*, a twp. of Highland co.

Penn, in *Pennsylvania*, a township of Berks county.—A township of Butler county.—A township of Centre county.—A township of Chester county.—A township of Clearfield county.—A township of Huntingdon county.—A post-township of Lancaster county.—A township of Lycoming county.—A township of Perry county.—A township of Westmoreland county.

Pen'-name, *n.* A *nom de plume;* a pseudonym; a fictitious name assumed by an author, as that of "Boz," employed by Dickens.

Pen'nant, Pen'non, *n.* [Fr. *pennon;* Sp. *pendon*, from Lat. *penna*, a wing, a feather.] A small flag; a bannerol.

(*Naut.*) A long, narrow piece of bunting carried at the mastheads of ships of war. (Sometimes written *pendent.*) — A strap which serves to hook a purchase.

, *Broad pennant*, a square piece of bunting hoisted at the main masthead of an admiral's or commodore's ship.

Pen'nar, a river of British India, rising in Mysore, and after an E. course of 270 m. falling into the Bay of Bengal, in Lat. 11° 45′ N., Lon. 79° 51′ E.

Pen'nate, Pen'nated, *n.* [From Lat. *penna*, feather, wing.] Wing-shaped; plumed. (*Bot.*) See PINNATE.

Pennatula'cea, *n.* (*Zoöl.*) See ALCYONARIA.

Penned, (*pend,*) *a.* Having wings or plumes.

Pen'ner, *n.* A writer; one who uses a pen.

Penn Forest, in *Pennsylvania*, a township of Carbon co.

Penn Haven, in *Pennsylvania*, a post-village of Carbon co., abt. 7 m. N. of Mauch Chunk.

Pen'niform, *a.* [Lat. *penna*, feather, and *forma*, form.] Presenting the form of a plume or feather.

Pennig'erous, *a.* [Lat. *penna*, feather, and *gerere*, to bear.] Bearing feathers or quills.

Pen'niless, *a.* Moneyless; poor; destitute of money; poverty-stricken.

Pen'nilessness, *n.* The state of being without money; impecuniosity.

Pen'ninerved, *a.* (*Bot.*) Same as pumately veined or nerved.

Pen'nington, in *Arkansas*, a township of Bradley co.

Pennington, in *New Jersey*, a post-village of Mercer co., about 8 m. N. of Trenton.

Pen'ningtonville, in *Pennsylvania*, a post-village of Chester co., abt. 48 m. W. of Philadelphia.

Pen'ning, *n.* Act or manner of writing. — Writing; composition.

Penn Line, in *Pennsylvania*, a post-village of Crawford co., abt. 24 m. W. of Meadville.

Pen'non, *n.* [Fr., from Lat. *penna*, a feather.] The flag of a knight, in the Middle Ages, who had not attained the dignity of banneret. It differed from the banner by being pointed at the end. — In modern times a banner; a streamer; a standard.

Penn Run, formerly GREENVILLE, in *Pennsylvania*, a post-village of Indiana co., abt. 147 m. W. of Harrisburg.

Penns'bury, in *Pennsylvania*, a township of Chester co.

Penn's Cove, in *Washington*, a village and port of Island co., on Whidby's island. It is said to have one of the finest harbors in the world.

Penn's Creek, in *Pennsylvania*, enters the Susquehanna, between Union and Snyder cos.

Penn's Grove, in *New Jersey*, a post-village of Salem co., abt. 12 m. N. of Salem.

Penn's Grove, in *Pennsylvania*, a village of Delaware co., abt. 3 m. S.W. of Media.

Penns'ville, in *Ohio*, a post-village of Morgan co., abt 34 m. S. by E. of Zanesville.

Pennsville, in *Pennsylvania*, a village of Chester co., abt. 8 m. S. of West Chester. — A post-village of Fayette co., abt. 40 m. S.E. of Harrisburg. — A village of Lycoming co., abt. 3 m. N. of Muncy.

Pennsylva'nia, one of the largest and most important States of the American Union, between Lat. 39° 45′ and 42° N., and Lon. 74° 40′ and 80° 32′ W., is bounded N. and N. E. by New York; E. New Jersey; S. Maryland, Delaware, and West Virginia; and W. by Ohio and West Virginia. Separated from New Jersey by the Delaware river, and the upper part of Delaware Bay, which also unites it with the Atlantic. The greatest length of the State is 303 m., and its maximum breadth 176 m.; or, in other words, it has an average length of 280 sq. m., with a general breadth of 158 sq. m., giving an area of 45,215 sq. m. —*Gen. Desc.* The surface of the State is level in the S.E., hilly and mountainous in the interior, and generally level or arable in the W. The Alleghany Mountains occupy all the central part, covering, with their ramifications, more than half its area. These ridgy tracts all tend N.E. and S.W., those E. of the Alleghany range being abrupt and precipitous, while W. the surface declines toward the Ohio river and Lake Erie in graded slopes. The passes of this inner range are abt. 2,000 ft. above sea-level, the lower valleys of the Ohio where it leaves the State, and the plain skirting Lake Erie, being abt. 800 and 650 feet respectively. The inner valley by which the Susquehanna flows has but an inferior elevation above the sea, and it takes up a large area, dividing the mountainous belt. The mountains of *P.* are components of the great Appalachian chain, and form a succession of ridges, running in parallels, generally in a direction S.W. to N.E., and presenting, in some parts, summits elevated 3,000 ft. The principal valleys of the mountain region are those of Chester, Wyoming, Lackawanna, Juniata, Cumberland, and Monongahela. The chief rivers are the Susquehanna, traversing the centre of the State, and the largest stream flowing into the Atlantic in the U. States; the Delaware, with its affluents, the Lehigh and Schuylkill; the Juniata, tributary to the Susquehanna; and, in the W., the Alleghany and Monongahela, uniting at Pittsburg to form the Ohio. In the N.W., Lake Erie borders on the State a distance of 45 miles. *Clim.* The climate is changeable, though, upon the whole, one of the most agreeable and temperate in the Union. The season of frost and snow seldom exceeds three months, the winter commencing about the first two weeks of Dec., and terminating from the 1st to the 15th of March. The heat of summer is seldom oppressive, except in low situations. Near the sea-coast the temperature of winter is severe, varying in the months of Jan. and Feb. from 14° to 28° Fahr.—*Soil and Prod.* The soil in the E. part of the State is partly light and sandy, but in the interior plains and valleys it is a deep, rich loam; there are few absolutely sterile tracts, and, in general, this is one of the most productive parts of the Union, yielding most of the finer fruits of temperate climates in the greatest luxuriance. Almost every kind of grain is raised, but wheat is the staple, and *P.* may be said to be, emphatically, a wheat-growing country.—*Geol. and Min.* The geological formations of the State are limited to a few only of the great divisions of the rocks. These are metamorphic (including the gneissic as well as the altered lower palæozoic groups); the palæozoic series, from the Potsdam sandstone to the coal measures; and the middle secondary red sandstone. In *P.* the limestones, with the exceptions hereafter noticed, are confined to a well-defined belt running E.N.E. and W.S.W. across the State, bounded on the N.W. by the main range of the Alleghanies, and on the S.E. by the ridge known as the South Mountains. In this belt the upper and the lower silurian lime-rocks appear in innumerable outcrops. So general is the distribution of limestone within the region indicated, that it would be hard to name a district, save in the anthracite coal basins, which does not possess a convenient source of lime of sufficient purity for agricultural use. S. of South Mountains there are three limestone regions — that known as the limestone valley of York and Lancaster counties; the marble formation of southern Montgomery, central Chester, and southern Lancaster; and a narrow belt entering the centre of Bucks co. at the Delaware, and extending nearly across the Delaware. Throughout the coal-fields of the W. section of the State carboniferous limestone is found outcropping along the borders of streams and in similar locations, in quantity very variable, but gradually increasing in proportion to the other carboniferous rocks until the Ohio line is reached. *P.* is rich in mineral wealth, possessing vast quantities of coal, iron, and salt, &c. Anthracite coal is found E. of the Alleghanies, extending over 472 sq. m. (see MINERAL COAL). Bituminous coal is found nearly everywhere W. of the mountains, and large quantities are consumed at Pittsburg and elsewhere in the smelting of iron. The area of this coal-field embraces 8,750 sq. m., and extends through 30 counties. Block coal, a most valuable species of semi-cannel coal, is found in Mercer co. The product of coal for 1901 was 148,869,253 tons, of which 67,869,253 tons were anthracite. The discovery of PETROLEUM (*q. v.*) has added another great source of wealth, and immense quantities are exported to all parts of the world. The oil is conducted through pipes, laid underground, and delivered at shipping points at small cost. Natural gas, an accompaniment of petroleum, began to be used extensively for fuel in 1883, its employment for heating and manufacturing purposes proving of great advantage to the W. section of the State. Its production reached its highest level in 1888, when the value used was $19,282,375. Since that date it has fallen off, and coal has been largely resumed as a fuel. In the production of iron and steel in blast furnaces, rolling mills, steel works, forges and bloomeries, *P.* takes the first rank. In the production of ore it has been surpassed by Michigan, but much of the product of the latter State is converted into pig and manufactured iron in *P.* Zinc is a product of considerable importance, and there are large zinc works in South Bethlehem. Copper is mined to a small extent, and gold, silver and tin occur, though not in paying quantities. Marble, slate, limestone and other building stones occur in abundance. The State is largely wooded, nearly one-fourth its area being under forest. Lumbering is an active industry in the N., while the great hemlock forests of the S. and W. supply some of the largest tanneries in the world. There are still many of the smaller wild animals in the mountains and forests, and the black bear is occasionally seen.—*Agric.* In many field crops *P.* holds a high position among the States. The area in farms aggregates over 18,000,000 acres, of which more than 13,000,000 are improved, the estimated annual product being over $125,000,000. The annual yield includes about 20,000,000 bushels of wheat, 40,000,000 of corn, and 35,000,000 of oats, with a large yield of rye and other crops. The tobacco product is also of great importance, reaching more than 25,000,000 pounds. Lancaster co. is the principal source of this product. Grazing is also a very important industry, particularly in the mountain regions and the western plateau, where horses, cattle and sheep are raised in large numbers. The dairy products of the State are noted for their excellence, and the wool clip is large. Market gardening is largely prosecuted in the vicinity of Philadelphia and the other large cities, and horticulture is an important occupation, all the fruits of the temperate zone being easily grown. Apples, pears and peaches are largely produced.—*Pol. Div.* The commonwealth is divided into 67 counties, as follows:

Fig. 2074. — SEAL OF THE STATE.

Adams,	Clinton,	Lackawanna,	Pike,
Allegheny,	Columbia,	Lancaster,	Potter,
Armstrong,	Crawford,	Lawrence,	Schuylkill,
Beaver,	Cumberland,	Lebanon,	Snyder,
Bedford,	Dauphin,	Lehigh,	Somerset,
Berks,	Delaware,	Luzerne,	Sullivan,
Blair,	Elk,	Lycoming,	Susquehanna,
Bradford,	Erie,	McKean,	Tioga,
Bucks,	Fayette,	Mercer,	Union,
Butler,	Forest,	Mifflin,	Venango,
Cambria,	Franklin,	Monroe,	Warren,
Cameron,	Fulton,	Montgomery,	Washington,
Carbon,	Greene,	Montour,	Wayne,
Center,	Huntingdon,	Northampton,	Westmoreland,
Chester,	Indiana,	Northumberland,	Wyoming,
Clarion,	Jefferson,	Perry,	York.
Clearfield,	Juniata,	Philadelphia,	

Cities and Towns. The chief centers of urban wealth and population are Philadelphia, Pittsburg, Allegheny, Scranton, Reading, Erie, Harrisburg (State cap.), Wilkesbarre, Lancaster, Altoona, Williamsport, Allentown, Johnstown, York, McKeesport, Chester, Norristown, Shenandoah, Lebanon, Easton, Shamokin, Pottsville, Pottstown, Hazleton, New Castle, Mahanoy City, &c., the populations being in the order named.—*Govt.* By the new constitution, adopted Dec. 16, 1873, the legislative power is vested in a general assembly, consisting of a senate and a house of representatives. The latter, apportioned according to the number of taxable inhabitants, are chosen every second year, and the number is limited to 200. The State is divided into 50 senatorial districts, as nearly equal in population as may be, and each district is entitled to elect one senator. The General Assembly meets on the first Tuesday of January every second year, and at other times when convened by the Governor. When the General Assembly is convened in special session, there is no legislation upon subjects other than those designated in the proclamation of the Governor calling such session. No law is passed except by bill, and all bills for raising revenue originate in the house of representatives. The executive department consists of a governor, lieutenant-governor, secretary of the commonwealth, attorney-general, auditor-general, state treasurer, secretary of internal affairs, and a superintendent of public instruction. The supreme executive power is vested in the Governor, who is chosen on the day of general election, by the qualified electors of the Commonwealth. He holds his office during four years, from the third Thursday of January next ensuing his election, and is not eligible to the office for the next succeeding term. The Lieutenant-Governor is chosen at the same time, in the same manner, for the same term, and subject to the same provisions as the Governor; he is president of the senate, but has no vote unless they be equally divided. The Governor is commander-in-chief of the army and navy of the Commonwealth, and of the militia, except when they are called into the actual service of the United States. He nominates, and, by and with the consent of two-thirds of all the members of the senate, appoints the officers of the Commonwealth. In case of the death, conviction or impeachment, resignation or other disability of the Governor, the powers, duties and emoluments of the office, for the remainder of the term, devolve upon the Lieutenant-Governor. The judicial power is vested in a supreme court, in courts of common pleas, courts of oyer and terminer and general jail delivery, courts of quarter sessions of the peace, orphans' courts and magistrates' courts; the supreme court consists of 7 judges, who are elected for a term of 21 years, by the qualified electors of the State at large. The judge whose commission first expires is chief-justice. The judges of the county courts are chosen by the electors of the districts over which they are to preside for a term of 10 years. Justices of the peace, or aldermen, are elected for a term of 5 years. The right of suffrage is allowed to every male citizen of the age of 21 years, having resided in the State 1 year, and in the electoral district where he offers his vote 2 months immediately preceding the election, and having within 2 years paid a State or county tax, which shall

have been assessed at least 2 months before the election. The general election is held annually, on the Tuesday next following the first Monday of November. All elections for city, ward, borough, and township offices are held on the third Tuesday of February. The General Assembly, by general law, designates the courts and judges by whom the several classes of election contests shall be tried.—The State is represented in the National Congress by 2 Senators and 30 members of the Lower House.—*Public Works.* The commonwealth has a very extensive system of internal communication, by roads, railways, and canals. The Pennsylvania Central, connecting Philadelphia with Pittsburg, and thence with

Fig. 2075.—PENNSYLVANIA R. R. BRIDGE, ACROSS THE SUSQUEHANNA RIVER.

its numerous ramifications W., is perhaps the largest railroad corporation in the world, representing a total cash capital of $250,000,000. The Reading R.R., from Philadelphia to Pottsville, and thence with numerous lateral branches, and the Delaware, Lackawanna & Western R.R., from Scranton to New York, have the heaviest coal tonnage of any roads in the world. There are also numerous canals, in part constructed by private companies, and in part by the State. That between Philadelphia and Pittsburg, a distance of 395 miles, connecting the Delaware with the Ohio, with its various lateral branches aggregates a length of 590 miles, the total expense of completion having been nearly $20,000,000. Among the canals are the Schuylkill Canal, from Philadelphia to Port Carbon, 108 miles long, with 129 locks, and completed at a cost of $2,500,000; the Lehigh Canal, and the Lackawanna Canal, 25 miles long, with which a railroad is connected. The canal system of the State altogether aggregates 973 miles, constructed at a cost of $38,660,397. The major part of the canals, however, have been either crowded out by railroads, or their importance seriously diminished by this competition. The manuf. interests of the State are both various and extensive, *P.* being celebrated not only for the working of iron and the manufacture of steel and glass, but also for her textile industries. Cotton-stuffs and yarn are extensively produced, bringing *P.* next in rank to Massachusetts in the manufacture of these fabrics. In the production of carpets, locomotives, and some other classes of goods the State holds a very high rank, while in the total value of products it is only surpassed by New York. In addition to the articles named, we may mention ships, steam-engines, machinery, cutlery, nails, stoves, leather, chemicals, &c. For a fuller statement of the manufacturing industries, see PHILADELPHIA. The principal foreign trade of the State centers in Philadelphia, though it is carried on to some extent through New York and Baltimore, and, via the Ohio and Mississippi, through New Orleans. Internal commerce is greatly promoted by the thousands of miles of railroads, and the canals and navigable rivers, while the Delaware affords access to the port of Philadelphia for the largest ships.—*Educ., &c.* The public school system of *P.* ranks high among those of the States, and is steadily improving. The State possesses no school fund, and the revenues for school purposes are derived from taxation in the various districts and State appropriations. The school property of the State is estimated to be worth nearly $50,000,000, while the enrollment of pupils is over 1,000,000, and the average daily attendance about 800,000. The teachers number nearly 30,000. The State possesses 14 normal and a number of high and manual training schools. There is an Agricultural College at Bellefonte, Center co., with branches in some other counties, it being endowed with lands appropriated by the general government. The endowment reaches $500,000, and the farm contains 400 acres. In addition to a preparatory course, this institution has 3 courses of 4 years each—classical, scientific, and agricultural—tuition being free to both sexes. Text books are supplied to the pupils of the public schools. Advantages for higher education are supplied by the University of Pennsylvania, located at Philadelphia, and the Lehigh University, at Easton, with about 35 other collegiate institutions, and 40 or 50 seminaries, academies, institutes, &c. The various medical and dental colleges of Philadelphia have a very high reputation. *P.* was a pioneer in providing schools for the orphans of soldiers. 3 of these being still kept up. In 1891 there were 351 libraries with more than 1,000 volumes each, their total contents being 2,318,456 volumes and 387,511 pamphlets. In the next decade there was a large increase. The charitable institutions of *P.* tally with her wonderful progress and prosperity, and her penitentiary system is conducted with admirable efficiency. (See PENITENTIARY SYSTEM.) Besides the several State Asylums for the Insane at Harrisburg, Norristown, &c., the State makes annually liberal appropriations to numerous philanthropic and charitable institutions; such as Asylums for the Blind, the Deaf and Dumb, Insane, &c., located at Philadelphia; and also to Houses of Refuge for juvenile offenders, at Philadelphia and Pittsburg; and other institutions for which *P.* is celebrated, and in which the early Friends or Quakers acquired a notable reputation. —*Religion.* Almost all religious sects are to be found in *P.* The relative numerical superiority in the faith of the early settlers, the Friends, has disappeared, but their excellent example still animates this great commonwealth, and the name of Penn (*q. v.*) is held in veneration, as attested by the spontaneous efforts to celebrate his memory during the festivities of the Bi-Centennial of 1882.—*Hist.* The country about Delaware Bay was first settled by the Swedes, but they made comparatively little progress in the occupation of the country, and passed under the English jurisdiction generally established in 1664. In 1681, the territory W. of the Delaware was granted by royal charter to William Penn (*q. v.*), who colonized it; and, by the industry and high character of his co-religionists, the Society of Friends, by cultivating peace with the Indians, and encouraging emigration, founded a flourishing state, which, long before the Revolution, became the seat of learning, wealth, and refinement.

Fig. 2076.—SOLDIERS' MONUMENT, GETTYSBURG.

Under the charter granted to Wm. Penn, the region forming the present State of Delaware was included, and the two colonies continued to be so joined until the Revolution of 1776. During the War of Revolution, Philadelphia was the chief city and capital of the federation, and Brandywine, Germantown, Valley Forge, and other points, were the scenes of memorable events, which belong to the national history, and are noticed in this book under their different names. Independence was first proclaimed here, and the whole colony took a decided part in the final establishment of American liberty. In the Civil War, too, they were not less distinguished, the Commonwealth sending to the national army 270 regiments and several unattached companies of volunteers, numbering in all 387,284 men. *P.* was also the scene of one of the most important and most sanguinary battles of the last war, that of Gettysburg, the field of which has been converted into a national park, and abundantly adorned with statues and monuments. Next to the Friends, the most important immigration was that of the Germans, who have peopled almost entirely several counties adjoining Philadelphia, and still speak the *patois* known as "Pennsylvania Dutch." *Pop.* (1800) 602,365; (1840) 1,724,633; (1880) 4,282,891; (1890) 5,258,014. The census of 1900 gave a population of 6,302,115.

Pennsylva'nia Dutch. (*Philol.*) This is not, as some erroneously suppose, a corruption of German, originating in Pennsylvania, but a South-German dialect, brought from Europe, and due to a mixture of, forms existing on the upper Rhine in Rhenish Bavaria Baden, Darmstadt, Würtemberg, German Switzerland, and Alsace. In the U. S., but chiefly in Pennsylvania, the dialect has taken up an English element. The characteristics of the dialect may be learned from Haldeman's *Pennsylvania Dutch* (1872). A more correct name would be Pennsylvania German. Some excellent poems were written in it by the late H. Harbaugh, D. D. (1870).

Pennsylva'nialaburg, in *Ind.*, a vil. of Ripley co.

Pen'ny, *n.*; *pl.* PENCE, or PENNIES. [A. S. *penêg, peninc*; Ger. *pfennig*, half a farthing.] An English copper coin, the value of which is one-twelfth of a shilling, or about 2 cents.

—Proverbially, a small sum; a groat; a stiver.

Pen'ny-a-liner, *n.* One who writes for a public journal at so much a line; a venal writer.

Penn Yan, in *New York*, a post-village, cap. of Yates co., abt. 192 m. W. of Albany. It is an active manufacturing place, and carries on an extensive inland trade.

Pen'nypack Creek, in *Pennsylvania*, flows into the Delaware near Holmesburg.

Pen'nyroyal, *n.* (*Bot.*) See MENTHA and HEDEOMA.

Pen'nyweight, *n.* A weight equal to 24 grains, or the 20th part of an ounce troy. This was the weight of the silver penny in the time of Edward I.

Pen'ny-wise, *a.* Saving of small sums at the hazard of larger; niggardly on important occasions; hence, the phrase *penny-wise and pound foolish.*

Pen'ny-wort, *n.* (*Bot.*) See HYDROCOTYLE and OBOLARIA.

Pen'ny-worth, (*-wurth,*) *n.* As much as is bought for a penny.—A purchase; anything bought or sold for money; something advantageously purchased, or for less than its worth.—A small quantity.

Penob'scot, in *Maine*, an important river, rising by several branches among the Green Mountains in Somerset co., and flowing E. and N.E. into Piscataquis co., expands into the Chesuncook Lake. Thence, receiving numerous streams and the surplus waters of several lakes, it flows S.E. to Mattawamkeag, in Penobscot co., where, receiving its largest affluent, the Mattawamkeag River, and turning to the S. by W., it enters the Atlantic Ocean by a large embouchure called Penobscot Bay, between Hancock and Waldo cos. Total length abt. 300 m.

—A central co., adjoining Aroostook co. on the N.; *area*, about 3,200 sq. m. *Rivers.* St. John, Penobscot, Aroostook, Piscataquis, Sebovis, and numerous smaller streams, besides many lakes. *Surface*, much diversified; *soil*, generally fertile, producing Indian corn, potatoes, wheat, and hay, in considerable quantities. *Cap.* Bangor. *Pop.* (1897) 73,450.

—A post-township and port of entry of Hancock co., on the E. side of Penobscot Bay, abt. 57 miles E. of the city of Augusta.

Penolog'ical, *a.* Belonging to, or descriptive of, public punishments.

Penol'ogy, *n.* [Gr. *poiné*, punishment, and *logos*, discourse.] The science of public punishment; pœnology.

Penon de Velez, (*pen'yon de va'leth,*) a fortified sea-port-town belonging to Spain, on an elevated rock, on the African side of the Strait of Gibraltar, 80 m. S.E. of Ceuta.

Pen'-rack, *n.* A rack for pens; a pen-holder.

Pen'rith, a town of England, co. of Cumberland, 15 m. S.S.E of Carlisle. *Manuf.* Woollen, cotton, and linen goods. *Pop.* 7,500.

Penryn', a town of England, co. of Cornwall, at the head of Falmouth harbor, 2 m. from Falmouth; *pop.* 4,000.

Pensaco'la, in *Florida*, a town, port of entry, cap. of Escambia co., on the W. shore of Pensacola Bay, abt. 180 m. W of Tallahassee. It has one of the safest and best harbors in the Gulf of Mexico, having 21 ft. of water on the bar, and a gradually rising sandy shore. The town is regularly laid out and generally well built. It is the U. States naval station, and has a marine hospital. Its trade in lumber and timber is very important. *Pop.* (1897) 14,890.

Pensaco'la Bay, in *Florida*, an inlet of the Gulf of Mexico, between Santa Rosa and Escambia cos. It is abt. 27 m in length, by a maximum breadth of 12 m. It receives the Escambia River and several less important streams. The harbor is sheltered by Santa Rosa Island, and the entrance is defended by 3 forts—Fort Pickens, on the W. extremity of the island, and Forts McCrea and Barrancas, on the mainland.

Pensau'kee, in *Wisconsin*, a small river flowing into Green Bay from Oconto co.—A post-village and township of Oconto county, about 6 miles south-west of Oconto.

Pensau'kin Creek, in *New Jersey*, enters the Delaware River between Burlington and Camden co.

Pen'sile, (*-sil,*) *a.* [Lat. *pensilis*, from *pendeo*, to haug.] Pendent; suspended; supported above the ground.

Pen'sileness, *n.* The state of being pensile.

Pension, (*pen'shon,*) *n.* [Fr.; Lat. *pensio*, from *pendo*, to weigh.] A payment made; as, rent, wages, &c.

—An annual allowance of a sum of money to a person by government in consideration of past services.—An annual payment by an individual to an old or disabled servant.—An annual allowance made by government to retired officers, disabled soldiers, or the families of soldiers killed or dying in the public service.—A French boarding-house, or boarding-school.

—*v. a.* To grant a pension to.

Pen'sionary, *a.* [Fr. *pensionnaire.*] Maintained by a pension; receiving a pension.—Consisting in, or pertaining to a pension.

—*n.* A pensioner; one who receives a pension.

Grand Pensionary. (*Hist.*) An appellation formerly given to the chief magistrate of Holland in its republican days. The Pensionary was the president of the council of state, or the legislature of the Seven United Provinces, and first minister of the republic. His term of election was for five years, but he was generally prolonged in his office, and often retained it for life.

Pensioner, (*pen'shun-er,*) *n.* One who receives a pension.—A dependant.—A student of the second rank at Cambridge, England, who pays for his board and other charges.

Pen'sive, *a.* [Fr. *pensif*, from Lat *penso*, to weigh, to ponder.] Thoughtful; employed in serious study or reflection; thoughtful and sad from care, trouble, or sorrow; sorrowful; melancholy.—Expressing thoughtfulness with sadness.

Pen'sively, *adv.* With thoughtfulness; with gloomy seriousness or some degree of melancholy.

Pen'siveness, *n.* Gloomy thoughtfulness; melancholy; seriousness from depressed spirits.

Pen'-slides, (*-slīdz,*) *n.* An instrument for drawing maps or plans.
Pen'-stock, *n.* The barrel of a pump.—The handle of a pen.
Pent, *imp.* and *pp.* from PEN, *q.v.*
—*n.* A confined accumulation.
Pen'ta-cap'sular, *a.* [Gr. *pente*, five, and Lat. *capsula*, small box.] (*Bot.*) That has five capsules or cells.
Pen'taceros, *n.* (*Zoöl.*) See ASTERIADÆ.
Pen'ta-chord, *n.* [From Gr. *pente*, five, and *chorde*, a string.] (*Mus.*) An instrument of music with five strings. — An order or system of five sounds.
Pentacoe'ous, *a.* [From Gr. *pente*, five, and *coccos*, a berry, a kernel.] (*Bot.*) Having five cocci. See COCCUS.
Pentac'rinite, *n.* [Fr., from Gr. *pente*, five, and *crinon*, a lily.] (*Zoöl. and Pal.*) One of the genus *Pentacrinus*, containing radiata having five-angled joints. Most of them are found in a fossil state.
Pentaeros'tic, *a.* [From Gr. *pente*, five, and *arcrostichon*, acrostic.] (*Pros.*) A set of verses so disposed as to have five acrostics of the same name in five divisions of each verse.
Pen'tagon, *n.* [Gr. *pente*, five, and *gonia*, an angle.] (*Geom.*) A plane figure having five angles, and consequently five sides.
Pentag'onal, Pentag'onous, *a.* [Fr.; Lat. *pentagonus.*] Having five corners or angles.
Pentag'onally, *adv.* With five angles.
Pen tagraph, *n.* Same as PANTOGRAPH, *q. v.*
Pentagraph'ic, Pentagraph'ical, *a.* Pertaining to a pentagraph.
Pentagyn'ia, *n.* [Fr. *pentagynie*, from Gr. *pente*, and *gune*, female.] (*Bot.*) An order of plants in the Linnæan system characterized by having five styles.
Pentahe'dral, Pentahe'drous, *a.* Having five equal sides.
Pentahe'dron, *n.* [Gr. *pente*, and *hedra*, a seat.] A solid figure having five equal sides or faces.
Pentahexahe'dral, *a.* [Fr. *pentahexèdre.*] (*Crystallog.*) Exhibiting five ranges of faces, one above another, each range containing six faces.
Pentam'erous, *a.* [Gr. *pente*, five, and *meros*, part.] (*Bot.*) Consisting of five parts, as a flower.
Pentam'eter, *n.* [Gr. *pente*, and *metron*, measure.] (*Poet.*) A verse of five feet, of which the first two are either dactyls or spondees, the third a spondee, and the last two anapests.
—*a.* Possessing five metrical feet.
Pentan'dria, *n.* [Gr. *pente*, five, and *aner*, a man.] The fifth class in the artificial system of Linnæus, and so named from having *five* distinct and unconnected stamens on the same flower. This is the largest and most comprehensive class in the sexual system, number five prevailing more frequently than any other arrangement of stamens.
Pentan'gle, *n.* A pentagon. (R.)
Pentan'gular, *a.* [Gr. *pente*, and Eng. *angular.*] Having five corners or angles.
Pentapet'alous, *a.* [Gr. *pente*, and *petalon*, petal.] (*Bot.*) Possessing five petals, as a flower.
Pentaphyl'lous, *a.* [Gr. *pente*, five, and *phyllon*, leaf.] (*Bot.*) Having five leaves.
Pentap'ody, *n.* [Gr. *pente*, and *pous, podos*, foot.] (*Pros.*) A measure comprising five feet taken together.
Pent'apolis. (*Anc. Geog.*) A name given by the ancient Greek to certain countries which were remarkable for having five distinguished cities. The most celebrated was the Pentapolis Cyrenaica, of which the five cities were Bereuice, Arsinoë, Ptolemais, Cyrene, and Apollonia.
Pen'taptote, *n.* [Gr. *pente*, and *ptotos*, fallen, from *piptein*, to fall.] (*Gram.*) A noun possessing five cases.
Pen'tarchy, *n.* [Gr. *pentarchia*, from *pente*, five, and *archo*, dominion.] A government in the hands of five persons.
Pentasper'mous, *a.* [Gr. *penta*, and *sperma*, seed.] (*Bot.*) Possessing five seeds.
Pen'tastich, (*-stik,*) *n.* [Gr. *pente*, and *stichos*, a line.] A composition comprising five verses.
Penta'style, *n.* [Gr. *pente*, and *stylos*, a pillar.] (*Arch.*) A work in which there are five rows of columns.
Pen'tateuch, (*-tūk,*) *n.* [Fr. *pentateuque*; Gr. *pente*, and *teuchos*, a book.] The five books of Moses, being the first five books of the Old Testament; viz., *Genesis, Exodus, Leviticus, Numbers*, and *Deuteronomy.*
Pentateu'chal, *a.* Relating to the Pentateuch.
Pen'tecost, *n.* [Gr. *pentecostos*, the fiftieth.] (*Eccl Hist.*) A Jewish festival; so called because it was observed on the *fiftieth* day after the feast of unleavened bread; *i. e.* the fifteenth of the month Nisan, and next day after the feast of the Passover. Being celebrated seven weeks after the Passover, it also obtained the name of the Feast of Weeks. It occurred about the beginning of the harvest, and seems to have been instituted as an acknowledgment of the goodness of God in giving the fruits of the earth. It was also considered in later times as commemorating the giving of the law on Mount Sinai, according to the construction put on *Exod.* xix. The narrative of the descent of the fiery tongues upon the apostles on the same day, as given in *Acts* ii., has caused its observance to be continued among Christians. In England it is known by the name of *Whit-Sunday*; and in Germany by that of *Pfingsten.*
Pen'tecostal, *a.* Pertaining to Pentecost or to Whitsuntide.
Pentel'ican, *a.* Belonging or having reference to Mount Pentelicus, near Athens, or to its fine marbles.
Pentenl'sia, or **Pentene'sia,** a group of small islands in the Gulf of Ægina, Greece, 10 m. N.W. of Ægina.
Pent'-house, *n.* [Fr. *penle*, a slope, from Lat. *pendere*, to hang, and *house.*] A shed standing aslope from the main wall or building.
Pen'tice, *n.* [From Lat. *pendere*, to hang down.] (*Arch.*) A sloping roof. (R.)
Pen'tile, *n.* See PANTILE.
Pent'-roof, *n.* A roof whose slope is on one side only.
Pen'-trough, (*-trof.*) A pen-stock.
Pents'temon, or PENTES'TEMON, *n.* (*Bot.*) A genus of plants, order *Scrophulariaceæ.* They are perennial herbs, rarely having woody stems, branching, paniculate, with opposite leaves; and showy red, violet, blue, or white flowers. *P. pubescens*, the Beard-tongue, is a handsome plant growing on river-banks, bluffs, hills, and barrens, in the Middle and Western States.
Pent Water, in *Michigan*, a post-village and township of Oceana county, about 24 miles north of Claybank.
Pe'nult, Penulti'ma, Penulti'mate, *n.* [Lat. *penultimus*, from *pæne*, almost, and *ultimus*, last.] (*Gram. and Pros.*) The last syllable of a word except one.
Penum'bra, *n.* [Fr. *pénombre*, from Lat. *pæne*, and *umbra*, a shade.] (*Astron.*) The partial shade or obscurity observed on the margin of the perfect shade in an eclipse. Round each of the larger black spots on the sun's surface there is almost always seen an extensive zone of a less dark tint, the contours of which are well-defined, like those of the dark spot. This zone is also called *penumbra.*
(*Painting.*) The boundary of shade and light, where the one blends with the other, the gradation being almost imperceptible; — called also *half-tint.*
Penum'bral, *a.* Pertaining to, or resembling, a penumbra.
Penu'rious, *a.* [It. *penurioso.*] Excessively saving or sparing in the use of money; parsimonious; close; miserly; as, a *penurious* man. — Scanty; affording little; as, a *penurious* spring.
Penu'riously, *adv.* In a saving or parsimonious manner; with scanty supply.
Penu'riousness, *n.* The state or quality of being penurious; niggardliness; a sordid disposition to save money; scantiness; not plenty.
Pen'ury, *n.* [Fr. *pénurie*; Lat. *penuria*, from Gr. *peina*, hunger.] Need; indigence; want of the necessaries of life; want of property; absence of means or resources.
Pen'-woman, *n.*; *pl.* PEN-WOMEN. An authoress; a woman who writes.
Pen'za, a city of European Russia, cap. of a govt. of same name, on the Sura, 130 m. W.N.W. of Saratov: Lat. 53° 11′ N., Lon. 45° 38′ E. *Manuf.* Leather and soap. *Pop.* 27,263.
Penzance', a seaport-town of England, co. of Cornwall, on the N.W. of Mount's Bay, 7 m. N.E. of the Land's End, and 96 m. W.S.W. of Exeter; *pop.* 9,500.
Pe'on, *n.* [Fr., a foot-soldier in India.] A pedestrian; a foot-soldier; especially, in India, a native policeman. — In Mexico, a debtor held in servitude till his debt is discharged — In chess, a pawn. — A hive of bees.
Pe'onage, Pe'onism, *n.* In Mexico, the condition or state of a peon or temporary slave.
People, (*pē'pl,*) *n.* [Fr. *peuple*; It. *populo*; Lat. *populus.*] The body of individuals who constitute a community, tribe, nation, or race; an aggregate of persons uniting to form a whole; — employed as a collective noun, construed, in most cases, with a plural verb, and only occasionally used plurally in the sense of nations or races.

"Prophesy again before many *peoples* and nations."—*Rev.* x. 11.

—Hence, individuals generally; an indefinite class or number; population, or a number of folks as forming part of a population: — often employed as the indefinite subject of a verb, like the French *on*, or German *man.*

"*People* in adversity should preserve laudable customs."
Richardson.

—The community at large, as distinguished from a special class, as the nobility, clergy, or military: the promiscuous crowd; the populace; the commonalty; the vulgar.

"Here shall the Press the *People's* right maintain."—*Story.*

One's people, or *one's own people.* (*Script.*) Kindred; relations; ancestors; descendants.
—*v. a.* To supply with population; to stock with inhabitants; to populate.

"He *peopled* heaven with angels, earth with man."—*Dryden.*

Pe'or, *n.* See BAAL.
Peo'ria, in *Illinois*, a N.W. central co.; *area*, abt. 650 sq. m. *Rivers.* Illinois and Spoon rivers, and Kickapoo, Elbow, and Copperas creeks. Peoria Lake forms a portion of the S.E. boundary of the co. *Surface*, level or gently undulating; *soil*, very fertile, producing all the fruits and farm crops of that latitude in abundance. *Cap.* Peoria. *Pop.* (1890) 70,378.
—An important city and railroad center, cap. of Peoria co., on the Illinois river and Ill. & Mich. canal, 160 m. S.W. of Chicago; the meeting point of 11 railroads, and one of the largest inland grain markets. Here are immense distilleries and other extensive industries. *Pop.* (1897) about 51,200.
Peoria, in *Indiana*, a village of Miami co.
Peorla, in *Iowa*, a post-village of Mahaska co., about 15 m. N.N.W. of Oskaloosa.
Peoria, in *Kansas*, a post-village and township of Franklin county, about 24 miles south by east of Lawrence.
Peoria, in *New York*, a post-village of Wyoming co., abt 11 m. N.E. of Warsaw.
Peoria Lake, in *Illinois*, an expansion of the Illinois River, between Peoria, Woodford, and Tazewell cos. Its greatest width is 3 m., by 20 m. in length.
Peos'ta, in *Iowa*, a post-village of Dubuque co., about 15 m. W. of Dubuque.
Peo'tone, in *Illinois*, a post-township of Will county.
Pe'pin, (THE SHORT,) king of France, was the first of the Carlovingian kings. He was at first mayor of the palace under Childeric III.; but in 752 he dethroned that monarch and confined him in a monastery. Having requested and obtained the sanction of the Pope, *P.* was constituted king. He assisted Pope Stephen III. against the Longobards, defeated the Saxons, Bavarians, and other German nations, and united Aquitaine to his crown. After a reign of 16 years, he died at St. Denis, 768. His son Charlemagne succeeded him as king of the Franks.
PEPIN, grandson of Charlemagne, and son of Louis le Débonnaire, became king of Aquitaine in 817. D. 838 or 839.
Pe'pin, in *Wisconsin*, a W. co., adjoining Minnesota on the S.W.; *area*, abt. 250 sq. m. *Rivers.* Mississippi and Chippewa rivers, and numerous smaller streams. Lake Pepin washes a portion of the S.W. border. *Surface*, finely diversified; *soil*, very fertile. *Cap.* Duraud. *Pop.* (1895) 7,567.
—A post-village of Pepin co.
Pepin, (Lake,) (*pip'in,*) an expansion of the Mississippi river between Wisconsin and Minnesota. It is 25 m. in length by a maximum breadth of 3 m.
Pep'lum, or **Pep'lus,** *n.* [Gr. *peplos.*] (*Antiq.*) An upper garment anciently worn by the Greek, and especially by the Athenian, females. It was without sleeves, and fastened by a clasp on the arm or shoulder. The *P.* corresponded to the *Pallium* (q. v.), or outer garment worn by men.
Pe'po, *n.* [Lat.] (*Bot.*) A 1-celled, many-seeded, inferior fruit, with parietal placentæ and a pulpy interior, as the Melon, the Gourd, &c.
Pep'per, *n.* [Lat. *piper*; Gr. *peperi.*] The *P.* of commerce consists of the fruits of *Piper nigrum*, which, as prepared with or without their skin, form respectively black and white *P.* Other sorts of *Piper* possess properties for which they are valuable in medicine. The name of *P* is also given to several other vegetable products. Thus, Bell Pepper, Bird Pepper, Bonnet Pepper, and Guinea Pepper are various kinds of *Capsicum*, the fruits of which dried and ground yield Cayenne Pepper. — See PIPER, CUBEBA, CHAVICA; and PEPPER.
Pep'per-box, *n* A small box with a perforated lid, used for sprinkling pulverized pepper over food, &c.
Pep'per-brand, *n.* A kind of mildew which affects grain.
Pep'per-cake, *n.* A kind of spiced cake.
Pep'per-corn, *n.* The berry or fruit of the pepper-plant. — Something of inconsiderable value; as, a *pepper-corn* rent.
Pep'per-dulee, *n.* (*Bot.*) See LAURENTIA.
Pep'perell, in *Massachusetts*, a post-vill. and twp. of Middlesex co., abt. 37 m. N.W. of Boston.
Pep'pertown, in *Indiana*, a post-village of Franklin co., abt. 45 m. W.N.W. of Cincinnati, Ohio.
Pep'per-grass, Pep'per-wort, *n.* (*Bot.*) See LEPIDIUM.
Pep'peridge, *n.* (*Bot.*) Same as Tupelo. See TUPELO-TREE.
Pep'pering, *a.* Hot; pungent; angry; acrid.
Pep'permint, *n.* (*Bot.*) See MENTHA.
Pep'permint-tree, *n.* (*Bot.*) *Eucalyptus piperita*, a lofty tree, native of New Holland, belonging to the genus EUCALYPTUS, *q. v.*
Pep per-pot, *n.* A West Indian stew or bouilli of cassareep and vegetables.
—A table utensil with a perforated lid, used to contain and distribute ground-pepper.
Pep'per-sauce, *n.* A table condiment made by steeping red peppers in vinegar.
Pep'per-saxifrage, *n.* (*Bot.*) A species of the genus *Cnidium.*
Pep'pery, *a.* Having the qualities of pepper; pungent.—Easily made angry; choleric; irascible; as, a *peppery* temper.
Pep'sine, *n.* [Gr *pepsis*, from *peptein*, *pessein*, to cook, digest.] (*Physiol. and Med.*) A peculiar animal principle, contained, but only in very minute quantity, in the gastric juice, and which, in conjunction with acid matter, also present in that secretion, confers upon it its solvent or digestive powers in regard to certain components of the food, and more especially in respect to the nitrogeniferous or plastic nutriment, such as albumen, fibrin, casein, and their modifications. It is especially characterized by its power of coagulating milk (see RENNET), and afterwards acting upon and dissolving the coagulum. It has no such solvent power over fatty or amylaceous matters. Various means of isolating this principle have been suggested, but none of them very satisfactory. Certain preparations represented as containing *P.* (such as *pepsine wine*, &c.) have been supposed to be medicinally useful, as promoters of digestion; but, even if they do contain *P.*, their therapeutic powers are very doubtful.
Pep'tic, *a.* [Gr. *peptikos.*] Promoting digestion; relating to digestion.
—*n.* (*Med.*) An agent that promotes digestion or is digestive.
Pep'tics, *n. sing.* The doctrine of digestion.
Pequan'noek, or PEQUON'NOCK, in *Connecticut*, a small river flowing into Bridgeport Harbor from Fairfield co. —A vill. of Hartford co., abt. 12 m. N. by W. of Hartford.
Pequan'noek, in *New Jersey*, a creek rising in Sussex co., and flowing S.E., joins the Ringwood and Ramapo near Pompton, to form the Pompton River.
Pe'quea, in *Pennsylvania*, a creek flowing into the Susquehanna River from Lancaster co. — A post-township of Lancaster co.

Pe'quest Creek, in *New Jersey*, enters the Delawars River from Warren co.

Pe'quot, in *Connecticut*, a village of New London co., abt. 8 m. N.E. by E. of New London.

Pe'quot, in *Wisconsin*, a village of Calumet co., about 100 m. N.E. of Madison.

Per, *prep.* [Lat.] Through; by means of; for; by; as, his pay is twelve dollars *per* week, send me the money *per* bearer; — frequently employed in composition as a prefix denoting passing through or over the entire extent, as in *perambulato*.

(*Chem.*) A prefix to chemical compounds, and the opposite of *pro*, the former signifying *more* or the *most*, the latter *less* or the *least*; thus a *prot-oxide* indicates *one* alone, or the smallest proportions of oxygen the article can absorb; while a *per-oxide* signifies *two*, *three*, or more atoms, the utmost amount of oxygen it can take up.

Per annum, yearly; by the year; as a thousand dollars *per annum*.—*Per centum* (usually abbreviated *per cent.*), by the hundred; as, ten *per cent.* interest money. *Per curiam.* (*Law.*) By the court. — *Per diem*, by the day. — *Per pais.* [O. Fr.] (*Law.*) By the country, or, in otherwise, by a jury, as representing one's country. — *Per pares.* [Lat.] By one's peers or equals in rank. — *Per saltum.* [Lat.] By a sudden spring or movement.

Pe'ra, a suburb of Constantinople, *q. v.*

Pera, in *Illinois*, a village and township of Champaign co., abt. 109 m. S. by W. of Chicago.

Peracute', *a.* Very sharp; very violent; very acute. (R.)

Peradven'ture, *adv.* Perchance; perhaps; it may be; possibly.

"*Peradventure*, I will with you to court." — *Shaks.*

Without peradventure, indubitably; without doubt or question.

Perak, a river of Malacca, rising in the S. of Perak, and after a W.S.W. course of 80 m. falling into the Strait of Malacca.

Peram'bulate, *v. a.* [Lat. *perambulo*, *perambulatus*, from *per*, and *ambulo*, to go or walk about.] To walk through or over; to traverse; to pass through or over for the purpose of surveying or examining something; to visit as overseers.

Perambula'tion, *n.* Act of passing or walking through or over; a travelling survey or inspection. — A district within which a person has the right of inspection: jurisdiction. — Annual survey of the bounds of a parish, or the like.

Peram'bulator, *n.* An instrument for measuring distances on roads. See PEDOMETER. — A child's handcarriage.

Per'bend, *n.* A PERPENT-STONE, *q. v.*

Per'ca, *n.* (*Zoöl.*) See PERCH.

Perear'buretted, *a.* (*Chem.*) Containing the utmost possible quantity of carbon.

Perceiv'able, *a.* Capable of being perceived; perceptible; that may fall under perception, or the cognizance of the senses.

Perceiv'ably, *adv.* In such a manner as to be perceived.

Perceive, (*per-seev'*,) *v. a.* [Fr. *percevoir*; Lat. *percipio*, from *per*, and *capio*, to take.] To have knowledge or receive impressions of external objects through the medium or instrumentality of the senses or bodily organs. — To take thoroughly, or comprehend by the mind; to have mental knowledge of; to understand; to discern; to distinguish; to feel; to be affected by.

Perceiv'er, *n.* One who perceives, feels, or observes.

Percent'age, *n.* (*Com.*) The allowance, duty, or commission on a hundred.

Per'cept, *n.* Anything which is the subject of perception.

Perceptibil'ity, *n.* The state or quality of being perceptible. — Perception; the power of perceiving.

Percep'tible, *a.* [Fr.] That may be perceived; that may impress the bodily organs; that may come under the cognizance of the senses.

Percep'tibly, *adv.* In a manner to be perceived.

Perception, (*-sep'shun,*) *n.* Act of perceiving or of receiving a knowledge of external things by impressions on the senses; that act or process of the mind which makes known an external object, and is consequent upon sensation.

(*Psychol.*) That power or faculty of the mind by which we are conscious of external objects. As commonly used, it is not without ambiguity, denoting either the *perceiving faculty*, the *perceiving act*, or the *object perceived*. The last is the most important, and in order to get rid of ambiguity, it is proposed to employ *percept* in this sense, leaving *perception* to signify both the faculty and the act, which it is rarely necessary to distinguish.

Percep'tive, *a.* [Fr. *perceptif.*] Having the power or faculty of perceiving or noting with the senses; having reference or relation to the act or power of perception: employed in perception.

Perceptiv'ity, *n.* Faculty of perception; quality of being perceptive.

Perch, *n.* [Lat. *perca.*] (*Zoöl.*) A genus of acanthopterygious fish, fam. *Percidæ* The American Yellow Perch, *Perca flavescens*, almost identical to *Perca flaviatilis* of Europe, is one of the most common and beautiful of the fresh-water fishes of the U. States. It is 6 to 12 inches long; the upper part of the body is of a greenish-brown,

Fig. 2077.
AMERICAN YELLOW PERCH.

subsiding into golden below, with 6 to 8 dark traveste bands extending over the back; the pectorals, ventrals, and anal orange. To this genus belongs also the Black-Tail, *Perca cornua*. The perch usually spawns in the early part of the spring; it is extremely voracious; bites eagerly at the bait, and is fond of frequenting deep holes in rivers which flow with a gentle current. Its flesh is firm and delicate.

Perch, *n.* [Fr. *perche*; Sp. *pucha*; Lat. *pertica.*] A staff; a pole; a long rod. — A linear measure of 5½ yards; — otherwise written *pole*. — In land measure, a square rod, or the fortieth part of an acre. — In solid measure, a mass of 16 cubic feet.

—A roost for fowls.

(*Arch.*) A small projecting beam, corbel, or bracket, near the altar of a church.

—*v. n.* (*imp.* and *pp.* PERCHED, (*percht.*) To sit on a perch; to roost, as a bird; to light or settle on a fixed body.

—*v. a.* To place on a fixed object or perch.

Perchance', *adv.* [*per* and *chance.*] By chance; perhaps; peradventure.

Perch'ers, *n. pl* [From Lat. *pertica*, a rod.] A name for the order of birds INSESSORES, *q. v.*

Perchlor'ate, *n.* (*Chem.*) A combination of perchloric acid with a base.

Perchlo'ric Acid, *n.* (*Chem.*) An acid formed by heating chlorate of potash in a tube until one-third of the oxygen contained in it is expelled. The mass assumes a pasty condition at this stage, and contains perchlorate of potash, which may be separated by taking advantage of its sparing solubility, by distilling the perchlorate with twice its weight of sulphuric acid, diluted with one-tenth of water. If the receiver is kept cold within, the first portions of the acid crystallize. It is a very stable acid, forming crystallizable deliquescent salts with the bases. The perchlorates are all decomposable by heat, with the evolution of oxygen, a chloride remaining behind.

Perch River, in *New York*, enters Black River from Jefferson co.

—A post-vill. of Jefferson co., abt. 175 m. N.W. of Albany.

Per'cidæ, *n. pl.* (*Zoöl.*) A family of acanthopterygious fishes, of which the *Perch*, q. v., is the type.

Percip'ience, *n.* Perception; state, quality, or act of being percipient.

Percip'ient, *a.* [Lat. *percipiens* — *percipio.*] Perceiving; possessing the faculty of perception; as, animals are *percipient* beings.

—*n.* One who possesses the faculty of perception.

Perclose', *n.* [O. Fr.] An inclosure; a railway; a screen, sometimes used to protect a tomb, or to separate a chapel from the main body of the church.

Per'coid, *a.* [From Gr. *perkê*, a perch, and *eidos*, form.] (*Zoöl.*) Like a perch; having reference to the PERCIDÆ, *q. v.*

Per'colate, *v. a.* [Lat. *percōlo*, *percolatus* — *per*, and *cōlo*, to strain.] To strain through; to filter; to cause to pass through small interstices, as a liquor.

—*v. n.* To pass through by filtration; to strain through

Percola'tion, *n.* [L. Lat.] A straining through or filtering; filtration; act of passing through small interstices, as liquor through a sieve, or porous paper, stone, &c.

Percola'tor, *n.* A filter.

Percur'sory, *a.* [From Lat. *percurrere*, *percursum*, to run through.] Cursory; running over hastily or desultorily.

Percuss', *v. a.* [Lat. *percurrere*, *percussum*, from *per*, through, and *quatere*, to strike.] To collide with; to strike against in a violent manner. (R.)

Percussion, (*-kŭsh'un,*) *n.* [Fr.; Lat. *percussio*, from *percutio* — *per*, and *quatio*, to shake.] A striking against, so as to shake thoroughly or give a violent shock to; act of striking one body against another with some violence; a forcible stroke given by a moving body. — The shock produced by the collision of bodies; the impression one body makes on another by impinging or falling on it, or striking it; hence, the impression or effect of sound on the ear.

(*Med.*) The effect of striking or tapping upon the chest, abdomen, &c., in order to produce sounds by which the state of the subjacent parts may be ascertained. — See STETHOSCOPE.

Centre of percussion See CENTRE.

P. bullet or *ball.* (*Mil.*) A bullet formed by inserting a small quantity of percussion powder in a copper receiver in the point of an ordinary rifle or musket bullet. — *P. cap*, a small copper containing fulminating powder, and used in the lock of a gun to explode the charge of gunpowder. — *P. gun*, a gun discharged by a *P.* cap. — *P. match*, a match igniting by means of *P.* — *P. powder*, fulminating powder.

P. stop. (*Mus.*) A piano-forte stop in a melodeon, which renders the touch like that of the piano-forte.

Percus'sive, *a.* Producing percussion; striking against; as, *percussive* force or agency.

Perentient, (*-shent,*) *a.* [From Lat. *percutere.*] That which strikes or possesses percussive power.

Percy, (*per'se,*) the family name of a follower of William the Conqueror, from whom sprang the lords of Alnwick, in Northumberland. The members of this family best known to history are — WILLIAM DE PERCY, whose granddaughters were married to the Earl of Warwick, and to the brother-in-law of Henry I. After him a HENRY DE PERCY, reign of Edward I. A second HENRY was married to the Princess Mary of Lancaster, in the reign of Edward III., and it was his sons whom Richard II. created respectively Earl of Northumberland and Earl of Worcester. The latter was beheaded after the victory of Henry IV., near Shrewsbury, while the son of the former, HENRY PERCY, called "Hotspur," fell gallantly in the battle; and his father, Northumberland, was killed in Yorkshire, 1408. The son of Hotspur was restored by Henry V. to the title of Earl of Northumberland, and was killed in the battle of St. Albans, 1455.

Per'cy Islands, a group off the E. coast of Australia, extending from Lat. 21° 32′ to 21° 45′ S., Lon. 150° 18′ E. The largest is 12 m. in circumference.

Perdic'cas, one of the generals of Alexander the Great, killed while aiming at the sovereignty after the death of Alexander, 322 B.C.

Perdido River, (*per-dee'do,*) rises in Baldwin co., Mississippi, and forming the boundary line between that co and Florida, flows S. into Perdido Bay.

Per'difoil, *n.* (*Bot.*) A tree or other plant which periodically sheds its leaves. Used in contradistinction to *evergreen*.

Perdi'sidæ, *n. pl.* (*Zoöl.*) See PARTRIDGE.

Perdition, (*-dish'un.*) *n.* [Lat. *peritio*] State of being wholly given up or over, or of being forlorn, abandoned, or lost; entire loss or ruin; utter destruction. — The utter loss of the soul, or of final happiness in a future state; future misery or eternal damnation.

Perditionable, (*-dish un-a-bl,*) *a.* That may be utterly ruined: deserving of perdition.

Perdu', Perdue', *a.* [Fr. *perdu*, from *perdre*; Lat. *perdo*, to lose.] Abandoned; forlorn; engaged in or accustomed to dangerous enterprises.

—*n.* A soldier placed on a forlorn hope; one who is placed on the watch or in ambush.

—*adv.* In a situation or post of danger; close; in ambush or concealment.

Per'egrinate, *v. n.* [Lat. *peregrinatus.*] To travel from place to place, or from one country to another; to live in a foreign country.

Peregrina'tion, *n.* [Lat. *peregrinatio*, from *per*, and *ager*, land.] A being or living abroad; a travelling in foreign parts; a journeying from one country to another; a wandering about.

Per'egrinator, *n.* [Lat.] A traveller over foreign countries; a wanderer.

Per'egrine Falcon, *n.* (*Zoöl.*) A species of long-tailed falcons, much used for sport in the middle ages. The changes which the young of the Peregrine Falcon, like that of most raptorial birds, undergoes, have caused much confusion as to the nomenclature of the genus. Thus the Stone Falcon (*Falco lithofalco*) forms only one phase of the development of the Peregrine Falcon.

Perejasslavl, Pereiaslav', or **Pereslavl',** a town of Russia, govt. of Poltava, 150 m. W.N.W. of Poltava; *pop.* 10,047.

Per'ekop, a town of S. Russia, govt. of Taurida, on the Isthmus of Perekop, which joins the Crimea with the mainland of European Russia; Lat. 46° 8′ 57″ N., Lon. 33° 42′ 9″ E.; *pop.* 4,000.

Pere Marquette, (*pair-mar-ket',*) in *Michigan*, a village and township of Mason co., abt. 56 m. N. by W. of Muskegon.

Per'emptorily, *adv.* In a peremptory manner; absolutely; positively; in a decisive manner; so as to preclude further discussion or debate.

Per'emptoriness, *n.* State or quality of being peremptory; positiveness; dogmatism; imperative or absolute decision.

Per'emptory, *a.* [Fr. *péremptoire*; Lat. *peremptorius*, from *per*, and *emo*, to buy over. In a manner to exclude discussion, debate, or expostulation; absolute; final; determinate; decisive; express; authoritative; as, a *peremptory* command. — Positive or magisterial in opinion or judgment; dogmatical.

Peremptory challenge. (*Law.*) A challenging of jurors without showing cause.

Per'ennial, *a.* [It. and Sp. *perenne*; Lat. *perennis* — *per*, and *annus*, year.] Lasting or continuing without cessation throughout the year; hence, perpetual; unceasing; never-failing; as, *perennial* fountains. — Continuing without intermission, as a fever.

—*n.* (*Bot.*) One of those plants whose roots remain alive more years than two, but whose stems flower and perish annually. Gardeners generally call them herbaceous plants. They differ from annuals and biennials, not only in the time of their duration, but also in this, that the two former perish as soon as they have flowered, the act of reproduction exhausting their vital energies. Notwithstanding this distinction, it is not at all times easy to say whether the plant is a perennial or not; as, for instance, in the American Aloe, *Agave Americana*. This plant is herbaceous, and lives for many years; but when it flowers it dies; so that in one respect it is annual, its whole life being regarded as only one season of growth; in another respect it is truly perennial. Such perennials are called by De Candolle *monocarpic*.

Peren'nially, *adv.* Continually; unceasingly.

Perennibran'chiates, *n. pl.* [Lat. *perennis*, perpetual, and *branchiæ*, gills.] (*Zoöl.*) A division of Batrachian reptiles including the species which preserve the external branchiæ or branchial apertures throughout life; as the Siren, Protens, and Menopome.

Peren'nity, *n.* [Lat. *perennitas.*] The quality of being perennial; lasting continuance.

Peres'kia, *n.* (*Bot.*) A genus of plants, order *Cactaceæ*, distinguished by its fully developed leaves, and hard woody stems. The yellow fruit of *P. aculeata* the Barbadoes Gooseberry, is used in the W. Indies for making preserves.

Per Fas et Nefas. [Lat.] By right or wrong; to accomplish by any means.

Per'fect, *a.* [Fr. *parfait*; Lat. *perfectus*, from *per*, and *facio*, to make.] Made or done wholly, entirely, or completely; finished; completed; carried through; brought to consummation. — Not defective; having all that is

requisite to its nature and kind; fully informed; completely skilled; manifesting perfection; without deficiency or blemish; as, a *perfect* likeness; a *perfect* figure, a *perfect* system. — Specifically, pure; blameless; immaculate; complete in moral excellence. — Sane; in full possession of one's mental faculties.

(*Bot.*) Having both stamens and pistils.

P. cadence. (*Mus.*) A complete harmonical close. — *P. chord*, a perfect consonance of sounds.

P. number (*Arith.*) A number equivalent to the sum of all its divisors, as the number 6.

P. tense. (*Gram.*) That form of the verb marked in English by the auxiliary *have*, which designates an action finished at the time when we speak of it.

Per'fect, *v. a.* To make or do wholly, thoroughly, or completely; to make complete; to accomplish; to consummate, to finish; to raise to the highest state, so as to leave nothing wanting; to give to anything all that is requisite to its nature and kind; to instruct fully; to make entirely skilful.

Per'fecter, *n.* One who makes perfect.

Perfectibil'ian, *n.* An upholder of perfectibility.

Perfectibil'ity, *n.* [Fr. *perfectibilité.*] The capability of becoming or being made perfect. The theory of the indefinite perfectibility of the human faculties constitutes the basis of many modern systems of philosophy.

Perfecti'ble, *a.* [Fr.] Capable of becoming or being made perfect, or of arriving at the utmost perfection of the species.

Perfection, (*-fek'shon,*) *n.* [Fr.; Lat. *perfectio.*] State or condition of being perfect or complete, so that nothing is defective or wanting; perfectness; finished culture, skill, or moral excellence; as, *perfection* in an art, science, or system of morals or polity. — A quality, endowment, or acquirement completely excellent, or of great worth; an inherent or essential attribute of supreme or infinite excellence, or one perfect in its kind.

To perfection, perfectly; to the highest grade or degree of worth or excellence; as, he looked the character *to perfection.*

Perfec'tional, *a.* Belonging or having reference to perfection.

Perfec'tionate, *v. n.* To make perfect. (R.)

Perfectiona'tion, *n.* The act of making perfect.

Perfec'tionism, *n.* The doctrinal theories of the Perfectionists.

Perfec'tionist, *n.* A believer in the theory of moral perfection attainable by persons in this life.

Perfec'tionment, *n.* Act of perfecting; state of being made perfect.

Perfect'ive, *a.* Tending to perfect; calculated to render perfect or complete; conducive to a state of finished excellence.

" Actions suitable to and *perfective* of their natures." — *Ray.*

(*Gram.*) Denoting completed action; — used of some forms of the verb.

Perfect'ively, *adv.* In a perfective manner.

Perfectly, *adv.* In the highest degree of excellence; consummately; totally; completely; exactly; accurately; as, I *perfectly* understand you.

Perfectness, *n.* State or quality of being perfect; completeness; consummate excellence; perfection; the highest degree of goodness or holiness of which man is capable in this life; accurate or finished skill or acquirement.

Perficient, (*-fish'i-ent,*) *a.* Efficient. (R.)

—*n.* [From Lat. *perficere*, to perform.] One who endows a charity.

Perfid'ious, *a.* [Fr. *perfide*; Lat. *perfidus.*] Guilty of perfidy; breaking or violating good faith or vows; false to trust or confidence reposed; false; treacherous; faithless; as, a *perfidious* friend. — Proceeding from treachery, or consisting in breach of faith.

—Guilty of violated allegiance; traitorous; disloyal; as, a renegade *perfidious* to his country.

Perfid'iously, *adv.* In a perfidious manner; traitorously; treacherously; by breach of faith or allegiance.

Perfid'iousness, *n.* Perfidy; quality of being perfidious; treachery; faithlessness; infidelity; disloyalty; traitorousness.

Per'fidy, *n.* [Fr. *perfidie*; Lat. *perfidia*; from *perfidus* — *per*, and *fides*, faith.] Act of breaking or violating faith, a promise, vow, or allegiance; violation of a trust reposed; treachery; disloyalty; faithlessness; perfidiousness.

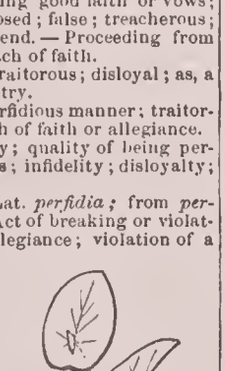


Fig 2078.
BAPTISIA PERFOLIATA.

Per'foliate, *a.* [Lat. *per*, through, and *folium*, a leaf.] (*Bot.*) When the bases of two opposite leaves are so united that the stem appears to pass through the substance of the leaf itself, as in Fig. 2078.

Per'forate, *v. a.* [Lat. *perforo, perforatus* — *per*, and *foro*, to bore, to pierce.] To bore, pierce, or penetrate through; to puncture with a pointed instrument; to make a hole or holes through anything by boring or driving.

Per'forate, Perforated, *a.* (*Bot.*) Pierced with holes, or having transparent dots which look like holes.

Perfora'tion, *n.* [Fr.; L. Lat. *perforatio.*] Act of perforating, or of boring or piercing through. — A hole or aperture passing through anything, or into the interior of a substance, whether natural or made by an instrument.

Per'forative, *a.* That has power to perforate, bore, or puncture.

Per'forator, *n.* [L. Lat.] An instrument that pierces or perforates; a borer; a drill.

Per'force, *adv.* [*Per*, and *force.*] By force or violence; by necessity; absolutely.

Perform', *v. a.* [Lat. *per*, and *formo*, to form.] To form thoroughly or completely; to complete; to execute; to accomplish; to carry through; to effect; to achieve; to do. — To execute; to discharge, as a duty; to fulfil, as an obligation; as, to *perform* a contract or covenant.

—*v. n.* To do; to act apart; to acquit one's self in any undertaking; particularly, to go through with a public part, as in a stage play, orchestral piece, &c.; as, he is an actor who *performs* in light comedy, she *performs* well on the harp.

Perform'able, *a.* That may be performed or done, executed, or fulfilled; practicable.

Perform'ance, *n.* Act of performing, or condition of being done or performed; execution or completion of anything; achievement; as, the *performance* of a work or duty. — Thing done; production, work accomplished; act performed, especially an act of a studied or public character; composition; acting or exhibition of feats, &c.

" Few of our comic *performances* give good examples." *Richardson.*

Perform'er, *n.* One who performs anything, particularly in an art or accomplishment.

Perfum'atory, *a.* Yielding perfume or odor.

Per'fume, *n.* [Fr. *parfum*; Sp. *perfume*; Lat. *per*, and *fumus*, smoke, vapor.] A substance which affects agreeably the organs of smell by emitting a fragrant scent or odor. — The scent, odor, or volatile particles emitted from sweet-smelling substances; a pleasant scent or smell; fragrance; incense; aroma.

—*v. a.* [Fr. *parfumer*, from Lat. *per*, and *fumo*, to smoke, to fume.] To scent with perfume; to fill or impregnate with a fragrant or grateful odor.

" A bridegroom . . . *perfumed* like a milliner."—*Shaks.*

Perfum'er, *n.* He who or that which perfumes. — One who vends perfumes; a seller of, or dealer in, fragrant oils and essences.

Perfum'ery, *n.* Perfumes in general. — Preparation of scents or perfumes.

Perfunc'torily, *adv.* In a perfunctory manner; in a manner to show superficially; mechanically; carelessly; negligently; slovenly.

Perfunctory, (*fungk'to-ry,*) *a.* [Low Lat. *perfunctorius* — Lat. *per*, and *fungor, functus*, to get rid of, to perform.] Done as a matter of routine; performed hurriedly, carelessly, or superficially; done only for the sake of getting rid of the duty; hence, slight; careless; negligent; slovenly.

Perfunc'turate, *v. a.* To perform in a perfunctory or mechanical manner; to do carelessly or indifferently.

Perfuse', *v. a.* [Lat. *per*, through, and *fundere*, to pour.] To sprinkle or pour over; to overspread. (R.)

Perfusion, (*-fū'zhon,*) *n.* Act of perfusing, or of pouring or sprinkling over.

Perfu'sive, *a.* Calculated or adapted to spread, pour, or sprinkle.

Pergame'neous, *a.* [Lat. *pergamena.*] Resembling parchment.

Pergamino, (*per-ga-mee'no,*) a town of the Argentine Confederation, abt. 155 m. N.W. of Buenos Ayres.

Per'gamus. (*Anc. Geog.*) An ancient city of Mysia, in Asia Minor, noted for the magnificence of its buildings, and as the place where parchment was first made, and tapestry, called by the Romans *aulæa*, first worked. After the battle of Issus it became the capital of a kingdom, and florished for more than 150 years, till conquered by the Romans, 120 B. C. It was destroyed during the Turkish wars, but its extensive ruins are still visible, and have been explored with great success. See *P.*, by Grote (Berlin, 1880).

Per'gola, Per'gula. [Ir. *pergola*; Lat. *pergula.*] (*Arch.*) A kind of gallery or balcony attaching to a house.

Pergole'si, Giovanni Battista, a distinguished musical composer, was B. in the kingdom of Naples, early in the 18th century, and D in 1737. Among his most celebrated works are, the *Stabat Mater*, *Olimpiade*, an opera, *Orfeo e Euridice*, and *Salve Regina.*

Per'haps, *adv.* [Lat *per*, and Eng. *hap.*] By hap or chance; it may be; perchance; peradventure; possibly.

Pe'ri, a prefix from the Gr. *peri*, around, and employed in many phrases derived from the Greek, and corresponding with *around, about, near, with*, &c.

Pe'ri, *n.*; *pl.* Peais. [Pers *peri*, a fairy.] (*Pers. Myth.*) An imaginary being of the female sex, resembling a fairy, defined as the representative of a fallen angel, excluded from paradise till the allotted time of her penance be at an end.

Perian'der, who is one of the seven reputed sages of Greece, was a tyrant of Corinth, who succeeded his father, Cypselus, B. C. 633, and died with the reputation of an able ruler, B. C. 563. He was a man of licentious manners, and, in the latter part of his reign, became a cruel ruler.

Per'ianth, Perianthium, *n.* [Gr. *peri*, around, and *anthos*, a flower.] (*Bot.*) A calyx and corolla, the limits of which are undefined, so that the parts cannot be satisfactorily distinguished from each other; as in many monocotyledonous plants, the Tulip for example.

Periblep'sis, *n.* [Gr. *peri*, around, and *blepein*, to look.] (*Med.*) The look of wildness accompanying delirium.

Peribo'los, *n.* [Gr. *peri*, around, and *ballein*, to throw.] (*Arch.*) A walled court around a temple.

Pericar'diac, Pericar'dial, *a.* Pertaining or relating to the pericardium.

Pericar'dian, Pericar'die, *a.* Having reference to the pericardium.

Pericar'ditis, *n.* (*Med.*) See Heart (Diseases of).

Pericar'dium, *n.* (*Anat.*) See Heart.

Per'icarp, *n.* [Gr. *peri*, and *carpos*, fruit.] (*Bot.*) Fruit is divided into two distinct parts: the seed, and the pericarp or investing substance. The pericarp is composed of three parts or layers, one within the other: for example, the pericarp of the apple consists of an external layer or skin, *epicarp* the internal layer, *endocarp*; and the fleshy substance, *sarcocarp*, lying between them. Thus, the outer skin is the epicarp; the pulpy substance, the sarcocarp; and the tough thick covering to the seeds, the endocarp. The same relation is found in *stone fruit* (Fig. 940), the shell of the nut being endocarp.

Pericarp'ial, Pericarp'ic, *a.* (*Bot.*) Pertaining to a pericarp.

Perichætium, (*-kē'shī-um,*) *n.* [Gr. *peri*, around, and *chaitē*, foliage.] (*Bot.*) The foliated involucre encircling the seta of mosses.

Per'iclase, *n.* [Gr. *peri*, around, and *klasis*, fracture.] (*Min.*) A native magnesia, with from 5 to 8 per cent. of protoxide of iron, found at Monte Somma, near Naples, in ejected masses of white limestone. It occurs in octahedrons and in grains of a dark-green color. The name has reference to the cleavages at the angles.

Per'icles, the great Athenian statesman, was B. of a noble and wealthy family, and received a careful education from the most eminent teachers. He applied himself to the study of philosophy under the guidance of Anaxagoras, who had a most powerful influence on him, and remained one of his most intimate friends. To his other acquirements he added that of extraordinary eloquence, and thus prepared, he began to take part in public affairs about B. C. 469, and the popular party soon recognized him as their chief. He effected a great change in the constitution of the Areopagus, the stronghold of the aristocratic party, by which its authority was much limited, and Cimon, the head of that party, was immediately ostracized.—*P.* was great as a general, and he displayed extraordinary valor at the battle of Tanagra; he commanded the expedition against Sicyon and Acarnania; recovered Delphi from the Spartans, and quelled the revolt of Eubœa. In B. C. 444 he became sole ruler of Athens, and the aim of his policy was to extend and strengthen her empire, and to make the people worthy of their position. Under his administration the navy was increased, commerce extended, general prosperity advanced, and Athens adorned with noble buildings. Phidias was the friend of *P.*, and under his direction the Parthenon, the Propylæa, the Odeon, and the other temples and monuments, the admiration of all time, were erected. In B. C. 440, *P.* established a democratic constitution in Samos, and a counter-revolution taking place, he besieged the town, and after nine months reduced it, a success which procured him extraordinary honors on his return. His personal enemies, hopeless of success in any direct attack on him, aimed their blows at his friends; Phidias was imprisoned, Anaxagoras banished, and Aspasia was only saved by the most earnest intercession of her husband. *P.* directed Athens during the first two years of the Peloponnesian war, in the second year of which the plague broke out at Athens, and the popular discontent vented itself in the prosecution of the great ruler. He was fined, but soon regained his influence. The plague carried off many of his friends and relatives, and, last of all, his favorite son, Paralus. This loss broke his heart, and after a lingering sickness he D., B. C. 429. He left a son by Aspasia, who took his father's name, and was legitimated by the people.

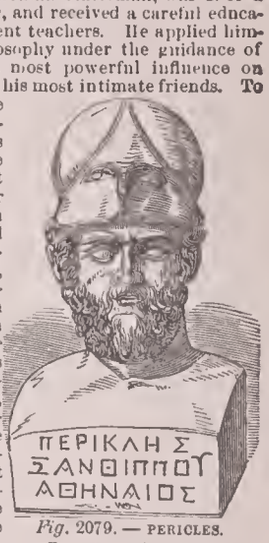


Fig. 2079. — PERICLES.
(From an ancient bust.)

Pericope, (*-rik'o-pe,*) *n.* [Lat.; from Gr. *peri*, around, and *koptein*, to cut.] An extract from a book or published work; particularly, an excerpt from the Gospels or Epistles, serving as a subject for religious comment and discourse.

Pericra'nium, *n.* [Fr. *péricrâne*; Gr. *peri*, and *kranion*, the skull.] (*Anat.*) The tough fibrous membrane that covers the external surface of the bones of the skull.

Peridio'la, *n.* [Gr. *perideo*, I bind round.] (*Bot.*) The membrane by which the spornles of algales are immediately covered.

Peri'dium, *n.* (*Bot.*) A term used for the outer coat, or coats, immediately enveloping the spornles in some fungi.

Periecian, (*-ē'shan.*) *n.* [From Gr. *peri*, around, and *oikos*, a dwelling.] A dweller on the opposite side of the globe, in the same parallel of latitude.

Perier'gy, *n.* [Gr. *peri*, over, and *ergon*, work.] (*Rhet.*) An inflated or bombastic style.

Perige'an, *a.* Having reference to the perigee.

Perigean tides, those spring tides happening soon after the moon passes her perigee.

Per'igee, Perige'um, *n.* [Fr. *périgée;* Gr. *peri,* about, and *gê,* the earth.] (*Astron.*) That point of the moon's orbit which is nearest to the earth. Anciently the term *perigee* was applied to the orbits of the sun and planets, as well as the moon, because they were supposed to circulate round the earth. Since the true centre of motion has been discovered, the term *perihelion* is used to denote the corresponding points.

Per'igone, Perigo'nium, *n.* (*Bot.*) Same as PERIANTH, *q. v.*

Per'igord Pie, *n.* (*Cookery.*) A French pie made of fatted geese livers and truffles, esteemed a delicacy by epicures; a *paté de foie gras.*

Per'igueux, a town of France, cap. of the dept. of Dordogne, on the Ille, 68 m. E.N.E. of Bordeaux. It has an old cathedral in the Byzantine style. *Manuf.* Paper, woollen cloth, hosiery, cutlery, and nails. *Pop.* 16,422.

Peri'gynium, *n.* [Gr. *peri,* and *gyne,* a female.] (*Bot.*) The urceolate body formed in the genus *Carex* by two bracts, which become confluent at their edges, and inclose the pistil, leaving a passage for the stigmas at their apex. The term is also used occasionally to denote the organ commonly called the disc.

Peri'gynous, *a.* (*Bot.*) A term applied to stamens or petals which originate from the sides of a calyx.

Perihel'ion, *n.* [Gr *peri,* and *hêlios,* the sun.] (*Astron.*) See APSIS.

Peril, *n.* [Fr.; It. *periglio;* Lat. *periculum.*] Imminent risk or danger; immediate hazard or jeopardy; particular exposure of person or property to injury, loss, or destruction, from any cause whatever.

At one's peril, with hazard or danger to one; in jeopardy.

—*v. a.* To hazard; to risk; to expose to danger or destruction.

Per illa, *n.* (*Bot.*) A genus of plants, order *Lamiaceæ,* chiefly interesting from its containing a species, *P. nankinensis,* with deep purple leaves, which is much used in the planting of modern summer flower gardens, leaf-color being largely employed to produce pictorial effects.

Per ilous, *a* [Fr. *périlleux.*] Dangerous; hazardous; full of risk; as, a *perilous* enterprise, a *perilous* position. — Portentous; parlous. (R.)

Per'ilously, *adv.* Dangerously; with hazard or risk.

Per'ilousness, *n.* State or quality of being perilous or hazardous; danger; jeopardy.

Per'ilymph, (*-limf,*) *n.* [Gr. *peri,* around, and Lat. *lympha,* water.] (*Anat.*) A transparent, slightly viscid fluid, in the cavities of the internal ear.

Pe'rim, ISLE OF. See BABELMANDEB.

Perim'eter, *n.* [Fr. *perimetre;* Gr. *peri,* around, about, and *metron,* measure.] (*Geom.*) The boundary of any figure, being the sum of all the sides in right-lined figures, the same as circumference or periphery in those of a circular form.

Perinæum, (*-nē'ŭm,*) *n.* [Gr. *perinaion.*] (*Anat.*) The space between the pubes and the fundament, so named from the medial line or seam that exists there.

Perinæ'al, *a.* Pertaining or relating to the perinæum.

Pe'riod, *n.* [Fr. *période;* Lat *periodus;* Gr. *periodos* — *peri,* and *hodos,* way, path.] A circuit; a revolution; the time which is taken up by a planet or comet in making its revolution round the sun; any series of years or of days in which a revolution is completed, and the same course is to recommence.

—Any specified portion of time; a revolution or series of years by which time is measured; a cycle.

"We style a lesser space a cycle, and a greater by the name of *period.*" — *Holder.*

—Generally, an interval of time stated; a time; an age; an epoch; an æra; an indefinite portion of any continued state, existence, or series of events. — State at which anything terminates; time at which anything ends; conclusion; limit; end.

"Our world . . from chaos to the last *period.*" — *Burnet.*

—Length, or usual length of duration.

"To make plants more lasting than their ordinary *period.*" — *Bacon.*

(*Rhet.*) A complete sentence from one full stop to another; hence, clause; phrase.

(*Math.*) One of a congeries of figures or terms, marked by points or commas in regular order after a certain number, as in numeration, in the cube and square roots, and in circulating decimals.

(*Print.*) A full stop: the point that marks the end of a complete sentence, thus (.).

(*Med.*) One of the different phases or revolutions of a disease, or one of the epochs which are distinguished in the course of it. Three periods are usually enumerated: — 1. The augmentation, increase, or progress. 2. The acme, or height. 3. The decline.

(*Mus.*) A complete musical sentence.

Period'ic, Period'ical, *a.* [Fr. *périodique.*] Performed in a circuit, or in a regular revolution in a certain time, or in a series of successive cycles; as, the *periodical* motion of the moon round the earth. — Happening by revolution, at a fixed time; occurring or returning regularly in a certain period of time; performing some action at a stated time; acting, appearing, or recurring at stated intervals; as, a *periodical* change of government.

(*Rhet.*) Belonging, or having reference to, a period; forming a complete sentence.

Period'ical, *n.* A magazine or serial publication which appears at regular intervals.

Period'icalist, *n.* The publisher of a periodical.

Period'ically, *adv.* At stated periods; in a periodical manner.

Period'icalness, *n.* Periodicity; state or condition of being periodical.

Periodicity, (*-is'i-tỹ,*) *n.* [Fr. *periodicité.*] The disposition of certain phenomena to recur at stated times or periods; any change or event that occurs at stated times.

(*Med.*) The regularity with which the stages of an ague or intermittent fever return is called the *periodicity* of the disease.

Periœ'ci, *n. pl.* [From Gr. *peri,* and *oikeo,* I dwell.] (*Geog.*) Those inhabitants of the globe who live under the same parallel of latitude, but on opposite meridians; that is, in places which have the same latitude, but differ in longitude by 180°.

Perios'teum, *n.* [Gr. *peri,* around, and *osteon,* a bone.] (*Anat.*) A tough fibrous membrane that covers the external parts of every bone, and is the means by which the osseous substance it covers receives its nourishment and vitality of blood and nerve. Every bone in the body is supplied with this close-fitting vesture, only that on the bone of the skull is called *Pericranium.*

Periosti'tis, *n.* (*Med.*) Inflammation of the periosteum.

Perios'tracum, *n.* [Gr. *peri,* around, and *ostrakon,* a shell.] (*Zoöl.*) The layer of animal substance, or cuticle, which covers the outer surface of shells.

Peripatet'ic, *a.* [Gr. *peripatêtikos,* from *peri,* and *pateô,* to walk.] A term applied to the philosophy of Aristotle, either because it was his custom to teach while walking, or because the place where he taught was a walk planted with trees. See ARISTOTELIANISM. — Hence, given to walking about; as, a *peripatetic* individual.

—*n.* A follower of Aristotle. — Hence, in a ludicrous sense, one who is obliged to go on foot, or cannot afford to ride.

Peripatet'icism, *n.* [Fr. *péripatétisme.*] The notions or philosophical system of Aristotle and his followers. See ARISTOTELIANISM.

Peripet'alous, *a* [Gr *peri,* around, and *petalon,* leaf.] (*Bot.*) Situated about the corolla; — applied to nectaries.

Peripheral, Peripheric, Peripherical, (*-rif'er-al,*) *a.* [Fr. *périphérique.*] Belonging to, or constituting, a periphery.

—External; around the exterior of an organ; as, the *peripheral* elements of a vertebra.

(*Bot.*) Applied to the position of the embryo when it is external, or nearly so, and curved circularly around the albumen, as in Goosefoot, Chickweed, and Mirabilis.

Periphery, (*-rif'e-ry,*) *n.* [Fr. *périphérie;* Gr. *peri,* and *pherô,* to carry.] (*Geom.*) The line that is carried round a circular body; the circumference of a circle, ellipse, or other curvilinear figure.

Periphrase, Periphrasis, (*-frāz, frā'sis.*) *n.* [Gr. *periphrasis* — *peri,* and *phrazô,* to speak.] (*Rhet.*) Circumlocution; the use of more words than are necessary to express the idea.

Periphrase, *v. a.* To express in a circumlocutory manner.

Periphras'tic, Periphras'tical, *a.* [Gr *periphrastikos.*] Containing periphrase; circumlocutory; expressing or conveyed in more words than are necessary; delivering the sense of one word in many.

Periphras'tically, *adv.* With circumlocution or verbiage; in a periphrastical manner.

Periplo'ca, *n.* [Gr. *peri,* around, and *ploke,* a binding or twining.] (*Bot.*) A genus of plants, ord. *Asclepiadaceæ.* The *P. græca* (see Fig. 208), naturalized in the State of New York, and cultivated in gardens, is a climbing shrub, 10–15 ft. long, giving in Aug dark-purple flowers, in long, branching, axillary peduncles. The remarkable color, and rich, velvety appearance of the flowers, the elegant form of the leaves, and the facility with which the plant can be made to cover an extensive space, render it useful for arbors, &c.; but the odor of the flowers is considered unwholesome.

Per'iplus, *n.* [Lat.; Gr. *peri,* round, and *plous,* a voyage.] Circumnavigation. (R.)

Peripneumon'ic, *n.* [Gr. *peripneumonikos.*] (*Med.*) Belonging, or relating to, peripneumony.

Peripneu'mony, Peripneumo'nia, *n.* [Gr. *peri,* around, about, and *pneumôn,* a lung.] (*Med.*) An inflammation of the lungs.

Peripolyg'onal, *a.* [Gr. *peri,* around, about, *polys,* many, and *gônia,* angle.] (*Crystallog.*) Many-angled.

Perip'teral, *a.* Presenting a range of columns all round; — said of a building.

Perip'tere, *n.* (*Arch.*) Same as PERIPTERAL, *q. v.*

Perip'terous, *a.* [Gr. *peri,* around, and *pteron,* wing.] Feathered all round.

Perip'tery, Perip'tere, *n.* [Gr. *peripteros.*] (*Arch.*) A colonnade all round the exterior of a temple or other edifice.

Periscian, (*-rish'i-an,*) *n.* [Gr. *periskioi* — *peri,* and *skia,* a shadow.] (*Geog.*) An inhabitant of a frigid zone, or within a polar circle, whose shadow moves all round in the twenty-four hours, and in the course of the day falls in every point of the compass.

—*a.* Having the shadow making a revolution.

Peris'cii, *n. pl.* Same as periscians. See PERISCIAN.

Per'iscope, *a.* [Gr. *peri,* around, and *skopein,* to view.] A view on all sides; a general view.

Periscop'ic, *a.* [Fr. *périscopique.*] Viewing on all sides; — a term applied to spectacles having concavo-convex glasses, for the purpose of increasing the distinctness of objects when viewed obliquely.

Per'ish, *v. n.* [Fr. *périr;* ppr. *périssant;* Lat. *pereo* — *per,* and *eo.*] To die; to lose life in any manner; to become defunct. — To be destroyed; to come to nothing; to fail entirely, or to be extirpated; to be lost irrevocably or eternally; to be lost or ruined. — To lose vital power; to wither and decay gradually.

"Thy leaf has *perished* in the green." — *Tennyson.*

—*v. a.* To destroy; to cause to decay or pass away.

Perishabil'ity, *n.* Perishableness; liableness to decay and destruction.

Per'ishable, *a.* Liable to perish or pass away; subject to decay and destruction; susceptible of speedy death.

Per'ishableness, *n.* State of being perishable; liableness to decay; perishability.

Per'ishably, *adv.* In a perishing or dying manner.

Per'isperm, *n.* [Gr. *peri,* round, and *sperma,* seed.] (*Bot.*) The albumen of a seed

Perispheric, Perispherical, (*-sfer'ik,*) *a.* Ball-shaped; globular.

Perissological, (*-loj-*) *a.* Exuberant in words; verbose.

Perissol'ogy, *n.* [Gr. *perissos,* superfluous, and *logos,* discourse.] Redundancy of words; verbosity; superfluous talk. (R.)

Peristal'tic, *a.* [Gr. *peri,* and *stallein,* to place in order.] (*Anat.*) A term applied to that peculiar vermicular motion of the intestines, by means of which their contents are carried onwards. It is a series of contractings and relaxings, the different parts of the bowels rising and falling alternately, so as to resemble the motions of a worm or snake.

Peristome, Peristominm, *n.* [Gr *peri,* and *stoma,* a mouth.] (*Bot.*) The fringe of teeth seen round the edge of the cup in the capsule of a Moss, when the lid is broken off. The teeth of which it is composed are various in number and character.

Peristrefic, (*-stref'ik,*) *a* [Gr. *peri,* around, and *strephein,* to turn.] Undergoing rotation; revolving; turning round.

Peristyle, *n.* [Gr. *peristylon* — *peri,* and *stylos,* a column.] (*Arch.*) An open court within a house, having a colonnade around it, by which the principal apartments were reached (see Fig. 231); — the exact reverse of the *periptery,* though the same in character — the one being inside, the other outside a building.

Perisys'tole, *n* [Fr., from Gr. *peri,* around, and *systolê,* a contraction.] (*Med.*) The time of rest between the two actions of the heart, or between its contraction (*systole*) and its dilatation (*diastole*); the momentary pause that occurs between these two actions of the heart.

Perithecium, (*-thē-si-ŭm,*) *n.* [Gr. *peri,* around, and *thêkê,* a box.] (*Bot.*) An organ in certain fungi and lichens, surrounding and enveloping the masses of fructification.

Perit omous, *a.* [From Gr. *peri,* around, and *temnein,* to cut.] (*Min.*) Cleaving in more directions than one parallel to the axis.

Peritone al, *a.* Belonging or relating to the peritoneum.

Peritone'um, *n.* [Lat., from Gr. *peri,* around, and *teinein,* to stretch.] (*Anat.*) The *P.* is one of the most difficult parts in the human anatomy for a teacher to explain intelligibly to his pupils, and the last that the student is able thoroughly to understand. Yet, as it is a very important structure, and a knowledge of its function and action explains many doubtful circumstances, we will endeavor to give our readers an idea of what the *P.* is like, and how it performs its duties. From birth till death, the bowels are constantly moving and gliding over each other, in a worm-like perpetual motion, called *peristaltic motion.* It will be self-evident to every comprehension, that this day and night *friction* of such delicate textures as those composing the integuments would, in the seventy years of man's life, wear out, or at least in time most seriously injure them. To prevent this friction, nature has provided the *P.*, an immense shut-bag, like a man's closed night-cap. The *inside* — that portion out of sight — presents, when cut open, a smooth, glairy surface, studded with innumerable vessels, always pouring out a thin, smooth fluid, like the liquid white of an egg, allowing the two sides, when rubbed together, to glide over each other, as if oiled, without check or the slightest friction. The *outside* of this peritoneal night-cap is rough and granulated, not unlike the uneven texture of the actual article. The peculiarity of the inner and outer sides of this immense bag lies in this, that the surface of the first is close, smooth, moist, and shiny, and, however firmly pressed, can never grow together, or keep long in contact: while that of the other is rough, dry, and *adheres* firmly to all with which it comes in contact. This external side, then, adheres to the muscles of the abdomen, and to every portion of the intestines, but in such a manner that between every convolution, or twist of the bowels, a fold of *P.* accompanies it, so that between the bowel above or below there is always the two glairy sides rubbing against each other, and allowing the intestines to glide about without let or hindrance, the bowels being always on the *outside of the bag,* but always gliding over the *two inner* sides. The *P.* is a serous membrane, and, in the same way as it covers the bowels, lines and invests every organ in the abdominal and pelvic cavities.

Peritoni'tis, *n.* (*Med.*) Inflammation of the peritoneum is exceedingly painful and dangerous, from its extent and connection with important organs. *P.* may exist either as an acute or chronic disease. In the former there is usually great pain and tenderness of the abdomen, accompanied with fever, and a frequent, small, and hard pulse. Sometimes, at first, the pain is confined to one spot, but it generally soon extends over the whole of the abdomen. It is very severe, and much increased by any motion, even coughing, sneezing, or drawing a long breath. Even the weight of the bed-clothes is sometimes unbearable. It is acute and cutting, and sometimes occurs in paroxysms; and the patient usually lies on his back with his knees drawn up. The bowels are usually constipated, but sometimes the reverse; and commonly there are present nausea, vomiting, and hiccough. Its causes are various, as by cold, mechanical

injuries of the peritoneum, the development of tumors, &c. Women in childbed are peculiarly liable to it. After the disease has continued for a certain time, it is attended with tension and swelling of the belly; and if not checked, it usually terminates in from five to ten days. The appropriate treatment, when the state of the patient admits of it, is copious general bleedings, followed by the application of leeches to the abdomen, together with warm fomentations; frequently the latter is all that the state of the patient admits of. As internal remedies, most reliance is usually placed upon mercury and opium. After a time, *P.* sometimes assumes a chronic form. Here the symptoms are less marked. The pain is slight, or only discoverable on pressure, and the fever low; but the skin is hot and dry, the tongue foul, and appetite impaired. The treatment is local bleedings, with blisters and other counter-irritants applied over the abdomen. A nourishing, but unstimulating diet, and attention to the state of the bowels, are likewise necessary; and some recommend iodine, either taken internally, or applied as ointment to the part.

Peritro'chium, *n.* [N.Lat., from Gr. *peri*, around, and *trochos*, a wheel.] (*Mach.*) A wheel or circle concentric with the base of a cylinder, and movable, together with it, about an axis; the axis, with the wheel and levers fixed in it to move it, constitute that mechanical power called *axis in peritrochio.*

Peritro'pal, *a.* [Fr. *péritrope*; Gr. *peri*, around, and *trepein*, to turn.] Revolving; rotatory; circuitous.

(*Bot.*) With the axis of the seed vertical to the axis of the pericarp to which it belongs.

Perivis'ceral, *a.* [Gr. *peri*, and Lat. *viscera*, the bowels.] Situate about the viscera; as the *perivisceral* cavity.

Per'iwig, *n.* [Fr. *perruque*, probably from Gr. *purrichos*, for *purros*, red, from *pur*, fire, the ancients having been partial to red or auburn hair.] A small wig; a peruke; a scratch; a kind of head-covering, formed by an intermixture of false hair, worn by men, either for ornament or to hide baldness of the cranium.

—*v. a.* To dress with false hair; to sport a periwig.

"Discord *periwigg'd* with snakes."—*Swift.*

Per'iwinkle, *n.* [Fr. *pervenche.*] (*Bot.*) See VINCA.

—[A.S. *wincle*, a shell-fish.] (*Zoöl.*) The common name of the family *Litorinidæ*, containing Gasteropods which have the shell spiral, turbinated, or depressed, the aperture rounded, and the operculum horny. They inhabit the sea near the shore, and feed on algæ. The living species are more than 300, and the fossil more than 200.

Fig 2080.—PERIWINKLE, (*Litorina palliata.*)

Perjure, (*pĕr'jŭr,*) *v. a.* [Lat. *perjūrō* — *per*, and *juro*, to swear.] To forswear; to swear falsely; wilfully to make a false oath when administered by lawful authority, or in a court of justice;—used with a reciprocal pronoun; as, he *perjured himself.*—To deceive by false oaths or insincere protestation.

Per'jured, *a.* Guilty of perjury; having or being sworn falsely; as, a *perjured* witness.

Per'jurer, *n.* One who wilfully takes a false oath lawfully administered.

Per'jurious, Per'jurous, *a.* [Lat. *perjuriosus.*] Guilty of perjury; involving perjury.

Per'jury, *n* [Lat. *perjuriam.*] (*Law.*) The taking of a wilful false oath or affirmation, by a witness lawfully required to depose the truth in a matter of some consequence to the point in question. A false oath, therefore, taken before no court, or before a court incompetent to try the issue in question, does not constitute the offence of perjury at common law. But many statutes, passed by the general government or the several States on the matter, provide that a false oath or declaration made on some specified occasions, or for some particular purposes, shall be considered to be perjury, and punishable accordingly. Perjury is a misdemeanor at common law, and by several statutes punishable by fine and imprisonment, and by penal servitude for a term not exceeding seven years.

Perk, *a.* [W. *perc.*] Pert; smart; trim; vain; brisk; airy; as, "*perk* as a peacock."—*Spenser.*

—*v. n.* [W. *perca.*] To hold up the head with an assumption of briskness or smartness.

—*v. a.* To dress up stylishly; to prank; to make trim, smart, or modish.

Per'kin, *n.* Ciderkin; a kind of weak cider.

Per'kins, JACOB, an American inventor, b. at Newburyport, Mass., in 1766. He early became distinguished for his ingenuity, and when 21 years of age, he was employed by the commonwealth of this State to make new dies for copper coinage. He next became noted for his improvements in the engraving of bank notes, and, in 1818, went to England with the expectation of obtaining a contract for supplying the Bank of England with plates. Failing in this, he, however, procured a contract for serving the Bank of Ireland, and carried on business in London for a number of years. Becoming interested in the subject of steam artillery, *P.* constructed a gun in which steam generated at an enormous pressure, operating as the propelling power instead of gunpowder. His invention was satisfactorily tested in presence of the Duke of Wellington and a number of artillery officers, but was finally condemned as being inapplicable to modern warfare. *D.* in Loudon, 1849.

Per'kins, in *Maine*, a township of Sagadahoc county.

Per'kins, in *Ohio*, a twp. of Erie co.

Per'kins' Grove, in *Illinois*, a village of Bureau co., abt. 68 m. N.N.E. of Peoria.

Perkins'ville, in *Indiana*, a post-village of Madison co., abt. 10 m. W.N.W. of Anderson.

Perki'omen, in *Pennsylvania*, a creek flowing into the Schuylkill River, abt. 7 m. above Norristown.—A township of Montgomery co.

Perk'y, *a.* Perk; jaunty; spruce; stylish; trim.

Perlaceous, (*-lā'shus,*) *a.* Pearly; resembling pearl.

Per'lite, *n.* (*Min.*) Same as PEARL-STONE, *q. v.*

Perlustroci'tion, *n.* [Lat. *perlustrare.*] The act of viewing on all sides

Perm, a govt. of Russia, situated chiefly in European, but partly in Asiatic Russia, having W. the govt. of Viatka, and E. that of Tobolsk; Lat. between 55° 40′ and 62° N., Lon. 53° 10′ and 65° E. *Area.* Estimated at 130,000 sq. m. It is traversed by the Ural Mountains, and is more than half covered with dense forests. The soil is generally unfertile, and the climate very severe. *Min.* Gold, silver, copper, iron, and salt; the mines giving employment to over 100,000 workmen. *Cap.* Perm. *Pop.* 2,138,548.

PERM, cap. of the above government, on the Kama, 240 m. E.S.E. of Viatka; *pop.* 14,590.

Per'manence, Per'manency, *n.* [Fr. *permanence*; It. *permanenza.*] State of being permanent; continuance in the same state or condition, or without a change that destroys the form or nature of a thing; duration; fixedness; continuance in the same place or at rest.

Per'manent, *a.* [Fr.; Lat. *permanens*, from *permaneo*—*per*, and *maneo*, to stay, remain, last.] Lasting, holding out, or continuing to the end; durable; not decaying; of long continuance; remaining in the same state, or without any change that destroys the form and nature of the thing.

P. way, the road-bed and superstructure of a line of railroad;—so called in England, as being the finished road, in distinction from the contractor's temporary way.

Per'manently, *adv.* With long continuance; durably; in a fixed state or place.

Permeabil'ity, *n.* [Fr. *permeabilité.*] Quality or state of being permeable.

Perman'ganate, *n.* See PERMANGANIC.

Permangan'ic Acid, *n.* (*Chem.*) A solution of manganate of potash largely diluted with water. It gradually changes from green to violet, from the manganic acid passing to a higher state of oxidation, and permanganate of potash is formed. It is, however, best prepared by mixing 4 parts of black oxide of manganese with 3½ parts of chlorate of potash; to this mixture are added 5 parts of hydrate of potash dissolved in a small quantity of water, and the whole is heated to dull redness for an hour. When cold, the permanganate of potash may be separated by treating the excess with a large quantity of water and crystallizing. It crystallizes in fine dark-purple prisms, soluble in 16 parts of water, and forming a magnificent crimson solution. Permanganate of potash has lately received a most important application in the hands of Mr. Condy, of Battersea, as a deodorizing and disinfecting agent. From the experiments of this gentleman, it seems to contain oxygen in the ozonic form, which is immediately liberated on the approach of organic matter in the process of decomposition. *Form.* Mn_2O_7.

Per'meable, *a.* [Fr.; Lat. *permeabilis*, from *permeo*] That may be passed through without rupture or displacement of its parts, as solid matter.

Per'meably, *adv.* In a permeable manner; penetrably.

Per'meate, *v. a.* [Lat. *permeo, permeatus*, from *per*, through, and *meo*, to go.] To pass through, as the pores or interstices of a body; to penetrate and pass through, as a substance, without rupture or displacement of its parts;—applied to fluids particularly.

Permea'tion, *n.* Act of permeating.

Per'mian Period, *n.* (*Geol.*) The name given to the closing æra of the Carboniferous age (see Fig. 1142), which was a time of decline for Palæozoic life, and of transition towards a new phase of geological history. In the U. S., the *P.* rocks are confined to the interior continental basin, and occurs in the portion of it W. of the Mississippi, especially in Kansas. The rocks are limestones, sandstones, red, greenish, and gray marls or shales, gypsum beds, and conglomerates, among which the limestones in some regions predominate. The *P. P.* was so called by Murchison, because he found them largely developed in that portion of Russia which composed the ancient kingdom of Permia, of which the actual govt. of Perm forms a part.

Permissibil'ity, *n.* The quality of being permissible.

Permis'sible, *a.* That may be permitted or allowed.

Permis'sibly, *adv.* In the way of permission; by permission.

Permis'sion, *n.* [Fr.; Lat. *permissio.*] Act of permitting; allowance; leave, license, or liberty granted.

Permis'sive, *a.* That permits; granting permission or liberty; allowing.—Granted; suffered without hinderance.

Permis'sively, *adv.* By allowance; without prohibition or hinderance.

Permit', *v. a.* [Fr. *permettre*; Lat. *permitto*, from *per*, through, and *mitto*, to send.] To allow; to grant; to suffer; to concede; to give leave or liberty to by express consent; to give consent to by silence or by not prohibiting.

—To give in charge; to commit. (R.)

—*n.* (*Law*) A written license or permission from an officer of the customs to transport goods from one place to another, showing the duty on them to have been paid.—Leave; permission.

Permit'tance, *n* Permission. (R.)

Permit'tee, *n.* A person to whom a permit or permission is granted.

Permit'ter, *n.* He who permits.

Permixtion, (*per-mikst'yan,*) *n.* The act of mixing; the state or quality of being mixed.

Permu'table, *a.* That may be changed one for another; exchangeable. (R.)

Permu'tableness, *n.* State or quality of being changed or permutable. (R.)

Permu'tably, *adv.* By interchange.

Permuta'tion, *n.* [Fr.; Lat. *permutatio*, from *per*, through, and *muto*, to change.] Exchange of one thing for another; barter; the exchange of one benefice for another.

(*Algebra.*) The name given to the different orders which can be formed out of any number of things, with regard to position, when all are taken at once. It is based upon the following formula:—Since the number of variations of m things taken r together—

$$m\ (m-1)\ (m-2)\ \&c.\ (m-r+1);$$

and as in permutation, when the things are taken all together, $m=r$ ∴ the permutation of m things will equal the numbers multiplied into one another; or,—

$$P=m\ (m-1)\ (m-2)\ \ldots\ldots\ 3.\ 2.\ 1.$$

For instance, if we want to find the different number of changes which may be rung upon seven bells, taken all together, we multiply the order of bells into one another, and the changes will be equal to—

$$1\times2\times3\times4\times5\times6\times7=5040.$$

Per'mute, *v. a.* [Lat. *permuto.*] To exchange.

Permut'er, *n.* One who exchanges. (R.)

Pern, *n.* (*Zoöl.*) The Honey-buzzard.

Pernagoa, a town of Brazil, abt. 260 m. S.W. of Ocirras; *pop.* 5,000.

Pernambu'co, an E. prov. of Brazil, bordering on the Atlantic Ocean, and lying chiefly between Lat. 7° and 14° 35′ S., and Lon. 34° 50′ and 47° 20′ W; *area*, 80,082 sq. m. *Rivers.* Capibaribe, Ipojuca, and Unna rivers. *Surface*, elevated, and traversed by several mountain ranges; *soil*, generally fertile, producing large quantities of sugar and cotton. *Exps.* Sugar, cotton, timber, dye-woods, hides, drugs, gold, and gems. *Chief towns.* Pernambuco (the capital), Sarut Antonio, and Formosa. *Pop.* 1,380,000.

—A city of Brazil, cap. of the above prov., on the Atlantic Ocean; Lat. 8° 3′ 6″ N., Lon. 34° 51′ 7″ W. (See Fig. 411.) Properly speaking, *P.* consists of the towns of Olinda (the former capital) and Recife, the latter of which is in turn composed of 3 small towns or villages—San Pedro Gonçalves, São Sacramento, and Boa Vista. This irregular collection of towns are situated on and near the rivers Biberibe and Cassibaribe. The harbor is sheltered by a reef of rocks and defended by 4 strong forts. *P.* has an extensive trade (chiefly European) in cotton, sugar, and dye-wood. *Pop.* 30,000

Pernambuco-wood, *n.* (*Bot.*) The wood of *Cæsalpinia echinata* See CÆSALPINIA.

Per'nancy, *n.* [O. Fr. *perner*, from *parner*, to take.] (*Law*) A taking or receiving, as of rents.

Per'nau, a fortified seaport-town of Russia, govt. of Livonia, at the entrance of the Pernau, in the Gulf of Riga, 99 m. N.N.E. of Riga; *pop.* 7,000.

Per'nel, *n.* (*Bot.*) Same as PIMPERNEL.

Pernicious, (*-nish'us,*) *a* [Fr. *pernicieux*; Lat. *perniciosus*—*per*, and *neco*, to kill, to destroy] Producing great injury or mischief; destructive; ruinous; deadly; noxious; tending to injure or destroy.

Perni'ciously, *adv.* Destructively; with ruinous tendency or effects.

Perni'ciousness, *n.* Quality of being pernicious or very injurious, mischievous, or destructive.

Per'nio, *n.* [Lat.] (*Med*) A chilblain

Per'nis, *n.* (*Zoöl.*) A genus of birds, family *Falconidæ*, including the Honey-buzzards, characterized by having the space between the eye and the bill covered with small, scale-like feathers.

Pernocta'llan, *n.* A person who watches all night.

Pernocta'tion, *n.* [Lat *pernoctatio*, from *per*, through, and *nox, noctis*, night.] The act of watching or tarrying through the night.

Peron'ate, *a.* (*Bot.*) Covered with a woolly substance ending in a sort of mesh.

Per'one, *n.* [Gr. *pérone*; Fr. *péroné.*] (*Anat.*) The fibula; the long, small bone, situated at the outer part of the leg.

Perone'al, *a.* (*Anat.*) Belonging or relating to the fibula; as, the *peroneal* muscles.

Peronne, (*pa-roan',*) a fortified town of France, dept. of Somme, on the river Somme, 21 m. S.W. of Cambrai; *pop.* 5,000.

Perora'tion, *n.* [Fr. *péroraison*; Lat. *peroratio*, from *per*, and *oratio.*] (*Rhet.*) The concluding part of a speech or an oration, in which the speaker enforces the principal points of his discourse, and brings it to a conclusion.

Pe'rot, in *Louisiana*, a small bayou connecting Lake Washa with Little Lake.

Pe'rote, a town of Mexico, abt. 88 m. W.N.W. of Vera Cruz; *pop.* 3,000.

Perows'kite, *n.* (*Min.*) A titanate of lime, found in cubes of an iron-black color in chlorite slate in the Ural Mountains.

Perox'ide, *n.* (*Chem.*) The highest degree of oxidizement of which a metal or other substance is susceptible without becoming an acid.

Perpen'dicle, *n.* [Lat. *perpendiculum.*] A plumb-line. (R.)

Perpendic'ular, *a.* [Fr. *perpendiculaire*; from Lat. *per*, and *pendeo*, to hang down.] Vertical, or at right angles with the plane of the horizon.

(*Geom.*) A straight line is said to be *P.* to another straight line when the adjacent angles formed by their

intersection are equal, and, consequently, each is a right angle A straight line is *P.* to a curve at a given point when it is *P.* to the tangent to the curve at that point. In this case the *P.* is usually called a *normal* to the curve. A straight line is *P.* to a plane when it is at right angles with every straight line in the plane passing through the point of intersection. A plane is *P.* to a plane when any straight liue in the first, which is *P.* to the common intersection of the two planes, is also *P.* to the second plane.

(*Fort.*) A line drawn perpendicularly from the polut of bisection of the exterior side towards the place.

—*n.* A line falling at right angles with the plane of the horizon.

(*Geom.*) A line falling upon, or intersecting another line or a plane at right angles.

Perpendic'ular Style. (*Arch.*) The last of the styles of Gothic architecture, which flourished in England towards the close of the 14th century, at the latter portion of the reign of Edward III. It prevailed until Gothic architecture sank into disuse. — The principal characteristics of this style of architecture are the exuberance and redundancy of its ornaments, while it wants the simplicity of the *Decorated* style. In the earlier examples this enrichment is not carried beyond bounds; but in latter times it becomes excessive, and the chief aim of the architects seems to have been to employ as much labor as possible in ornamentation. At length this practice proved fatal, and Gothic architecture may date its decline from the commencement of the 15th century. The terms *Third-pointed* and *Florid* are applied by some writers to this style. The term *Perpendicular* was given to it on account of the peculiar arrangement of the tracery in the window-heads (Fig. 2081), which forms a peculiar character of the style.

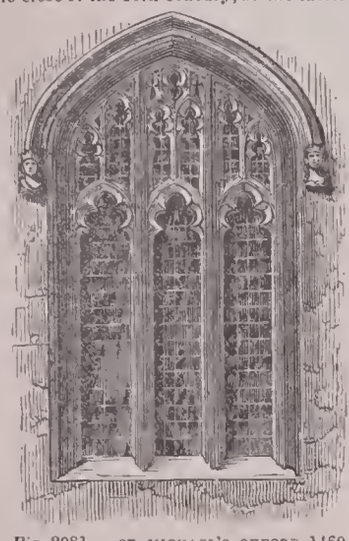


Fig. 2081. — ST. MICHAEL'S, OXFORD, 1460.

Perpendicular'ity, *n.* The state of being perpendicular.

Perpendic'ularly, *adv.* In a perpendicular manner.

Per'pent-stone, *n.* (*Arch.*) A stone that goes through the walls, and is dressed on both sides as a common piece of ashlar.

Per'petrate, *v. a.* [Lat. *perpetro, perpetratus,* from *per,* and *patro,* to execute, to accomplish.] To achieve; to consummate; to do: to commit; to perform. (In an ill sense, or generally used to express an evil act.)

Perpetra'tion, *n.* [Lat. *perpetratio.*] The act of perpetrating or committing a crime.

Per'petrator, *n.* One who commits a crime.

Perpetual, (*per-pet'yu-al.*) *a.* [Fr.; Lat. *perpetualis,* from *per,* and *peto,* to direct one's course to.] Continuing or continued without intermission; continued; unceasing. — Destined to be eternal; everlasting; endless.

P. motion. See MOTION (LAWS OF).

Perpet'ually, *adv.* Constantly; continually; uninterruptedly.

Perpet'uate, *v. a.* [Fr. *perpétuer;* Lat. *perpetuo, perpetuatus,* from *perpetuus.*] To make eternal; to make perpetual; to cause to endure or be continued indefinitely.

—To preserve from extinction or oblivion; to continue by repetition without limitation.

Perpetua'tion, *n.* [Fr.; Lat. *perpetuatio.*] Act of making perpetual: act of permanently continuing in knowledge and remembrance.

Perpetu'ity, *n.* [Fr. *perpétuité;* Lat. *perpetuitas,* from *perpetuus,* perpetual, *q. v.*] Uninterrupted or continued duration or succession; endless duration; continuance to eternity. — Something of which there will be an end; that which continues indefinitely.

(*Law.*) Quality or class of an estate by which it becomes inalienable, either perpetually or for an indefinitely long period of time; also, the estate so perpetuated.

(*Annuities.*) The number of years in which the simple interest of any sum invested in an annuity or annuities becomes equivalent to the principal; also, the amount which will purchase an annuity payable forever.

Perpignan, (*per-peen'yong,*) a fortified town of France, dept. of Pyrénées-Orientales, on the Tet, 34 m S. of Narbonne. It is a place of great strength, and is considered one of the keys of the kingdom on the side of Spain. *Manuf.* Woollens, silk, paper, hats, and soap. *Pop.* 25,264.

Perplex', *v. a.* [Lat. *perplexus* — *per,* and *plecto, plexus,* to plait, to intertwine.] To entangle; to involve; to make intricate; to make complicated or difficult to be understood or unravelled. — To embarrass; to confuse; to puzzle; to distract; to harass with suspense, anxiety, or ambignity. — To plague; to annoy; to torment; to vex.

"Chloe's killing eyes *perplex* my flame."—*Granville.*

Per'plexedly, *adv.* In a perplexed or intricate manner.

Perplex'edness, *n.* State of being perplexed; intricacy; involution; difficulty from want of order or precision; embarrassment of mind from doubt or uncertainty.

Perplex'ity, *n.* [Fr. *perplexité;* Lat. *perplexitas.*] Entanglement; intricacy; complication; embarrassment of mind; disturbance or distraction from doubt, confusion, anxiety, or difficulty.

Perquim'ans, (from a tribe of Indians inhabiting this region,) in *N. Carolina,* a river rising in the Dismal Swamp and flowing S. into Albemarle Sound through Perquimans co; *length,* abt. 60 m., of which 45 are navigable.

—An E.N.E. co., bordering on Albemarle Sound; *area,* abt. 250 sq. m. *Rivers.* Perquimans River and several smaller streams. *Surface,* generally level; *soil,* in some parts fertile In this co. was made the first permanent settlement in the state (1662). *County-seat,* Hertford.

Perquisite, (*pêr'kwi-zit,*) *n.* [Lat. *perquisitum,* something diligently inquired after, from *perquiro* — *per,* and *quæro,* to look or search for.] Profit, gain, emolument, fee, &c. obtained or allowed for services beyond ordinary salary or settled wages; something in lieu of regular wages or salary; according to law, whatever a man gets by industry, and purchases with his own money.

Perquisition, (*-zish'un,*) *n.* An accurate search or investigation. (R.)

Perrault, CLAUDE, (*per'rolte,*) a celebrated French architect, B. at Paris, 1613, constructed many noble works, the principal of which is the façade of the Louvre. D. 1688.

Per'rin, in *Pennsylvania,* a township of Union county.

Per'rineville, in *New Jersey,* a post-village of Monmouth co., abt. 20 m. E. of Trenton.

Per'rington, or PERRINTON, in *New York,* a village and township of Monroe co., abt. 12 m. E.N.E. of Rochester.

Per'ron, *n.* [Fr., from *pierre*; from Lat. *petra,* stone.] (*Arch.*) A staircase outside of a building, or the steps in front of a building, leading up to the first story.

Per'roquet, *n.* (*Zoöl.*) See PAROQUET.

Per'rot, or PERROTT, an island of Lower Canada, in the St. Lawrence River, S W. of the island of Montreal.

Perruquier, (*per-ru'ke-er,*) *n.* [Fr., from *perruque,* a peruke.] A maker of wigs or perukes; also, a hairdresser.

Per'ry, *n.* [Fr. *poiré,* from Lat. *pyrum,* a pear.] The fermented juice of pears, prepared in the same way as cider, and used as a beverage.

Per'ry, OLIVER HAZARD, an American naval officer, B. in Newport, Rhode Island, 1785. He entered the navy as midshipman at the age of 14, and was on board the frigate General Greene, 28 guns, commanded by his father, Capt. C. R. Perry, during its important cruise on the W. India station in 1799-1800. At the commencement of the war of 1812, *P.* was in command of a division of gunboats at Newport, R. I., and in Feb., 1813, at his own request, he was transferred to the command of Commodore Isaac Chauncey, on the lakes, where he superintended the equipment of a naval force on Lake Erie. It was while this operation was being carried ont, that he was called to aid in the attack upon Fort George: and, at the head of a body of seamen, performed his part with such valor and gallantry, as to elicit the highest praise from his countrymen. In the following August he gained the famous battle of Lake Erie (see ERIE, BATTLE OF LAKE), which at once elevated him to the highest naval renown. He afterwards aided Gen. Harrison in taking Detroit, and at the close of these operations, resigned his command. A gold medal was awarded him by Congress for his eminent services, and he also received a captain's commission dated from the day of the battle, Sept. 10, 1813. In Aug., 1814, he was assigned to the command of the frigate Java, 44 guns, then lying at Baltimore, under equipment; but as the British had the Chesapeake closely blockaded, it was impossible to get her to sea. *P.* did not remain idle, however, but continued to harass and annoy the enemy at every possible point until peace was declared. In 1819, he was appointed to the command of a squadron stationed on the coast of Colombia, where he was attacked with the yellow fever, and D. at Port Spain. Subsequently, his remains were transferred to his native town. On Sept. 18, 1860, amid imposing ceremonies, a marble statue, by Walcutt, (Fig. 1985,) was erected at Cleveland, Ohio, near the scene of his great battle.

Perry, in *Alabama,* a W. central co; *area,* abt. 950 sq. miles. *Rivers.* Cahawba River, and numerous smaller streams. *Surface,* undulating or hilly; *soil,* very fertile. *Cap.* Marion.

Perry, in *Arkansas,* a central co.; *area,* abt. 580 sq. m. *Rivers.* Arkansas and Fourche La Fave. *Surface,* somewhat hilly; *soil,* moderately fertile. *Cap.* Perryville. —A township of Johnson co.

Perry, in *Florida,* a post-town and capital of Taylor county.

Perry, in *Georgia,* a post-village, cap. of Houston co., abt. 33 m. S. by W. of Macon.

Perry, in *Illinois,* a S. co.; *area,* abt. 420 sq. m. *Rivers.* Beaucoup Creek and several smaller streams. *Surface,* mostly level prairies; *soil,* fertile. *County-seat,* Pickneyville.

—A post-village and township of Pike co., about 62 m. W. of Springfield.

Per'ry, in *Indiana,* a S. co., adjoining Kentucky; *area,* about 380 sq. m. *Rivers.* Ohio river, and several less important streams. *Surface,* uneven and hilly, except near the rivers; *soil,* fertile. *Min.* Coal and sandstone. *Cap.* Cannelton. *Pop.* (1890) 18,240.

—A post-village and township of Allen co., about 13 miles N. by W. of Fort Wayne.—A township of Boone co. —A township of Clay co.—A township of Clinton co. —A township of Delaware co.—A township of Lawrence co.—A township of Marion co.—A township of Martin co.—A township of Miami co.—A township of Monroe co.—A township of Noble co.—A township of Tippecanoe co.—A township of Vanderburg co.—A township of Wayne co.

Perry, in *Iowa,* a prosperous city of Dallas co., on the C., R. I. & Pac. and C., M. & St. P. R.Rs., 34 m. W.N.W. of Des Moines; has some manuf. and good local trade with the rich farming region surrounding. *Pop.* (1895) 3,750.

Perry, in *Kansas,* a post-village of Jefferson county.

Perry, in *Kentucky,* an E. by S. co.; *area,* abt. 700 sq. m. *Rivers.* North and Middle Forks of Kentucky River, and several creeks. *Surface,* finely diversified; *soil,* in some parts fertile, but rather adapted to wool-growing. *Cap.* Hazard.

Perry, in *Maine,* a post-township of Washington county.

Perry, in *Michigan,* a post-township of Shiawassee co.

Perry, in *Mississippi,* a S.S.E. co.; *area,* abt. 1,040 sq. m. *Rivers.* Leaf River, Black Creek, and many less important streams. *Surface,* uneven; *soil,* moderately fertile. *Cap.* Augusta.

Perry, in *Missouri,* an E.S.E. co., adjoining Illinois; *area,* abt. 430 sq. m. *Rivers.* Mississippi River, and Apple, Saline, and Cape Cinque Homme creeks. *Surface,* diversified; *soil,* generally fertile. *Min.* Iron and lead in abundance, and also marble and blue limestone. *Cap.* Perryville.

—A post-village of Ralls county.

Perry, in *New York,* a post-village and township of Wyoming county, about 50 miles east by south of Buffalo.

Perry, in *North Carolina,* a post-village of Gaston county.

Perry, in *Ohio,* a S.E. county; *area,* about 400 square miles. *Rivers.* Jonathan and Rush creeks. *Surface,* undulating or hilly; *soil,* fertile, and well adapted to the usual products of that region. *County-seat,* New Lexington.

—A township of Allen county.—A township of Ashland county.—A township of Brown county.—A township of Carroll county.—A township of Columbiana county.—A township of Coshocton county.—A township of Fayette county.—A township of Franklin county.—A township of Gallia county.—A township of Hocking county.—A post-township of Lake county.—A township of Lawrence county.—A township of Licking county.—A township of Logan county.—A township of Monroe county.—A township of Montgomery county.—A township of Morrow county.—A township of Muskingum county.—A township of Pickaway county.—A township of Pike county.—A township of Putnam county.—A township of Richland county.—A township of Shelby county.—A township of Stark county.—A township of Tuscarawas county.—A township of Wood county.

Perry, in *Pennsylvania,* a S.E. central co.; *area,* abt. 540 sq. m. *Rivers.* Susquehanna and Juniata rivers, and Sherman's Creek. *Surface,* mountainous, being bounded N.W. and S.E. by Tuscarora and Blue Mountains respectively; *soil,* in some parts remarkably fertile, producing fruits, vegetables, and cereals in abundance. *Cap.* New Bloomfield. *Pop.* (1897) 27,180.

—A township of Armstrong county.—A township of Berks county.—A township of Clarion county.—A township of Fayette county.—A township of Greene county.—A township of Jefferson county.—A township of Lawrence county.—A township of Mercer county.—A village and township of Snyder county, about 40 m. S. of Williamsport.—A post-office of Forest co.

Perry, in *South Carolina,* a post-village of Oconee county.

Perry, in *Tennessee,* a W. central co.; *area,* abt. 600 sq. m. *Rivers.* Tennessee and Buffalo rivers. *Surface,* diversified; *soil,* fertile. *Cap.* Linden.

Perry, in *Texas,* a post-village of Falls county.

Perry, in *Wisconsin,* a post-township of Dane co.—A township of Pierce co.

Perry Centre, in *New York,* a post-village of Wyoming co., abt. 50 m. E. by S. of Buffalo.

Perrymans'ville, in *Maryland,* a post-village of Harford co., abt. 27 m. E.N.E. of Baltimore.

Perryop'olis, in *Pennsylvania,* a post-village of Fayette co., abt. 35 m. S. of Pittsburg.

Per'rysburg, in *Indiana,* a post-village of Miami co., abt. 18 m. N. of Indianapolis.

Per'rysburg, in *New York,* a post-township of Cattaraugus co.

Per'rysburg, in *Ohio,* a village of Ashland co., abt. 45 m. S.S.W. of Cleveland.—A post-village, former cap. of Wood co., about 140 m. N.N.W. of Columbus.

Per'ry's Mills, in *New York,* a post-village of Clinton co., about 170 m. N. by E. of Albany.

Per'rysville, in *Indiana,* a post-town of Vermillion co., about 90 m. W.N.W. of Indianapolis.

Per'rysville, in *Pennsylvania,* a post-village of Allegheny co., about 8 m. N. by W. of Pittsburg.—A village

Oliver Hazard Perry

1785–1819

of Jefferson co., about 18 m. S. of Brookville.—A village of Venango co., about 16 m. N.E. of Oil City.—A village of Westmoreland co., about 30 m. E. by N. of Pittsburg.

Per'rysville, in *Ohio*, a post-village of Ashland co.

Perrysville, in *Pennsylvania*, a village of Juniata co., about 2 m. E. of Mifflintown.—A village of Mifflin co., about 12 m. N. of Lewistown.

Perrysville, or PERRYSVILLE, in *West Virginia*, a post-village, the former cap. of McDowell co.

Per'ryville, in *Maryland*, a post-village of Cecil co., about 40 m. E.N.E. of Baltimore.

Perryville, in *Missouri*, a post-village, cap. of Perry co., about 75 m. S.S.E. of St. Louis.

Perryville, in *New Jersey*, a village of Hunterdon co., about 33 m. N.N.W. of Trenton.

Perryville, in *New York*, a post-village of Madison co., about 20 m. E. by S. of Syracuse.

Perryville, in *Tennessee*, a post-village of Decatur co., 100 m. W. S. W. of Nashville. In this vicinity, Oct. 8, 1862, occurred one of the most desperate and sanguinary battles (in proportion to numbers) of the late Civil War. Gen. Buell, at the head of 100,000 Union troops, encountered Gen. Bragg with 65,000 Confederates, and after a severe engagement, which lasted all day, the latter was compelled to retreat. The total Union loss was 4,348. That of the Confederates, though not reported, was probably as great.

Per'sante, a river of Prussia, prov. of Pomerania, rising near the village of Persanzig, and after a N.W. course of 70 m., flowing into the Baltic at Colberg.

Perscrutation, *n.* [Lat. *perscrutatio.*] A searching thoroughly; minute search or inquiry.

Per'sea, *n.* (*Bot.*) A genus of plants, order *Lauraceæ*. *P. indica*, a native of Madeira, yields timber somewhat resembling mahogany. The fruit of *P. gratissima*, the Avocada or Alligator pear, common in the W. Indies and South America, are highly esteemed in the countries where they are produced, though not at first relished by strangers.

Per'secot, *n.* (Also written *persicot.*) A liquenr or cordial made of the kernels of apricots, quinces, nectarines, &c.

Per'secute, *v. a.* [Fr. *persécuter.*] To pursue in a manner to injure, vex, or afflict; to harass with unjust punishment; to inflict pain upon from hatred or malignity. — To afflict, harass, or destroy for adherence to a particular creed, or system of religious principles, or to a mode of worship.

Persecu'tion, *n.* [Fr.; Lat. *persecutio.*] Act or practice of persecuting; state of being persecuted.

(*Eccl. Hist.*) The early Christians were subjected by the Roman emperors to ten general persecutions, which are as follows:

A. D.

64. The Christians are first persecuted by Nero, on a charge of having set fire to Rome. Tacitus enumerates crucifixion, burning alive, and baiting by dogs and wild beasts, among their tortures.

95. The second, under Domitian, commences with the banishment of his niece Domitilla, and the execution of the consul Clemens.

106. The third under Trajan.

166 The fourth by Marcus Aurelius.

198. Septimius Severus publishes his edict against the Christians.

235. The favorites of Alexander Severus are barbarously massacred by Maximin I. As there were many Christians among them, it is styled the sixth persecution.

250. The Emperor Decius exceeds all his predecessors in the severity of his persecutions.

258. Valerian adopts severe measures against the Christians.

275. Aurelian publishes edicts against Christianity.

303. Feb. 24. Diocletian publishes his first edict against the Christians, ordering the demolition of their churches, and the execution of all who refused to renounce their worship. The persecution thus commenced was continued with great barbarity for ten years.

Persecu'tive, *a.* Following after; persecuting.

Persecutor, *n.* One who pursues another unjustly and vexatiously, particularly on account of religious principles.

Persecutrix, *n.* A female who persecutes.

Perseˈpolis, a celebrated city of antiquity, and during a considerable period cap. of Persia, prov. of Farlstan, in a fine plain at the foot of a mountain, on the Araxes, or *Bundemir*, 30 m. N.E. of Shiraz; Lat. 29° 59′ 30″ N., Lon. 53° 20′ E. It was taken by Alexander the Great B. C. 331, and some ancient historians have reported that it was burnt by him, but the ruins of *P.*, which are very extensive, and attest its ancient magnificence (Fig. 2082), show no traces of fire, and it is certain that *P.*, under its primitive name of Istakhar, remained an important place to a comparatively recent time.

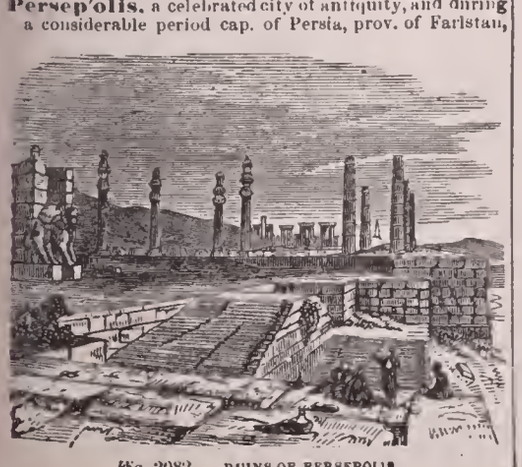


Fig. 2082. — RUINS OF PERSEPOLIS.

Per'serin, or **Prisrend',** a town of European Turkey, pashalic of Albania, on the Drin, 72 m. E.N.E. of Scutari. *Manuf.* Fire-arms.

Per'seus. (*Grecian Myth.*) The son of Zeus and Danaë, was rescued from the sea and brought up by the king of Seriphos, Polydectes, who afterwards, wishing to get rid of him for private reasons, sent him, when yet a youth, to bring the head of the Gorgon Medusa, believing that the enterprise would end in the ruin of *P.* But the innocence of *P.* was patronized by the gods. Pluto lent him his helmet, Minerva her buckler, and Mercury his wings and a short dagger. With these arms, and after numerous wonderful adventures, he reached the abode of Medusa, who dwelt near Tartessus, on the coast of the ocean, and succeeded in cutting off her head, which he put into a bag, and carried off. On his return, he visited Ethiopia, where he liberated and married Andromeda, and arrived at Seriphos in time to rescue his mother from the annoyance of the too ardent addresses of Polydectes, whom, along with some of his companions, he changed into stone. He then returned with his wife and mother to Argos, and his great father Acrisius remembering the oracle (see DANAE), fled to Larissa. *P.* following him in order to persuade him to return, is said to have accidently killed him with a discus, in the course of public games. Unwilling to return to Argos, he exchanged that kingdom for the govt. of Tirgus. He presented the gorgon's head to Minerva, who placed it on her shield. He received divine honours after his death, like the rest of the ancient heroes.

Perseus, or PERSUS, last king of Macedonia, was son of Philip V. From jealousy of his younger brother, Demetrius, he accused him falsely to his father, and induced him to put him to death. He came to the throne on the death of Philip, B. C. 178. The great event of his reign was the war with the Romans, which, long expected, began in 171 and ended in 168, by the total defeat of *P.* at Pydna, by L. Æmilius Paulus. *P.* escaped with his children and treasures to Samothrace, but soon gave himself up, and after being led in triumph to Rome, was cast into prison. He was, however, allowed to spend his last years at Alba. Macedonia became a Roman province.

(*Astron.*) A northern constellation, situated between Andromeda on the W., and Auriga on the E. Its mean declination is 40° N. It is on the meridian the 24th of Dec. It contains, including the Head of Medusa, which forms part of it, 59 stars, 2 of which are of the 2d magnitude.

Perseverance, *n.* [Lat. *perseverantia*, from *persevero.*] Act of persisting in anything undertaken; continued pursuit or prosecution of any business or enterprise begun.

(*Theol.*) Continuance in a state of grace to a state of glory.

Persevere', *v. n.* [Lat. *persevero*, from *perseverus*, from *per*, and *severus*, serious, grave.] To persist or continue in any business or enterprise undertaken; to pursue steadily any design or course commenced; not to give over or abandon what is undertaken.

Persever'ingly, *adv.* With perseverance or continued pursuit of what is undertaken.

Persia, (*per'she-â,*) [in Persian *Iran,*] an extensive country of Asia, bounded on the N. by the Caspian Sea, the Transcaspian and Transcaucasian provs. of Russia; S. by Pers. Gulf and Ind. Ocean; E. by Russian territory, Afghanis an and Beloochistan; and W. by Asiatic Turkey; lies between Lat. 25° and 40° N., Lon. 44° and 62° E. Its greatest length obliquely from N.W. to S.E. is 1,300 m.; area abt. 600,000 sq. m. Upon the N.W. and S., several lofty mountain-ranges—some of considerable length, others short and abrupt — intersect the land in many directions, the centre of the country consisting in general of a vast plain or table-land. The lowest or most level portions of the country lie along the bed of the Tigris and the shore of the Persian Gulf. *P.* possesses many extensive plains and barren deserts, and the interior is generally bare, bleak, and arid. The mountains appear to be a confused heap of hills piled upon hills, in grand but indefinite order; while each individual hill appears a mass of gray rock reared block on block, or starting in huge boulder abruptly from the face of the plains or plateaux. The plains, again, are vast naked steppes, destitute of trees or foliage; and it is only on the margin of water-courses, or the banks of rivers, that either villages or vegetation of any abundance is found. The provinces, however, along the S. and W. margin of the Caspian are an exception to the rest of the country, and present some of the most beautiful and fruitful pictures of richness and abundance to be found in *P.* It has been computed that barely a third of the entire kingdom is fit for cultivation; and, though husbandry is well attended to, and the advantages of copious irrigation are thoroughly understood, so little encouragement is given by the state to agriculture, that but a small part of the capable soil is under tillage. The most important rivers are the Aras, Murghab or Bendemir, Atrek, Serid-Rud, and the Tigris. The lakes of most note are, Uremiyah or Shain, Bakhtegan, and Mahdigla; from these, and from minor streams and bodies of water, an elaborate system of irrigation is effected all over the cultivated grounds, while vast subterranean aqueducts convey the water to more remote situations. The vegetable productions of *P.* embrace all kinds of legumes and cereals, except rye, oats, and rice; barley and wheat are the most abundant crops. Drugs of various kinds are obtained, such as senna, rhubarb, gums, opium, &c.; as also oils, cotton, indigo, sugar, madder, dates, pistachio nuts, and tobacco; while in flowers, and the perfumes extracted from them, especially the attar of roses, no country in the world can compare with *P.* for beauty, fragrance, and abundance. Silk is an important item; and plantations of mulberry-trees of great extent are very numerous. Vast flocks of sheep and goats are pastured over the country, the property and wealth of the wandering tribes of the interior, the *Eelauts*, a kind of Bedouins, devoting themselves to pastoral habits. The animals for which *P.* is famous, are camels, horses, mules, oxen, asses, and buffalos. The mineral wealth consists of silver, copper,

Fig. 2083. — MILK-WOMAN AND ARABS CROSS AN THE TIGRIS BY MEANS OF INFLATED SKINS.

lead, iron, antimony, salt, precious stones — especially turquoise — bitumen, and springs of naphtha. One of the features of Persia is the abundance of salt in the soil, and the large number of its salt lakes; about 30 pure *salinas* have *no outlet*; and one, the largest, Uremiyah, is 280 m. in circumference, and, though supplied by 14 rivers, its water is so dense, bitter, and loaded with salt, that no fish can live in it. Another, called the Bakhtegan, is 42 m. long. Situated near the former are some remarkable ponds, whose waters are petrifying. The climate of *P.* embraces the rigors experienced on the mountains of the snowy N., and the heats felt on the sandy plains of Africa. Cyrus the younger told Xenophon that his father's empire was so vast that in the N. the people perished of cold, and in the S. were suffocated with heat. The manufactures of Persia are numerous and important, and embrace all kinds of silk fabrics, satins, taffetas, textures of silk and cotton, silk and goat's hair, or silk and camel's hair; brocades, camel's-hair shawls, gold tissues, gold velvet, camlets, carpets, cottons, leather, fire-arms, sword-blades, saddlery, and jewelry. Its principal trade is carried on with Russia; and, though the foreign export trade is insignificant, the internal traffic is very great, and is entirely carried on by caravans. The govt is highly despotic; an edict of the sovereign once passed, can never be repealed, the word of the Shah is irrevocable, and the lives and property of the people are in his hands. The govt. is carried on by the Shah and his two principal ministers, the Grand Vizier and the Lord Treasurer. Through all degrees or classes of officials in Persia, as in Turkey, venality and corrupt on are the rule, and justice and truth the exception. The religion of the Persians is Mohammedanism, but being of the sect of Ali or Sheeaba, is much more tolerant than that of the Turks. In physical appearance, the Persians are inclined to corpulence, have black hair, a high forehead, an aquiline nose, and a largely-developed chin; and in color present every variety, from the dark-brown of the Indian to the light-olive of the colder regions. The men are strong, robust, fond of exercise and martial glory, shave their heads, but dye their beards black, preserving them with an almost religious veneration. The Persians are regarded as a gay and hospitable race, but prone to sudden anger and treachery. They are greatly addicted to the use of tobacco, which they smoke incessantly. The system of bribery and corruption is so universal, that it has eaten into the very manners of the people; and no one can ask the slightest favor without first prefacing his request with a present, which must be in value according to the service sought to be rendered. In their domestic occupations, they do not recline like the Turks, but sit erect on the *humud*, a mass of folded felt. The women are dressed in a black turban, from

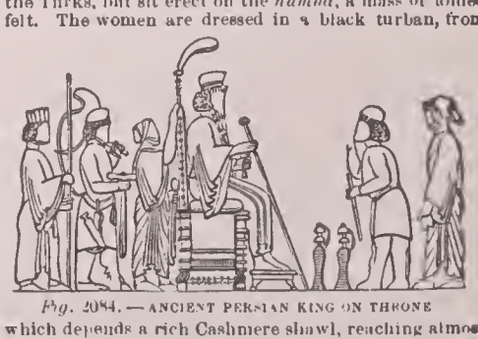


Fig. 2084. — ANCIENT PERSIAN KING ON THRONE

which depends a rich Cashmere shawl, reaching almost to the termination of the robe, which is only a little shorter than the men's, and fastened in front by large gold buttons. Each Persian is restricted to four legal wives, though the number of his concubines is only regulated by the amount of his coffers; in this respect they resemble the Turks. The Persian language is the most celebrated of all the Oriental tongues, for strength,

copiousness, beauty, and melody, and is written from the right to the left. *P.* is divided into 12 provinces, namely: Azerbijan, Kurdistan, Luristan, and Khusistan, on the W.; Faristan, Laristan, and Kerman, on the shores of the Persian Gulf, or S.; Irak-izeme and Khorassen, in the interior; and Ghilan, Mazanderan, and Astrabad, in the N., or along the Caspian shores. The modern capital is Teheran. The earliest account we possess of Persia is from the Bible, from which we learn that, in the time of Abraham, B.C. 1921, that portion of modern *P.* known as Elam, or Suisiana, Southern Persia, was a powerful monarchy. But the Persians, as a nation, first rose into notice on the ruins of the great empires founded on the Euphrates. Babylon was taken by Cyrus, and his empire extended wider than any before established in the world. It comprised, on one side, the west of India; on the other, Asia Minor, Syria, and Egypt: and was only bounded by the prodigies of valor with which the Greeks defended their small territory. After a feeble struggle, it succumbed to the brave and disciplined armies of Alexander. It was then split into fragments by the decease of its founder; but Greeks and Greek sovereigns continued, during several centuries, to reign over Asia. About two centuries before Christ, Arsaces founded the monarchy of the Parthians; and in the third century arose the dynasty of the Sassanidæ, who restored the name, with the religion and laws, of ancient *P.* They were overthrown by the Mohammedan invaders, who suffered in their turn from the successive invasions by the descendants of Genghis, Timur, and by the Turks, who entirely changed the aspect of Western Asia. At length, in 1501, a native dynasty again arose, under Ismail, who placed himself on the throne. His posterity having sunk into voluptuousness, Persia, in the beginning of the last century, was overrun by the Afghans, who carried fire and sword through its remotest extremities, and reduced its proudest capitals to ashes. The atrocities of the Afghans

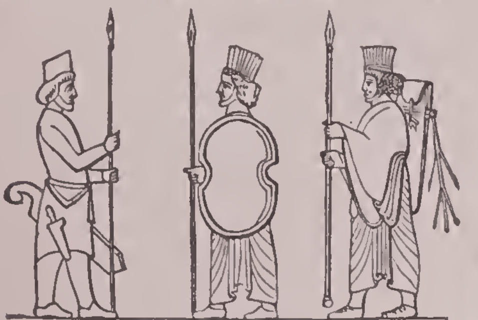


Fig. 2085.—ANCIENT PERSIAN GUARDS.

were avenged, and the independence of *P.* vindicated by Nadir Shah (see Fig. 336); but though the victories of this daring chief threw a lustre on his country, after his death it was almost torn to pieces by civil war, till the fortune of arms gave a decided superiority to Kerim, or Kurreem Khan. His death gave rise to another disputed succession, with civil wars as furious as before. At length, Aga Mahommed, a eunuch, raised himself, by crimes and daring, to the sovereignty, and not only swayed it during his lifetime, but founded a dynasty represented by Nassr-ed-Din, who was B. in 1831, and ascended the throne in 1848. Under his reign, *P.* had wars with Russia in 1813 and 1828, and with England in 1856–7. Under the Berlin treaty in 1878, *P.* acquired from Turkey the territory and city of Khotour. In 1881 the N. E. frontier was settled by a treaty between Russia and Persia, by which the former gained a fertile district of considerable strategical importance. In 1896 the Shah, Nasir-ed-Din, was assassinated at Teheran. He was succeeded by his son, Muzafer-ed Din. The latter was a man of liberal ideas, who made several visits to the European capitals, and in 1906 granted a legislative assembly and a constitution to his people. He died Jan. 8, 1907, and was succeeded by his son, Mohammed Ali Mirza. *Pop.* estimated about 8,000,000.

Persian, (*per'shan,*) *n.* A native of Persia.

(*Anc. Arch.*) A male figure employed to support an entablature, as distinguished from a female figure.

Per'sian-berry, *n.* (*Bot.*) See RHAMNUS.

Per'sian Gulf, an extensive arm of the Indian O., sep. Persia from Arabia; 550 m. long, 220 its widest, its entrance only 40 m. It has many islands.

Persia'ni, *n. pl.* [It., literally the Persians.] Venetian blinds; jalousies.

Per'sian Wheel, *n.* (*Mech.*) A contrivance for raising water to some height above the level of a stream. In the rim of a wheel turned by the stream a number of strong pins are fixed, from which buckets are suspended. As the wheel turns, the buckets on one side go down into the stream, where they are filled, and return up full on the other side till they reach the top. Here an obstacle is placed in such a position that the buckets successively strike against it and are overset, and the water emptied into a trough. As the water can never be raised by this means higher than the diameter of the wheel, it is obvious that this rude machine is capable of only a very limited application.

Per'sic, *n.* The Persian language.

Persiflage, (*par'se-flazh,*) *n.* [Fr. *persifler*, to quiz, from Lat. *per*, through, and Fr. *siffler*, to whistle, to hiss.] Banter; idle, frivolous talk; badinage; vulgarly, chaff.

Per'simmon Tree, *n.* (*Bot.*) See DIOSPYROS.

Persist', *v. n.* [Fr. *persister*; Lat. *persistō*, from *per*, and *sisto*, to cause to stand.] To persevere; to continue steadily in the pursuit of any business or course commenced.

Persis'tence, Persis'tency, *n.* Act or state of persisting; steady pursuit of what is undertaken; perseverance; constancy; continuance; duration; obstinacy; contumacy.

(*Optics.*) The duration of the impression of light on the retina after the luminous object has disappeared. The persistence on the human retina is about one-tenth of a second. Thus, if a lighted torch is whirled round rapidly, a continuous circle of light is seen.

Persist'ent, *a.* Steady; constant; persevering; continuing; remaining.

(*Bot.*) Remaining through winter, as the leaves of evergreens.

Persist'ently, *adv.* In a persistent manner.

Persist'ingly, *adv.* In a persisting way; steadfastly.

Persist'ive, *a.* Same as PERSISTENT.

Per'sius, FLACCUS AULUS, a Roman satirical poet, was B. A. D. 34, at Volterra, in Etruria, and D. in 62, aged 28. His six *Satires*, which present a picture of prevailing corruption, are distinguished for vigor, conciseness, and austerity of tone. They have been frequently translated into English.

Per'son, *n.* [Fr. *personne*; Lat. *persōna*, a mask, character, part played by a person.] A human being represented in dialogue, fiction, or on the stage.—Character or characters of office; as, the *person* of a prince or magistrate.—A human being considered with respect to the living body or corporeal existence.—An individual human being, consisting of body and soul; a man, woman, or child, considered as opposed to things, or distinct from them: a self-conscious being; a moral agent; an individual of the human race;—also, among Trinitarians, one of the three subjects constituting the godhead, or the trinity of the Father, Son, and Holy Ghost.—A human being indefinitely; one; an individual.

"For there is no respect of *persons* with God."—*Rom.* ii. 11.

(*Gram.*) The subject, or anything affirmed by a verb; also, that modification of the verb which is used in connection with the subject.

Artificial person. (*Law.*) A corporation or body politic. (*Blackstone.*)—*In person*, by one's self; not by agent or representative.

Per'son, in *N. Carolina*, a N. co., adjoining Virginia; *area*, abt. 370 sq. m. *Rivers.* Hycootee and Nense rivers. *Surface*, moderately hilly; *soil*, generally fertile. *Cap.* Roxborough.

Per'sonable, *a.* Having a well-formed body or person; graceful; of good appearance.

Per'sonage, *n.* [Fr.] A man or woman of distinction.—Exterior appearance; stature; air.—Character assumed or represented.

Per'sonal, *a.* Belonging to men and women, not to things not real; relating to an individual; affecting individuals; peculiar or proper to him or her, or to private actions or character.—Pertaining to the corporeal nature; exterior; corporeal; direct or in person; without the intervention of another; applying to the character and conduct of individuals in a disparaging manner.

(*Gram.*) Denoting the person.

P. action. (*Law.*) An action which is brought to try the right to damages for breach of contract, or for injuries to the person or personal estate; in contradistinction to real actions, which were designed to try the right and title to real property.—*P. property.* The right or interest that a man has in personal. The right or interest less than a freedom which a man has in reality, or any right or interest which he has in things movable.

Per'sonalism, *n.* The quality of being personal.

Personal'ity, *n.* [Fr. *personalité*; Lat. *personalitas.*] Individuality; that which constitutes an individual a distinct person, or that which constitutes individuality.—An application of remarks to the conduct and character of individuals by way of disparagement; as, to avoid *personalities.*

Per'sonalize, *v. a.* To make personal.

Per'sonally, *adv.* In person; by bodily presence; not by substitute or representative; as, he *personally* protested against the measure.—With respect to an individual; particularly; individually; with regard to numerical existence; as, I do not object to him *personally.*

Per'sonalty, *n.* Personality; state or condition of being a person.

(*Law.*) Personal estates or effects.

Per'sonate, *v. a.* [Lat. *personatus*, assumed; L. Lat. *persōno*, to become a person.] To represent by a fictitious or assumed character, so as to pass for the person represented; to represent by imitative action or appearance; to feign; to counterfeit; as, *personated* scepticism (*Glanville.*)—To disguise; to mask; to exhibit in an artificial or unreal character.

Per'sonate, *a.* [Lat. *persona*, a mask.] (*Bot.*) A term applied to that form of monopetalous corolla, in which the limb is unequally divided in a two-lipped manner, the upper lip being arched, and the lower prominent and pressed against it, as in the *Linaria* (Fig. 2086).

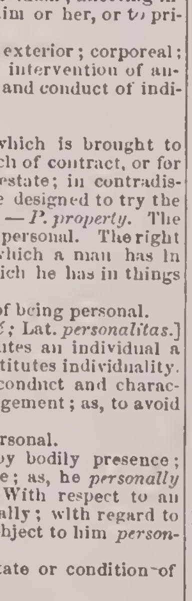


Fig. 2086. COROLLA OF LINARIA.

Persona'tion, *n.* Act of personating, or of assuming the appearance or manner of another.

Per'sonator, *n.* One who personates another.

Persone'ity, *n.* Personality. (R.)

Personifica'tion, *n.* Act of personifying.

(*Rhet.*) The giving or ascribing to an inanimate being the figure or the sentiments and language of a rational being. Thus, when we say, "the morning *smiles*," or "the ground *thirsts* for rain;" when we speak of a "disease's being *deceitful*," or of "ambition's being *restless*," such expressions show the facility with which the mind can accommodate the properties of living creatures to inanimate things, or to *abstract* conceptions of its own forming. The figure called by rhetoricians *prosopopœia* is, literally, *personification.*

Person'ify, *v. a.* [Fr. *personnifier*; Lat. *persona*, and *facio*, to make.] To represent with the attributes of a person; to give animation, as to inanimate objects; to ascribe to an inanimate being the sentiments, action, or language of a rational being or person.

Per'sonize, *v. a.* To personify. (R.)

Personnel, (*pār-so-nĕl',*) *n.* [Fr.] The collective number of persons engaged in some public service, as the army, navy, &c., as distinguished from the MATERIAL, *q.v.*

Perspec'tive, *a.* [Fr. *perspectif*, from Lat. *perspicio*, *perspectus*—*per*, and *specio*, to view.] Pertaining or relating to the art of perspective; made or delineated by perspective.

—*n.* [Fr.] A view through; a view; a vista; a prospect.

(*Fine Arts.*) The art which enables us, by fixed rules, to represent truly on a plane surface that which appears to the sight in every variety of form and distance, and which is done by imaginary lines traversing such plane, and arranging the shape and position of every object with regard to the point of sight determined upon. *P.* is either *linear* or *aerial*. *Linear P.* is an art based upon a knowledge of mathematical and optical principles; which teach us to delineate solid bodies on a plane surface, as they appear to the eye from the particular point from which they happen to be viewed. The *P. plane* is the surface upon which the objects are delineated, or the picture drawn, and is supposed to be placed vertically between the eye of the spectator and the object. *Foreshortening* of objects is one of the most difficult parts of *P.*, and the degree in which it exists depends upon the angles at which the objects are viewed; thus, a long cylinder may be so placed before the eye that its entire length is concealed, and only the plane of its diameter visible; and, in the same manner, a recumbent full-length human figure may be depicted within the compass of a few inches. *Aerial P.* is the faintness of outlines and blending of colors, produced by the thicker or thinner stratum of air which pervades the optical image viewed; it requires of the painter a knowledge of the mode of arranging the direct and reflected lights, shades, and shadows of a picture, so as to give to each part its requisite degree of tone and color, diminishing the strength of each tint as the objects recede, until, in the extreme distance, the whole assumes a bluish-gray, which is the color of the atmosphere. It can only be learned by careful study of nature.

Perspec'tively, *adv.* According to the rules of perspective.—Optically; through a glass. (R.)

Perspec'tograph, *n.* [From Lat. *perspectus*, and Gr. *graphein*, to write.] An instrument for procuring, or transferring to a picture, the points and outlines of original objects.

Perspecto'graphy, *n.* The theory of perspective.

Perspicacious, (*-kā'shus,*) *a.* [Lat. *perspicax*, *perspicacis*, from *per*, and *specio*, to view, to look at.] Sharp of sight; keen-sighted.—Of acute discernment.

Perspica'ciously, *adv.* In a perspicuous manner; with discernment.

Perspica'ciousness, *n.* Perspicacity.

Perspicacity, (*-spĭk-ăs'i-ty,*) *n.* [Fr. *perspicacité*; Lat. *perspicacitas.*] Acuteness or quickness of sight, discernment, or understanding; state or quality of being perspicacious.

Perspicu'ity, *n.* [Fr. *perspicuité*; Lat *perspicuitas*, from *perspicio.*] That quality of a substance which renders objects visible through it; transparency: clearness; easiness to be understood; freedom from obscurity or ambiguity: that quality of writing or language which readily presents to the mind of another the precise ideas of the author; plainness; distinctness.

Perspic'uous, *a.* [Lat. *perspicuus*, from *perspicio.*] That may be seen through; transparent; translucent; diaphonous. (R).—Clear or plain to the understanding; that may be easily understood; not obscure or ambiguous.

(NOTE. *Perspicuous* is commonly applied to intellectual objects of view, and *conspicuous*, to things of ocular perception.)

Perspic'uously, *adv.* Clearly; plainly; in a manner easily to be understood.

Perspic'uousness, *n.* State or quality of being perspicuous; plainness; freedom from obscurity or ambiguity.

Perspirabil'ity, *n.* Quality of being perspirable.

Perspir'able, *a.* [Fr.] Susceptible of being perspired, or exuded through the pores of the skin.—Exuding perspiration. (R.)

Perspira'tion, *n.* [From Lat. *perspiro*, I breathe.] (*Physiol.*) The vapor secreted by the ramification of the cuticular arteries over the surface of the body. In the healthy state it is slightly acid and saline. According to Lavoisier and Seguin, the greatest amount of *P* exceeds six pounds in the 24 hours, and the smallest two pounds; it is at its maximum immediately after taking food, and decreases during digestion. Whatever quantity of food is taken, or whatever are the variations of the atmosphere, the same person, after having increased in weight by all the food he has taken, returns

tn 24 hours nearly to ths same weight he was the day before, provided hs is net growing aud has not indulged in any excess. Ths substances perspired ars water, carbonic acid, saline substances, lactic acid, and some organic matter. In certain cases of disease, ths *P.* is not only greatly modified as to quantity, but often as to quality. The perspiration is secreted by the *sudoriferous* or sweat glands, which are situated in small pits in the deep parts of tis corium, or in the subcutaneous areolar tissue, surrounded by a quantity of adipose tissue. Their sizs varies; they are most numerous on the palm of the hand, and their total number is estimated by Krause to bs 2,381,248 in the human frame. — *Insensible P.* is the exhalation continually going on at the surfacs of the skin or membrane. *Sensible P.* is called *sweat.*

Perspi'rative, *a.* Perspiring; performing the functional act of perspiration.

Perspi'ratory, *a.* Pertaining, or belonging to, or promoting perspiration.

Perspire', *v. n.* [Lat. *per*, and *spiro*, to breathe.] To emit the vaporous moisturs of the body through the pores of the skin; to sweat; as, one *perspires* freely. — To he emitted or excreted through the pores of the skin, as sweat.

—*v. a.* To emit or exnde through ths pores of the skin.

Perstringe, (*-strinj'*,) *v. a.* [Lat. *per*, through, and *stringere*, to bind closely.] To criticise with severity; as, to *perstringe* errors.

Per'suadable, *a.* That may be persuaded.

Persuad'ably, *a.* In a manner susceptible to persuasion.

Persuade, (*-swād'*,) *v. a.* [Lat. *persuadeo — per*, and *swadeo, suasum*, to advise.] To influence by argument, advice, entreaty, or expostulation; to draw or incline, as the will to a determination by presenting motives to the mind. — To convince by argument, or by evidence presented in any manner to the mind. — To inculcate by argument or expostulation. (R.)

Persuad'edly, *adv.* In a persuaded manner.

Persuader', *n.* One who uses or practises persuasion.

Persuasibil'ity, *n.* Capability of being persuaded.

Persua'sible, *a.* [Fr.; Lat. *persuasibilis.*] That may be persuaded or influenced by reasons offered or motives advanced.

Persuasible'ness, *n.* State or quality of beiug persuasible.

Persuasion, (*-swā'zhun,*) *n.* [Fr.; Lat. *persuasio.*] Act of persuading; act of influencing the mind by argument, reasons offered, or motives advanced. — State of being persnaded or convinced; settled opinion or conviction. — — A creed or belief, or a sect or party adhering to a creed or system of opinions; as, people of all *persuasions.*

Persua'sive, *a.* [Fr. *persuasif.*] Having the power of persnasion, or calculated to persnade; influencing the mind or passions.

—*n.* That which has power to persuade; an incitement; an exhortation.

Persua'sively, *adv.* In such a manner as to persuade or convince.

Persua'siveness, *n.* State or quality of being persuasive, or having influence on the uiind or passions.

Pert, *a.* [W.; Lat. *apertus*, open, free.] Indecorously free; bold; saucy.

—*n.* A forward, saucy, assuming person.

Pertain', *v. n.* [Lat. *pertineo.*] To belong; to be the property, right, or duty.—To have relation to; to relate.

Perth, a co. of Scotland, having N. the cos. of Inverness and Aberdeen, E. Forfar, Fife, and Kincross, S. Stirling and Clackmannan, and W. Argyle and Dumbarton; *area*, 2,834 sq. m. The surface is generally mountainous, with extensive fertile tracts along the banks of the rivers. The Grampians traverse it from N.E. to S.W. *Rivers.* The Tay and Forth are the principal. *Lakes.* Locks Tay, Ericht, Nannoch, Tummel, Lydock, Garry, Lyon, and Dochart. *Prod.* Wheat, barley, oats, bsans, potatoes, turnips, and fruits. *Min.* Coal, limestone, granite, and freestone. *Manuf.* Linen, woollen, and cotton stuff, leather, and paper. *Cap.* Perth. *Pop.* (1897) 121,890.

Perth, cap. of the above co., on the Tay, 33 m. N. N. E. of Edinburgh; Lat. 56° 23′ 50″ N., Lon. 3° 26′ 20″ W. *Manuf.* Colored cotton stuffs, ginghams, shawls, cutlery, &c. *Pop.* (1897) 29,750.

Perth, a town, cap. of Victoria co., New Brunswick, on the Tobique river, about 75 m. N.W. of Fredericton.

Perth, a S.W. co. of prov. of Ontario; *area*, about 698 sq. m. *Cap.* Stratford. *Pop.* (1897) 47,770.

Peath, a town of prov. of Ontario, cap. of Lanark co., about 45 m. S.W. of Ottawa.

Perth, in *New York*, a post-township of Fulton co. *Pop.* (1897) 820.

Perth Amboy, in *New Jersey*, a city and township, port of entry of Middlesex co., about 36 m. N. E. of Trenton. It is a place of much business activity and ships great quantities of coal. It has a good harbor at the head of Raritan Bay. *Pop.* (1895) 13,030.

Pertina'cious, *a.* [Lat. *pertinax, pertinacis*, from *per*, and *tenax*, from *teneo*, to hold.] Holding or adhering to any opinion, purpose, or design with obstinacy or fixed resolution; obstinate. — Resolute; determined; inflexible.

Pertina'ciously, *adv.* Obstinately; witb firm or perverse adherence to opinion or purpose.

Pertina'ciousness, Pertinac'ity, *n.* The quality of being pertinacious; obstinacy; perseverance (in a good sense).

Per'tinax, Publius Helvius, a Roman emperor, was elected by the soldiers after the death of Commodus, 193. Was killed by the Prætorians after having reigned only a few months.

Per'tinence, Per'tinency, *n.* [Lat. *pertinentia.*] Quality or stats of being pertinent; justness of relation to the subject or matter in haud; fitness; appositeness; suitableness.

Per'tinent, *a.* [Fr.; Lat. *pertinens.*] Relatsd to the subject or matter in hand; adapted to the end proposed. — Belonging; pertaiuing.

Per'tinently, *adv.* Appositely; to the purposs.

Per'tinentness, *n.* Appositeuess.

Pert'ly, *adv.* Smartly; with prompt boldnsss; saucily; with indecorous confidence or boldness.

Pert'ness, *n.* Quality of being pert; briskness; smartness; sprightliness without force, dignity, or solidity.

Pertuis, (*pairt'we,*) a town of France, dept. of Vaucluss, on the Durance, 38 m. E.S.E. of Avignou; *pop.* 4,800.

Perturb', *v. a.* [Lat. *perturbare*, from *per*, through, and *turbare*, to disturb.] To disquiet; to disturb; to deprive of tranquillity. — To disorder; to confuse.

Perturb'ance, *n.* Perturbation.

Perturba'tion, *n.* Disquiet or agitation of mind; disorder; confusion; commotion.

(*Astron.*) The deviation of a celestial body from the elliptic orbit which it would describe if acted upon by no other attractive force than that of the central body about which it revolves. If the planets exercised no attractiou on eacb other, the orbit described by each of them would be accurately an ellipse, having the sun in one of its foci; and the law of the motion would be such that the area described by a straight line joining the centre of the sun and the planet would describe equal areas in equal times. But in consequence of the universal gravitation of matter, every body in the system is more or less affected by the attractive influence of all the others, and is consequently forced to deviate from the path it would describe in virtue of the central force acting alone. The forces which cause these deviations are called the *perturbing* forces; and the determination of their effect on each orbit is the great problem of physical astronomy.

Per'turbator, *n.* One who raisss commotions. (R.)

Perturb'er, *n.* One who disturbs or raises commotions.

Pertuse', Pertused, *a.* Bored; pierced with holes; pnnched. (*Bot.*) Having slits or holes.

Pertu'sion, *n.* The act of piercing or pnnching.

Pertus'sis, *n.* Hooping-cough.

Peru (*pe-roo'*), a Republic in South America, on the west side of that continent, extending from Lat. 3° 30′ to 17° 20′ S., with a coast line of 1,400 m. and a width of 300 m. It is bounded by Ecuador on the north, Chile on the south, Bolivia and Brazil on the east, and the Pacific Ocean on the west. *Area*, about 440,000 sq. m. *P.* is divided into departments and these into provinces (the Amazons, Ancach, Apurimac, Arequipa, Ayacucho, Cajamarca, Callao, Cuzco, Huancavelica, Hnánuco, Ica, Junin, Lambayèque, Libertad, Lima, Loreto, Moquegua, Plura, Puno, Tacna, Tarapacá). The chief towns are Lima (cap.), Cuzco, Iquique, Arica, Islay, Callao, Huanchaco, San Jose, and Payta. The double Cordillera, or chain of the Andes, traverses the country from the S E. to the N.W., separating the republic into 3 portions. The central, or Montana region, has an elevation of 12,000 ft. above the sea-level, and forms a portion of the great central plain of S. America. The Andes occupy nearly 200,000 sq. m., or more than a third of the whole surface of *P.*, the highest peak in the country being at the Nevado de Chnqnibamba, 21,000 ft. above the sea. The chief rivers are tributaries to the Amazons, — the Marauon, Hnallaga, and Ucayali on the W, and Pilcomayo flowing E. The principal lake is that of Titicaca, half of which only appertains to *P.* Nearly the whole coast-region is arid and barren, and almost destitute of trees. Rain seldom falls on the coast; but fogs and heavy dews are common. The climate is consequently very unhealthy along tbe line of shore, though inland it is bracing and salubrious. The soil in the nplands and valleys is extremely fertile, and yields in abundance all the fruits, crops, and vegetables of Europe. *P.* possesses several important volcanoes, the chief of which is Omati, 18,000 ft. in height, lying between the parallels of Arica and the river Loa. The others are all of great altitude, but less stupendous thau that of Omati. Besides the range of the Andes, there are 6 other mountain-chains, running parallel with the Andes, but of much less elevation, between each of which are long, narrow plains of extremely fertile soil, wide pampas, and luxuriant valleys, all of them being abundantly watered, clothed in dense woods, and remarkably rich in the quality of the soil. All the water-courses and streams rising in the mountains and flowing through the plains and valleys collect and form 3 chief rivers — Tuuguraqua or Upper Marauon, the Hnallaga, and the Ucayali, which eventually become the 3 main branches of the Amazons. The lakes of most importauce are the Lauri, Vilque, Villafro, Chincay, Chinquiacobo, Cocama, and the great lake of Titicaca, sitnated in the valley of Desaquadero, one of the most beautiful spots in *P.* The climate varies with the locality. On the coast it is temperate and dry; on the Sierras mild and humid; while on tbe Andes it is piercingly cold, attended by frequent and terrible storms; aud on the plains or pampas it is both excessively hot and remarkably moist. The climate on the sierras, or elevated grounds, is regarded as the most delightful in the world. On the E. side of the Andes, the clouds passing from the Atlantic and across the vast breadth of Brazil, charged witb moisture and electricity, meeting and obstructed by the towering Andes, dissolve in tempests of rain or storms of thunder and lightning, while on the W. side of the same range, from shore to mountain, for a length of nearly 1,500 m., thunder and lightning are unknown, and rain never falls on the earth. At Lima, the cap., spring begins in December, summer in February, autumn in May, and winter sets in in August, ths tsmperature being 60° of Fahr. as a minimum in wintsr, and 85° in summer as a maximum. If western *P.*, however, has neither rain, hail, nor thunder, it may emphatically be called the region of volcanoes and earthquakes, no country on the face of the globe being so subject to subterranean convulsions as *P.*, as exemplified in our time by the terrible earthquake of August, 1868, which destroyed several towns, and caused the loss of several thousand lives. Ths absence of rain is compensated for in a great measure along the western side of the country by heavy and soaking dews, that nightly settle on the earth in those arid tracts. The wild animals common to the southern continent are found in *P.* The puma and jaguar are by far the most fierce and dangerous; while the condor, among the birds, is the largest of the fowls of prey. Ths domestic animals are the horse, mule, horned cattle, sheep, the llama, and pigs. Agriculture is much neglected, though the land is remarkably fertile. The most noted products, besides the cereals, are cotton, cocoa, coffee, cinnamon, pimento, and more than 25 other varieties of pepper, tobacco, Peruvian bark, indigo, sarsaparilla, jalap, several other drugs, balsams, and gums, caoutchouc or India-rubber, vanilla, and many dye-stuffs. The vegetable riches of *P.* are not surpassed by any other country in the world. The gigantic fennel, growing to an enormous size, and yielding a wood of great strength, close texture, and 4 times specifically lighter than fir, is only one of the indigenous and valuable trees of the Andean forests. The mineral wealth of *P.* was the first motive that induced the sordid Spaniards to undertake the dangers of a journey from the isthmus to the fabled region of gold and silver. Exaggerated as the reports ssemed which the Indians made to Pizarro of the abnndance of the white and yellow metals to be found in a region to the S., a moon's journey from Panama, rumor had for once not erred; and the invaders found inexhaustible mines of both gold and silver, which, though since worked for centuries with all the eagerness of covetous ambition, are probably now, after 400 years of incessant rifling, as inexhaustible as when first opened by the rude soldiers of the Castilian adventurer. Indeed, it is reported, and generally believed to this day among the Peruvians themselves, that the richest mines have never yet been worked by Europeans. Of the mineral products of *P.*,

Fig. 2087. — CITY OF CUZCO.

after gold and silver, the most valuable are quicksilver, copper, iron, lead, sulphur, saltpetre and salt. The manuf. are leather, soap, and sugar. The principal exports, before the disastrous war with Chili, were leather, gold, saltpetre, sugar and guano, of which upwards of 100,000 tons were annually exported, and of which the country once possessed deposits on the principal Chincha Island attaining a thickness of 160 feet; but these are now exhausted. The Peruvian Indians, a highly civilized and industrious race, speaking a language known as that of the Incas, inhabit the districts of Las Valles and Montana; and the Independent tribes live in the low country east of the mountain region. The Indian empire of *P.* is supposed to have existed for 400 years before the arrival of Pizarro, under a dynasty of twelve native emperors, or incas. In February of the year 1529 or 1530, three small vessels, called *caravels*, carrying 185 soldiers, 37 horses, two or three cumbrous pieces of ordnance, and a few servants, under the command of Francisco Pizarro, landed on the Peruvian coast, about 100 leagues to the north of Tumbez. Having previously obtained a general knowledge of the politics and manners of the country, with this slender force they commenced those cruel, unprovoked, and barbarous hostilities on the natives which finally, after a frightful amount of bloodshed and treachery, resulted in the total subjugation of the Peruvian empire. The people whom Pizarro found inhabiting this new region of a new world were a nation which had made some progress in the arts of civilization, and, though destitute of the art of writing, having an advanced system of agriculture, domestic animals, and a communistic industrial system under which they seemed to enjoy great happiness. Much progress had been made in architecture and engineering, vast buildings existed, and military roads traversed the country. Civilization had attained the greatest height existing in prehistoric America; the kingdom had extended through conquest; the people were

living under the government of an absolute ruler, half human, half divine in his functions and attributes, being considered as much a god as a mortal. This temporary sovereign, god, and high-pontiff was called Inca, *q. v.* At the time of Pizarro's invasion, *P.* was distracted by a civil war, and the Spaniards taking advantage of this circumstance, the country soon fell entirely into their possession; for, though the natives flocked in multitudes round their princes and leaders, and more than once brought 200,000 men into the field, the surprise and wonder with which they observed the precision of the Spanish discipline and military tactics, with the terror inspired by the few cannon and the musketry, and the amazement expressed on beholding the war-horses, induced such apprehension and dread in their simple minds, that Pizarro's little band of infantry, and his demi-troop of cavalry, put their largest armies to confusion and flight; and *P.* fell an easy but sanguinary prey to the rapacious Spaniards. After the conquest, *P.* was very soon settled; and great numbers flocking from the mother-country, the colony was erected into a vice-royalty, and for about 300 years remained a faithful dependant to the European parent. After the restoration of peace in 1815, and the return to their thrones of the several exiled monarchs, the rule of the Spanish sovereign in the South American colonies became so oppressive and tyrannical that the different colonists took up arms, all their propositions for an arrangement having been treated with contumely, and, after a few years of an irregular and badly-conducted warfare, eventuated in the independence of every colony in South and Central America that had previously belonged to Spain. In 1864 new difficulties arose with Spain in consequence of the latter country seizing the Chincha Islands in reparation of some alleged outrages by Peruvian subjects. The war ended in an agreement by *P.* to pay an indemnity of 60,000,000 reals, in consequence of which the Chincha Islands were restored. In 1879 a disastrous war broke out with Chile, which country coveted the nitrate deposits in the Peruvian coast province of Tarapaca. During the war *P.* put 16,000 men in the field. Her fleet consisted of 18 vessels, including two old-style ironclads, while the Chileans had 2 armored vessels of superior strength. The Peruvian fleet fought bravely, but was defeated and captured or destroyed. Two well-contested battles ended in the occupation of Tarapaca by the Chilean army; a third sealed the fate of the department of Tacna, and in 1881 the two severe battles of Chorrillos and Miraflores gave Chile the possession of Lima, the Peruvian capital. A treaty of peace was signed in 1883, by whose terms Tarapaca was ceded to Chile, and Tacna and Arica left in Chilean hands for 10 years, after which a popular vote was to decide to which country they should belong, this country to pay the other $10,000,000. The Chileans evacuated *P.* in August, 1884, and in June, 1886, General Caceres, who had kept up a gallant resistance till the last moment, was elected President of *P.* Payment of the interest of the foreign debt had become impossible, but a proposal was offered and accepted under which the foreign bondholders were to have control of all the railways for 475 years, with mining and other privileges. They were, in return, to complete the railway system, and cancel the debt through the profits derived from their concession. Colonel Bermudez succeeded Caceres in 1890, and General Pierola became President in 1895.—*Govt.* *P.* is at present governed by a President, with his subordinate functionaries, and by a Senate; the Senate, or chamber of deputies, consisting of representatives of the people elected by the electoral colleges of the parishes and provinces; the Senate deputing the executive authority to the President, who governs in the name of the people, and has a ministry to assist him in the different branches of government. The inhabitants belong to the Roman Catholic Church, there being few, if any, Protestant congregations, and fewer missionaries. In addition to the universities of San Carlos at Lima, of San Antonio Abad, at Cuzco, of San Geronimo, at Arequipa, and others of old date, there have been founded colleges in all the large towns, and numerous schools in the villages. Yet education is at a low grade among the common people, there being but about one child at school for every 80 inhabitants. *Pop.* 2,800,000.

Pe'ru, in *Illinois*, a city of La Salle co., about 100 m. S.W. of Chicago. Coal is abundant. Factories have been established and the town is thriving rapidly. *Pop.* (1897) 5,970.—In *Ind.*, a town, cap. of Miami co., about 68 m. N. of Indianapolis.—In *Iowa*, a vill. and twp. of Dubuque co., abt. 7 m. N. of Dubuque.—A p. v. of Madison co., abt. 10 m. S.S.E. of Winterset.—In *Maine*, a p. twp. of Oxford co.—In *Mass.*, a p. twp. of Berkshire co.—In *New York*, a p. vill. and twp. of Clinton co., abt. 10 m. S.S.W. of Plattsburg.—A vill. of Onondaga co., abt. 8 m. W. of Syracuse.—In *Ohio*, a p. v. and twp. of Huron co., abt. 94 m. N. by E. of Columbus.—A twp. of Morrow co.—In *Penn.*, a twp. of Clearfield co.—A vill. of Juniata co., abt. 20 m. S.W. of Mifflintown.—In *Vt.*, p. twp. of Bennington co.—In *Wis.*, a p. twp. of Dunn co.

Peru'gia, a town of central Italy, cap. of a prov. of same name, 10 m. E. of the Lake of Perugia, and 85 m. N. of Rome. *Manuf.* Carpets, silks, hats, cream of Tartar, &c.

Perugia Lake, (anc. *Thrasymene*, or *Trasimene*,) in central Italy, 10 m. W. of Perugia, inclosed on all sides by the Apennines. It is 30 m. in circumference, and contains several islands. Near this lake, Hannibal defeated the Romans under Flaminius, B. C. 217.

Perugino, Pietro, (*pai-roo-je'no,*) a celebrated Italian painter, b. at Leitta Della Pieve, about 1446. His real name was Pietro Vanucci, but becoming a citizen of Perugia, he acquired the name by which he is best known. He studied under Verrocchio, and soon attained great distinction as a painter in oil by his rich coloring. He was employed for ten years in the Sistine Chapel and the Stanze of the Vatican, and on his return to Perugia opened a school, and had Raphael among his pupils. *P.* was a sordid and eccentric man; adhered obstinately to the stiff conventional forms of the fifteenth century, and in his latter years produced many works, unworthy of him, for gain. His *chef-d'œuvre* is the *Pietà*, in the Pitti Palace. Among his best works are an *Ascension*, at Lyons; the *Infant Christ Adored by the Virgin*, at Rome; *Madonna Enthroned*, at Bologna; and the fresco of the *Baptism* in the Sistine Chapel. D. 1524.

Per'uke, *n.* A periwig; an artificial cap of hair.

Per'ule, *n.* [Lat *perula.*] (*Bot.*) The cover of a seed.

Peru'sal, *n.* Act of perusing or of reading.—Careful view or examination. (R.)

Peruse', *v. a.* [From Lat *per*, and *utor, uti*, to use.] To read through; or, to read with attention.

Perus'er, *n.* A reader; one who peruses.

Peru'vian, *a.* (*Geog.*) Belonging to Peru.

P. balsam. See Myrospermum.—*P. bark.* See Cinchona.

Peru'ville, in *New York*, a post-village of Tompkins co., abt. 14 m. N.E. of Ithaca.

Per'uwels, a town of Belgium, prov. of Hainault, 16 m. W.N.W. of Mons. *Manuf.* Linen goods. *Pop.* 8,000.

Pervade', *v. a.* [Lat. *pervado*, from *per*, and *vado*, to go.] To pass through, as an aperture, pore, or interstice; to permeate.—To pass or spread through, as the whole extent of a thing, and into every minute part; to be diffused through.

Pervasion, (*-vā-zhun,*) *n.* The act of passing through the whole extent of a thing.

Perva'sive, *a.* Tending, or having power to pervade.

Perverse', *a.* [Lat. *perversus.*] Turned aside; distorted from the right.—Obstinate in the wrong; disposed to be contrary; stubborn; forward; untractable. Petulant; peevish; cross; disposed to be cross and vexed.

Per'versedly, *adv.* Perversely; in a perverse manner.

Perverse'ly, *adv.* In a perverse manner; crossly; peevishly.

Perverse'ness, *n.* Quality of being perverse; untractableness; crossness of temper.

Perver'sion, *n.* [Fr.; Lat. *perversio.*] A turning from truth or propriety; a diverting from the true intent or object; change to something worse; misapplication.

Perver'sity, *n.* [Fr. *perversité*; Lat. *perversitas.*] Perverseness; crossness; disposition to thwart, or cross.

Perver'sive, *a.* Tending to corrupt or pervert.

Pervert', *v. a.* [Lat. *perverto, perversus.*] To turn from truth, propriety, or from its proper purpose; to distort from its true use or end.—To turn from the right; to corrupt.

—*n.* A person who has turned from virtue to an evil course.

Pervert'er, *n.* One who changes anything from good to bad; one who distorts, misinterprets, or misapplies.

Pervert'ible, *a.* That may be perverted.

Per'vious, *a.* [Lat. *pervius*, from *per* and *via*, a way.] Affording or admitting passage; that may be penetrated by another body or substance; permeable; penetrable.—That may be penetrated by the mental sight.—Pervading; permeating. (R.)

Per'viousness, *n.* Quality of being pervious, or of admitting passage, or of being penetrated.

Pesade', *n.* [Fr., from *peser*, to weigh.] (*Man.*) The motion which a horse makes in raising his fore-quarters, without advancing.

Pescade'ro, in *California*, a post-village of Santa Cruz co., abt. 30 m. W.S.W. of San José.

Pescado'res, a group of islands in the Pacific Ocean, off the coast of Peru, Lat. 11° 47′ S., Lon. 77° 30′ W.

Pesch'erais, *n. pl.* A tribe of Indians, inhabiting Terra del Fuego, and both borders of the Straits of Magellan, from the island of Elizabeth and Port Famine, towards the E. as far as the group of islands which spread out to the N. and S. of the Straits of Magellan. Their complexion is olive, and have huge forms and large chests, though otherwise well formed. They are a nomadic people, and only subsist by the chase and fishing.

Peschiera, (*pais-ke-ai'ra,*) a town and strong fortress of Austrian Italy, in the province of Verona, near where the Mincio issues from the Lake of Garda, 20 m. from Mantua; *pop.* 2,600.

Pescia, (*pesh'a,*) a town of Italy, prov. of Florence, 30 m. E. of Florence. *Manuf.* Woollen cloth, silk-twist, and paper. *Pop.* 5,000.

Peshawur, (*pesh-our,*) a city of Affghanistan, formerly cap. of a principality now a prov. of the Punjab, belonging to the British, 18 m. E. of N. extremity of Khyber Pass, and 150 m. E.S.E. of Cabul; Lat. 34° 6′ N., Lon. 71° 13′ E. It is strongly fortified. *Pop.* 53,000.

Pesh'tigo, or Peshtego, in *Wisconsin*, a river flowing into Green Bay from Marinette co.—A post-village of Marinette co., on the above river, about 16 m. N.N.E. of Oconto.

Pesky, *ad.* and *adv.* [Probably from *pestilent.*] Mischievous; troublesome.—Great; much.—Very. (Colloquial and vulgar, U.S.)

Pe'so, *n.* [Sp.] A Spanish coin, weighing one ounce; the dollar of exchange.

Peso'tum, in *Illinois*, a post-village of Champaign co., abt. 14 m. S. of Champaign.

Pes'sary, *n.* [Fr *pessaire*; Gr. *pessos.*] (*Surg.*) A solid instrument, made of boxwood or Indian-rubber, and of various shapes. Some are completely round, others oval or oblong, while some resemble flat discs, perforated in the centre; others, again, are shaped somewhat like a small pestle. The object for which the *P.* is employed is to support the neck of the womb in the diseases known as *prolapsus* and *procidentia uteri*, the implement being passed up the vagina to support the organ, or answer the purpose of a plug.

Pessimism, *n.* [Lat. *pessimus*, worst.] The doctrine which maintains that anything is for the worst in the world:—used in opposition to *optimism.*

Pessimist, *n.* A general complainer;—opposed to *optimist.*

Pest, *n.* [Fr. *peste*; Lat. *pestis*, a plague.] A fatal epidemic disease; plague; pestilence.—Anything very noxious, mischievous, or destructive; bane.

Pes'ter, *v. a.* [Fr., from *peste*; Lat. *pestis*] To plague; to trouble; to harass with little vexations.—To encumber.

Pes'terer, *n.* One who pesters or disturbs.

Pes'terment, *n.* The state of being troubled or annoyed; the act of disturbing or harassing.

Pesth, (*pest,*) a city of Hungary, on the E side of the Danube, 1,5 m. E.S.E. of Vienna, immediately opposite Buda (*q. v.*), with which it is connected by a magnificent suspension bridge. It is generally well built, with wide streets, and numerous public squares. Its university is the only one in Hungary. *Manuf.* Silk, cotton, leather, jewelry, musical instruments, oil, tobacco and meerschaum pipe-bowls. *Pop.* (1897), including Buda, under the name of Buda-Pesth, 525,550.

Pest'-house, *n.* A house or hospital for persons infected with any contagious and mortal disease.

Pest'iduct, *n.* [Lat *pestis*, pest, and *ductus*, from *duco, ducere*, to lead.] Anything that brings contagion, or infection.

Pestiferous, *a.* [Fr *pestiféré*; Lat. *pestis*, and *fero*, to carry, to bring.] Pestilential; noxious to health; malignant; infectious; contagious.—Noxious to peace, to morals, or to society; mischievous; destructive.

Pestiferously, *adv.* In a pestiferous manner.

Pes'tilence, *n.* [Fr; Lat *pestilentia*, from *pestis.*] Plague, appropriately so called; any contagious or infectious disease that is epidemic and mortal.—Corruption or moral disease destructive to happiness.

Pes'tilent, *a.* [Fr.; Lat. *pestilens.*] Producing plague or other malignant or contagious disease; mischievous; noxious to morals or society; destructive; troublesome.

Pestilential, *a.* Partaking of the nature of the plague or other infectious disease; producing or tending to produce infectious disease.—Mischievous; pernicious; destructive.

Pestilentially, *adv.* By means of pestilence.

Pes'tilently, *adv.* Mischievously; destructively.

Pestle, (*pesl,*) *n.* [Lat. *pistillum*, from *pistus*, from *pinso*, to beat.] An instrument used for pounding and breaking substances in a mortar.—A short staff carried by a bailiff or a constable.

Pes'tle, *v. a.* To pound or break with a pestle; to use a pestle.

Pes'tle of pork, *n.* A gammon of bacon.

Pet, *n.* [A contraction of *petulant.*] A slight fit of peevishness or fretful discontent.

—*n.* A little darling or favorite; a little child spoiled by fondling.—A lamb brought up by hand.—A tondling; any animal fondled and indulged.

—*v. a.* To treat as a pet; to fondle; to indulge.

Pet'al, *n.* [Fr. *pétale*; Gr. *petalon*, from *petao*, to expand.] (*Bot.*) A modified leaf forming a part of the corolla. Flowers in which the divisions of the corolla are all united are called *monopetalous* or *gamopetalous*; those in which they are all separate are *polypetalous.* Petals are frequently of the richest colors; by which character, and by their more delicate nature, they may be usually distinguished from the sepals, or parts of the calyx. See Corolla and Botany.

Pet'aled, *a.* (*Bot.*) Having petals.

Petalif'erous, *a.* [Lat. *petalum*, and *ferre*, to bear.] (*Bot.*) Bearing petals.

Petal'iform, *a.* (*Bot.*) Petal-shaped.

Pet'aline, *a.* (*Bot.*) Pertaining to a petal.

Pet'alite, *n.* (*Min.*) An anhydrous silicate of alumina, soda, and lithia, of a white-grayish, or greenish color, often with a tinge of red.

Pet'aloid, *a.* (*Bot.*) Petal-like in color and texture.

Petaloid'æ, *n. pl.* (*Bot.*) A name for the order Cinamiaceæ, *q. v.*

Pet'alous, *a.* Having petals.

Petalu'ma, in *California*, a city of Sonoma co., on Petaluma Creek, abt. 45 m. N. by W. of San Francisco. It is the chief town and port of the co., contains many fine edifices, and is thriving rapidly. *Pop.* abt. 4,000.

Petard', *n.* [Fr. *petard*, from *peter*, to crack.] (*Mil.*) An engine formerly used for breaking down gates, barricades, &c.

Petardeer', Petardier', *n.* (*Mil.*) One who manages a petard.

Petau'rus, *n.* [Gr. *petauristes*, a rope-dancer.] (*Zoöl.*) The flying phalanger, a marsupial animal which bears the same relationship to the true phalanger as the flying squirrel does to the ordinary squirrel. By means of the skin which is extended between the fore and hind limbs, the animal can partially sustain itself in the air; and its aërial evolutions, when favored by the shades of evening, are considered peculiarly graceful. It is destitute of the prehensile tail of the true phalangers.

Petcho'ra, a river of European Russia, rising in the W. slope of the Ural Mountains, and after a N.E. course of 940 m., flowing into the Arctic Ocean in Lat. 68° N., Lon. between 53° and 54° E. It is said to be navigable for large river-boats for 700 m.

Petec'chiæ, *n. pl.* [Lat. *peteccia*, from *petigo*, a scab.

(*Med.*) Small spots, similar in shape and color to flea-bites, which occur spontaneously upon the skin, in the course of severe fevers, &c.

Petec'chial, or **Pete'chial,** *a.* (*Med.*) Resembling or accompanied by petechiæ.

Peten', a lake of Central America, abt. 190 m. N. of Guatemala. It is about 65 m. in circuit, 30 fathoms deep in some places, and contains many islands, the largest of which, Peten, was formerly the capital and stronghold of the Itzax Indians.

Pe'ter, ALEX'IEVITCH, usually styled PETER THE GREAT, Czar of Russia, was B. in 1672; and in 1689 he obtained the sole authority, on the retirement of his brother Ivan, with whom he had been before associated in the government of the empire. After having suppressed a conspiracy of the Strelitzes against his life, in which he displayed much personal courage, he travelled in foreign countries, not in the character of czar, but as a member of an embassy. At Amsterdam he worked, *incognito*, in a shipyard, went to the village of Saardam, where he caused himself to be enrolled among the workmen, under the name of Peter Michaeloff. Here he lived in a little hut (Fig. 2088) for 7 weeks, made his own bed, and prepared his own food, corresponded with his min-

Fig. 2088. — HOUSE IN WHICH PETER LIVED AT SAARDAM.

isters at home, and labored at the same time in ship-building. Induced, by his love for the sea, to accept the invitation of William III. to visit London, he spent some weeks there, keenly observing and learning all that he could of trade, manufactures, and the arts. Having proceeded to Vienna, he there received intelligence of a new rebellion of the Strelitzes, on which he returned home, crushed the insurrection, and visited the rebels with fearful severity. In 1700 he entered upon a war with Sweden, which lasted till 1721. He was defeated by his great rival, Charles XII., at the battle of Narva, and the war went on with various results till 1704, when he completely defeated Charles at Pultawa. In the following year the Sultan declared war on him, and he narrowly escaped capture by the Turks in the campaign of 1711. This war ended in 1713. Not satisfied with his immense power as czar, *P.* had suppressed the patriarchate, and made himself head of the church as well as of the state. In 1703 he founded St. Petersburg, and began the fortifications of Cronstadt. Three years later he privately married Catherine, a girl of low origin and immoral character; married her publicly in 1710, and had her crowned in 1722. *P.* extended the limits of the empire both in Europe and Asia; changed the face of Russia by his zealous promotion of trade, navigation, manufactures, and education; effected an immense change in the manners and customs of the Russians; and after the conclusion of peace with Sweden, received the title of Emperor of all the Russias, and Father of his Country. Reforming others, he failed to reform himself, but remained to the last an ignorant, coarse, brutal savage, indulging in the lowest vices, and gloating over scenes of cruel suffering. He would sometimes put his victims to the torture, play judge and executioner too, and, drunk with wine, strike off 20 heads in succession, proud of his horrid dexterity. His state policy has been adhered to by his successors. Peter I. D. at St. Petersburg, after very severe suffering, Jan. 28, 1725.

PETER II., Emperor of Russia, B. 1714, was the son of Alexis and grandson of Peter the Great. He succeeded, in 1727, the Empress Catherine, who had declared him Grand-Duke of Russia the year preceding. The most remarkable event of his reign was the disgrace of the prime-minister Menschikoff, who was banished to Siberia. D. 1730.

PETER III., the son of Anne, eldest daughter of Peter the Great, was B. 1728, and succeeded Elizabeth in 1761. He married the Princess Sophia Augusta of Anhalt, whose name he changed to Catherine, and, being inspired with grand and martial thoughts, attempted to govern his empire on the model of Frederick the Great: but, wanting capacity, energy, and courage, he signally failed in all his schemes. His empress, being apprised of his intention of divorcing her and bastardizing his son Paul, anticipated his design, and, exciting a revolution, entirely defeated his scheme, took him prisoner, and compelled him to sign a most humiliating abdication. After this, being sent to the fortress of Robscha, he there mysteriously disappeared, like many of the Russian monarchs, by poison or the bowstring, 1762.

Peter, king of Hungary, reigned 1038–1047.

Peter I., king of the Bulgarians, succeeded his father 927. His reign was troubled with internal dissensions, and wars with the Russians and Greeks; D. 970. PETER II. obtained the royal power, in association with his brother Asan, 1186, and they were both slain abt. 1195.

Peter of Clugny, an abbot of that monastery, called also *Peter the Venerable*, and by his proper name *Peter Maurice*, a distinguished theologian and Latin poet. He was born 1092 or 1094, became abbot after Hugh II. in 1122 or 1123, and in 1140 gave shelter to the unfortunate Abelard, and interceded for him at Rome. D. 1156. His works were published in 1522.

Peter, (St.), one of the apostles, originally named SIMON, was a native of Bethsaida, on the Lake of Gennesaret. His father was called Jonas; and the name by which *P.* is known in Christian history was given to him by Jesus Christ, who changed his name of origin (Bar-Jona) into *Cephas*, a Syro-Chaldaic word, which means "rock" or stone, and for which *Petra*, or, in the masculine form, *Petros*, is the Greek equivalent. *P.* was a fisherman, with his brother Andrew, at Bethsaida, when called to be a disciple of Jesus Christ. He was remarkable for his zeal, which he displayed on many occasions, particularly in the garden, when his master was apprehended; on which occasion he drew his sword, and cut off the ear of the servant of the high-priest. But when he entered the hall of Caiaphas, and was recognized as one of the disciples, he repeatedly denied the charge, till the cock crew, and then, remembering our Lord's prediction that before the cock crew twice he would deny him thrice, Peter went out and wept. After the ascension of Jesus Christ, he preached a famous sermon at Jerusalem, by which some thousands were converted. Herod Agrippa threw him into prison, A. D. 44; but he was released by an angel. He was crucified with his head downwards, in the persecution under Nero, abt. A. D. 66. Two of his epistles are in the sacred canon.—*P.* appears frequently in the gospels as the spokesman for his companions, and it is the opinion of most, among the critics, that he enjoyed a certain pre-eminence among the apostles, upon which, coupled with the injunction given to him by Christ to feed his flock, and the declaration, "Thou art Peter, and upon this rock I will build my Church," the Roman Catholics found the doctrine of the supremacy of the popes as Peter's successors.

Peter the Hermit, a French gentleman of Amiens, in Picardy, who renounced a military life to embrace that of a pilgrim. At the end of the 11th century, a general alarm was spread that the last day was approaching; on which numbers of persons flocked to the Holy Land from all countries, with a view of ending their days near the holy sepulchre. Peter was of the number, and on his return to Europe made so pathetic a representation of the state of the Christians in Palestine to Pope Urban II., that he gave Peter leave to preach up the necessity of a crusade throughout Christendom. The appearance, zeal, and eloquence of the hermit, produced a prodigious effect, and all ranks and ages, of both sexes, pressed eagerly into the service. With a motley army, estimated at 100,000 men, Peter passed through Hungary. In his absence, his followers attacked Solyman's army at Nicea, and all, except a few thousands, perished, "and," says Gibbon, "a pyramid of bones informed their companions of the place of their defeat." Peter remained in Palestine, and was at the siege of Antioch in 1097; but on his attempting to make his escape, shortly afterwards, was brought back, and compelled to take a new oath of fidelity and obedience to the holy cause. Two years later he was present at the siege of Jerusalem, where he displayed great bravery, and when the place was taken, was made vicar-general. Peter, on his return to France, founded the abbey of Neufmoustier, at Huy, in Liège, where he died, 1115.

Peter's, (St.), Church. (*Arch.*) The largest cathedral in Christendom, built at Rome, on the site of a much older basilica, founded by Constantine, A. D. 306, over the reputed grave of St. Peter, and near the spot where he is said to have suffered martyrdom. The foundation-stone was laid in 1406; and the works

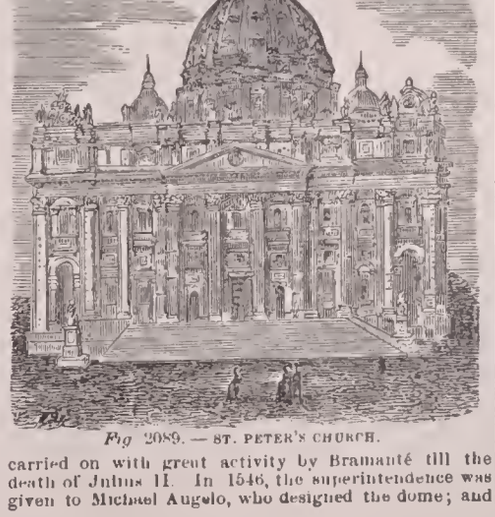


Fig. 2089. — ST. PETER'S CHURCH.

carried on with great activity by Bramanté till the death of Julius II. In 1546, the superintendence was given to Michael Angelo, who designed the dome; and had the satisfaction, before his death, in his ninetieth year (1564), of seeing the most arduous part of the task completed; and he left such complete models of the remainder that it was carried out exactly in conformity with his design by his successors, Vignola and Giacomo della Porta, and successfully terminated by the latter in 1590, in the pontificate of Sixtus V. The design of Michael Angelo was in the form of a Greek cross, but the building was actually completed as originally designed by Bramanté, as a Latin cross, under Paul V., by the architect Carlo Maderno. The portico and façade were also by him. He is much blamed for altering Michael Angelo's plan, because the result is that the projecting nave prevents the dome (the *great* part of the work) from being well seen. The façade is considered paltry, and too much cut up into small pieces. Maderno's nave was finished in 1612, and the façade in 1614, and the church dedicated by Urban VIII. in 1626. In the front of the portico is a magnificent atrium in the form of a piazza, enclosed on two sides by grand semicircular colonnades. This was erected under Alexander VII. by the architect Bernini. The façade of the cathedral is 368 feet long and 145 feet high. Five open arches lead into a magnificent vestibule, 430 feet long, 47 feet wide, and 65 feet high, and adorned with statues and mosaics. The central bronze doors are relics saved from the old church. On entering the interior of the cathedral, its enormous size does not produce the impression its grandeur of proportions should do on the spectator. This arises from the details being all of an excessive size. The pilasters of the nave, the niches, statues, mouldings, &c., are all such as they might have been in a much smaller church, magnified. There is nothing to mark the scale, and give expression to the magnitude of the building. The figures supporting the holy-water fountain, for example, appear to be those of cherubs of a natural size, but when more closely approached, turn out to be six feet in height, and the figures in the niches are on a still more colossal scale. The cathedral is 613 feet long, and 450 feet across the transepts. The arch of the nave is 90 feet wide, and 152 feet high. The diameter of the dome is 193½ feet. From the pavement to the base of the lantern is 405 feet, and to the top of the cross 434¾ feet.

Pe'terborough, a town of England, co. of Northampton, on the Nen, 37 m. N.E. of Northampton, and 76 m. N.N.W. of London.

Peterborough, a N. central co. of prov. of Ontario; *area*, abt. 1,005 sq. m. *Rivers.* Gall and Otanahee rivers, and several less important streams, besides many large lakes. *Cap.* Peterborough on the Otanahee River, abt. 75 m. N.E. of Toronto. The co. is divided into East and West Peterborough.

Peterborough, in *New Hampshire*, a post-village and township of Hillsborough co., abt. 34 m. S.W. of Concord.

Peterborough, in *New York*, a post-village of Madison co., abt. 140 m. W.N.W. of Albany.

Peter-ham, *n.* A kind of rough, woollen cloth, used for over-coats.

Pe'terhead, a seaport-town of Scotland, co. of Aberdeen, on a peninsula, the most E. point of land in Scotland, 44 m. N.N.E. of Aberdeen; Lat 57° 30′ 1″ N., Lon. 1° 46′ W.

Peter-le-Port, (St.,) a town and cap. of the Island of Guernsey; Lat. 49° 27′ 2″ N., Lon 2° 32′ W. It has an excellent harbor, defended by two castles. *Pop.* 13,500.

Peter-pence, *n.* (*Eccl. Hist.*) The popular name of an impost, otherwise termed *the fee of Rome*, or, in the Anglo-Saxon, *Romescot*; originally a voluntary offering by the faithful to the see of Rome; afterwards a due levied in various amounts from every house or family in a country. Peter-pence were paid in France, Poland, and other realms. In England it finally ceased in the reign of Henry VIII.

Pe'ters, in *Pennsylvania*, a township of Franklin county.

—A village and township of Washington co., abt. 15 m. S.S.W. of Pittsburg.

Pe'tersburg, (St.,) a govt. of European Russia, between Lat. 58° and 60° 30′ N., Lon. 28° and 34° E., having N. the Gulf of Finland, the govts. of Wyborg, Olonetz, and Lake Ladoga, E. and S.E. Novgorod, S. Pskof, and W. Lake Peipus, and the govt. of Revel. *Area*, 15,000 sq. m. The surface is level, the soil sandy, and the climate damp, severe, and unhealthy. *Rivers.* Neva, Narova, Luga, Volkhov, Siasi, and Svir. *Prod.* Rye, oats, barley, wheat, hemp, and flax. *Cap.* St. Petersburg.

Petersburg, (St.,) an important city, cap. of the Russian empire, at the mouth of the river Neva, in the E. extremity of the Gulf of Finland, 18 m. E. of Cronstadt. It is of a circular form, and stands partly on the mainland S. of the Neva, and partly on islands formed by its branches, and is remarkable for the width and regularity of its streets, the length and magnificence of its quays, and the elegance of its squares and public buildings. The most prominent among the latter are the Winter Palace, the Marble Palace, the Palace of Anitchkoff, the Taurida Palace, the Admiralty, the Academy of Fine Arts, the Exchange, the palace of the Senate, and the *Hotel de Petat Major*. The gilt tower of the admiralty, 360 feet high, erected in 1734, is one of the most striking objects in approaching the city. The citadel, founded by Peter the Great, stands on an island in the centre of the city. The principal churches are the cathedral of St. Peter and St. Paul, containing the tombs of the Russian sovereigns, the Church of our Lady of Kasan, the Church of St. Alexander Nefski, and the Church of St. Isaac. *P.* contains some noble monuments, the principal of which are the equestrian statue

of Peter the Great by Falconet, erected on a gigantic rough block of granite, and a column erected in honor of the emperor Alexander I., 150 feet in height, with a pedestal of granite and bronze. The shaft of the column consists of a single piece of red granite, 84 feet in length, and 14 feet in diameter. There are numerous literary and scientific institutions, and the Imperial library contains 500,000 printed vols., besides 20,000 MSS. *Manuf.* Silks, cottons, woollens, sail-cloth, porcelain, paper, leather, tapestry, gunpowder, tobacco, glass, &c. *P.* has the most extensive foreign trade of any city in the N. of Europe, arising principally from its being the only great inlet on the Gulf of Finland, and from its vast and various communications with the interior. *P.* is unhealthy, owing to its low and swampy situation, and to the severity and variety of the climate. It is also subject to inundations, which frequently cause great damage. *P.* was founded by Peter the Great in 1703, and notwithstanding its disadvantageous situation, continues to increase in prosperity. In the great inundation of 1824, more than 15,000 persons perished. A ship canal connecting *P.* with Cronstadt was begun in 1878. *Pop.* (1897) 1,220,450.

Pe'tersburg, in *Illinois*, a city, cap. of Menard co. *Pop.* (1897) 2,525.

Petersburg, in *Indiana*, a post-town, cap. of Pike co., about 110 m. S.S.W. of Indianapolis.

Petersburg, in *Kentucky*, a post-village of Boone co., on the Ohio river, about 25 m. below Cincinnati.

Petersburg, in *Michigan*, a post-village of Monroe co., about 10 m. E. of Adrian.

Petersburg, in *Missouri*, a village of Boone co., about 50 m. N. of Jefferson City.

Petersburg, in *New York*, a post-village and township of Rensselaer co., about 25 m. E. by N. of Albany. *Pop.* (1897) 1,510.

Petersburg, in *Ohio*, a village of Ashland co., about 8 m. E. of Mansfield.

—A post-vill. of Mahoning co., abt. 16 m. S.E. of Canfield.

Petersburg, in *Pennsylvania*, a village of Adams co., about 13 m. S. of Carlisle.

—A post-borough of Huntingdon co., about 97 m. W. N. W. of Harrisburg.

—A small village of Lancaster co., about 4 m. N.N.W. of Lancaster.

—A borough and township of Perry co., about 15 m. N.W. of Harrisburg.

—A village of Somerset co., about 154 m. W. by S. of Harrisburg.

Petersburg, in *Virginia*, a city and port of entry of Petersburg City co., on Appomattox river, 20 m. S. of Richmond; Lat. 37° 14′ N., Lon. 77° 20′ W. *P.* is finely located, well built, and ranks the third town in the State in point of population. It has extensive manufactories, chiefly cotton and woollen goods, machinery, &c., and commands an active and increasing trade. In the late Civil War *P.* constituted one of the most important military points in the defence of Richmond, and was the scene of many severe encounters between the Union and Confederate forces. On June 10, 1864, it resisted a combined attack, which was planned by Gen. Butler, and consisted of 3,500 infantry, 1,500 cavalry, and 2 gunboats; five days later a still stronger assault was repulsed, and these, with some minor attempts planned by the same general, caused a great Union loss, while the enemy was found to be even more strongly fortified than at first. On June 16, Gen. Grant moved from north of the James with his entire available army and began a siege of *P.*, which had been made too strong by earthworks to be taken by assault. Gen. Early was sent by Lee on a raid up the Shenandoah Valley, with the vain hope of drawing off his antagonist, who continued his siege without intermission until the last days of the war. In July, 1864, an attempt was made to take *P.* through the explosion of a mine, but the effort failed, after a heavy loss on the part of the assailants. On April 2, 1865, an assault in force was made which resulted in the capture of *P.*, followed by the evacuation of Richmond by the Confederate army, and its pursuit and surrender. *Pop.* (1897) 25,000.

Petersburg, in *Wisconsin*, a post-village of Crawford co., about 22 m. N.E. of Prairie du Chien.

Pe'tersfield, a town of England, county of Hants, 17 m. N.N.E. of Portsmouth. *Pop.* 6,000.

Pe'tersham, in *Massachusetts*, a post-village and township of Worcester co., about 67 m. W. by N. of Boston.

Peter's Mountain, a summit of the Alleghanies, on the boundary between Monroe co., West Virginia, and Giles co., Virginia.

Pe'terson, in *Iowa*, a post-village, former cap. of Clay co., about 115 m. W. of Des Moines.

—A township of Clay co.

Pe'terstown, in *W. Virginia*, a post-village of Monroe co., abt. 186 m. S. of Wheeling.

Pe'tersville, in *Maryland*, a post-village of Frederick co., abt. 37 m. N. by W. of Washington, D. C.

Petersville, in *Pennsylvania*, a post-village of Northampton co., abt. 15 m. W. by N. of Easton.

Peterwar'dein, a strongly-fortified town of Austria, in Slavonia, 44 m. N.W. of Belgrade. It derives its name from Peter the Hermit, who here organized the first crusade. The Turks were defeated here in 1716 by the Austrians under Prince Eugene. *Pop.* 7,000.

Peter'-wort, *n.* (*Bot.*) Same as *St. Peter's-wort*. See ASCYRUM.

Peti'olar, PETI'OLARY, *a.* (*Bot.*) Borne on the petiole.

Peti'olate, PETI'OLATED, PETI'OLED, *a.* (*Bot.*) Having a petiole.

Peti'ole, *n.* [Lat. *petiolus*, dim. of *pes, pedis*, a foot.] (*Bot.*) See LEAF.

Peti'olulate, *a.* (*Bot.*) Applied to a leaflet supported on its own partial leaf-stalk.

Peti'olule, *n.* (*Bot.*) The stalk of a leaflet.

Petit Caillou Bayou, (*peh-tee' kah-yoo' bi'oo,*) in *Louisiana*, a small stream flowing S. into the Gulf of Mexico, from Terre Bonne parish.

Petit'-grain, *n.* An essential oil obtained from the fruit and leaves of the Seville orange, *Citrus bigaradia*.

Peti'tion, *n.* [Fr.; Lat. *petitio*, from *peto*, to beseech.] An asking or seeking; a request, entreaty, supplication, or prayer; appropriately, a solemn or formal supplication; a prayer, or branch of prayer, addressed by a person to the Supreme Being. — A formal request or supplication from an inferior to a superior; the paper containing a supplication or solicitation.

—*v. a.* To make a request to; to ask from; to solicit; particularly, to make supplication to, as to a superior for some favor or right

Peti'tionarily, *adv.* By way of begging the question. (R.)

Peti'tionary, *a.* Supplicatory; coming with a petition. — Containing a petition or request.

Peti'tioner, *n.* One who presents a petition, either verbal or written.

Peti'tioning, *n.* Act of asking or soliciting; solicitation; supplication.

Petit Jean (*zhong*) **River,** in *Arkansas*, flows into the Arkansas river from Yell co.

Petit-maitre, (*-mā'tr,*) *n.* [Fr.] A spruce fellow that dangles about females; a top; a coxcomb. — *Webster*

Peti'tory, *a.* [Lat. *petitorius*, from *petere*, to ask.] Petitioning; claiming the property of anything.

Petiveri'aceæ, *n.* (*Bot.*) An order of plants, alliance *Sapindales*. DIAG. Apetalous flowers and a solitary carpel. They are under-shrubs or herbs, native of the W. Indies and tropical America. *P. alliacea*, the Guinea-hen weed of the W. Indies, has a strong garlic-like odor, and is excessively acrid; it is a reputed sudorific and emmenagogue, and is used in warm baths to restore motion to paralyzed limbs, and also as a remedy for toothache.

Petong', *n.* (*Chem.*) Chinese white copper, an alloy of copper and nickel.

Petos'key, in *Michigan*, a city of Emmet co., on Little Traverse Bay and G. R. & I. R. R. *Pop.* (1897) 4,100.

Pe'tra. [Gr., a rock; Heb. *sela*, a rock.] (*Anc. Geog.*) An ancient city of Arabia Petræa, situated in the *Desert of Edom*, about half way between the Dead Sea and the Ælanitic Gulf, 72 m. N.E. of Akabah, near Mt. Hor, and supposed to be the same as *Sela*, several times mentioned in Scriptures. Successively possessed by the Horim (*dwellers in caves*), the Edomites or Idumeans, the Nabathæans, and the Romans, it was finally destroyed by the Mohammedans, and its ruins were discovered by Burckhardt in 1812. These ruins stand in a small open irregular basin, about half a mile square, and are best approached by an extraordinary chasm or ravine, called the Sîk, narrowing as it proceeds, till in some places the width is only 12 feet, while the rocky walls of red-sandstone tower to the height of 300 feet. All along the face of the rocky walls are rows of cave-tombs, hewn out of the solid stone, and ornamented with façades. These are also numerous elsewhere (see Fig. 181). Originally, they were probably dwellings of the living, and were afterwards abandoned, and then set apart as family-sepulchres. Among the principal ruins are *El-Khuzneh* ("the treasure-house"), (Fig. 2090), believed by the natives to contain, buried somewhere in its sacred inclosure, the treasures of Pharaoh. It directly faces the mouth of the gorge we have described, and was the great temple of the Petræans.

Fig. 2090. — GORGE IN PETRA, WITH A PART OF EL-KHUZNEH.

Pe'tra, in *Missouri*, a post-village of Saline co., abt. 75 m. N.W. of Jefferson City.

Petrarch, (FRANCESCO PETRARCA,) (*pe'trark.*) One of the most illustrious poets and scholars of Italy, b. at Arezzo, 1304. His father, a friend of Dante, and, like him, an exile from Florence, settled afterwards at Avignon, and brought him up to the law, for which he had no relish. He studied at Montpellier and Bologna, and afterwards returned to Avignon, where his hopeless passion for the beautiful LAURA, *q. v.*, gave shape and color to the rest of his life. *P.* took part in the political affairs of his time, was the friend of popes and princes, and was employed in many important negotiations. He rendered very great service to literature and learning by his diligent researches for, and collections of, ancient manuscripts and other remains; and by the gift of his books to the church of St. Mark, Venice, he became the founder of its famous library. He was the friend of Boccaccio, who shares with him the honor of reviving classical literature; and the friend of Rienzi, with whose enterprise, as tribune of Rome, he warmly sympathized. In 1341 *P.* received the highest testimony of the renown which he had acquired as poet and scholar, by being crowned as laureate in the capitol of **Rome**.

Fig. 2091. — TOMB OF PETRARCH.

P. was at Rome during the Jubilee of 1350; lived afterwards at Vaucluse, Milan, Padua, Venice, and, in 1370, removed to Arqua, in the lovely Euganean Hills, where, after long-continued ill-health, he D. sitting among his books, July 18, 1374. *P.*'s works are partly in Italian and partly in Latin. The latter were those on which his reputation in his own day rested; but the former are those by which he is now most known. His Italian *Sonnets, Canzoni*, and *Triumphs*, all sweet, exquisite, glowing variations on one theme, *Laura*, have placed him as one of the most celebrated of poets. He modelled the Italian sonnet, and gave to it, and to other forms of lyrical poetry, not only an admirable polish of diction and melody, but a delicacy of poetic feeling which has hardly ever been equalled, and a play of rich fancy which, if it often degenerates into false wit, is as often delightfully and purely beautiful.

Petre'an, *a.* [From Gr. *petra*, a rock.] Pertaining to rock.

Pet'rel, *n.* [Fr., from Lat. *petrus*, probably in allusion to its walking on the sea, as St. Peter.] A genus of celebrated oceanic birds, family *Procellaridæ*. The Stormy Petrel, *Thalassidroma leachii*, (Fig. 2092,) so well known and universally dreaded by sailors as the harbingers of a storm, are the least of all the web-footed birds, being only about six inches in length. The bill is half an inch long, hooked at the top; the nostrils are tubular. The upper parts of the plumage are black, sleek, and glossy, with bluish reflections; the brow, cheeks, and under parts are a sooty-brown; the legs are slender, black, and scarcely an inch in length from the knee-joint to the extremities of the toes. In the length of its wings and swiftness of flight it resembles the chimney-swallow. It is met with in every part of the ocean, diving or swimming, quite at ease and in security, over the heavy rolling waves of the most tempestuous sea, and yet it seems to foresee and fear the coming storm before the seamen can discover any appearance of its approach, flocking together and making a clamorous piercing cry, as if to warn the mariner of his danger. They feed on small marine animals and seeds of sea-weed, and appear very fond of fat and grease, to obtain which they will follow in the wake of ships for great distances. They breed in the fissures of rocks, and the female lays two eggs. They fly rapidly, and generally close to the water, and when in pursuit of food they suspend themselves by extending their wings, and appear to run on the surface of the waves.

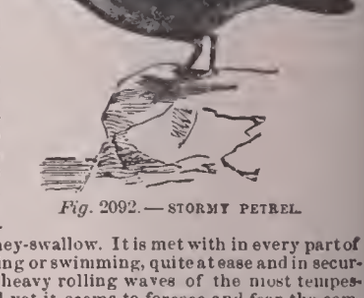


Fig. 2092. — STORMY PETREL.

Petres'cence, *n.* The state of being petrescent, or process of changing into stone.

Petres'cent, *a.* [From Gr. *petros*, a stone.] Converting into stone; changing into stony hardness.

Petrifac'tion, *n.* [Fr. *pétrification.*] (*Nat. Hist.*) A general term used to designate the conversion of vegetable or animal materials into a stony substance.

Petrifac'tive, *a.* Having power to convert vegetable or animal substances into stone. — Pertaining to petrifaction.

Petrific, *a.* Having power to convert into stone.

Petrificate, *v. a.* To petrify. (R.)

Petrifica'tion, *n.* [Fr.] Petrifaction. — Obduracy; callousness.

Francesco Petrarch

1304–1374

Pet'rify, *v. a.* [Gr. *petra*, and Lat. *facio*, to make.] To make or turn into stone, or stony substance, as an animal or vegetable substance. — To make callous or obdurate; to fix in amazement.
—*v. n.* To become stone, or of a stony hardness.
Pe'trine, *a.* Relating to St. Peter.
Petrograph'ic, Petrograph'ical, *a.* Pertaining to petrography.
Petrog'raphy, *n.* [Gr. *petra*, and *graphein*, to describe.] The art of writing on stone.
Petro'leum, PETROL, ROCK-OIL, *n.* [Gr. *petra*, a rock, and *elaion*, oil.] A liquid inflammable substance of a dark color, exuding from the earth, and containing certain liquid and solid hydrocarbons, such as benzol, naphtha, eupion, paraffin, naphthalin, and asphaltum, mixed together in a state of solution in different proportions. It varies considerably in density and color, according to its composition; some qualities being dark and thick like treacle, while others are perfectly limpid and of a light-brown tint. It is found in different parts of the world, but principally at Baku, on the Caspian Sea, where it has been used for lighting purposes from time immemorial; at Rangoon, in Burmah; at Ammiano, in Parma; in Bavaria; in the island of Trinidad; in the United States, and in Canada. The existence of *P.* about the head-waters of the Alleghany River in New York and Pennsylvania was known to the Indians and to the early settlers; and in consequence of the appearance of oil on their banks, two streams in Alleghany co., N. Y., and Venango co., Pa., received the name of *Oil Creek*; but the quantities collected were unimportant, and it was not known that by distillation and chemical treatment the quality of *P.* could be greatly improved. The credit of first distillation of *P.* seems to belong to Dr. Kier of Pittsburg, who, in 1850, and on the indication of Prof. Booth, of Philadelphia, distilled the *P.* exuding from his salt-wells near Tarentum, on the Alleghany River, burned it in lamps of his invention, and opened business in Pittsburg. In 1859, Col. E. L. Drake, of New Heaven, bore at Titusville, on Oil Creek, the first wells, from which he obtained a supply of oil amounting to 1,000 gallons a day. This success gave rise to an oil fever, and wells were sunk by thousands, chiefly in the valley of the Alleghany from below Franklin up into Warren co., and the banks of French Creek. Since that time oil-wells have been discovered in many parts of Ohio, in Virginia, and other States, and *P.* is now annually exported from the U. S. in millions of barrels. *P.* differs greatly in composition, some samples containing solid paraffin and benzol in large quantities, while others contain none. *P.* is separated into its various products by careful distillation at different temperatures. The crude material is first heated in a retort to a temperature of about 100° Fahr.; this causes a light oil, having a strong odor, to pass over into the condenser. The residue is then distilled at about 120° to 160°, the result being burning oil. When this is distilled off, steam is forced into the retort, and a heavy oil, fit for lubricating purposes, comes over, a black tarry mass being left behind. The light oil is now used as mineral turpentine, and as a grease solvent. It is often of a dark color, which is easily removed by agitation, first with sulphuric acid and afterwards with soda-lye and water. In the case of the coal-oils (see PARAFFIN OIL), this light oil consists almost entirely of benzol, which is used as a source of aniline in the manufacture of the magenta and mauve dyes; the light *P.* oil, however, in the majority of instances, contains no benzol, and cannot be used for this purpose. The burning oil is also frequently colored; but experience seems to prove that the colored oil is possessed of a higher illuminating power than that which has been treated with sulphuric acid and soda-lye. The heavy lubricating oil, when cooled down to 30° Fahr., often yields paraffin in large quantities, which is separated by straining and pressure. The asphaltum remaining may be used for pavements, or mixed with grease as a lubricant for heavy machinery. The most important product is, however, the burning oil, which is now used as a cheap and efficient illuminating agent in nearly every household in this country. Certain samples contain notable proportions of the light oils, which, evaporating at ordinary temperatures, mixed with the air and forms an explosive mixture. As the operation of filling the lamps used with the oil is generally performed at night, with a light close at hand, many lamentable accidents occur, which would be avoided if the light oils were ever carefully extracted from the burning compound, as it is done by any honest manufacturer. *P.* is sold in very great quantities under the names of petroleum, naphtha, saxoline, leucaline, cazeline, belmontine, and a hundred other cognomens, more or less euphonious. Several theories as to the origin of *P.* have been offered, one being that it is a product of inorganic chemistry, another that it is of animal origin, arising from chemical change in the bodies of marine animals, a third that it is of vegetable origin. It seems probably due to distillation of both animal and vegetable organisms. The cause of the *P.* rising to the surface is easily accounted for by the infiltration of water, which, being heavier than the oil, naturally replaces it, causing it to rise to the surface, and exude from the soil. An average sample of *P.* contains, according to Mr. W. B. Tegetmeier, 20 per cent. of mineral naphtha, 50 per cent. of burning oil, 22 per cent. lubricating oil, and 8 per cent. of carbonaceous and tarry matter. *P.* in the crude state has been used by the Seneca Indians for ages past as a remedy for rheumatism, and has been used by the surgeons of the United States army for washing gangrenous wounds with very great success. When the light oil which first passes over in the distillation of *P.*, or of coal-gas, is rectified by a second distillation, it is sent into commerce under the name of *coal naphtha*. This coal naphtha may be further purified by shaking it with sulphuric acid, which removes several of the impurities, while the pure naphtha collects on the surface when the mixture is allowed to stand. When this is again distilled it yields the *rectified coal naphtha*. *P.* is by no means confined to the U. S., but has been found in various other parts of the earth, there being fields of commercial importance in Baku, Burma, Canada, Galicia, Peru, and Japan. Of these, the Baku field is the most formidable rival to the U. S. This lies on the W. shore of the Caspian Sea, and yields immense quantities of heavy oil, which gives only a small percentage of burning oil, though its cheapness renders its distillation profitable.
Petro'leum Centre, in *Penn.*, a p. v. of Venango co.
Pet'roline, *n.* (*Chem.*) A substance analogous to *paraffine*, obtained by distilling the petroleum of Rangoon.
Petrol'ogy, *n.* [Gr. *petra*, and *logos*, a discourse.] A treatise on rocks.
Petromyzon'idæ, *n. pl.* (*Zoöl.*) A family of fishes, belonging to the order of *Suckers* or *Cyclostomes*, and comprising the Lampreys and their allies. The American Sea Lamprey, *Petromyzon Americanus*, is from 2 to 3 ft. long behind, ending in a sharp tip. It ascends rivers, and piles up heaps of stones, among which it lays its eggs.
Petro'nius Arbiter, TITUS, a Roman poet, notorious for his licentiousness and obscenity, was born at Marseilles, and lived at the court of Nero. He was, for a time, the favorite of the emperor, who made him master of his voluptuous banquets and revelries. When he finally fell a victim to the suspicions of the tyrant, and was condemned to death, he avoided the ignominy of a public execution by opening his veins as he sat in the bath conversing with his friends, A. D. 66. It is uncertain whether the book entitled *Satyricon* is the work of this or some other Petronius.
Petro'polis. See RIO JANEIRO.
Pet'rosal, *a.* (*Anat.*) Resembling stone; having the hardness of stone; relating or belonging to the petrous portion of the temporal bone.
—*n.* The ear-capsular bone in a fish.
Petroseli'num, *n.* [Gr. *petros*, rock, and *sélinon*, parsley; in allusion to the habitation of the species.] (*Bot.*) A genus of plants, order *Apiaceæ*. They are European biennial herbs, with perfect umbels, few-leaved involucre, and many-leaved involucel. *P. sativum* is the common parsley of our gardens. The delicate green of its curled leaves has made it a favorite herb in garnishing and ornamenting dishes. See FOOL'S PARSLEY.
Petrosi'lex, *n.* [Lat., from *petra*, and *silex*, flint.] (*Min.*) A compact impure felspar.
Pet'rous, *a.* [From Lat. *petra*.] Hard; resembling stone. (*Anat.*) Petrosal; having the hardness of stone.
Petrousk', or **Petrowsk',** a town of Russia, on the Medvietza, 68 m. N.N.W. of Saratov; *pop.* 7,000.
Petrozavodsk', a fortified town of Russia, cap. of the govt. of Olonetz, on the Lake of Onega, 185 m. N.E. of St. Petersburg; *pop.* 8,000.
Petsh, or IPEK, a town of European Turkey, in Albania, 73 m. E.N.E. of Scutari. *Manuf.* Arms. *Pop.* 12,000.
Pet'tedly, *adv.* Peevishly; pettishly.
Pet'ticoat, *n.* [Fr. *petit*, small, petty, and Eng. *coat*.] A loose under-garment worn by females, and covering the lower limbs.
Pet'ticoated, *a.* Having on, or wearing, a petticoat.
Pet'tifog, *v. n.* To have small or mean business, as a lawyer. (Colloq.)
Pet'tifogger, *n.* An inferior attorney or lawyer, who is employed in small or mean business.
Pet'tifoggery, *n.* The practice of a pettifogger; tricks; quibbles.
Pet'tily, *adv.* In a petty manner.
Pet'tiness, *n.* Smallness; littleness.
Pet'tis, in *Missouri*, a W. central co.; *area*, about 668 sq. m.; watered by La Mine river. *Surface*, mostly undulating prairie; *soil*, fertile. *Min.* Coal in large deposits. *Cap.* Sedalia. *Pop.* (1897) 37,300.
—A township of Platte co.
Pet'tish, *a.* Fretful; peevish.
Pet'tishly, *adv.* In a pet; with a freak of ill temper.
Pet'tishness, *n.* State or quality of being pettish; fretfulness; petulance; peevishness.
Pet'titoes, *n. pl.* The feet of sucking pigs. — Feet; — used in contempt.
Pet'to, *n.* [It.] The breast.
In petto. In reserve or privacy.
Pet'ty, *a.* Little; diminutive; inconsiderable. — Inferior; trifling; trivial.
Petty average. (*Law.*) Several petty charges which are borne partly by the ship and partly by the cargo, such as the expense of tonnage, beaconage, &c.
— *Petty constable*, in England, the ordinary constable, as distinguished from the high-constable of the hundred.
Pet'ty, in *Illinois*, a township of Lawrence co.; *pop.* abt. 2,000.
Pet'ty-rice, *n.* (*Bot.*) See CHENOPODIUM.
Pet'ulance, Pet'ulancy, *n.* [Fr.; Lat. *petulantia*.] State or quality of being petulant; freakish paeslon; peevishness; pettishness; sauciness.
Pet'ulant, *a.* [Fr.; Lat. *petulans*, from *peto*, to go to, to attack.] Manifesting petulance; proceeding from pettishness. —Wanton; freakish in passion.
Pet'ulantly, *adv.* With petulance; with saucy pertness.
Petunse', Petunze', *n.* (*Min.*) A felspathic rock containing an admixture of quartz, and used in China, when mixed with kaolin, for making porcelain.
Pet'zite, *n.* (*Min.*) A variety of Hessite or telluric silver, in which a part of the silver is replaced by gold.
Peu'cedanum, *n.* (*Bot.*) A Grasswort, order *Apiaceæ*. The Masterwort (*P. ostruthium*), has a stem 1–2 feet high, broad biternate leaves, and large flat umbels of whitish flowers. The root of Hog's-fennel or Sulphurwort (*P. officinale*) contains a crystalline principle called *peucedanine*.
Peu'cyele, *n.* (*Chem.*) A liquid found by the action of hydrochloric acid upon oil of turpentine, and distilled with quicklime.
Pev'ely, in *Missouri*, a post-village of Johnson co., abt. 28 m. S. by W. of St. Louis.
Pew, *n.* [Lat. *podium*, an elevated place.] An inclosed seat in a church.
—*v. a.* To furnish with pews.
Pewable, (*pe-wau'bik,*) in *Michigan*, a village of Ontonagon co., abt. 16 m. W. by S. of Ontonagon.
Pewamo, (*pe-wau'mo,*) in *Michigan*, a post-village of Ionia co., abt. 45 m. E. of Grand Rapids.
Pewau'kee, in *Wisconsin*, a post-village and township of Waukesha county, about 19 miles west of Milwaukee.
Pewau'kee Lake, in *Wisconsin*, a small sheet of water in Waukesha co.; *area*, abt. 4 sq. m. From the immense number of small shells found in the sand of the shores, it was called by the Indians Peewaukee-weening, or Lake of Shells.
Pe'wet, Pe'wee, Pe'wit, *n.* (*Zoöl.*) See LAPWING.
Pew'-fellow, *n.* One who sits in the same pew.
Pew'ter, *n.* (*Metal.*) An alloy variously composed of different metals, but more usually of 4 parts tin and 1 lead.
—Vessels or utensils made of pewter.
Pezenas, (*pa-za-na',*) a town of France, dept. of Hérault, 25 m. S.W. of Montpelier; *pop.* 7,500.
Pezi'za, *n.* (*Bot.*) A genus of plants, order *Fungales*. See ASCOMYCETES.
Pex'ity, *n.* [From Lat. *pexus*, to comb.] The nap of cloth.
Pforzheim, (*fors'hime,*) a town of Germany, in Baden, at the junction of the Würm and the Nagold, 16 m. from Carlsruhe. *Manuf.* Linen, trinkets, and hardware articles. *Pop.* 8,264.
Phac'olite, *n.* [Gr. *phakós*, bean, and *lithos*, stone.] (*Min.*) A variety of chabasite, occurring in grayish-white or pinkish crystals at New York Island.
Phædon, (*fe'don,*) a Greek philosopher of Elis, who flourished about 400 B. C., was originally a slave, but obtained his freedom by the interest of Socrates, whose disciple he became, and remained with him till his death. After this he settled at his native place, where he founded a school of philosophy.
Phæ'dra. (*Heroic Hist.*) A daughter of Minos and Pasiphæ, and the wife of Theseus. Having formed an illicit love for her husband's friend Hippolytus, who rejected her addresses, she on the death of her lover confessed her guilty affection, and in despair terminated her life by hanging.
Phædrus, (*fe'drus,*) an elegant Latin poet, was a native of Thrace, and appears to have been the freedman of Augustus. Under Tiberius he was persecuted by Lejanus, to which circumstance he has alluded in his *Fables*, which are written with great purity of style.
Phænoga'mia, Phænog'ams, *n.* (*Bot.*) See CRYPTOGAMIA.
Phænog'amous, *a.* [Gr. *phaeno*, to appear, and *gamos*, marriage.] Noting flowering plants.
Phaëton, (*fa'e-ton.*) [Gr., from *phaethein*, to shine.] (*Myth.*) According to Ovid, a son of the sun, or Phœbus. Venus became enamored of him, and entrusted him with the care of one of her temples. This favor of the goddess rendered him vain, and led to his asking his father's permission to drive his chariot for one day. Phœbus represented the dangers to which this would expose him; but in vain. He undertook the aërial journey; and the explicit directions of his father were forgotten. No sooner had *P.* received the reins than he betrayed his ignorance of guiding the chariot. The flying horses became sensible of the confusion of their driver, and immediately departed from the usual track. *P.* reported too late of his rashness; and already heaven and earth were threatened with a universal conflagration, when Jupiter, who had perceived the disorder of the horses, struck the rider with a thunderbolt, and hurled him headlong from heaven into the river Po. His body, consumed with fire, was found by the nymphs of the place.
—*n.* An open carriage like a chaise, on four wheels, and drawn by two horses.
Phæton, *n.*; *pl.* **Phæto'nidæ.** (*Zoöl.*) The Tropic-bird, a gen. and fam. of the ord. *Natatores*, comprising birds characterized by a long bill, long wings, tail with central feathers extremely elongated, tarsi short. The genus *P.* is represented in this country by the Yellow-billed Tropic-bird, *P. flavirostris*, which is 30 inches long, and the wings 11 inches; the general color white, the wings banded with black.
Phagede'na, *n.* [Lat. *phagedæna*; Gr. *phagedaina*, from *phagein*, to eat.] (*Med.*) An ulcer which rapidly eats and corrodes the neighboring parts. — A canine appetite; an almost insatiable hunger.
Phageden'ic, *a.* Pertaining to phagedena; eating; corroding.
—*n.* (*Med.*) A substance used for destroying fungous granulations in ulcers, &c.
Phalacro'sis, *n.* [Gr. *phalakrosis*.] (*Med.*) Absence of hair, particularly at the top of, and behind, the head. It has of late been ascribed to bacteria, and treatment has been devised accordingly.
Phalæ'nidæ, *n. pl.* (*Zoöl.*) The Geometrid family comprises moths whose larvæ seem to measure the surfaces over which they pass. The necessity of this sort

of movement results from the fact that they have only ten legs; six true ones under the fore part of the body, and four prop-legs at the hind extremity; three intermediate pairs of prop-legs being wanting. Some, however, have 12 or 14 legs, but in such cases the additional prop-legs are too short to assist much in creeping, so that these also creep like those above described. Geometrids live upon trees, and in most cases undergo their transformation upon or in the ground, which they reach by letting themselves down by a silken thread, which they spin from their mouth while descending. They are generally smooth, and when at rest, many of them stand on the two hind pairs of legs, with the body extended, and thus may be easily mistaken for a little twig. Often, when disturbed, they let themselves down, and, when no danger is apprehended, return to the tree again by the same thread by which they descended. In the perfect state these insects are mainly slender-bodied moths, with tapering antennæ, and large wings.

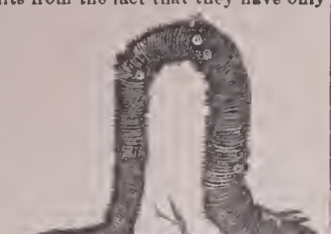


Fig. 2093.—GEOMETER, OR SPAN-WORM.

Phalan'gal, Phalan'geal, *a.* (*Anat.*) Relating to the small bones, or phalanges, which form the fingers and toes.

Phalan'ger, *n.*; *pl.* **Phalangis'tidæ.** (*Zoöl.*) A genus and family of Marsupial animals, varying in size from that of a mouse to that of a cat, and distinguished by having the second and third toes of the hind feet united as far as the last phalanx in a common cutaneous sheath. The *Phalangista Cuvieri* (Fig. 2094) may be taken as an example.

Fig. 2094.—LONG-EARED PHALANGER. (*P. Cuvieri.*)

Phalan'ges, *n. pl.* of PHALANX, *q. v.*

Phalan'gial, Phalan'gian, *a.* Having relation to a phalanx; phalangal.

Phalan'gita, *n.* (*Zoöl.*) The Long-legs family, embracing tracheary arachnids, which are popularly known as Daddy-long-legs, or Harvest-men, and are at once distinguished by the round oval body and long slender legs, which are very easily detached.

Phalan'gium, *n.* (*Zoöl.*) The Shepherd Spider, a genus of Arachnidians, including those in which all the legs are very long and slender; the tarsi sometimes consisting of more than 50 joints.

(*Bot.*) See CYMASIA

Phalan'sterian, *n.* An advocate of Phalansterianism.

Phalanster'ianism, Phalan'sterism, *n.* The system of Fourier. See FOURIERISM

Phal'anstery, *n.* See FOURIERISM.

Phalanx, (*fal'anks.*) *n.*; *pl.* Lat PHALANGES; *pl.* Eng PHALANXES [Gr. *phalagx.*] (*Greek Antiq.*) A body of troops among the ancient Greeks, armed with spears, and arranged in the form of a square. It first consisted of 4,000 men; but Philip of Macedon doubled that number, and it was afterwards quadrupled. In the Macedonian phalanx, the men stood close together, sometimes with their shields locked, in ranks of several men in depth, displaying in front a row of extended spears

—Any body of troops or men formed in close array, or any combination of people distinguished for firmness and solidity of union.

(*Anat.*) The small bones which form the fingers and toes, so called because placed along side of each other like a phalanx.

Phalaris, a cruel tyrant of Agregentum, in Sicily, who acquired his power about 572 B. C., and was put to death by one of his own horrible devices, that of the brazen bull, 550 B. C.

Phal'aris, *n.* (*Bot.*) A gen. of grasses. *P. canariensis*, Canary Grass, is cultivated largely for its grain, which is employed as food for song-birds, under the name of Canary seed. Its straw is also valued as fodder for horses.

Phalaro'pidæ, *n. pl.* (*Zoöl.*) The Phalarope family, including Grallatores birds which have the lateral groove of the bill extending nearly to the tip, toes with a lateral margin, the hinder with a lobe, and the feathers of the breast compact. The genus *Phalaropus* has the membrane generally more or less scalloped at the joints.

Phal'lus, *n.* [Lat., from *phallos*, the penis.] (*Bot.*) A genus of the *Fungales*, of which *P. impudicus* is one of the most disgusting, on account both of its appearance and its smell.

Phals'bourg, a town of Germany, in the department Lorraine, at the foot of the Vosges Mountains, 49 m. E. of Nancy. *Pop* (1897) 5,960.

Phanerogam'ic, Phanerog'amous, *a.* See PHÆNOGAMOUS.

Phan'tascope, *n.* [Gr. *phantasma*, image, and *skopein*, to view.] (*Optics.*) The name given by the American Professor Locke to an apparatus for enabling persons to converge the optical axis of the eyes, or to look cross-eyed, and thereby observe certain phenomena of binocular vision.

Phan'tasm, *n.* [Gr. *phantasma*, from *phantazo*, to make visible.] That which appears to the mind, the image of an external object; an idea or notion — An apparition; a spectre; a phantom; especially, an airy appearance.

Phantasmago'ria, Phantasmagory, *n.* [Gr. *phantasma*, and *agora*, an assembly, from *ageirein*, to gather.] A MAGIC LANTERN. *q. v.*

Phantasmago'rial, Phantasmagor'ic, *a.* Relating to phantasmagoria.

Phantas'mascope, *n.* Same as PHANTASCOPE, *q. v.*

Phantasmat'ical, *a.* Pertaining to a phantasm.

Phantasmatog'raphy, *n.* [Gr. *phantasma*, phantasm, and *graphē*, description.] A description of celestial appearances, as the rainbow, &c.

Phan'tom, *n.* [Fr. *fantôme*, from Gr. *phantasma.*] An apparition; a spectre; a fanciful vision

Phantas'mat'ic, *a.* Pertaining to a phantom.

Phaon, *fa'on.*) (*Myth.*) Boatman of Mitylene, in Lesbos, who received a small box of ointment from Venus, with which he rubbed himself, and became one of the most beautiful men of his age. Many were captivated with him, and, among others, Sappho, the celebrated poetess. Phaon at first appeared to return Sappho's passion, but soon, however, conceived a disdain for her, whereupon, the mortified poetess threw herself into the sea.

Phar'amand, a mythical personage, who, according to many of the older historians, was the first king of France, and reigned at Treves, about A. D. 418. He is, however, supposed by others to have been only the general of an army, or the chief of a military society of Franks. To him is attributed also the celebrated Salic law, by which females were excluded from the succession to the throne.

Pharaoh, (*fai'ro.*) [Egypt. *Phrah*, the sun.] The name borne in the Bible by ten kings of Egypt; the best known of which are, the monarch to whom Joseph explained his dream, and who loaded him with honors; he who commenced the persecution of the Hebrews, and who put to death all the male children; and he who was summoned by Moses to permit of the departure of the Hebrew people, and who was afterwards drowned, with all his host, in the waters of the Red Sea.

Pha'raoh, Pha'raon, *n.* (*Games.*) Same as FARO, *q. v.*

Pharaon'ic, *a.* Relating to the Egyptian Pharaohs.

Pharisa'ic, PHARISA'ICAL, *a.* Pertaining to, or resembling the Pharisees.

—Making a show of religion without the spirit of it.

Pharisa'ically, *adv.* In the manner of Pharisees; hypocritically.

Phar'isaism, *n.* The notions, doctrines, and conduct of the Pharisees, as a sect.

—Rigid observance of external forms of religion, without genuine piety; hypocrisy in religion.

Phar'isee, *n.* [Heb. *parush*, separated, from *parash*, to cleave, divide, separate.] A sect among the Jews, whose name is derived from *pharas*, a Hebrew word signifying *separated* or *set apart*, because they separated themselves from the rest of the nation, and pretended to the distinction of peculiar holiness. The time of their origin is not accurately determined. They are not mentioned in the Old Testament, but are thought by some to be the same as the Assideans of the Books of Maccabees. Besides being strict interpreters of the written law, their sect superinduced upon it what they called the tradition of the elders, and asserted that Moses delivered an oral law as a supplement to that of the Scriptures. They are frequently reproached in the Gospels with so explaining the latter by the former, as in effect frequently to destroy the validity of the written law. They also observed many outward ceremonies with a studied ostentation, which gained for them the veneration of the multitude. They maintained, in opposition to the Sadducees, the popular doctrine of the resurrection, with which they mingled some wild notions touching the transmigration of souls.

Phar'iseeism, *n.* Pharisaism.

Pharmaceu'tic, PHARMACEU'TICAL, *a.* [Gr. *pharmakeutikos*, from *pharmakeuein*, to use medicine.] Pertaining to the knowledge or art of pharmacy.

Pharmaceu'tically, *adv.* In the manner of pharmacy.

Pharmaceu'tics, *n sing.* The science of preparing drugs or medicine.

Pharmaceu'tist, *n.* An apothecary; a person skilled in pharmacy.

Phar'macist, *n.* A pharmaceutist.

Pharmacodynam'ics, *n. sing.* [Gr *pharmakon*, medicine, and *dunamis*, power.] (*Med.*) A division of pharmacology, which considers the effects and uses of medicines.

Pharmac'olite, *n.* [Gr. *pharmakon*, medicine, and *lithos*, a stone.] (*Min.*) A hydrous arseniate of lime, found with arsenical ores of cobalt and silver

Pharmacol'ogist, *n* One who writes upon drugs, or is skilled in their preparation.

Pharmacol'ogy, *n.* [Gr. *pharmakon*, a medicine and *logos*, discourse.] The doctrine, or science, or knowledge of drugs, or the art of preparing medicines — A treatise on the art of preparing medicines.

Phar'macon, *n.* [Gr.] A medicine; a poison.

Pharmacopœ'ia, *n.* [Gr *pharmakon*, medicine, and *poieo*, to make.] A book or treatise describing the preparations of the several kinds of medicines, with their uses and manner of application.

Pharmacop'olist, *n* [Gr. *pharmokopōlēs*, from *pharmakon*, medicine, and *pōlein* to sell.] An apothecary; one who sells medicines.

Phar'macy, *n.* [Gr *pharmakeia*, from *pharmacon*, medicine.] The art or practice of preparing, preserving, and compounding substances for the purpose of medicine; the occupation of an apothecary.

Pharnaces, (*far'na-sez.*) King of Pontus, was the son of Mithridates V., and grandfather of Mithridates the Great. He made war against the king of Pergamus, and reigned between 190—157 B. C.

PHARNACES, king of the Cimmerian Bosphorus, was son of Mithridates VI., king of Pontus, and revolted with the army against his father, who slew himself in despair, B. C. 63. Pharnaces cultivated the friendship of the Romans, and in the war between Cæsar and Pompey, he remained neutral; but Cæsar declared war against and defeated him, B. C. 47, after a struggle of three days only. It was on that occasion that Cæsar wrote to the Roman senate, in allusion to his easy triumph: "I came, saw, and conquered" (*Veni, vidi, vici*). Pharnaces B. shortly afterward.

Pha'ro, *n.* Same as FARO, *q. v.*

Pha'ros, *n.* [Gr.] A light-house or tower which anciently stood on a small island of that name, adjoining the Egyptian shore, over against Alexandria — Any light-house for the direction of seamen; a watch-tower; a beacon.

Pharsa'lia, (anc. *Phersalus*, now *Fersala*, or *Satalge*,) a town of Thessaly, 18 m. S. of Larissa, and rendered famous as the place where Pompey was defeated by Julius Cæsar, B. C. 48.

Pharsa'lia, in *Mississippi*, a village of Panola co., abt 150 m. N. of Jackson.

Pharsalia, in *New York*, a post-township of Chenango co.

Pharyn'geal, *a.* Pertaining to the pharynx.

Pharyn'geals, *n. pl.* (*Anat.*) The muscles, vessels, and nerves of the pharynx.

Pharyngi'tis, *n.* (*Med.*) Inflammation of the pharynx.

Pharyngo'graphy, Pharyngol'ogy, *n.* [Gr. *pharynx*, and *graphein*, to write, *logos*, a discourse.] (*Anat.*) A description of the pharynx.

Pharyngot'omy, *n.* [Fr *pharyngotomie*, from Gr. *pharynx*, *pharyngos*, and *temnein*, to cut.] (*Surg.*) An incision made in the pharynx for the purpose of removing obstructions, opening abscesses, &c.

Pharynx, (*far'inks.*) *n.* [Gr. *pharynx*, *pharyngos.*] (*Anat.*) A species of musculo-membranous symmetrical canal, on the median line, irregularly funnel-shaped, and situate between the base of the cranium and the œsophagus, in front of the vertebral column.

Phase, (*fāz.*) *n*; *pl.* PHASES. [Fr.; Gr *phasis*, from *phainomai*, to appear.] That which is exhibited to the eye; appearance which anything manifests, especially one among varying aspects of the same object

(*Astron.*) Aspect or appearance with regard to form of illuminated disc at any time in a cycle of changes: — said of the moon or a planet. — *Phases of the Moon* The constant and regular change of the illuminated surface of the moon from a thin crescent to a circle, and *vice versâ*, and a corresponding change in the time of her appearance above the horizon, depends upon the position of the moon relative to the earth and the sun, for it is only the half of the moon facing the sun that is illuminated by his rays, and the whole of this illuminated portion can only be seen from the earth when the sun, earth, and moon are in a straight line, *the line of Syzygies* and the earth is between the sun and the moon. When the moon is in the line of the Syzygies, but between the earth and the sun, no part of her illuminated disc can be seen from the earth. In the former case the moon is said to be *full*, and in the latter, *new*. A few hours after a *new moon*, the moon appears a little to the east of the sun, as a thin crescent, with the horns pointing towards the east, and as she increases her angular distance from the sun at the rate of about 12° daily, the crescent of light becomes broader, till, after the lapse of a little more than seven days, at which time she is 90° in advance of the sun, she presents the appearance of a semicircle of light. The moon is then said to have completed her *first quarter*. Continuing her course, she becomes *gibbous* (q. v.); and at the 15th or 16th day from new moon, attains a position of 180° in advance of the sun, again appearing gibbous; and after a third period of more than seven days, reaches a point 90° west of him, and enters her *last quarter*. Here, again, she appears as a semicircle of light, the illuminated portion being that which was not illuminated at the end of the first quarter. The moon, now rapidly approaching the sun, resumes the crescent form, but this time with the horns pointing westward, the crescent becoming thinner and thinner, till the moon reaches the position of new moon, and disappears. From *full moon* to *new moon*, the moon is said to be *waning*; and from *new moon* to *full moon*, *waxing*.

(*Physics.*) In any doctrine of the vibrations of particles, the position of a particle with reference to the entire range of its vibration.

(*Min.*) Transparent green quartz

Phaseo'leæ, *n pl.* (*Bot.*) A tribe of plants, order *Fabaceæ*, characterized by having filaments all or 9, connate; legume continuous, bivalve; cotyledons fleshy; leaves usually pinnately trifoliate

Phaseo'lus, *n.* [Lat.] (*Bot.*) The Beans, a genus of plants, tribe *Phaseoleæ*, mostly of climbing habit, the leaves usually with thin, largish leaflets, and the flowers remarkable for the keel terminating in a twisted point. There are numerous species, natives of hot climates, and many of them have long been cultivated as food for man. See BEAN.

Phasia'nidæ, *n pl.* (*Zoöl.*) The Pheasant family, order *Rasores*, comprising birds which have the legs,

toes, and nasal fossæ bare, the tarsus in the male with one or more spurs, the hind-toe elevated above the others, and the tail-feathers more than twelve. It includes the Turkeys, Peacocks, Guinea Fowls, Jungle Fowls, Domestic Fowls, and Pheasants. All except the Turkeys are indigenous to the Old World, although many of them are now widely distributed over the globe. — The genus *Phasianus*, or Pheasants, has the tail excessively long, the feathers of which overlap like tiles. All the species are in very high esteem for the table. The Common Pheasant, *P. colchicus*, of Europe, is 32 inches long, the head and neck of metallic lustre, and the rest of the plumage golden fawn color, with markings of green. The female is smaller and brownish. This bird, now found throughout temperate Europe, is said to have been brought from the banks of the Phasis, a river of Colchis — the Golden Pheasant, *P. pictus*, of China (Fig. 2095), so remarkable for its magnificent plumage, has a golden-colored crest, the neck orange speckled with black, the back green, the rump yellow, the lower parts and wings red, the latter with a blue spot, and the long tail brown spotted with gray.

Fig. 2095. — GOLDEN PHEASANT, (*Phasianus pictus.*)

Phasis, *n.*; *pl.* PHASES. Same as PHASE. *q. v.*

Phasis, (*fā'sis,*) a river of Asiatic Russia, anciently considered the boundary between Asia and Europe, rising in a spur of the Caucasus, and after a W. course, entering the Black Sea at its E. extremity, near Poti, 34 m. N of Batoum. It gives its name to the European pheasant.

Phasm, (*fāzm,*) **Phasma,** (*fāz'ma,*) *n.* [Gr. *phasma.*] A PHANTASM. *q. v.* (R.)

Phasmidæ, (*faz'mi-de,*) *n. pl.* (*Zoöl.*) The Walking-stick family, comprising orthopterous insects, which are at once distinguished by their very close resemblance to vegetable structure. Some are found in N. America, but they inhabit principally in warm regions. Some of the tropical species are very large, even a foot long. — (*Tenney.*) — See PHYLLIUM.

Phas'sachate, *n.* [Gr. *phassa*, the wood-pigeon, and *achates*, the agate.] (*Min.*) The lead-colored agate.

Pheasant, (*fez'ant,*) *n.* [Fr. *faisan.*] (*Zoöl.*) See PHASIANIDÆ.

Pheasant Branch, in *Wisconsin*, a post-village of Dane co., abt. 8 m. W. of Madison.

Pheasant Island, in the Bidassoa River, between France and Spain where the treaty of the Pyrenees was concluded in 1659.

Pheasantry, (*fez'ant-rȳ,*) *n.* A place for rearing and keeping pheasants.

Pheese, (*fēz,*) *n.* Same as FEAZE. *q. v.*

—*v. a.* To comb; to fleece: to curry, as an animal's coat. —To belabor: to chastise; also, to leaze.

Pheesy, *a.* Fretful; cross; peevish; petulant.

Phellopla'stics, *n. sing.* [Gr. *phellos*, cork, and *plassein*, to mould.] The art of making models in cork.

Phelps, in *Missouri*, a S. E. central co.; *area*, abt. 600 sq. m. *Rivers*, Gasconade, Piney, and Maramec rivers. *Surface*, uneven and hilly; *soil*, fertile and well adapted to the cultivation of Indian corn and stock-raising. *Min.* Copper, iron, and lead. *Cap.* Rolla.

—A village of Lawrence co., abt. 34 m. W. of Springfield.

Phelps, in *New York*, a post-township of Ontario county.

Phenacite, (*fēn'a-sīt,*) *n.* [Gr. *phenax*, *phenakos*, an impostor.] (*Min.*) A mineral resembling quartz, and chiefly composed of silicia and glucina.

Phenakism, (*fē'na-kizm,*) *n.* [Gr. *phenakismos*, deceit.] The methodical uttering of something contrary to that which is mentally intended.

Phenakis toscope, *n.* [Gr. *phenakismos*, deceit, and *skopeein*, to see.] A philosophical toy, which illustrates the principle of the persistence of impressions on the retina of the eye in a very ingenious manner.

Phengite, (*fēn'jīt,*) n. [Fr.; Lat. *phengites*; Gr. *phengites*, from *phengein*, to shine.] (*Min.*) A variety of mica.

Phenic Acid, *n.* (*Chem.*) See CARBOLIC ACID.

Phenician, (*fe-nish'an,*) *n.* [Written also PHŒNICIAN.] (*Geog.*) A native or inhabitant of Phenicia.

—*a.* Pertaining or having reference to Phenicia.

Phenicine, (*fē'ni-sin,*) *n.* [Fr., from Gr. *phenax*, an impostor.] (*Chem.*) The purple powder which is precipitated when sulphuric solution of indigo is diluted with water. It appears to be hydrate of indigo.

Phenyl'ic Group, *n.* (*Chem.*) Phenyl (C_6H_5) is an organic radical, which has not yet been isolated. Its most important compounds are, 1. Carbolic or Phenic Acid, known also as Phenol, Hydrated Oxide of Phenyl, and Phenyl-alcohol; (See CARBOLIC ACID) 2. Hydride of Phenyl, known also as Benzole, Benzine, and Phene; (see BENZOLE). 3. Phenylamine, or Phenylia, better known under the name of ANILINE. *q. v.* 4. Trinitrophenic Acid, known also as Picnic Acid, and CARBAZOTIC ACID. *q. v.*

Phenix, (*fē'niks,*) *n.* See PHŒNIX.

Phe'nix, or PHŒNIX, in *Illinois*, a township of Henry co.

Phenom'enal, *a.* Pertaining to a phenomenon, or appearance.

Phenom'enally, *adv.* As a phenomenon; after the manner of a phenomenon.

Phenomenol'ogy, *n.* [Gr. *phainomenon*, and *logos.*] A description of phenomena; a history of phenomena.

Phenom'enon, *n.*; *pl.* PHENOMENA. [Gr. *phainomenon*, from *phainomai*, to appear.] An appearance; anything visible; whatever is presented to the eye by observation or experiment, or whatever is discovered to exist; as, *phenomena* of heat, *phenomena* of imagination. — Occasionally, a singular or unusual appearance, or an appearance whose cause cannot be at once accounted for. — In mental philosophy, the term is applied to the various and changing states of the mind.

Pheon, *n.* (*Her.*) The barbed head of a dart. It is represented as engrailed on the inner side, and its position is with the point downwards, unless otherwise blazoned.

Phial, (*fī'al,*) *n.* [Lat. *phiala*; Gr. *phialē.*] A small glass vessel used for holding liquors and medicines. — See VIAL.

—*v. a.* To place or keep in a phial.

Phi'aia, in Palestine. See BANIAS.

Phid'ias, the great Greek sculptor, was B. at Athens, probably between 496–480 B. C. Little is certainly ascertained about the circumstances of his life. He began to distinguish himself about 464, and was employed in public works at Athens under the administration of Cimon. He was one of the most intimate friends of Pericles, under whose rule he was appointed director of all the great temples and monuments which were to be erected in the city. Of these the most important were the *Parthenon*, or temple of Athena, on the Acropolis, and the *Propylæa*. He executed a colossal statue of the goddess for the interior of the temple with his own hand. The well-known *Elgin Marbles* of the British Museum were the sculptured decorations of that unrivalled temple. *P.* spent some years at Olympia, and there he executed the most magnificent of all his works — the statue of the Olympian Zeus. Like the Athena, it was of ivory and gold, was nearly 60 feet in height, although a seated figure, and was deemed the greatest production of Greek art. It was destroyed by fire at Constantinople, whither it had been carried by the Emperor Theodosius. *P.* was charged with peculation, and when the charge broke down, he was accused of impiety on the ground of having introduced portraits of himself and Pericles on the shield of Athene. According to the generally received account he was thrown into prison, and D. there, B. C. 432. This attack was made on him as the friend of Pericles, whom his enemies sought to wound indirectly. The prevailing characteristic of the works of *P.* appears to have been an ideal sublimity of form which has never since been equalled.

Philadelpha'ceæ, *n. pl.* [From *Philadelphus*, one of the genera.] (*Bot.*) An order of plants, alliance *Grossales*. DIAG. Capsular fruit, axile placentæ, disunited styles, and valvate calyx. There are 4 genera, and 25 species, natives of N. America, S. Europe, Japan, and India. See PHILADELPHUS.

Philadel'phia, [Gr. *philos*, I love, and *adelphos*, a brother.] A town of Asia Minor. See ALA SHEHR.

Philadelphia, The metropolis of the State of Pennsylvania, the third city in the U. S., and the ninth in the world in population, is situated between the Delaware and Schuylkill rivers, extending to their point of junction, 96 m. by water route from the Atlantic, 87 m. S. W. of New York city, 136 m. N. E. of Washington, Lat. 39° 57′ N., Lon. 75° 10′ W. The surface is generally level, though rising gradually toward the N., the city limits being the same as those of the county, and embracing an area of 129 sq. m., the city being 22 m. in extreme length, and from 5 to 10 m. in width. About one-eighth of this area is closely built

Fig. 2096.—THE OLD STATE HOUSE.

upon, while in the rural sections are a number of partly-detached towns and villages, and a multitude of handsome suburban residences. The area of *P.* was until recently greater than that of any city in the U. S. except New Orleans, but late accessions of territory by Chicago and New York have given them a larger area. West Philadelphia, the section west of the Schuylkill, once a small suburb, is now a large and thickly settled portion of the city. Germantown, Manayunk, and Frankford form its most important suburbs. They have large and growing populations and many handsome residences.—*Plan.* The city was originally laid out in the form of a parallelogram, with streets extending from river to river, and others crossing them at right angles, its extent being about 2 m. E. and W., and 1 m. N. and S. Market Street, running E. and W., and Broad Street, running N. and S., divided the city into 4 nearly equal portions. For a long time, however, the occupied portion of the city lay near the Delaware, its westward extension taking place but slowly. The original plan has been somewhat closely adhered to in the construction of the newer portions, the only diagonal streets of importance being old country roads which have been invaded by the expansion of the municipal limits. The principal streets average from 50 to 80 ft. in width. Market Street, however, is 100 ft. wide, and Spring Garden Street, Girard Avenue, and others of the new streets are of equal or greater width. Of the north and south streets, Broad Street, 113 ft. wide, opened for a length of 12 m., and paved with asphalt through most of its length, forms one of the finest and most spacious avenues in the U. S., forming a magnificent avenue for carriages and processions. There are on the city plan about 2,000 m. of streets, of which more than 1,300 m. are paved. The old cobble-stone pavements have nearly disappeared, being replaced by Belgian block, asphalt, and vitrified brick pavements, and *P.* is to-day one of the best-paved cities in the U. S. The provision for rapid movement through this widely-extended area is unsurpassed, nearly every one of the main streets having its electric railway, some of which extend far into the suburban districts and for many miles into the adjoining counties. In addition, the steam railroads make their way, largely by elevated or depressed tracks, to the very center of the city, giving rapid access from all points to the vicinity of the City Hall, and providing terminal stations with scarce an equal for size, convenience, and attractiveness in the world. The total length of passenger railways within the city limits is

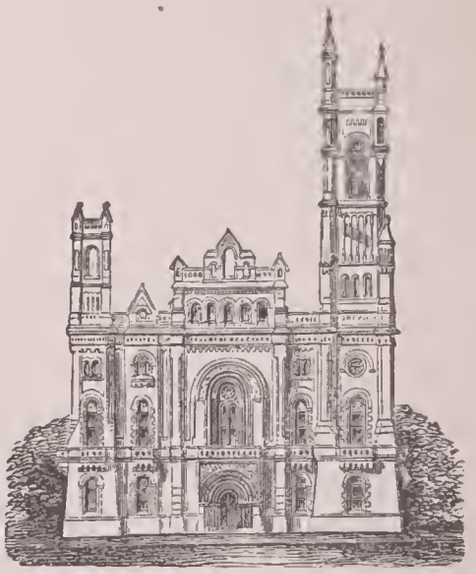


Fig. 2097.—MASONIC TEMPLE.

more than 350 m., and of steam railroads 145 m.—*Dwellings.* *P.* is notably a "city of homes," in which respect it is doubtful if it has its equal in the world. The tenement house, so common elsewhere, is almost absent from its limits, the rule being one house for one family, and no city elsewhere possessing so many comfortable single residences, largely owned by their occupants, great numbers of them being neat two-story structures, each with its bath-room and other modern conveniences. These are mainly built of brick, the long rows of red-brick houses giving the city a monotonous aspect. Of late years, however, other materials have been largely employed, and the architecture has varied, so that in its business and newer residence streets *P.* presents numerous examples of striking and effective architecture. This is notably the case with its public edifices. In 1890 the people of *P.* dwelt in 187,000 houses, a number which has since been added to at the rate of 8,000 to 10,000 yearly, the result being that no other city in the world contains so many comfortable single residences. In the lighting of the streets electricity is rapidly replacing gas, there being more than 5,000 arc lights within the city limits.—*Public Buildings.* *P.* is rich in public and business edifices of fine and often imposing architecture. One of the most striking of these is Girard College, a magnificent example of Corinthian architecture, than which ancient Greece had nothing superior to show. (See GIRARD, and Fig. 1160). The Custom House and Sub-Treasury (formerly the U. S. Bank) is a chaste specimen of Doric architecture, modelled on the Parthenon (Fig. 2102). The City Hall, a great marble edifice in the center of the city, erected at a cost of about $20,000,000, is the largest municipal edifice in America, and the loftiest example of architecture in the world, its height to the top of the Penn statue, which crowns its dome, being 573 ft. The Post Office, of granite, has no superior as a postal edifice; while its U. S. Mint, whose erection began in 1897, is unequalled in its facilities for its special pur-

pose. The State House (Fig. 2096)—"the cradle of American liberty"—a plain brick edifice of antique aspect, yet the most notable building in the U. S., is situated on the Chestnut Street front of Independence Square, and consists of an oblong, two-storied structure, surmounted by a spire furnished with a clock and bell. On its first floor is INDEPENDENCE HALL, a large apartment decorated with quaint carvings, adorned with pictures of famous Americans, and containing many of the chairs used by the Congress of 1776, when from this Hall issued the memorable Declaration of American Independence. In this edifice is kept the most sacred of American treasures, the LIBERTY BELL, and one of its rooms is used as a museum of colonial relics. Other historical monuments are Carpenters' Hall, in which the First Colonial Congress sat; the William Penn Mansion, now removed to Fairmount Park; Christ Church, in which Washington worshipped when President; the Old Swedes' Church, a memento of the early colonial days, and others of less interest. Among the notable edifices of later erection may be named the Masonic Temple, an imposing granite structure without a peer among temples of the order; the Academy of the Fine Arts, containing the pioneer art collection of America; the Academy of Natural Sciences, possessing the oldest and one of the most extensive of natural history museums in this country; the massive Doric structure of the Ridgway Library, the U. S. Naval Asylum, the magnificent Pennsylvania and Reading railroad stations, the Bourse Building, Wagner Institute of Science, Drexel Institute, the buildings of the University of Pennsylvania, and Memorial and Horticultural Halls in Fairmount Park, two handsome souvenirs of the Centennial Exhibition. *P.* is liberally supplied with theaters and places of public amusement. Of these the Philadelphia Academy of Music is one of the first edifices of its kind in the U. S. The hotels, including the Continental, Girard, Lafayette, Aldine, Colonnade, Walton, Stratford, &c., are among the best conducted in the Union. Many of the public and private edifices are very attractive, including the Union League and other club buildings, many handsome banking, newspaper and other business edifices, libraries, hospitals, office buildings, &c. In many of these edifices the recent custom of building lofty iron-framed structures has been followed, and *P.* possesses many striking examples of this class of edifices, all of them far overtopped by the lofty spire of the City Hall. The ecclesiastical architecture of the city presents many striking examples of architecture, such as the Roman Catholic Cathedral, the Jewish Synagogue, Rodef Shalom, St. Mark's (Prot. Episcopal), Keneseth Israel Synagogue, Grace Baptist Church, and numerous others. The environs of the city comprise many handsome cemeteries, such as Laurel Hill, Woodland, Mount Vernon, Mount Moriah, Glenwood, &c. Of the buildings connected with the social wants of the community are the gas and water-works, prisons, Almshouse, House of Correction, &c. The institutions devoted to benevolent purposes include the Pennsylvania, Episcopal, German, St. Joseph's, City, Philadelphia, University, Jefferson, Jewish, Presbyterian, Germantown, Orthopædic, and Woman's Hospitals; Wills Hospital for the treatment of the eye, Preston Retreat, or Lying-in Hospital, houses of industry, several dispensaries, asylums for the insane and feeble-minded, Blind Asylum, Widows' Asylum, Christ Church Hospital, Burd Asylum, Deaf and Dumb Asylum, Colored Orphan Asylum, Union Benevolent Association, Western House of Employment, News Boys' Home, Humane Society, Eye and Ear Infirmary, Magdalen Asylum, House of the Good Shepherd, and numerous other charitable and philanthropic institutions. The public establishments applying to the intellectual and artistic requirements of the Philadelphians are on a corresponding scale of magnitude and efficiency. The University of Pennsylvania, possessing the oldest medical college in the U. S., founded in 1765, has long been celebrated for the superior advantages it offers to students from all quarters of the Union. The Jefferson Medical College is a younger, but widely known institution. The Woman's, Hahnemann, Medico-Chirurgical, and other medical colleges, the Philadelphia College of Pharmacy, and several dental colleges add to the advantages offered by the city for professional education.—*Libraries, Museums, &c.* *P.* possesses the oldest public library in America, the Philadelphia Library, founded by Benjamin Franklin, and incorporated in 1742, and containing about 175,000 volumes. The imposing Ridgway Library building, with its contents, is a branch of this institution. The Mercantile Library possesses approximately an equal number of volumes, though much less rich in treasures of the literary past. The Public Library of Philadelphia, of late origin, has already gained the largest annual circulation of any public library in the country. The city is about to erect for it a $1,000,000 building, and it has a valuable endowment left by the will of the late George S. Pepper. There are many smaller libraries, and several valuable scientific and professional ones, such as those of the Franklin Institute, the Academy of Natural Sciences, the Philosophical Society, the College of Physicians, the Pennsylvania Historical Society, the Law Association, the University of Pennsylvania, &c. Of the museums and art collections of older date many be named those of the Franklin Institute, the Academy of Natural Sciences, and the Academy of the Fine Arts. More recent are the Museum of Industrial Art and the gallery of paintings in Memorial Hall; the Museums of Pathology and Archæology, at the University; the Builders' Exchange and Bourse museums of manufactures; and the recent institution known under the collective name of the Philadelphia Museums, and comprising a Commercial, an Economic, and an Educational Museum. The two former of these are displayed, and present a collection of raw and manufactured

Fig. 2098.—WASHINGTON MONUMENT, FAIRMOUNT PARK.
Erected by the Society of the Cincinnati, and dedicated May 15, 1897.

materials nowhere surpassed, and looked upon as of national importance. The collection of educational material is no less important and comprehensive. These invaluable collections will probably soon be installed in a building expressly erected for them by the city.—*Parks.* The city is abundantly provided with small parks. Of these William Penn provided for 5 in the original plan (of which the central one is now occupied by the City Hall). Several others were subsequently added, and recently 26 others, with a total area of 477 acres, have been laid out in all parts of the city. To these must be added the famous Fairmount Park, of nearly 3,000 acres in extent, which for picturesque beauty has no counterpart among the parks of the world. Through its midst, for 5 m., flows the Schuylkill river, bordered by attractive bluffs and ravines, while in its Wissahickon extension it possesses miles of scenery as wild and grand as that of a mountain ravine. This great pleasure ground has 150 m. of carriage and footways, is abundantly wooded, ornamented with many fine examples of art, chief among them being the costly and magnificent statue of Washington donated by the Society of the Cincinnati, and possesses the handsome Memorial and Horticultural Halls, the latter surrounded by a handsome landscape garden and containing a remarkably fine collection of tropical and semi-tropical plants, forming probably the most complete public conservatory in the country.—*Gas and Water.* *P.* owns its own gas-works, which are extensive, but not very economically administered. The daily manufacturing capacity of the works is about 20,000,000 cubic ft. Its water supply, principally drawn from the Schuylkill river, is large, the present pumping capacity being nearly 400,000,000 gallons daily, and the storage capacity of the reservoirs 1,400,000,000 gallons.—*Navigation.* The facilities for navigation possessed by the city are excellent, the Delaware having a frontage of 20 m. within the city limits, of which more than 5 m. are occupied by continuous wharves. On the Schuylkill to Fairmount Dam there are 8 m. of navigable water, and 4 m. of wharfage on the 2 sides of the stream. The Delaware is broad and deep opposite the city, and the islands which formerly occupied the center of the river have been removed, greatly improving the harbor facilities. The wharf lines are in process of extension into the stream, deepening the water at the pier heads, and affording wharfage for the largest vessels. The shoals of the Delaware, which prevent heavily loaded vessels of large tonnage from reaching the city, are being removed, with the purpose of providing a low-tide channel of 26 ft. throughout its course. The Schuylkill is crossed by about 18 bridges, some of them strikingly handsome, while a railroad bridge spans the Delaware in the upper section of the city.—*Commerce.* The facilities for ocean navigation, and the many railroads which enter the city, notably the extensive Pennsylvania Railroad and its branches, present highly favorable opportunities for commercial activity, and *P.* possesses a large and important internal and foreign trade. At one time its commerce was the most extensive of any city of the country, and though this is no longer the case, it still possesses a commerce, foreign and domestic, of nearly $400,000,000. The coal, petroleum, and grain trade are very extensive; the city is connected by lines of steamship with the principal Atlantic and Gulf ports, and with Liverpool and other European ports; while the Pennsylvania Railroad gives it direct communication, via Pittsburg, with the Mississippi valley, and enables it to extend its trade throughout the wide West. The Reading and Lehigh Valley Railroads supply iron and coal in cheap abundance, to which fact is due the location of a U. S. navy yard at League Island, at the mouth of the Schuylkill.—*Manufactures.* It is, however, rather as a manufacturing than as a commercial city that *P.* stands prominent, it being one of the leading manufacturing cities of the world, while almost every imaginable class of goods is produced within its limits. The value of the annual product is fully $600,000,000, and the capital employed in manufacture more than $300,000,000. This city is the greatest center of the carpet manufacture in the world, and it has the largest of all locomotive works, and the finest and most extensive plant for construction of war vessels on the Western Continent. Of the substances produced, the most prominent are iron and steel goods, woollen, worsted, and upholstery fabrics, and refined sugar, one-third of all the sugar sent to the Atlantic ports being landed here. *P.* also receives over 40 per cent. of all the petroleum exported from the country, and has very extensive refining factories.—*Educ.* The facilities for education are very great, *P.* possessing one of the best systems of public schools in the Union, and with abundant provision for high, normal, and industrial education. Over $10,000,000 are invested in school property, while, in addition to the public school system, there are numerous endowed educational institutions, including the Girard College, Drexel Industrial Institute, Cahill Roman Catholic High School, the schools of the Franklin Institute, Spring Garden Institute, and Industrial Arts institution; the School of Design for Women, and the Academy of Fine Arts school of art; Temple College, Wagner Institute of Science, the Williamson Free School of Industrial Arts (outside the city limits), numerous private schools, theological seminaries and professional schools, and to crown the educational system, the University of Pennsylvania, instituted as a college in 1755, and now one of the most flourishing educational institutions in the country, with about 250 instructors, 2,750 students, and a library of 135,000 volumes.—*Govt.* The city government is largely directed by the mayor through various departments, while the legislative branch consists of a select council of 35 members (one for each ward), elected for 3 years, and a common council, elected for 2 years. The judiciary embrace 12 judges of the courts of common pleas, and judges of the orphans' courts

sach elected for 10 years.—*Hist.* *P.* was located and planned by William Penn, as the chief city of his province of Pennsylvania, and was first settled by a colony of English "Friends." The name, which signifies *Brotherly Love*, was given by Penn, both in reference to the ancient city of the same name in Asia Minor and as an expression of his religious sentiments. In 1701, he granted the town a charter of privileges which constituted it a city. It early became a place of importance, and long remained the leading city in the U. S. Franklin, who dwelt in it during most of the 18th century, originated many of its institutions, such as its library, fire department, &c. The First Continental Congress met here in 1774, and Congress continued to sit there during most of the Revolution, though of course absent

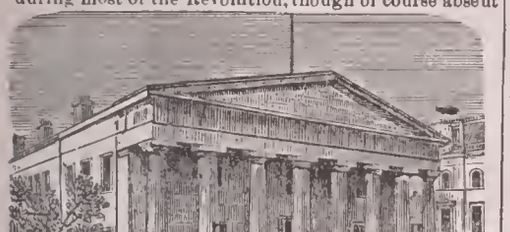


Fig. 2102.—CUSTOM HOUSE.

during the interval of British occupation, from Sept., 1777, to June, 1778. *P.* was the seat of the U. S. government from 1790 to 1800. The Bank of Pennsylvania was established in 1780, the U. S. Mint in 1792, the U. S. Bank about the same time, the Philadelphia Agricultural Society in 1785 and the Pennsylvania Horticultural Society in 1827, both being the earliest of their kind in this country. Of late events may be named the Centennial Exhibition of 1876, the celebration of the adoption of the Constitution in 1887, and the Peace Jubilee of 1898. *Pop.*, 1890, 1,064,964; 1900, 1,293,697.

Philadel'phia, in *Iowa*, a village of Van Buren co., about 8 m. N. of Keosauque.

Philadelphia, in *Mississippi*, a post-village, cap. of Neshoba co., about 80 m. E.N.E. of Jackson.

Philadelphia, in *Missouri*, a post-village of Marion co., abt. 95 m. N.N.E. of Jefferson City.

Philadelphia, in *New York*, a post-village and township of Jefferson county, about 20 miles north-east of Watertown.

Philadel'phian, *a.* [Gr. *philadelphos*, from *philos*, friendly, loving, and *adelphos*, brother.] (*Geog.*) Pertaining to Philadelphia, or to Ptolemy Philadelphus.

—*n.* A native or inhabitant of Philadelphia.

(*Eccl. Hist.*) One of the Family of Love. See LOVE (FAMILY OF).

Philadelphus, (*fil-ă-del-fus,*) *n.* (So called because it attaches itself to whatever is near.) (*Bot.*) The *Syringa*, a genus of plants, order *Philadelphaceæ*. The Large-flowered Syringa, *P. grandiflorus* (Fig. 2103), a native of the S. States, is cultivated in shrubberies. The flowers somewhat resemble those of the orange in appearance and odor; hence the plant is called the mock-orange. The odor is due to the presence of a volatile oil, which may be readily obtained from the flowers by distillation with water. The leaves have a cucumber flavor.

Fig. 2103.
LARGE-FLOWERED SYRINGA.

Phi'læ, an island of Upper Egypt, in the Nile, above the first cataract, 6 m. S.S.W. of Asswan. It is only 400 yards long, but contains some fine remains of antiquity.

Philan'der, *v. n.* [Gr. *philandros*, fond of men.] To flirt; to coquet; to trifle; to make love in an airy, affected manner.

Philanthrop'ic, Philanthrop'ical, *a.* Relating to philanthropy; benevolent; humane; exhibiting love for mankind.

Philanthrop'ically, *adv.* In a philanthropic manner; with philantropy; benevolently.

Philanthrop'inism, *n.* A peculiar educational system founded on so-called natural principles, set afoot in Germany during the 18th century.

Philan'thropist, *n.* [Fr. *philanthrope*, from Gr. *philos*, loving, and *anthropos*, man.] One who practises or advocates philanthropy; one who wishes well to his fellow-creatures, and who exerts himself in doing good.

Philanthropist'ic, *a.* Relating to a philanthropist; characteristic of or derived from a philanthropist.

Philan'thropy, *n.* [Fr. *philantropie.*] The love of man or of mankind; benevolence towards the human race; practical humanity of disposition.

Philemon AND BAUCIS. See BAUCIS.

Phile'mon, EPISTLE TO. One of the canonical books of the New Testament, and one of the Epistles written by St. Paul. See PAUL, (ST.)

Philesia'ceæ, *n. pl.* (*Bot.*) A small and unimportant order of twining shrubs, class *Dictyogens*. They are natives of Peru. See PHILESIA.

Philharmon'ic, *a.* [Gr. *philos*, loving, and *harmonia*, harmony.] Loving harmony or music.

Philhellen'ic, *a.* Professing or exhibiting love for Greece.

Philhel'lenist, Philhel'lene, *n.* [Gr. *philos*, a friend, and *Hellēn*, a Greek.] A lover of Greece, especially one who espoused the Greek cause during the war of independence.

Phil'ibeg, *n.* Same as FILLIBEG, *q. v.*

Phil'ip, the name of 5 kings of Macedon, the most celebrated of whom was PHILIP II., father of Alexander the Great, and son of Amynthas II., a. 359 B. C. He was brought up at Thebes, and educated by Epaminondas, and began to reign after the death of his brother, Perdiccas III., in 359. With great ability, energy, and success, he first secured the internal peace and order of his kingdom, improved the discipline of his army, and created the famous *phalanx*, which contributed to so many Macedonian victories. He cherished vast schemes of conquest; aspired first to make himself master of all the states of Greece, and then to invade and conquer Persia. The siege and capture of Amphipolis, Pydna, and Potidæa took place between 358–356. Four years later, after taking Methone, and subduing Lycophron, tyrant of Pheræ, he advanced towards Greece, but his course was stayed at Thermopylæ by the Athenians. The same year Demosthenes delivered the first of his famous orations (*Philippics*) against the Macedonian conqueror. Philip took Olynthus in 347, after a war of three years; soon after made peace with the Athenians, conquered Phocis, and closed the Sacred War, and was admitted into the Amphictyonic Council. In 340 he besieged Perinthus and Byzantium, but the Athenians, roused by the successive appeals of their great orator, and alarmed by facts, sent an expedition under Phocion, and Philip had to raise the sieges in the following year. But the crisis of Greek independence was at hand; the victory of Chæronea, over the allied Athenians and Thebans, 338, made Philip master of Greece. He soon after assembled a congress at Corinth, and was named general of the Confederate Greeks in the war to be undertaken against Persia. But in 336 he was assassinated at Ægea, and that war was reserved for his son.

Philip, emperor of Rome, was B. in Arabia about 204, and having entered into the military service of the Romans, became prætorian præfect 243. The emperor Gordian was compelled to receive him as a colleague on the throne by the army which had conquered Sapor, king of Persia; and in the following year, 244, Philip assumed the whole authority by putting his rival to death. He was killed in battle by the soldiers of Decius, 249.

Philip, emperor of Germany, was the second son of Frederick Barbarossa. He was B. 1178, became king of Suabia and Tuscany after the death of his father, 1190, and emperor after the death of his brother, Henry VI., 1198. He was assassinated 1208, and succeeded by Otho IV.

Philip I, [Fr. *Philippe,*] king of France, son of Henry I. and Anne of Russia, was B. 1052, and succeeded to the throne under the guardianship of Baldwin V., count of Flanders, 1060; died, after a troubled reign, mixed up with the affairs of William the Conqueror, 1108.

PHILIP II., surnamed *Augustus*, son of Louis VII. and of Alix, daughter of Thibault, count of Champagne, was B. 1165, succeeded his father 1180, accompanied Richard Cœur de Lion to the Holy Land, 1190, invaded Normandy during Richard's captivity, 1193, confiscated the possessions of King John in France, after the supposed murder of Arthur, 1203, prepared to invade England at the instance of the pope, 1213, turned his arms against Flanders, and gained the celebrated battle of Bouvines, 1214, and D. 1223. Philip Augustus was one of the ablest princes that ever reigned in France, both as a commander and an administrator.

PHILIP III., called the *Hardy*, was the son of Louis IX. and Margaret of Provence. He was B. 1245, and succeeded his father 1270. In 1271 he possessed himself of Toulouse on the death of his uncle Alphonso; in 1272 he repressed the revolt of Roger, count of Foix, and in 1276 sustained a war against Alphonso X., king of Castile. The invasion of Sicily by Peter of Aragon, and the massacre of the French, known as the "Sicilian Vespers," caused him to make war against that prince, in the course of which he died, 1285.

PHILIP IV., called the *Fair*, or Handsome, son of the preceding by his first wife, Isabella of Aragon, was B. 1268, and succeeded his father 1285. He was engaged in wars with the English and Flemings, and in a quarrel with the Pope, in the course of which he was excommunicated. In 1303 the States-General were first assembled. In 1312 he suppressed the Templars (see MOLAI); D. 1314. He was an able but most despotic sovereign.

PHILIP V., called the *Long*, second son of the preceding, was B. about 1293, and succeeded to the throne in virtue of the Salic law, which excluded the daughter of his brother Louis X., who died in 1316. In his reign a cruel persecution began against the Jews, in the midst of which he died, 1322.

PHILIP VI., called *De Valois*, was son of Charles, count of Valois, a younger son of Philip the Hardy. He was B. 1293, and succeeded Charles le Bel, 1328. In his reign occurred the wars with Edward III. of England, who claimed the French crown, as grandson, by his mother, of Philip the Fair. *P.* lost the battle of Cressy in 1346, when 30,000 men, and the chief of his nobility, were slain. He D. during a truce with the English, 1350.

Phil'ip I., king of Spain, surnamed the *Handsome*, B. 1498, was the son of Maximilian I., emperor of Germany; and by his marriage with the heiress of Ferdinand V., king of Aragon, and Isabella, queen of Castile, he obtained the Spanish crown. D. 1506.

PHILIP II., king of Spain, son of the emperor Charles V. and Elizabeth of Portugal, B. at Valladolid, 1527. Of a cold and gloomy nature, he was educated by ecclesiastics, who did their best to make him both a bigot and a despot, and his reign an inexorable crusade against political and religious freedom. He married, in 1543, his cousin Mary of Portugal, who became the mother of Don Carlos, and D. in 1545. (See CARLOS, DON.) In 1554, he received from his father the kingdom of Naples, and the same year, after troublesome negotiations, married Mary, queen of England. He was disliked in England, and soon quitted it. His father gave up to him the Netherlands in October, 1555, and the kingdom of Spain early in the following year. He declared war on France, and induced Queen Mary to join him; won, by his troops under the duke of Savoy, the memorable victory of St. Quentin over the French, in 1557, and was present in person at the capture of the town, which followed. He vowed never to witness another battle; and he never did. He vowed also to show his gratitude for his success by building a monastery, which he more than fulfilled in the magnificent Escurial. A second victory over the French at Gravelines, in 1558, was followed by the peace of Cateau-Cambresis. Immediately on his return to Spain, he began a terrible persecution of "heretics," and was the pitiless spectator at an *auto-da-fé* at which 40 persons perished at the stake. The most momentous event of his reign was the revolt of the Netherlands, first excited by his edict against heretics, and his attempt to establish the Inquisition there in 1565, and resulting, after long years of war and desolation, in the establishment of the Dutch Republic. During this conflict, the successive governors of the Netherlands under *P.* were his sister Margaret (duchess of Parma), the duke of Alva, Don Luis de Requesene, Don Juan of Austria, and Alexander Farnese (duke of Parma). In 1565, he persecuted the Christian Moors of Granada, and provoked a revolt, which began in 1569; and after the greatest atrocities on both sides, ended by the flight or submission of the Moors in 1571. On the death of Henry, king of Portugal, in 1580, *P.* conquered that country and annexed it to Spain. He made immense preparations for an invasion of England; and in 1588, the year after Drake's attack on Cadiz, his great fleet, which he named "the Invincible Armada," sailed from Lisbon; but a great storm and contrary winds damaged and threw it into disorder, and it was defeated by the English. *P.* carried on intrigues in France against Henry III. and Henry IV.; but his aim was defeated by the conversion of the latter to the Roman faith. *P.* died at the Escurial, after severe sufferings, the fruit of his debaucheries, Sept. 13, 1598. He had lived to see the failure of his designs on the Netherlands, on France, and on England. It was *P.* II. who removed the seat of government from Toledo, and made Madrid the capital of Spain.

PHILIP III., king of Spain, son of Philip II. and his fourth wife, Anne Mary of Austria, was born in 1578. He succeeded his father in 1598, and the following year married the Princess Margaret of Austria, by whom he had 7 children. He continued the war in the Netherlands; and his general Spinola took Ostend in 1604, after a siege of 3 years. But these successes were too costly, and *P.* was compelled to recognize the independence of the United Provinces, and to make a truce with them in 1609. The king was indolent, and took little part in the government, and his favorite and prime minister, the duke of Lerma, had little capacity for his task. One of the most memorable, and for Spain most disastrous, of his measures was the expulsion of the Moors,—industrious farmers and traders, most of them. Whole provinces were depopulated. D. 1621.—From the reign of this king the decline of the Spanish nation may be dated.

PHILIP IV., king of Spain, son of Philip III. and Margaret, was B. at Valladolid, in 1605, married Elizabeth, daughter of Henry IV. of France, and succeeded his father in 1621. He chose for his first minister the Count of Olivarez, whose ambitious policy and despotic administration brought so many calamities on the kingdom. War was renewed with the Dutch, and only ended at the peace of Westphalia; war with France began in 1635, and lasted till 1659, when the peace of the Pyrénées was concluded, and the Infanta Maria Teresa was married to Louis XIV.; and a formidable revolt broke out in Catalonia, which was finally reduced by Don Juan in 1652. It was in the third year of this reign that the strange visit of Prince Charles of England, with the Duke of Buckingham, to Madrid took place, for the purpose of wooing the Infanta. Portugal threw off the yoke of Spain in 1640, and war followed, which was terminated by the victory of the Portuguese at Villaviciosa, in June, 1665. This last of the long series of losses and calamities broke Philip's heart, and he died in September of the same year. His queen Elizabeth died in 1644, and five years after he married the princess Mary Anne, daughter of the emperor Ferdinand III., who long survived him. It is said that *P.* was only seen to smile three times in his whole life. The great painter Velazquez was court-painter to *P.* IV.

Phil'ip V., Duke de Anjou, the second son of Louis, dauphin of France, and of Mary Anne of Bavaria, b. 1683, assumed the title of king of Spain in 1700, by virtue of the will of Charles II. His claim, however, was contested by the house of Austria, in favor of the Archduke Charles. This produced the great War of the Spanish Succession, in which Austria was supported against France and Spain by England, Holland, Savoy, Portugal, and Prussia. The beginning of this war was very disastrous to *P.*, who lost Aragon, Gibraltar, and the islands of Minorca and Majorca, also Sardinia and the kingdom of Naples. The victories of the Duke de Vendôme, and those of Marshal Villars in Flanders, confirmed *P.* on the throne, and restored peace to Europe by the treaty of Utrecht, in 1713. The war was renewed in 1717, and the Spanish fleet was defeated in the Mediterranean by Sir George Byng. Peace was restored in 1720, after which *P.* became a victim to confirmed melancholy, and in 1724 abdicated the throne to his son Louis, and retired to a monastery. Louis died a few months after, of the small-pox, and *P.* was compelled to resume the government. His subsequent conduct was characterized by greater spirit and judgment. In 1733, he entered into an alliance with France against the Emperor, and his son Don Carlos conquered Sicily and Naples, of which he became king. In 1734, the royal palace was burnt, and a great number of fine paintings destroyed. In 1736 peace was concluded; but a new war broke out in 1739. D. 1745.

Phil'ip, King. See Massachusetts.

Phil'ip, the Good, Duke of Burgundy, one of the most powerful sovereigns of his time, was son of John "Sans-Peur," and was b. at Dijon in 1396. He succeeded on the assassination of the duke, his father, 1419, and at once formed an alliance with Henry V. of England, and joined in the treaty of Troyes, which declared Henry regent and heir of France. He fought on the English side for several years, and gave his sister Anne in marriage to the Duke of Bedford. But jealousy and dissension arose, and *P.* abandoned the English alliance, and his reconciliation with Charles VII. of France was effected at the great Congress of Arras, 1435, attended by legates of the Pope and the Council of Basle, and ambassadors from almost all the states of Christendom. He had married, in 1434, for his third wife, Isabella of Portugal, in whose honor he instituted the Order of the Golden Fleece, long the highest in Christendom. *P.* extended his dominions by the conquest of Brabant, Holland, and Hainault, but revolts broke out in several of the great towns, which were only suppressed by the most severe measures. The town of Dinant especially was besieged, stormed, burnt to ashes, and all its inhabitants massacred, *P.* being present to see this act of vengeance. He d. at Bruges, June 15, 1467, and was succeeded by his son, Charles the Bold.

Philip, (St.,) one of the twelve apostles, was a fisherman of Bethsaida, a city of Galilee, on the lake of Genesareth, when he was called by Jesus Christ. Ecclesiastical historians relate that he was married and had several children, and that he preached the gospel in Phrygia. He is enrolled among the martyrs by some ancient writers. He is not to be confounded with Philip the Deacon, mentioned in the Acts, who converted the eunuch of Candace, Queen of Ethiopia. Suffered martyrdom at Hierapolis, it is supposed about 80.

Phil'ippeville, a fortified town of Algeria, on the Gulf of Stora, 35 m. W. of Bona.

Philip'pi, (*Anc. Geog.*) A city in the E. extremity of Macedonia, where the army of Brutus and Cassius was defeated by that of Octavius and Antony, B. C. 42, thus ending the republican government. Here, too, St. Paul first preached the gospel on the continent of Europe, A. D. 52. The site is now strewn with ruins.

Philip'pi, in W. *Virginia*, a post-village, cap. of Barbour co., abt. 88 m. S.S.E. of Wheeling.

Philip'pic, *n.* The title of several orations of Demosthenes against Philip, king of Macedon, the spirit and animosity of which has caused the name to be transferred to similar compositions by other orators. Thus, Cicero gave this name to the orations which drove Marc Antony from Rome, and compelled the senate to prosecute the war against him after the murder of Julius Cæsar.

Philippine Islands (*fil'-ip-in*). An extensive group of islands, lying between China and Borneo, and extending through more than 16 degrees of latitude—from 4° 25′ to 21° N., and from longitude 117° to 127° E.—their total land area being estimated at about 114,000 sq. miles. This area is mainly made up by the two large islands Luzon and Mindanao, while there are about ten others of some importance, and very many small islands, supposed to number 1,000 or more. Most of the islands are mountainous, the soil is fertile, and the climate variable, the temperature being tropical but not intense. *Products.* Sugar, tobacco, rice, and Manila hemp are the leading products; others are coffee, indigo, cocoanuts, cinnamon, and fruits. There is a great variety and abundance of excellent timber. The principal minerals are iron, coal, sulphur, and gold. The industries are mainly agricultural, cigar-making being the principal manufacture. Sugar, hemp, and tobacco are the chief exports. The inhabitants are divided into over 80 tribes, mainly of Malay origin, some of them in a savage state, but the largest tribes civilized. The capital and principal city is Manila (Fig. 1702), in the island of Luzon.

History. The Philippines were discovered by Magellan in 1521, and fell under the dominion of Spain. Many insurrections broke out against the Spanish rule, which was unjust and oppressive, the last of these beginning in 1896. In 1898, during the war between the United States and Spain, a Spanish fleet was sunk in the harbor of Manila and the city was taken by the Americans. In the subsequent treaty of peace the Philippines were ceded to the United States. Early in 1899 the Filipinos began a war for independence, under the leadership of Emilio Aguinaldo, a native of Luzon and the leader in the late insurrection. By the end of the year their armies were defeated and dispersed, but they retired to the mountains and an annoying guerilla war succeeded, which continued until 1901. In March of that year Aguinaldo was captured by a clever ruse, brought to Manila, and there convinced of the hopelessness of the struggle. In consequence he took the oath of allegiance to the United States and advised those still in arms to surrender. Many of the leaders accepted his advice, and the struggle seemed at an end. Meanwhile a commission had formulated a system of government which gave the Filipinos a large measure of self-rule, while American industry and energy promised to bring to the Islanders an unprecedented era of prosperity. A promising future seems dawning for the Philippines.

Philippo'poll, a town of European Turkey, in Macedonia, on a small island formed by the Maritza, 86 m. from Adrianople. *Manuf.* Woollen, silk, and cotton fabrics, leather, tobacco, and soap. *Pop.* 40,000.

Phil'ips, in *Arkansas*, an E. co., adjoining Mississippi; *area*, about 650 sq. m. *Rivers.* Mississippi and St. Francis rivers, besides many less important streams. *Surface*, generally level; *soil*, fertile. *Cap.* Helena. *Pop.* (1890) 25,341.

Phil'ipsburg, in *New Jersey*, a city of Warren co., about 40 m. N.W. of Trenton. *Pop.* (1895) 9,0[illegible].

Phillpsburg, in *Ohio*, a village of Jefferson co., abt. 75 m. N.E. by N. of Marietta.

Philipsburg, in *Pennsylvania*, a post-borough of Center co., about 28 m. W. of Bellefonte. *Pop.* (1897) 3,450.

Phil'ip's River, in *New Hampshire*, enters the Androscoggin River from Coos co.

Phil'lsburg, or Grande Baie, a village of the Island of St. Martin, W. Indies, cap. of the Dutch portion; *pop.* 2,400.

Philistine, (*-tin.*) *n.* (*Geog.*) One of the Philistines, *q. v.* — In England, a cant term for a bailiff or sheriff's officer. — In Germany, a Philister.

Phil'istines, *n. pl.* This ancient people, descended from Ham, the son of Noah, emigrated at a very early date from Egypt into Syria, called after them Philistia, and afterwards Palestine, though they possessed only the portion on the S. coast bounded by the hilly countries of Ephraim and Judah, and extending S.W. to the confines of Egypt. Their chief city, Gaza, is mentioned as early as B. C. 2218. They reduced the Israelites to subjection B. C. 1156 (*Judges* xiii. 1), but were compelled to set them at liberty by Samson, who destroyed their chief nobility by pulling down the temple where they were assembled, B. C. 1117 (*Judges* xvi. 30). In the time of Eli, B. C. 1116 (1 *Sam.* iv. 11), they seized the ark of the Lord, which they were compelled to restore by the miraculous plagues it brought upon them; and they sustained a severe defeat from Samuel at Mizpeh, B. C. 1096 (1 *Sam.* vii. 2–13). In the reign of Saul they harassed the Israelites (1 *Sam.* xiv. 52), and the death of that monarch occurred while fighting against them in Mount Gilboa, B. C. 1055 (1 *Sam.* xxxi. 4). David gained several victories over the Philistines, and Jehoshaphat made them tributary to him, B.C. 912 (2 *Chron.* xvii. 11). In the reign of Jehoram they invaded Judah, and carried away the king's wives and sons into captivity, B. C. 887 (2 *Chron.* xxi. 17). They again invaded Judah, and took Bethshemesh and Ajalon, B. C. 740 (2 *Chron.* xxviii. 18). Their country was invaded by the Assyrians and the Egyptians, who took their strong city of Ashdod. Pompey incorporated Philistria in the Roman province of Syria, B. C. 62.

Philis'tinism, *n.* Manners or habits of the ancient Philistines.

Phil lips, in *Maine*, a post-township of Franklin co., *pop.* abt. 2,000.

Phil'lpsburg, in *New York*, a village of Orange co., abt. 110 m. S.S.W. of Albany.

Phillipsburg, in *Pennsylvania*, a borough of Beaver co., abt. 28 m. N.W. of Pittsburg.

Phil'lpsburgh, a village of Missisquoi co., Upper Canada, abt. 52 m. S.E. of St. John's.

Phil lipsite, *n.* (*Min.*) A lime-Harmotome found in white translucent crystals near the Giant's Causeway, and in minute flesh-colored crystals in amygdaloid at Mageo Island, Londonderry, at Vesuvius, &c. It was named after William Phillips the mineralogist.

Phil'lpsport, in *New York*, a post-village of Sullivan co., abt. 90 m. S.S.W. of Albany.

Phil'lpston, in *Massachusetts*, a post-township of Worcester co.

Phil'lpstown, in *Illinois*, a post-village of White co., abt. 165 m. S.E. of Springfield.

Phillipstown, in *New York*, a township of Putnam co.

Phil'lp's Village, in *Maine*, a village of Franklin co., abt. 55 m. N.W. of Augusta.

Phill's Creek, in *Illinois*, a township of Jersey co.

Phillyre'a, *n.* (*Bot.*) A genus of European evergreen shrubs, order *Oleaceæ*, introduced from the region of the Mediterranean, and much used for planting in shrubberies. There are two or three species and several varieties, all of close bushy habit, and with neat persistent foliage.

Phil'lo, in *Illinois*, a post-village of Champaign co.

Phillocar'pine. See Jaborandi.

Philog'yny, *n.* [Gr. *philos*, loving, and *gynē*, woman.] Uxoriousness.

Philolog'ic, Philolog'ical, *a.* Pertaining to philology, or to the study and knowledge of language.

Philolog'ically, *adv.* In a philological manner.

Philol'ogist, Philol'ogue, *n.* A critic; a grammarian; one versed in philology.

Philol'ogize, *v. n.* To criticise.

Philol'ogy, *n.* [Gr. *philologia*, from *philos*, loving, and *logos*, discourse.] In antiquity this word was used to designate the whole circle of the sciences, considered, not with respect to their respective subject-matters, but to the language in which they were conveyed. A philologist was one who studied or taught the elegance of diction, as applicable to every branch of human learning; nor can the meaning of the designation be very accurately distinguished from that of the γραμματικός, or grammarian; while sometimes the term *philology* was usurped in a wider sense, so as to comprehend learning in general. After the revival of letters, the word was introduced into modern European languages, but in a much more restricted signification. It then comprehended grammatical criticism and etymology, and some branches of archæology; and as these studies were almost confined to the ancient languages, and other relics of classical antiquity, which alone were then studied in a scientific manner, the only philologists were the learned investigators of the Greek and Latin idioms and literature. Commentaries on ancient authors, etymological works, and glossaries of their language, grammars, &c., were then the class of writings usually denominated philological; and although the field of philology, considered in this sense, is now more extensive, as the modern European and non-European languages have also become the subjects of accurate investigation, it is with this general meaning that the word has chiefly been used by English writers. It is defined by Johnson, *criticism, grammatical learning.* In this popular sense philology may be said to embrace: 1. Etymology, or the science of the origin of words; 2. Grammar, or the science of the construction of language in general and of individual languages; 3. Literary criticism, or the investigation of merits and demerits in style and diction. Of late years, however, a new and very extensive province has been added to the domain of philology; viz., the science of language in a more general sense, considered philosophically with respect to the light it throws on the nature of the human intellect and progress of human knowledge; and historically, with reference to the connection between different tongues, and the connection thus indicated between different nations and races. In this sense the term comprehends: 1. *Phonology*, or the knowledge of the sounds of the human voice; which appears to include orthography, or the system to be adopted when we endeavor to render, by our own alphabet, the sounds of a foreign language; 2. *Etymology*; 3. *Ideology*, or the science of the modification of language by grammatical forms, according to the various points of view from which men contemplate the ideas which words are meant to express.

Philome'la, Phil'omel, *n.* [Lat. and Gr. *Philomela*, the name of a daughter of Pandion, king of Athens, who was transformed into a nightingale.] (*Zoöl.*) A genus of birds, order *Insessores*, of which the *Nightingale*, *q. v.*, is the type.

Philomu'sical, *a.* [Gr. *philos*, loving, and *musikē*, music.] Having a love for music.

Philope'na, [Low Ger. *vielliebken*, much loved.] A small present made in accordance with a custom said to have been introduced from Germany. A person who in eating almonds, finds one containing two kernels, presents one of them to a person of the opposite sex, and whichever, when they next meet, shall first say *Philopena*, is entitled to receive from the other a present bearing this name.

Philopœmen, (*fil-o-pē'men,*) called *the last of the Greeks*, was really their last great commander. He was born in Arcadia, B. C. 253, became, in 210, generalissimo of the Achaian League, and conquered the Spartans — at which time he abolished the laws of Lycurgus. The greatest of his victories in this long struggle was the battle of Mantinea. He was put to death by poison when a prisoner of the Messenians, B. C. 183, the same year that proved fatal to Hannibal and Scipio.

Philopolem'ic, Philopolem'ical, *a.* [Gr. *philos*, fond, and *polemos*, war.] Having sway over antagonistic natures: — an epithet of Minerva.

Philoprogen'itiveness, *n.* [Gr. *philos*, loving, and Lat. *progenies*, offspring.] (*Phren.*) Love of offspring.

Philos'ophaster, *n.* [Lat., a bad philosopher.] A spurious philosopher.

Philos'opher, *n.* [Gr. *philosophos*, from *philos*, and *sophos*, wise, *sophia*, wisdom.] A person versed in philosophy, or in the principles of nature and morality; one who devotes himself to the study of physics, or of moral or intellectual science; one who is profoundly versed in any science.

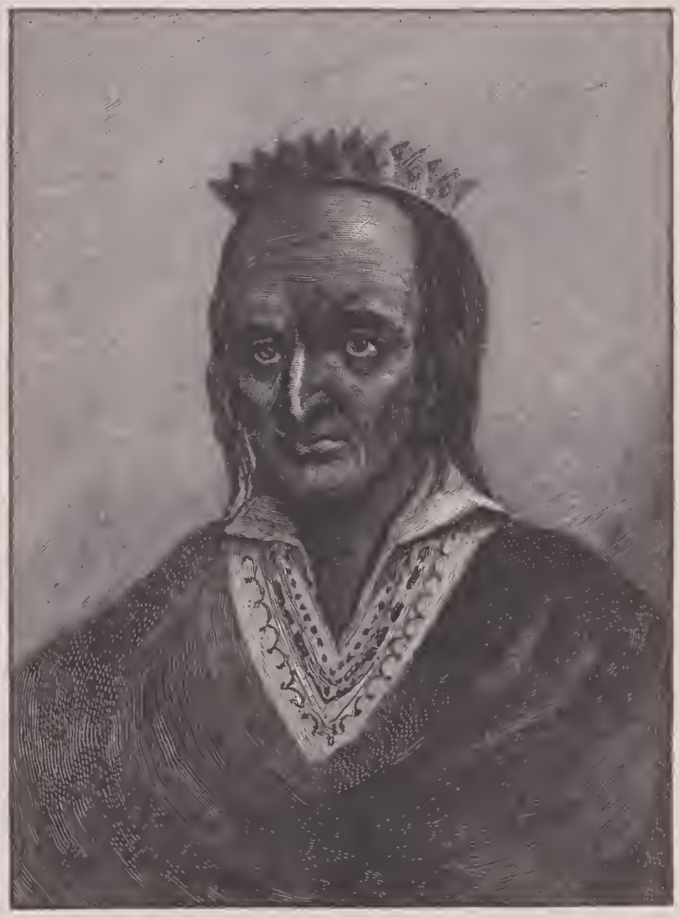
Philosoph'ic, Philosoph'ical, *a.* Pertaining to, or proceeding from philosophy. —Regulated by philosophy or the rules of reason; calm; temperate; rational; such as characterizes a philosopher.

Philosoph'ically, *adv.* In a philosophical manner; calmly; wisely; rationally.

Philosophis'tic, Philosophis'tical, *a.* Pertaining to the practice of sophistry.

Philos'ophize, *v. n.* To reason like a philosopher; to search into the reason and nature of things; to investigate phenomena, and assign causes for their existence.

Philos'ophizer, *n.* One who philosophizes.



King Philip

1630(?)–1676

PHILIPPINE ISLANDS

SCALE OF MILES
0 20 40 60 80 100

Railroads

Submarine Cables

Size of type indicates relative importance of places

BATAN AND BABUYAN ISLANDS
SAME SCALE AS LARGE MAP

FORMOSA (To Japan)
Bachi Channel
IBAYAT
BATAN ISLANDS
IBUGOS
BATAN
SABTAN
Balingtang Channel
BALINGTANG IS.
BABUYAN
CALAYAN
DALUPIRI
BABUYAN ISLANDS
BIJUTAN
BARI
FUGA
CAMIGUIN
C. Bojeador
Claveria
C. Engano
PALAUI I.
Bangui
Abulug
Aparri
ILOCOS NORTE
CAGAYAN

MANILA
SCALE OF MILES
0 ½ 1

Tondo
Sampaloc
San Nicolas
Guia
Sta. Cruz
Binondo
Sa Miguel
INTRAMURO
Pasig R.
S. Felipe
Paco
Sta. Ana
Ermita
Malate
Pasay
MANILA BAY

PACIFIC OCEAN
SEA OF LUZON
SULU SEA
CELEBES SEA
VISAYAN SEA

LUZON
MINDORO
PANAY
NEGROS
CEBU
BOHOL
LEYTE
SAMAR
MASBATE
CAPIZ
ILOILO
MINDANAO
DAVAO
COTABATO
MISAMIS
SURIGAO
PALAWAN
JOLO
BASILAN
TAWI TAWI

CAGAYAN
ISABELA
NUEVA VIZCAYA
ABRA
ILOCOS SUR
LEPANTO-BONTOC
BENGUET
NUEVA ECIJA
TARLAC
PANGASINAN
ZAMBALES
PAMPANGA
BULACAN
RIZAL
BATAAN
CAVITE
LAGUNA
TAYABAS
BATANGAS
ILOILO
ANTIQUE
CAPIZ
AKLAN
OCCIDENTAL NEGROS
ORIENTAL NEGROS
CEBU
BOHOL
LEYTE
SAMAR
MASBATE
SORSOGON
ALBAY
CAMARINES SUR
CAMARINES NORTE
TAYABAS
LAGUNA
CAVITE
BATAAN
ZAMBALES
PANGASINAN
LA UNION
ILOCOS SUR
ILOCOS NORTE
CAGAYAN
ISABELA
NUEVA VIZCAYA
ABRA
LEPANTO-BONTOC
BENGUET
NUEVA ECIJA
TARLAC
PAMPANGA
BULACAN
RIZAL
MORO GULF
DAVAO GULF
MOLUCCA PASSAGE
MINDORO STRAIT
VERDE ISLAND PASSAGE
SAN BERNARDINO STRAIT
MINDORO STRAIT
SULU (JOLO) ARCHIPELAGO

Aparri
Tuao
Tuguegarao
Alcala
Amulung
Solano
Lallo
L. Cagayan
Calayan Viejo
Cabagan Nuevo
Tamauini
Ilagan
Cauayan
Echague
Dingadanan
Bontoc
Cervantes
Candon
Vigan
Narvacan
S. Maria
Santa
Banguet
Dolores
Tagudin
Namagpacan
Balaoang
S. Juan
San Fernando
Bauang
Naguilian
Baguio
Agoo
Bolinao
Lingayen
Urdaneta
Dagupan
Binalonan
Calasiao
Dasol Bay
Santa Cruz
S. Carlos
Moncada
Panique
Camiling
Gerona
Tarlac
Capas
Concepcion
Mt. Arayat
Angeles
S. Fernando
Bacolor
Calumpit
Malolos
Baliuag
Meycauayan
Malabon
Manila
Cavite
Bacoor
Imus
Binan
Santa Cruz
Calamba
Los Baños
Mauban
Mahayhay
Lucena
Tayabas Bay
Macalelon
Gumaca
Atimonan
Lopez
Mts. Lopez
Dumaguete
Cabadbaran
Surigao
Tandag
Lianga
Bislig
Davao
Digos
Malita
Sarangani Bay
Pt. Sarangani
Cape San Agustin
Balut I.
Sarangani Is.
Mangsee Is.
Cagayan Sulu I.
Tawi Tawi
Sibutu
Sibutu Passage
Balabac
Balabac Strait
Palawan
Puerto Princesa
Calauit I.
Busuanga
Coron
Calamianes Islands
Cuyos Is.
Cagayancillo
Cagayan de Sulu
Tubbataha Is.
Sandakan
British North Borneo
Labuan
Brunei Bay
Kudat
Jesselton
Tawao
Sibuco Bay
Illana Bay
Basilan Strait
Zamboanga
Isabela de Basilan
Pagadian
Dapitan
Misamis
Iligan
Cagayan
Oroquieta
Ozamis
Dipolog
Surigao Strait
Leyte Gulf
Carigara Bay
Ormoc Bay
Visayan Sea
Sibuyan Sea
Romblon
Tablas
Cajidiocan
Odiongan
Mangarin
Bulalacao
Mindoro Strait
Batangas Bay
Balayan Bay
Tayabas Bay
Lamon Bay
Ragay Gulf
Lagonoy Gulf
Sorsogon Bay
San Bernardino Strait
Ticao Pass
Burias Pass
Verde Island Passage
Mariveles
Corregidor
Subic
Olongapo
Port Subic
Hingonor
Poilillo
Polillo Strait
Infanta
Palasan
Painanongan
Jomalig
Calaguas Is.
Paracale
Indan
Mambulao
Daet
Mt. Labo
Mt. Malinao
Mt. Isarog
Mt. Iriga
Mt. Mayon
Libmanan
Nueva Caceres
Calabanga
Naga
Pasacao
Gulf of Ragay
Libon
Milinao
Tobaco
Bacacay
Legaspi
Albay
Virac
Catanduanes
Pandan
Bato
Gigmoto
Pt. Bondoc
S. Pascual
Gulnpatan
Burias
Masbate
Sorsogon
Gubat
Bulan
Bulusan Vol.
Pambujan
Catarman
Catubig
Oquendo
Calbayog
Tacloban
Carigara
Leyte
Baybay
Ormoc
Palompon
Cabalian
Maasin
Sogod
Bato
Hilongos
Hindang
Inopacan
Hilongos
Naval
Biliran
Kawayan
Almeria
Culaba
Caibiran
Tarangnan
Catbalogan
Borongan
Guiuan
Salcedo
Lanang
Basey
Samar
Calbiga
Villareal
Paranas
Gandara
Sulat
Lawaan
Dolores
Taft
Arteche
Giporlos
Guiuan
Homonhon
Suluan I.
Dinagat
Surigao
Placer
Tandag
Cantilan
Lanuza
Tago
Bislig
Lianga
Hinatuan
Lingig
Butuan
Cabadbaran
Buenavista
Jabonga
Kitcharao
Nasipit
Agusan
Talacogon
Veruela
Loreto
Prosperidad
Trento
Esperanza
Bunawan
Talomo
Davao
Santa Cruz
Digos
Bansalan
Malita
Sarangani
Glan
Kiamba
Maasim
Alabel
Polomolok
Tupi
Koronadal
Marbel
Tantangan
Lake Buluan
Cotabato
Dulawan
Pikit
Pagalungan
Parang
Buldon
Malabang
Balabagan
Lumbatan
Lake Lanao
Dansalan
Iligan
Linamon
Kolambugan
Tubod
Lala
Kauswagan
Kapatagan
Sultan Dumalondong
Pantar
Tagoloan
Jasaan
Cagayan
Oroquieta
Ozamis
Misamis
Plaridel
Sinacaban
Aloran
Baliangao
Lopez Jaena
Clarin
Bonifacio
Calamba
Jimenez
Tudela
Sapang Dalaga
Ipil
Siocon
Zamboanga
Basilan
Isabela de Basilan
Malamaui I.
Tawi Tawi
Sibutu
Bongao
Simunul
Sitangkai
Languyan
Tandubas
Siasi
Jolo
Maimbung
Patikul
Indanan
Parang
Talipao
Pata I.
Tapul I.
Lugus I.
Bubuan I.
Sibutu I.
Sibutu Passage
Balabac Strait
Balabac
Bugsuk
Pandanan I.
Cagayan de Sulu
Tubbataha Is.
Cagayancillo
Cuyos Is.
Calamianes Islands
Busuanga
Coron
Calauit I.
Culion
Linapacan
Imuruan B.
Tay Tay
Quenan
Dumaran
Araceli
Dumaran
Malcampo
Babuyan
Calayan
Camiguin
Fuga
Claveria
Abulug
Aparri
Palaui I.
C. Bojeador
C. Engano
Bachi Channel
Balingtang Channel
Babuyan Islands
Batan Islands
Batan
Ibayat
Ibugos
Sabtan
Balingtang Is.
Formosa (To Japan)
Luzon Strait
To Hongkong
To Guam Hawaii and San Francisco
Fuga I.
Camiguin I.

Hammond's 8 x 11 Map of Philippine Islands
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Longitude 122 East from Greenwich 124

PHILIPPINE ISLANDS.

Area land surface sq. m..115,026
Area water surface sq.m 717,942
Pop.....7,635,426

PROVINCES.

Abra.....C 2
Albay. ... ...D 4
Ambos Camarines D 3
Antique.....D 5
Basilan.....D 7
Bataan.....C 3
Batangas.....C 4
Benguet.....C 2
Bohol. .....E 6
Bulacan.. .....C 3
Cagayan.....C 2
Capiz .....D 5
Cavite... ... .C 3
Cebu .... D 5
Cotabato .....E 7
Dapitan.....D 6
Davao. .....E 7
Ilocos Norte...C 1
Ilocos Sur.....C 2
Iloilo..... ....D 5
Isabela.... ....C 2
Jolo... .....C 8
La Laguna....C 3
Lepanto-Bontoc C 2
Leyte .....E 5
Marinduque...C 3
Masbate.....D 4
Mindoro.....C 4
Misamis... ....E 6
Negros Occideutal D 5
Negros Oriental D 5
Nueva Ecija..C 3
Nueva Vizcaya C 2
Pampanga ...C 3
Pangasinan....C 3
Paragua..... B 6
Rizal.....C 3
Romblon.....D 4
Samar.....E 4
Sorsogon.....D 4
Surigao .....E 6
Tarlac .....C 3
Tawi Tawi.....C 8
Tayabas .....C 3
Umon..... ..C 2
Zambales.....C 3
Zamboanga...D 7

CITIES-TOWNS

Pop. Thousands.

219 Manila.....C 3
39 Bauan.. ....C 4
37 Lipa .. ... C 4
35 Argao.....D 6
34 Laoag.. ...C 1
33 Batangas...C 4
31 Carcar .....D 5
31 Barili.....D 5
31 Cebu.....D 5
27 S. Carlos....C 3
25 Sibonga ..D 5
25 Camiling...C 3
22 Baybay.....E 5
22 San Pablo..C 4
22 Damanjug..D 5
21 Tobaco ....D 4
21 Lingayen...C 2
21 Dalaguete..D 6
21 Hagonoy...C 3
20 Pototan....D 5
20 Janiuay... D 5
20 Miagao ....D 5
20 Urdaneta...C 3
20 Dagupan...C 2
20 TambobongC 3
20 GuinobatanD 4
19 Narvacan...C 2
19 Batac.....C 1
19 Iriga ...D 4
19 Tuburan ...D 5
19 Lubao.....C 3
19 Iloilo.....D 5
18 Nabua.....D 4
18 Candon.....C 2
18 Daraga.....D 4
18 Capiz. .....D 5
18 Tananan .. E 5
18 Aparri.....C 1
18 Bnrauen ...E 5
18 Loon..... ..D 6
17 Nueva Caceres D 4
17 Ligao.. ....D 4
17 Taal ... .C 4
17 Palo..... E 5
17 Libmanan..D 4
16 Naga.....D 5
16 Maasin.....E 5
16 Manaoag ..C 3
16 Calasiao....C 2
16 Cabatuan..D 5
16 Binmaley ..C 3
16 Cadiz.....D 5
16 Carigara....E 5
16 Santa Cruz C 3
16 Cuyapo.....C 3
16 Danao.....D 5
16 Ormoc. ... E 5
16 TuguegaraoC 2
16 San Fernando C 2
16 Ilagan.....C 2
15 Baliuag.... C 3
15 Calbayog...E 4
15 Magaldau..C 3
15 Boac.....C 3
15 San Fernando D 5
15 Dingras....C 1
15 Silay.....D 5
15 Gubat.....E 4
15 Tubigon....D 6
15 Oroquieta..E 6
15 Santa Barbara D 5
14 Victoria....D 5
14 Vigan .....C 2
14 San Miguel.C 3
14 Bogo.....D 5
14 DumaguetoD 6
14 Dulag.....E 5
14 Ibajay.....D 5
14 Tayabas .. C 3
14 Daan-Bantayan D 5
14 Bacarra....C 1
14 Binalonan..C 3
14 Malasiqui ..C 3
14 Talisay.....D 5
14 Calivo .. .D 5
14 Bakon.....E 4
14 Oton .... ..D 5
14 Mambajao. E 6
14 Guiljugan..D 6
14 Macabebe ..C 3
14 Panay .....D 5
14 San Joaquin D 5
14 Batan ... ..D 5
14 Jinigaran..D 5
14 Bacacay....D 4
14 Camalig....D 4
14 Albay .....D 4
14 Aloguinsan D 5
13 Calumpit ..C 3
13 Borongon . E 5
13 Talisay . ...D 5
13 Gerona ....D 5
13 S. FernandoC 3
13 Sorsogon...E 4
13 Basey.....E 5
13 Bacolor ....C 3
13 Mexico .....C 3
13 Bulan .....E 4
13 Daet.....D 3
13 Calape .....D 6
13 Bantayan . D 5
13 Saravia ....D 5
13 Jagna .....E 6
13 La Carlota..D 5
13 Moncada...D 5
12 Paniqui ....D 5
12 Bangued ...C 2
12 Toledo .....D 5
12 Imus .....C 3
12 Arayat .... C 3
12 Mangatarem C 3
12 Cavancalan D 5
12 Isabela .....D 5
12 Cuyo.....C 5
12 Santa Cruz.C 2
12 Paoay .....C 1
12 Vallasis C 3
12 Concepcion D 5
12 Pagamis....E 5
12 Malolos.... C 3
12 Badoc .....C 2
12 Hilongos...E 5
12 Sibalon ....D 5
12 Sariaya ....C 3
12 Malinao.... D 4
12 Dumangas D 5
12 Barugo ....E 5
12 Tarlac .... D 5
12 Opon .....D 5
12 Apalit.....C 3
12 Escalante..D 5
12 Pandan ... D 5
12 Austruis ...D 5
12 Dingle .....D 5
12 Siquijor....D 6
12 Maubau ... C 3
12 Gandara ...E 5
12 Inabanga.. E 6
11 Bacolot.....D 5
11 Aliaga ....C 3
11 Tacloban...E 5
11 Tanjay .....D 6
11 Naguilian..C 2
11 San Juan ..C 4
11 Maribojoc..E 6
11 Candaba ...C 3
11 Malabuyoc.D 5
11 Moalbual...D 5
11 Navotas ....C 3
11 Guiuan.... E 5
11 Bulican ....C 3
11 Indang.....C 3
11 Oas..... .D 4
11 Sara.....D 5
11 Langaran..E 6
11 JimamailanD 5
11 Pasig .....C 3
11 Gapan.....C 3
11 San Juan...C 2
11 Atimonan . C 3
11 Lemery ....C 4
11 Namagpacan C 2
11 Bugason ...D 5
11 BayambangC 3
11 Mandaue...D 5
11 Jaro.....E 5
11 Malitbog...E 5
11 Guagua.....C 3
11 Pozorubio..C 3
10 Colasi.....D 5
10 Badian . ..,D 5
10 Bacoor..... C 3
10 San Nicolas C 1
10 Santa MariaC 3
10 Loboc .....E 6
10 Jaro.....D 5
10 Agoo.....C 2
10 Angeles ....C 3
10 Ginatilan..D 5
10 San Luis ...C 3
10 Balamban..D 5
10 Medellin ...D 5
10 Valladolid .D 5
10 Minglanilla D 5
10 Guindulman D 6
10 Oras.....E 5
10 Tayup.....C 3
10 Santa Barbara C 3
10 Alaminos...C 3
10 Infanta.....C 3
10 Leon..... D 5
10 Lucban .... C 3
10 Nagcarlan..C 2
10 Palompon..E 5
10 Manapla....D 5
10 Tagbilaran.D 6
10 Romblon...D 4
10 Santa MariaC 2
10 Santo Domingo.C 2
10 Siaton.....D 6
10 Bauang.... C 2
10 Liloan.....D 5
10 San Fabian.C 3
10 Balaoan....C 2

Philos'ophy, *n.* [Fr. *philosophie*, from Gr. *philos*, loving, and *sophia*, wisdom.] Literally, a love of wisdom or knowledge. The origin of the term is attributed to Pythagoras, who, in place of calling himself *sophos*, a wise man, assumed the more modest title of a lover of wisdom. The term was commonly used to include the three great branches of knowledge: viz., physics, ethics, and dialectics or metaphysics. In the present day, *P.* is used rather indefinitely in several senses. All *P.* is knowledge, but all knowledge is not philosophy. Knowledge is of two kinds,—1, the knowledge of a thing is called historical or empirical knowledge,—the knowledge of the fact; and 2, the knowledge why or how a thing, is called philosophical, scientific, rational knowledge,—the knowledge of the cause. Philosophical knowledge, then, in its widest sense, is the knowledge of effects as dependent on their causes; and hence all sciences occupied in the research of causes may be viewed as so many branches of *P.* In a more limited sense, the term philosophy is used to denote the science of mind by way of preëminence, as being the highest of all knowledge. In fact, there are not a few of the special sciences that can only be considered as the science of mind, in particular aspects, or in special applications; and there are none of them that do not suppose it as their preliminary, and borrow from it their light. Thus logic is the science of the laws of thought: ethics, the science of the laws which govern our moral nature; politics, the science of man in his social and civil relations. The fine arts have their foundation in the theory of the beautiful; and even religion, theology itself, is not independent of the same *P.* *P.* appears to have flourished in India and China in the most remote ages; and the earliest authentic histories of the Egyptians and Assyrians represent their priesthood as highly versed in natural and speculative science, which they used to strengthen their power over the superstitious and the ignorant. Greek philosophy comprises the following schools:—the Academic, Alexandrian, Aristotelian or Peripatetic, Cynic, Cyrenaic, Eclectic, Eleatic, Epicurean, Ionic, Megarian, Peripatetic, Platonic, Pythagorean, Socratic, and Stoic. The philosophy of the Romans was derived from that of the Greeks, but never attained equal celebrity. Domitian expelled all the philosophers from Rome in 90. Mediæval philosophy commences with Bœtius, born about 475. The Scholastic school originated in the 9th century, and for many years was the only system of orthodox philosophy. During the 10th century the influence of Arabian learning was felt throughout the civilized world, and Cordova became celebrated as a seat of learning. The Speculative school commenced about 1520, and the inductive method of Lord Bacon was published in the treatise on the *Advancement of Learning*, in 1605. In more modern times, German thinkers have been specially active in the more speculative domains of thought; French and English in the practical applications of philosophical conceptions. Kant perhaps stands first among these for the depth and logical consistency of his thought, while Descartes, Locke, Heime, Hegel, Schelling, Comte, Spencer, and others have attained eminence. Spencer's system, unlike those of his predecessors in general, is based almost wholly on the results of scientific demonstration, a fact which has given it a strong hold on this actively scientific age.

Philter, (*fil'tr.*) *n.* [Fr. *philtre*; Lat. *philtrum*, from Gr. *philtron*, from *phileo*, to love.] A drug or preparation supposed by the ancients to have the power of exciting love. Nothing certain is known respecting the composition of these potions; but their operation was so violent that many persons lost their lives and their reason by their means. The Thessalian philters were in the highest celebrity. (*Juv.* vi. 610.)

—*v. a* To impregnate with a love-potion.—To charm by love; to excite to love or animal desire by a prepared potion.

Phimosis, *n.* [Gr. *phimōsis*, from *phimos*, muzzle.] (*Med.*) A constriction of the extremity of the prepuce, so close and firm as to prevent its being drawn back.

Phipps'burg, in *Maine*, a post-village and twp. of Sagadahoc co., abt 40 m. S. of Augusta.

Phiz, (*fiz,*) *n.* [A contraction of *physiognomy.*] The face or visage. (In sport or contempt.)

Phlebi'tis, *n.* [Gr. *phleps*, *phlebos*, a vein.] (*Med.*) Inflammation of the inner membrane of a vein.

Phlebog'raphy, *n.* [Gr. *phleps*, a vein, and *graphē*, description.] (*Med.*) A description of the veins.

Phleb'olite, *n.* [Gr. *phleps*, a vein, and *lithos*, stone.] (*Med.*) A loose concretion, varying in size from that of a currant to that of a pea, occasionally found in the veins.

Phlebol'ogy, *n.* [Gr. *phleps*, a vein, and *logos*, a discourse.] (*Med.*) That part of anatomy which treats of the veins.

Phlebor'rhage, Phleborrha'gia, *n.* [Gr. *phleps*, *phlebos*, vein, and *ragē*, rupture.] (*Med.*) Rupture of the veins.

Phlebot'omist, *n.* One who practises the art of phlebotomy; a blood-letter.

Phlebot'omize, *v. a.* To let blood.

Phlebot'omy, *n.* [Fr. *phlebotomie*; Gr. *phlebotomia*, from *phleps*, *phlebos*, a vein, from *phleo*, to gush, to overflow.] (*Surg.*) The act or practice of cutting or opening a vein for letting blood; blood-letting.

Phlegm, (*flem.*) *n.* [Gr. *phlegma*, *phlegmatos*, flame, inflammation, from *phlego*, to turn.] (*Physiol.*) Among the ancient physicians this was regarded as one of the four primary humors of the body. Phlegm is a viscid mucus, expectorated from the throat and fauces in colds and bronchial affections. Scientifically, the word phlegm is used in the sense of nervous and sanguineous, to express a peculiar temperament or condition of the body, a *phlegmatic* or *phlegmatical temperament* being regarded as a cold, dull, apathetic state of mind and body.

—Dullness; coldness; sluggishness; indifference; apathy.

Phlegmat'ic, *a.* [Fr *phlegmatique.*] Abounding in phlegm; as, a *phlegmatic* humor.—Generating phlegm; as, a *phlegmatic* substance.—Not easily excited into action or passion; dull; sluggish; cold; as, a *phlegmatic* person.

Phlegmat'ically, *adv.* Coldly; heavily; in a phlegmatic manner.

Phleg'mon, *n* [Gr. *phlegmonē*, from *phlegein*, to burn.] (*Med.*) Inflammation of the areolar texture.

Phlegmonous, *a.* Having the nature or qualities of phlegmon.

Phlegon, (*fle'gon,*) surnamed the Trallian, from Tralles, in Caria, his birthplace. He was the freedman of Adrian, and wrote a *History of Marvellous Things*; also a *History of the Olympiads*, part of which is extant. He is said to have mentioned the darkness at our Saviour's crucifixion. This passage caused a controversy between Whiston, Chapman, and others, in the 18th century. The best edition of his remains is that of Westermann, 1839. Flourished in the 2d century.

Phle'um, *n.* [Gr. *phleos.*] (*Bot.*) A genus of plants, order *Gramnaceæ*, remarkable for the close cylindrical form of the spike-like panicles. *P. pratense* is the Timothy, Cat's-tail grass or Herd's-grass, perhaps the more valuable of all grasses. It is extensively cultivated in this country, and is probably native.

Phlogistian, *n.* [Fr. *phlogisticien.*] One who believes in the existence of phlogiston.

Phlogis'tic, *a.* [Fr. *phlogistique.*] (*Chem.*) Partaking of phlogiston.

(*Med.*) Inflammatory; sthenic.

Phlogis'ticate, *v. a.* To associate phlogiston with.

Phlogistica'tion, *n.* Act or process of combining with phlogiston.

Phlogis'ton, *n.* [Gr., from *phlogistos*, from *phlox*, *phlogos*, a flame.] (*Chem.*) An imaginary substance, which was regarded by old writers as the basis of all fire, and the principle of combustion.

Phlor'izin, *n.* (*Chem.*) A substance extracted from the root-bark of the apple, pear, plum, and cherry tree; *Form.* $C_{21}H_{24}O_{10}$. It crystallizes readily, is slightly bitter, and, when boiled with dilute acids, yields grape-sugar and a resinous substance called *phloretine* ($C_{15}H_{14}O_5$). When exposed to the joint influence of air and ammonia, it forms a red compound, called *phloridzeine*, which combines with ammonia to form a purple mass, which dissolves in water with a fine blue color.

Phlox, (*floks,*) *n.* [Gr. *flame.*] (*Bot.*) A highly ornamental N. American genus of plants, order *Polemoniaceæ*, distinguished by its leaves mostly opposite, sessile, simple, entire; flowers in terminal corymbs or panicles. As usually happens with popular flowers, the species themselves, once cultivated for their own sakes, have given way before the more showy hybridized varieties, and at the present day are rarely met with, the garden phloxes being all productions of the florist, and of a most ornamental character. A few well-marked dwarf-habited sorts are still grown as rock-plants; and *P. drummondii*, which has sported into a variety of beautiful colors, is one of the most showy of cultivated annuals.

Phoca, (*fō'ka,*) *n.* (*Zoöl.*) See SEAL.

Phocacean, *n.* (*Zoöl.*) An animal of the genus *Phoca*; a seal.

Phocal, (*fō'kal,*) *a.* Belonging, or relating to the seal.

Pho'cas, emperor of the East, was at first a centurion in the army of the emperor Maurice. In 602 he took advantage of the grievances and discontent of the soldiers to get himself elected emperor; a revolt at Constantinople followed, and Maurice and his five sons were murdered at Chalcedon, whither they had fled. *P.* was of low origin, and of equally low nature; ignorant, cowardly, and cruel, with no ambition as sovereign, but to indulge the more freely in lust and drunkenness. The empress Constantina, accused of conspiracy, was tortured, and with her three daughters beheaded at Chalcedon; and numberless meaner victims perished without trial, and amid refinements of cruelty and torture. Yet *P.* was acknowledged both in the East and West, and his image, with that of his wife, Leontia, were set up in the Lateran by Pope Gregory, who stooped basely to flatter him. Chosroes, king of Persia, declared war on him and conquered several provinces of the empire, and at length the tyrant was overthrown and the empire delivered by Heraclius, son of the exarch of Africa, who led an expedition to Constantinople in 610. *P.* was seized, put in chains, tortured, and beheaded, and his body burnt.

Phocenic, (*-sēn'ik,*) *a.* (*Chem.*) Belonging, or relating to, or obtained from, phocenine;—said of a certain acid.

Phoce'nine, *n.* [Fr., from Gr. *phokaina*, a porpoise.] (*Chem.*) An adipose substance formed in the oil of the porpoise. When liquefied, it yields a volatile odorous acid called *phocenic acid.*

Phocidæ, *n. pl.* (*Zoöl.*) The seal family. See SEAL.

Phocion, (*fō'shi-on,*) a celebrated Athenian general and statesman, was B. about 400 B. C. He was a disciple of Plato and Xenocrates, served under Chabrias at the naval battle of Naxos, and became subsequently head of the peace party at Athens, steadily opposing Demosthenes and all bold patriots who were ready to fight for the independence of their country against the Macedonian invaders. He was a brave and successful soldier, and was 45 times appointed general; his private character was above suspicion, and that alone saved him from the infamy which his political course deserved. He was twice sent on embassies to Alexander the Great, and acquired his friendship. He is said to have advised that Demosthenes and other leading men should be given up to the Macedonians. When Athens was occupied by Polysperchon, *P.* fell one of the first victims to the enemies of his country whom he had aided. He was tried and sentenced to death, and met his end with philosophic composure, B. C. 317.

Phocœ'na, *n.* (*Zoöl.*) See DELPHINIDÆ.

Phœbus, (*fē'bus,*) *n.* [Lat., from Gr. *phoibos*, bright.] (*Myth.*) A son of APOLLO, *q. v.*

Phœni'cia. [Gr. *Phoinikē*, from *phoinos*, purple, or *phoinix*, palm-tree; Heb. *kanaan*, low land.] *P.*, in its largest sense, designated a narrow strip of country extending nearly the whole length of the E. coast of the Mediterranean Sea, from Antioch to the borders of Egypt. But *P. Proper* was included between the cities of Laodicea, in Syria, and Tyre, comprehending mainly the territories of Tyre and Sidon, and forming then only a part of the country of Canaan. Before Joshua conquered Palestine, this country was possessed by Canaanites, sons of Ham, divided into eleven families, of which the most powerful was that of Canaan, the founder of Sidon, and head of the Canaanites, properly so called, whom the Greeks named Phœnicians, probably from the beautiful purple color known as the Tyrian dye. Some authorities state that Agenor was the first king of *P.*, B. C. 1497; but all agree that the country itself was the seat of a great nation, and renowned for its naval enterprise at a much earlier period. A colony of Phœnicians, led by Elissa or Dido, settled in Africa B. C. 878, and founded Carthage, (*q. v.*) *P.* was invaded by Shalmaneser IV., king of Assyria, B. C. 723; by Nebuchadnezzar, king of Babylon, B. C. 587; and by Cyrus, king of Persia, B. C. 536. The Phœnicians subsequently assisted the Persians in their wars with the Greeks, and sustained a total defeat from Cimon, at the naval battle of the Eurymedon, B. C. 466. They revolted from Persia B. C. 352, and were conquered by Alexander III. (the Great) B. C. 331. After his death, B. C. 323, *P.* was annexed to the dominions of Ptolemy (I.) Soter, king of Egypt. It was seized by Antigonus of Phrygia, B. C. 315, and passed under the protectorate of Tigranes I., king of Armenia, B. C. 83. It formed part of the Roman province of Syria B. C. 62, and was deprived of all its liberties by Augustus, B. C. 20.

Phœnicop'terus, *n.* (*Zoöl.*) See FLAMINGO.

Phœnix, (*fē'niks,*) *n.* (*Myth.*) A fabulous bird of antiquity, which is described as being, in outline and bulk, very like an eagle, and as having part of his plumage gold-colored and part crimson. It was said to live 500 years in the wilderness, and then return to Egypt, where, having built itself a nest, it was consumed, and from the ashes of the old bird sprang its successor. The phœnix has been a fertile subject for the imagination of the poets of all ages; and even by some of the early Christian writers this myth was advanced as evidence of the resurrection.

(*Ast.*) A southern constellation near Achernar.

(*Bot.*) A genus of palms. *P. dactylifera* is the date-palm, one of the most important food-bearing plants. In some parts of Africa and Arabia, dates may be said to form the daily bread of the inhabitants. They are imported into this country, and are here used as an article for the dessert. This tree is the palm commonly referred to in Scripture. Sugar and toddy are prepared from its juice. *P. sylvestris*, the wild-date palm, is the plant from which most of the palm-sugar used in the East is obtained. It is a native of India, where it is said 130,000,000 lbs of sugar are obtained from it annually. *P. farinifera* yields an inferior kind of sago, used as food in some parts of India.

Phœ'nix, in *New York*, a post-village of Oswego co., abt. 150 m. W.N.W. of Albany.

Phœnix, in *Oregon*, a post-village of Jackson co., abt. 8 m. S.E. of Jacksonville.

Phœnix, in *S. Carolina*, a post-vill. of Edgefield dist.

Phœ'nixville, in *Penna.*, a post-borough of Chester co., on the Schuylkill river, about 27 m. N.W. of Philadelphia. *P.* is a place of much business importance, and contains, besides several large cotton and woollen factories, some of the most extensive iron-works in the U. States. Iron-ore is abundant in the vicinity, as well as profitable lead and copper mines.

Pho'larite, *n.* (*Min.*) A hydrated silicate of alumina, resembling kaolin in composition.

Pho'las, *n.*; *pl.* PHOLADIDÆ. (*Zoöl.*) A genus and fam. of marine lamellibranchiate Mollusca, embracing Acalephæ which have the shell open at both ends, thin, white, exceedingly hard, and armed with rasp-like imbrications. Fifty or sixty species are living, and as many more are fossil.

Phonasce'tics, *n. sing.* [Gr. *phonaskein*, from *phonē*, the voice, and *askein*, to practise.] A plan of treatment for the restoration of the voice.

Phona'tion, *n.* The physiology of the voice.

Phonetic, (*fo-nēt'ik,*) *a.* [Gr. *phonetikos*, from *phonē*, a sound.] Relating or appertaining to sound, or to the voice, or their uses.—Representing sounds; as *phonetic* characters;—opposed to *ideographic.*

P. writing. That writing in which the signs used represent sounds; in opposition to *ideographic*, in which they represent objects, or symbolically denote abstract ideas, as in the figurative part of the Egyptian hieroglyphics. The signs representing sounds are usually arbitrary, or at least have become so in process of time; as in the ancient Roman alphabet, of which the letters are for the most part derived from the Hebrew or Phœnician, in which languages they may have originally had a symbolical character. But, in a species of

phonetic writing which is intermixed with the figurative hieroglyphics in Egyptian inscriptions, every letter is denoted by a figure representing some object, the name of which begins with that letter.

Phonet'ically, *adv.* In a phonetic manner.

Phonet'ics, *n. sing.* [Gr. *phōnētikos*, belonging to sound, from *phonē*, sound.] The doctrine or science of sounds — especially of the human voice; the representation of sounds; phonology.
—The art of combining musical sounds.

Phon'ics, *n. sing.* Same as PHONETICS, *q. v.*

Phonocamp'tic, *a.* [Fr. *phonocamptique*, from Gr. *phōnē*, sound, and *kamptein*, to bend.] Having the power to alter sound by inflection of its course.

Pho'nograph, *n.* A distinct letter or character to denote a sound, and invariably one and the same sound in writing. See SECTION II.

Phonog'rapher, Phonog'raphist, *n.* One skilled in phonography.

Phonograph'ic, Phonograph'ical, *a.* Relating to phonography.

Phonograph'ically, *adv.* In a phonographic manner.

Phonog'raphy, *n.* [Gr. *phōnē*, sound, and *graphein*, to write.] A method of writing short-hand, invented by Isaac Pitman, of Bath, in 1837; since that time, however, it has been considerably modified. The system professes to be founded on the analysis of the sounds of the English language; from which circumstance it derives its name. All the consonants are represented by straight lines and curves. In the table given by Pitman, the first sixteen consonants are in pairs, represented by light and by heavy straight lines and curves, corresponding with their relative sounds. Thus the sounds of *p* and *b* at the commencement of the words *pin* and *bin* are made by the same articulations, the lips being first compressed together, and then thrown suddenly apart by the expulsion of the breath. The first is a whispered sound, the latter a sub-vocal, in which the muscles of the larynx are called into play. In *P.*, the *p* is represented by a light line, inclining from left to right; and a *b* by a similarly sloping heavy line. The same principle is applied to the other pairs; *t* and *d* being represented by perpendicular lines, one thin and the other thick. The articulations of the next pair, *ch* and *j*, resemble each other in a similar manner, as in *chest* and *jest*; the same holding good for *k* and *g*, as in *Kate* and *gate*; for *f* and *v*, as in *feel* and *veal*; of the pair marked *th*, as in *thought* and *thus*; of *s* and *z*, as in *seal* and *zeal*; and of *sh* and *zh*, as in *sure* and *azure*. The vowels are represented by dots and short dashes, which are made heavy and light, to represent long and short vowels. Two monthly periodicals in phonographic characters are published in the U. States, where *P.* is the system generally adopted by reporters.

Pho'nolite, *n.* (*Min.*) Same as CLINKSTONE, *q. v.*

Phonol'oger, *n.* A phonologist; a person versed in phonology.

Phonolog'ic, Phonolog'ical, *a.* Pertaining to phonology.

Phonol'ogist, *n.* A phonetist; one learned in phonology.

Phonol'ogy, *n.* [Gr. *phōnē*, sound, and *logos*, discourse.] A treatise on sounds, or the science or doctrine of the elementary sounds uttered in speech.

Pho'notype, *n.* [Gr. *phōnē*, sound, and *typos*, type.] A character employed in phonotypy.

Phonotyp'ic, Phonotyp'ical, *a.* Pertaining to phonotypy.

Phonotyp'ist, *n.* One skilled in phonotypy.

Phonot'ypy, *n.* [Gr. *phōnē*, and *typos*, a type.] A proposed mode of printing in which each sound of the voice shall be represented by a distinct letter or type.

Phor'minm, *n.* [Gr. *phormos*, a basket, alluding to the use made of the plant in its native country.] (*Bot.*) A genus of plants, order *Liliaceæ*. *P. tenax* is a native of New Zealand. The fibre obtained from its leaves has great strength, and is much used for cordage, and, to a limited extent, for linen. It is called New Zealand flax.

Phosgene, (*fos'jēn,*) *a.* [Gr. *phōs*, light, and *gonein*, to produce.] (*Chem.*) Chlorocarbonic acid, so called from the circumstance of its being formed by the action of light on a mixture of carbonic oxide and chlorine.

Phos'phate, *n.* [Fr.] (*Chem.*) A salt formed by the union of phosphoric acid with a salifiable base.

P. of lime. The most important of the phosphates, and the universal basis of all bones and horns, forms the principal constituent of several minerals, and especially of *Apatite*. This mineral, when crystallized, occurs in six-sided prisms, usually of a green or greenish color. The amorphous varieties are used for manure. Apatite usually occurs in crystalline rocks; but it is also found in granular limestone, and sometimes in serpentine.

Phosphatic, (*fos-făt'ik,*) *a.* Belonging, or relating to the phosphates; containing phosphate.

Phos'phenes, *n. pl.* [Gr. *phōs*, light, and *phainein*, to show.] (*Surg.*) A false perception of light, as of sparks, flashes of fire, &c., occasioned by certain conditions of the retina and brain, and by pressure on the eyeball.

Phos'phite, *n.* [Fr.] (*Chem.*) Same as PHOSPHATE, *q. v.*

Phos'pholite, *n.* [Eng. *phosphorus*, and *lithos*, a stone.] (*Min.*) An earth in combination with phosphoric acid.

Phos'phorate, *v. a.* To combine with phosphorus.

Phos'phor-bronze. See SECTION II.

Phospho'reous, *a.* Luminous.

Phosphoresce', *v. n.* To shine, as phosphorus, by exhibiting a faint light, without sensible heat.

Phosphorescence (*fos-for-es'ens*), *n.* [See PHOSPHORUS.] A property which certain bodies possess of becoming luminous under certain conditions, without undergoing combustion. This luminosity is usually faint, and emitted continuously rather than by flashes, for a period varying from a small fraction of a second to several minutes, or even hours. *P.* is observed not only among organized matter, living and dead, but also among a large number of mineral bodies in the solid state, after they have been exposed to extraneous sources of light. Two pieces of quartz on being rubbed together emit light; and a phosphorescent light is seen when two pieces of loaf-sugar are rubbed together in the dark. A variety of blende (sulphide of zinc), on being scratched with a knife, emits a fine yellow light. It has been found that the phosphorescent light of minerals has the same properties as the direct light of the sun. Among those mineral substances which emit light in consequence of the action of extraneous light, the most powerful is Canton's phosphorus. It is formed by mixing three parts of powdered oyster-shells with one part of sulphur, and ramming the mixture into a crucible, and igniting it for about half an hour. On exposure to sunlight, or to ordinary daylight, or to an electrical explosion, the bright parts will acquire the property of shining in the dark, so as to illuminate the dial of a watch, and make its figures legible. When an electrical discharge is passed along the surface of certain bodies, or a little above them, *P.* is produced. Thus sulphate of barytes gives a bright-green light; acetate of potash also a bright-green light; and rock-crystal first a red, and then a white light. Of all luminous organisms, however, the marine animals are the most remarkable; and to them in chief is attributable the general phosphorescence of the ocean. In warm regions and more southerly latitudes, this phenomena often attains a high degree of brilliancy and beauty; and it would appear that all this light emanates from vast numbers of light-giving animalcules. Certain land-insects also, such as the lightning-bug and the glow-worm, emit light. Another kind of *P.* is that which appears during the decomposition of animal and vegetable matter, and especially observable during the putrefaction of fishes.

Phosphores'cent, *a.* [Fr.] Emitting phosphoric light.

Phosphor'ic Acid, *n.* (*Chem.*) An acid produced by the rapid combustion of phosphorus in oxygen or atmospheric air. When the oxygen is perfectly dry, it is obtained as a mere white flocculent but very deliquescent powder, hissing when thrown into water, and forming with it hydrated phosphoric acid. When once dissolved, it cannot again be deprived of its water of hydration, except it be combined with a base. There are three different hydrates of phosphoric acid, each of which forms separate salts with the bases. The first of these, $H_2O.P_2O_5$, is the *monobasic* or *metaphosphoric acid*. It forms with the bases only one class of salts, of which metaphosphate of soda may be taken as the type, $Na_2O\ P_2O_5$. The second, $2H_2O.P_2O_5$, is dibasic, and is known as *pyrophosphoric acid*. It forms two classes of salts with the bases, the soda salts being $NaO.H_2O.P_2O_5$ (acid pyrophosphate), and $2Na_2O.P_2O_5$. The third acid is the *tribasic* or ordinary *phosphoric acid*, $3H_2O.P_2O_5$. It forms three classes of salts—the neutral, common, and acid tribasic phosphates. The soda salts are $3Na_2O.P_2O_5$ (neutral tribasic phosphate), $2NaO.H_2O.P_2O_5$ (ordinary tribasic phosphate), and $NaO\ 2H_2O.H_2O_5$ (acid tribasic phosphate). Besides these three, there are other modifications of phosphoric acid which cannot be described here. *Form.* $H_2O.P_2O_5$.

Phos'phorite, *n.* (*Min.*) A massive native phosphate of lime.

Phos'phorous Acid. (*Chem.*) This acid is produced by placing sticks of phosphorus in tubes open at both ends, the lower aperture being contracted to prevent the phosphorus from falling through. A number of these tubes being placed in a tunnel, the acid, which is highly deliquescent, gradually drains through into the vessel placed beneath. Phosphorous acid is obtained in a pure hydrated form by sending a stream of chlorine through a layer of phosphorus melted under water. Terchloride of phosphorus is formed, and is decomposed at once into hydrochloric and phosphorous acids. Phosphorous acid forms three classes of salts, of which the following are the soda representatives: Na_3PO_4, trisodic salt; Na_2HPO_4, disodic salt, and NaH_2PO_4, monosodic salt. An equivalent of water is essential to the composition of this acid, as of oxygen acids in general, its formula being $H_2O.P_2O_3$.

Phos'phorus, *n.* [Gr. *phosphoros*, from *phos*, light, and *phero*, to bring.] The morning star.

(*Chem.*) *P.* is found in nature only in a state of combination, chiefly in the form of phosphate of lime, which forms the principal constituent of apatite, phosphorite, coprolites, &c. It seems to be essential to the life of plants, and is found to be concentrated in their seeds. It exists in large proportions in the bodies of animals; in the blood, in the urine, in the hair, in the nervous tissues, and in the bones, of which phosphate of lime forms a large constituent. It was first discovered in urine by Brandt, in 1669. It is now, however, extracted from bones. The bones are burned to whiteness in an open fire, and 3 parts of the bone-ash are mixed with 2 of concentrated sulphuric acid, and 18 or 20 of water. The mixture is allowed to stand for two or three days, after which the acid liquid is separated by filtration and pressure. The acid solution, which contains acid phosphate of lime, is evaporated to a syrup, mixed with charcoal, and heated to low redness in an iron pot. When dry, the mass is distilled in an earthen retort, the combustible gases passing out by an opening, and the phosphorus passing through another into water, in which it collects in yellow drops. It is purified by being melted under water and ammonia, and lastly under a solution of bichromate of potash in sulphuric acid. *P.* is a soft waxy-looking solid, burning in the air, and emitting white vapors having an alliaceous odor. Its specific gravity is 1·83 at 50° Fahr. It fuses at 111·5°, and may be distilled unchanged, in close vessels, at 550°. It is insoluble in water, slightly soluble in ether, but more so in naphtha. It is freely dissolved in bisulphide of carbon and chloride of sulphur. It becomes luminous from slow combustion in dry air, and frequently inflames spontaneously. Great care should be taken in handling it, as the slightest friction, when dry, causes it to burst into flame. It may, however, be cut and handled with impunity under water. *P.* is capable of assuming several allotropic forms, the most important of which is that generally known as *amorphous P.* This form may be procured by the process of the discoverer, Professor Schrötter, of Vienna, by heating ordinary phosphorus to 450° or 460° for thirty or forty hours in a current of carbonic acid. Amorphous *P.* is of a dark-purple or brilliant-red, according to the temperature at which it is prepared, and differs from the ordinary kind in being uninflammable by the strongest friction, by being inodorous, unchangeable in the air, and insoluble in the ordinary solvents of phosphorus. If rubbed with chlorate of potash, peroxide of lead, or peroxide of manganese, the slightest friction is sufficient to inflame it. It is restored to the ordinary variety by heating it up to 450° or 500°, when it immediately bursts into flame. It has been applied, with perfect success, to the manufacture of matches. The method adopted by Messrs. Bryant & May in the manufacture of their *safety lights* was to tip the match with a mixture of chlorate of potash and oxide of lead or manganese, the friction-tablet on the box being composed of powdered amorphous *P.*, mixed with fine sand or powdered emery. By this means, the elements necessary for frictional combustion are separated, and the danger arising from the accidental inflammation of the match is entirely done away with. The fearful effects produced on the human frame by the vapor of *P.* are also obviated, the workpeople engaged in the manufacture being free from the attacks of caries of the jawbone, so frequent among the makers of matches by the ordinary process. The making of matches by the ordinary form is, however, still carried on on a large scale, many tons of *P.* being annually consumed for the purpose. Owing to its great affinity for oxygen, a solution of *P.* in bisulphide of carbon is used to reduce silver upon objects about to be electrotyped. *P.* is occasionally used in medicine in the form of the hypophosphites of the different bases. It unites with oxygen in four proportions, forming oxide of *P.*, hypophosphorous acid, phosphorous acid, and phosphoric acid. The two latter are described under their respective headings. There are two oxides of *P.*—P_2O_3 and P_2O_5—formed by burning *P.* in dry air or in oxygen. *Equiv.* 31; *sp. gr.* of vapor, 4·355; *symbol*, P.

Hypophosphorous acid has never yet been obtained in an anhydrous form. It is procured, in a hydrated condition, by boiling *P.* with baryta and water. Hypophosphate of baryta is formed, which may be afterward decomposed by cautiously adding sulphuric acid. Hypophosphorous acid forms an uncrystallizable syrup, with feebly marked acid properties. It is interesting from forming a series of salts much used in medicine. A mixture of the hypophosphites of lime, soda, and iron is known as *chemical food*. The acid itself has a remarkable action on sulphate of copper. If an excess be added to a solution of the last-named salt, and warmed to about 130° Fahr., a solid insoluble hydride of copper is precipitated. With chlorine, *P.* forms a terchloride and a pantachloride; with iodine, a biniodide and teriodide. It also forms a compound with nitrogen, which has not been investigated. It also forms several compounds with sulphur, one of which is remarkable as containing 12 equivalents of sulphur to 1 of *P.* With methyl, ethyl, and several other bodies, *P.* seems to play the part of nitrogen, forming with them substances analogous to the compound ammonias, ethylamine, diethylamine, &c. *Form.* H_3PO_3.

Phos'phuret, or **Phos'phide,** *n.* (*Chem.*) A compound resulting of the direct union of phosphorus with another substance.

Phosphuretted Hy'drogen (*fos'fu-ret-ted*), *n.* (*Chem.*) There are three substances known under this name, having the following formula: P_4H_2 *solid*, P_2H_4 *liquid*, and PH_3 *gaseous*. The latter only needs be described. It may be obtained by boiling fragments of phosphorus in milk of lime, heated in a flask to which a delivery tube is attached. As soon as the gas escapes, it inflames spontaneously in the air, and may be collected over water. It owes its spontaneous inflammability to the formation of a small quantity of the liquid gas P_2H_4, which becomes decomposed by keeping. Its spontaneously inflammable properties may also be destroyed by hydrochloric acid, and restored by an oxidizing agent, such as binoxide of nitrogen. The analogy of this substance to ammonia is remarkable. It unites with hydriodic acid, forming a compound similar to chloride of ammonium. It also unites with the higher oxides of tin, antimony, and other metals, forming white saline compounds. It is frequently called phosphamine from this property.

Phosphyt'trite, *n.* (*Min.*) Phosphate of yttria.

Pho'tius, patriarch of Constantinople in the 9th cent. was a native of that city. He rose to the highest offices of the state before he entered into orders, which took place on the deposition of Ignatius in 857. *P.* was de-

prived in his turn by Basilius in 867, but after living in exile 11 years, he forcibly regained his seat, which he kept till 886, and was then deprived by the Emperor Leo, who sent him into Armenia, where he died. His *Bibliotheca* contains the substance of nearly 300 ancient authors. He had great talents, but was fond of intriguing, and it was principally through his conduct that the separation of the Eastern and Western churches took place.

Pho'tizite, *n.* A mixture of silicate and carbonate of manganese.

Photochem'ical, *a.* Relating to the chemical action of light.

Photogalvanog'raphy, *n.* A process (now little used) for transferring drawings, &c., to metal by means of light. A plate is rendered sensitive by gelatine and bichromate of potash (see PHOTOGLYPHIC ENGRAVING), and exposed to light in contact with the photograph or drawing. A mould is then taken from this plate after exposure, and an electrotype impression taken from the mould. This electrotype is used for printing. The process is tedious, requiring some weeks for its completion.

Photoglyph'ic Engraving, *n.* An improved process invented by Mr. Fox Talbot, by which, through the agency of light, photographic and other transparent designs can be transferred to metal plates. It is performed as follows: A solution of one part of gelatine in 40 parts of water is mixed with 4 parts of a saturated solution of bichromate of potash, and the mixture is poured over the steel- or copper-plates, and allowed to dry. It is then exposed, in contact with the object which it is desired to copy, in a printing frame, to the action of light for several minutes. After this exposure to light, a little finely-powdered copal is strewed over the surface, and melted by the aid of heat. The design is now etched in by means of hydrochloric acid, saturated with peroxide of iron, and diluted with water. This attacks only the parts unacted on by light. When a sufficient depth has been obtained, the etching liquid is washed off, and the plate cleaned with soft whiting. It can then be employed for printing.

Pho'tograph, *n.* A picture obtained by photography.

Photograph'ic, Photograph'ical, *a.* Pertaining to photography.

Photog'raphist, *n.* One who practises photography; a photographer.

Photographom'eter, *n.* [Gr. *phōs, photos*, light, and *graphein*, to write, and *metron*, measure.] (*Photog.*) An instrument for determining the sensibility of each tablet employed in the photographic process, in respect to the amount of luminous and chemical radiation.

Photog'raphy, *n.* [Gr. *phōs, photos*, light, and *graphein*, to write.] The art or practice of producing representations or *fac similes* of objects by the action of light on chemically prepared grounds or surfaces; of impressing images upon metal or other surfaces by means of the actinic or chemical rays of the sun's light. The first step in the development of the photographic art was made by the alchemists of the 16th century, in their discovery that horn silver (native chloride of silver) becomes blackened on exposure to light. The camera obscura, discovered in 1569, added to the chemical principle the necessary mechanical instrumentality. Other discoveries were made in the succeeding centuries, but the first to produce pictures by the action of light on a sensitive surface was Thomas Wedgewood, who described his method in 1802. He employed nitrate of silver as the sensitive agent, but seems to have made no attempt to *fix* the picture—that is, to prevent light from subsequently acting on the uncolored portions. Nicéphore Niepce, a French chemist, was the first to produce a *permanent* picture (1814), using asphaltum, which was exposed for several hours. The portions of the asphaltum acted on by the light became insoluble, while the shadowed parts could be dissolved out, the lights being represented by the insoluble asphaltum remaining. Daguerre began his experiments in 1824, and entered into partnership with Niepce in 1829, their joint labors resulting in the discovery of the Daguerreotype process in 1839. For an account of this method, see DAGUERRE. Others were laboring in the same direction, and in 1839, before the published announcement of Daguerre's discovery, Mr. Fox Talbot described a process named by him "photogenic drawing," which formed the first crude step in photography. Paper treated with nitrate of silver (partly converted to chloride by the action of common salt) was exposed to light, the object to be pictured, as an ivy leaf, being first laid upon it. The result was a reversed copy of the leaf, which he named a negative. A positive, in which the lights and shades appeared as in nature, could be produced by permitting the light to pass through this paper to a similar sensitive paper below. In 1841 he invented an improved process which he named the Calotype, and in which iodide of silver was employed, while the paper negative was rendered translucent by wax for the purpose of printing.—*Collodion process.* A great impetus was given to the photographic art in 1851 by the introduction of collodion, the name given to the solution in a mixture of ether and alcohol of pyroxylin—a substance allied to gun cotton. The use of this, first suggested by M. Le Gray (who had perfected an iodized albumin process), was employed by Mr. Scott Archer, who developed the wet collodion photographic method, the one almost exclusively used by photographers for a quarter of a century afterward. The collodion was employed on glass, and to some extent on leather and other non-fragile materials; modifications were afterward introduced which brought it still more extensively into use. In this process a clean glass plate is coated with collodion, to which have been added bromide of cadmium and iodide, either of potassium or ammonium. The plate is then "sensitized" by immersion in a bath of nitrate of silver. In the production of the picture, the plate is exposed in the camera to the object to be photographed, the result being a latent image, which is made visible by flooding the plate with a solution of sulphate of iron or of pyrogallic acid, with the addition of some acetic or citric acid. The image is fixed by immersing the plate in cyanide of potassium (hyposulphite of soda is employed in more modern processes), which dissolves and removes those parts of the sensitive surface on which the light has not acted. The defect of the wet collodion process was the necessity of exposing the plate very shortly after its preparation. This difficulty was overcome in the dry collodion process, in which a solution of albumin or other organic substance was made to flow over the sensitive surface, which could then be dried and kept till needed. Dry plates may also be made by the emulsion process, in which the sensitive silver salt is held in suspension in the collodion. Such an emulsion can be prepared by adding bromide of cadmium or other soluble bromide to the collodion, and afterward an alcoholic solution of nitrate of silver. The glass plates are coated with this emulsion and set aside to dry, the soluble salts being removed by washing with water.—*Gelatino-bromide process.* The collodion dry plate is now rarely employed, it being replaced by the more sensitive gelatine emulsion which has come into almost universal use. This method was first employed in 1871, and was improved at intervals until 1878, when the great capabilities of silver bromide when held in suspension in gelatine became widely known. Mr. Charles Bennett, in the latter year, showed that if the gelatine emulsion was kept liquid at a low temperature for as long as seven days, some change appeared to take place in the silver bromide, whose sensitiveness was remarkably increased. By boiling the emulsion for half an hour a like increase in its sensitiveness was achieved, so that the time of exposure could be reduced from thirty seconds to a single second. Dry plates produced by some form of the gelatino-bromide process are now manufactured on a large scale. When properly made they will keep good for years, and may be developed months after exposure, though the best results are produced when there has not been much delay. Since the date last given many improvements in the photographic art have been made, leading to the development of what is known as instantaneous photography. A statement published in 1884 gives the following tabulation of the relative rapidities of processes up to that date:

Daguerreotype, originally	30 minutes' exposure.
Calotype.....	2 or 3 minutes' exposure.
Collodion.....	10 seconds' exposure.
Collodion emulsion.....	5 seconds' exposure.
Rapid gelatine emulsion.....	$\frac{1}{25}$ second exposure.

At the present time a photographic image can be taken in so minute a fraction of a second that the camera may be held in the hand during the operation, and hand cameras have come into extensive use by tourists and others, what is known as amateur photography being now remarkably common, the prepared requisites to the art being so easily manipulated that the merest tyro can soon attain some degree of proficiency. "Flash lights" can also be employed for photographing dark interiors for instantaneous pictures.—*Photographic apparatus.* A leading necessity of the photographer is the camera, a form of the camera obscura (*q. v.*). This has in its front a lens by whose aid the image of the object to be photographed is brought to a focus on a ground glass screen. The sensitized plate is placed in a thin, flat box with a movable "shutter." When the image has been focussed on the screen, this is withdrawn and the "back," as the box is called, is inserted in its place. The shutter is then drawn out and the image allowed to fall on the plate. After a brief exposure—dependent in length on the degree of light—the shutter is replaced, and the back or slide removed to a room lighted by red, orange, or some other light that is chemically inactive, in which the process of development takes place. The methods employed in developing, together with the various processes in use in printing positives from the negative, and the various forms of lenses and cameras in use, are technical subjects too varied and intricate in character to be dealt with here. The employment of paper films, produced by applying a gelatine emulsion to paper, was introduced by Messrs. Morgan & Kidd, of Richmond, England, and was improved until the films were sold in spools containing sufficient material for 40 or 50 negatives, which were introduced into the camera by means of a roller slide. Film photography has since been greatly developed, its present form being the employment of transparent and flexible celluloid in sheet form, the great transparency of this substance rendering it an excellent substitute for glass in negatives. This material is made thin enough to be wound on spools and used in roll holders, and has the several advantages of lightness, portability, freedom from breakage, &c. For the advantages which photography has gained from rapidity of action and the use of continuous films, and for color and astronomical photography, see SECTION II.

Photolog'ic, *a.* Referring to photology.

Photol'ogy, *n.* [Gr. *phōs, photos*, light, *logos*, discourse.] The science of the nature and phenomena of light.

Photo-mag'netism, *n.* Relation of magnetism to light.

Photom'eter, *n* An instrument to indicate the different quantities of light, as on a cloudy or a bright day, or for measuring the relative intensities of light or illumination. *P.* have been invented by Count Rumford, M. de Saussure, Professors Leslie, Ritchie, Wheatstone, and others. The essential principle of Leslie's instrument is a glass tube, like a reversed siphon, whose two branches should be equal in height, and terminated by two balls of equal diameter, one of which is of black enamel, and the other of glass, into which some liquid is placed. The use of this instrument depends upon the principle that, when light is absorbed by a body, it produces a heat proportional to the absorption of light. The rays of light absorbed by the dark color heat the interior air, which reacts upon the liquid; and the motion of the liquor is measured by a graduated scale, the zero of which is placed towards the top of the branch that is terminated in the enamelled ball. Wheatstone's photometer is a small sphere with a reflecting surface, which, being placed between the two lights to be compared, the spectator sees each light on it, the two being reflected from different points in the sphere's surface. By an ingenious contrivance, a rapid looped motion is given to the ball, and, by the principle of the *persistence of impressions*, the spectator immediately sees two looped curves of different degrees of brightness. The brighter light is then removed till both the curves seem of equal brightness, when the intensities of the luminous points are as the squares of the distances.

Photomet'ric, Photomet'rical, *a.* Pertaining to photometry, or to a photometer.

Photom'etry, *n.* [Fr. *photométrie.*] The science which relates to the measurement of the intensity of light.

Photophobia, (*-fō'bi-a,*) *n.* [Gr. *phōs, photos*, light, and *phobos*, fear.] (*Med.*) An intolerance or dread of light;—it is a symptom of internal ophthalmia.—Morbid sensibility of the eye to light.

Photop'sia, Photop'sy, *n.* [Gr. *phōs, photos*, light, and *opsis*, sight.] (*Med.*) A false perception of light, as of sparks, flashes of fire, &c., occasioned by certain conditions of the retina and brain, and by pressure on the eyeball. When pressure does not influence the luminous appearance, the existence of amaurosis may be inferred.

Photosphere, (*fō'to-sfēr,*) *n.* [Gr. *phōs, photos*, light, and *sphaira*, sphere.] A sphere of light; specifically, the luminous envelope of the sun.

Pho'totype, *n.* A type or plate resembling an engraved plate, and capable of being printed from in the same manner, produced from a photographic picture by a peculiar process; also the process by which such a plate is produced.

Photozincog'raphy, *n.* A process for transferring accurate copies of manuscripts or drawings to metal or stone. Paper is washed over with a solution of gum containing bichromate of potash, and allowed to dry in a dark room. It is then placed in contact with the manuscript or design, and exposed to the action of light in a photographic printing-frame. After exposure, the whole surface of the prepared paper is coated with lithographic ink, and then a stream of hot water is sluiced over it. The parts that have been exposed to light have become insoluble in water, and remain unaffected, while the remainder is washed off. The outline thus obtained can then be at once transferred to stone or zinc.

Phrase, (*frāz,*) *n.* [Fr.; Gr. *phrasis*, from *phrazō*, to speak.] A short sentence or expression; two or more words constituting an expression by themselves, or forming a portion of a sentence — A particular idiom or mode of speech peculiar to a language; diction; style. A pithy, peculiar, or idiomatic expression.

(*Mus.*) A short portion of a composition, occupying a distinct rhythmical period of one, two, or four bars.

—*v. a.* To call; to style; to express in words or in peculiar words.

—*v. a.* To employ phrases or peculiar expressions.

Phrase'-book, *n.* A book giving the explanation of difficult phrases.

Phrase'less, *a.* That may not be described in phrases or language.

Phraseo'gram, *n.* [Gr. *phrasis*, phrase, and *gramma*, a letter.] (*Phonography.*) A combination of shorthand letters representing a phrase or sentence.

Phraseolog'ic, Phraseolog'ical, *a.* Pertaining or having reference to phraseology; that may be defined by a phrase.

Phraseol'ogist, *n.* A stickler for a particular form of words or phraseology.

Phraseol'ogy, *n.* [Fr. *phraséologie*; Gr. *phrasis*, and *logos*, discourse.] Mode of speech or expression; manner of giving words to a thought; peculiar words used in a sentence; diction; style; expression.—A collection of phrases in a language.

Phras'ing, *n.* Mode of expressing by phrases.

(*Mus.*) The art or the manner of grouping together notes or syllables, in singing or playing.

Phrenet'ic, *a.* [Lat. *phreneticus*; Gr. *phrenetikos.*] Same as FRENETIC, *q. v.*

—*n.* A person of aberrated mind. (R.)

Phrenet'ically, *adv.* In a phrenetic or frantic manner.

Phrenic, (*frĕn'ik,*) *a.* [Gr. *phrenos*, the diaphragm.] (*Anat.*) Pertaining to the diaphragm.

Phren'itis, *n.* [Gr. *phrenes*, from *phren*, the mind.] (*Med.*) Inflammation of the brain or its membranes. The term was formerly applied to inflammation of the diaphragm or midriff, when that organ was supposed to be the seat of the immortal principle.

Phrenol'oger, *n.* Same as PHRENOLOGIST, *q. v.*

Phrenolog'ic, Phrenolog'ical, *a.* Pertaining, or having reference to phrenology.

Phrenolog'ically, *adv.* By the principles of phrenology.

Phrenolo'gist, Phrenol'oger, *n.* One versed in phrenology.

Phrenol'ogy, *n.* [Gr. *phrēn, phrēnos,* the seat of the mental faculties.] That system of philosophy which professes to find in the outward configuration of the skull an index of the faculties of the mind. The founder of this system was Dr. Gall, (*q. v.*) Many of the principles which he was the first to advance are now generally acknowledged by scientific men. To such a degree of perfection did he bring the science of *P.*, that up to this time his successors, who are as numerous in this country as in Europe, can scarcely be said to have done more than popularize it. Gall's fundamental maxims are as follows: 1. Moral qualities and intellectual faculties are innate. 2. The exercise or manifestation of these faculties and qualities depend on our organization. 3. The brain is the organ of all our appetites, sentiments, and faculties. 4. The brain is composed of as many special organs as there are original and independent appetites, sentiments, and faculties in human nature. 5. The form of the head or skull, which in the main corresponds with the shape of the brain, suggests the means of discovering by observation what are any one's primary faculties and qualities. Of these maxims the last two alone are peculiar to Gall: they contain the germs of his new philosophy, and suggested his method of observation. The philosophy, as distinguished from all previous physiologies, represents the brain not as an *organ,* but an *apparatus:* to each convolution or independent part of which, a distinct mental function belongs; and the task of allocating our various functions is reduced to that of eliminating, by aid of multitudes of instances, that special cranial organ, which always coexists and varies with one special intellectual power or tendency. In conducting Observation, Gall rightly resorted to the method of extreme instances, — seeking the meaning of an organ from the mental accompaniments of its great excess or signal defect. It is impossible in this place to criticise phrenology: its subdivision of the skull, however, into a region of the appetites and sentiments, a region of the emotions and moral powers, and a region of the intellectual faculties—these last subdivided into powers of observation and powers of combination,—is in striking consistency with all the dynamic phenomena of the human mind as manifested through history. Gall enumerated nearly thirty primitive mental faculties, which have since been augmented by his successors to thirty-five. These faculties are divided into three classes,—the intellectual or perceptive, the sentiments or emotions, and the animal propensities. To the first of these is assigned the anterior portion of the head; the second occupies the middle and upper;

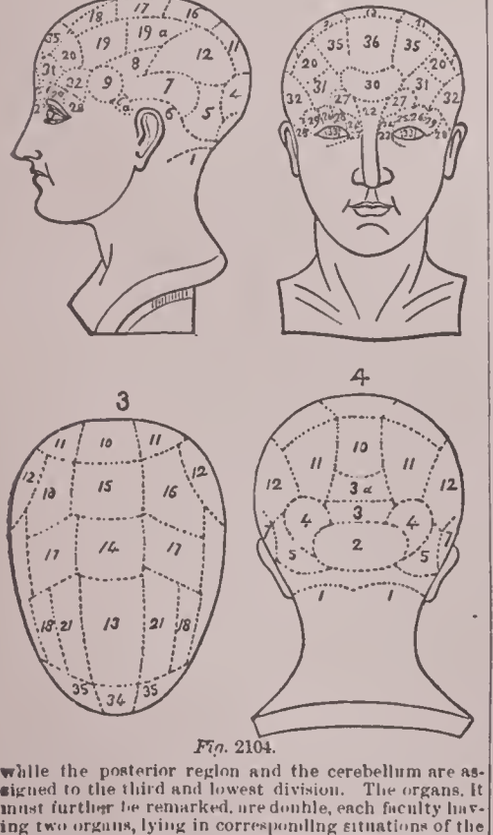


Fig. 2104.

while the posterior region and the cerebellum are assigned to the third and lowest division. The organs, it must further be remarked, are double, each faculty having two organs, lying in corresponding situations of the hemispheres of the brain; except in those organs, such as *individuality, eventuality, benevolence,* &c., represented in the accompanying fig. by 22, 30, 13, &c., which occupy the central part of the skull. The faculties generally recognized by phrenologists are the following: 1. *Amativeness.* — Produces sexual love. 2. *Philoprogenitiveness.* — (*Uses*): Affection for young and tender beings. (*Abuses*): Pampering and spoiling children. 3. *Concentrativeness.* — (*Uses*): It renders permanent emotions and ideas in the mind. (*Abuses*): Morbid dwelling on internal emotions and ideas. 3. (*a.*) *Inhabitiveness.* — (*Uses*): It produces the desire of permanence in place. (*Abuses*): Aversion to move abroad. 4. *Adhesiveness.* — (*Uses*): Attachment, friendship, and society result from it. (*Abuses*): Clanship for improper objects, attachment to worthless individuals. 5. *Combativeness.* — (*Uses*): Courage to meet danger and overcome difficulties. (*Abuses*): Love of contention, and tendency to provoke and assault. 6. *Destructiveness.* — (*Uses*): Desire to destroy noxious objects, and to kill for food. (*Abuses*): Cruelty, murder, desire to torment. 7. *Secretiveness.* — (*Uses*): Tendency to restrain within the mind the various emotions and ideas that involuntarily present themselves, until the judgment has approved of giving them utterance; it is simply the propensity to conceal, and is an ingredient in prudence. (*Abuses*): Cunning, deceit, duplicity, and lying. 8. *Acquisitiveness.* — (*Uses*): Desire to possess, and to accumulate articles of utility to provide against want. (*Abuses*): Inordinate desire of property; selfishness; avarice; theft. 9. *Constructiveness.* — (*Uses*): Desire to build and construct works of art. (*Abuses*): Construction of engines to injure or destroy, and fabrication of objects to deceive mankind. 10 *Self-esteem.* — (*Uses*): Self-respect, self-interest, love of independence, personal dignity. (*Abuses*): Pride, disdain, love of dominion. 11. *Love of Approbation.* — (*Uses*): Desire of the esteem of others, love of praise, desire of fame or glory. (*Abuses*): Thirst for praise independently of praiseworthiness. 12. *Cautiousness.* — (*Uses*): It gives origin to the sentiment of fear, and is an ingredient in prudence. (*Abuses*): Excessive timidity. 13. *Benevolence.* — (*Uses.*) Desire for the happiness of others. (*Abuses*): Profusion; injurious indulgence of the appetites and fancies of others; facility of temper. 14. *Venerution.* — (*Uses*): Tendency to venerate or respect whatever is great and good. (*Abuses*): Senseless respect for unworthy objects consecrated by time or situation. 15. *Firmness* — (*Uses*): Determination, perseverance, steadiness of purpose. (*Abuses*): Stubbornness, infatuation, tenacity in evil. 16. *Conscientiousness.* — (*Uses*): It gives origin to the sentiment of justice, or respect for the rights of others, openness to conviction, the love of truth. (*Abuses*): Scrupulous adherence to noxious principles when ignorantly embraced. 17. *Hope.* — (*Uses*): Tendency to expect future good; it cherishes faith. (*Abuses*): Credulity with respect to the attainment of what is desired. 18 *Wonder.* — (*Uses*): The desire of novelty. (*Abuses*): Love of the marvellous and occult; belief in prodigies, magic, and other absurdities. 19. *Ideality.* — (*Uses*): Love of the beautiful. (*Abuses*): Extravagance and absurd enthusiasm. 19. (*a.*) The organ of *Sublimity;* but not sufficiently ascertained. 20. *Wit.* — Gives the feeling of the ludicrous, and disposes to mirth. 21 *Imitation.* — Copies the manners, gestures, and actions of others. 22. *Individuality.* — Takes cognizance of existence and simple facts. 23 *Form.* — Renders man observant of form. 24. *Size.* — Gives the idea of space, and enables him to appreciate dimension and distance. 25. *Weight* — Communicates the perception of momentum, weight, and resistance, and aids equilibrium. 26. *Coloring.* — Gives perception of colors and their harmonies. 27. *Locality.* — Gives the idea of relative position. 28. *Number.* — Gives the talent for calculation. 29. *Order.* — Communicates the love of physical arrangement. 30. *Eventuality.* — Takes cognizance of occurrences or events. 31. *Time.* — Gives rise to the perception of duration. 32. *Tune.* — The sense of melody and harmony arises from it. 33. *Language.* — Gives facility in acquiring a knowledge of arbitrary signs to express thoughts, readiness in the use of them, and the power of investing and recalling them. 34. *Comparison.* — Gives the power of discerning analogies, resemblances, and differences. 35. *Causality.* — Traces the dependences of phenomena, and the relation to cause and effect.

Phrenomag'netism, *n.* [Gr. *phrēn, phrēno,* and Eng *magnetism.*] The power of exciting the cranial organs by magnetic influence.

Phrensy, (*frēn'zy,*) *n.* and *v.* Same as FRENZY, *q. v.*

Phryg'anidæ, *n. pl.* (*Zoöl.*) A fam. of insects, ord. *Neuroptera.* The typical species, Caddice-worm, Caddice-fly, Cad-bait, or Cadew (*Phrygia grandis*), (Fig 1937,) which reside in the water in cases, which they form of various substances, such as bits of stick, grains of seed, small stones, &c., held together by a silken thread, secreted in their bodies in the same manner as in the silkworm. The perfect insect has a body of a leathery consistence, and thickly clothed with hair; head small, with semi-globular eyes; antennæ as long as the body: anterior wings elongated, lanceolate in the females, but rather more obtuse in the males. They are very active, moving with a gliding motion; but their flight is awkward. They frequent damp and marshy situations. When handled, they emit a very unpleasant odor. Their colors are ordinary brown and gray.

Phryg'ia. (*Anc. Geog.*) An inland province of Asia Minor, bounded N. by Bithynia and Galatia, E. by Cappadocia, S. by Lycia, Pisidia, and Isauria, and W. by Mysia, Lydia, and Caria. It was called *Phrygia Pacatiana,* and also *Phrygia Major,* in distinction from Phrygia Minor, which was a small district of Mysia near the Hellespont, occupied by some Phrygians after the Trojan war. The eastern part of Phrygia Major was also called *Lycaonia.* This region was a high table-land, fruitful in corn and wine, and celebrated for its fine breed of cattle and of sheep. Of the cities belonging to Phrygia, Laodicea, Hierapolis, Colosse, and Antioch of Pisidia, are mentioned in the New Testament. The Phrygians were regarded as one of the most ancient nations of Asia Minor, being by some regarded as Thracians, by others as Armenians. They were conquered by Crœsus, king of Lydia, and finally fell into the hands of the Romans, B. C. 133.

Phrygian, (*frij'i-an,*) *a.* Pertaining or relating to Phrygia; — applied particularly to a martial kind of music common to the ancients.

Phrygian cap, a figurative expression for the *bonnet rouge,* or emblematic cap of liberty.

Phry'ma, *n.* (*Bot.*) A genus of herbs with opposite leaves, and flowers opposite, sprate, deflexed in fruit, belonging to the order *Verbenaceæ. P. leptostachya,* the slender-spiked Phryma or Lopseed, found in rocky woods in the U. S., is 2–3 ft high, leaves large, flowers small, light purpled, in very long and slender spikes, blossoms in July.

Phryne, (*frī-ne.*) A famous courtesan of Greece, and mistress of Praxiteles, who employed her as a model for his statues of Venus. She acquired immense wealth, and offered to rebuild Thebes, provided this inscription should be placed upon the walls: "Alexander destroyed this city, and the courtesan Phryne restored it;" but her offer was rejected.

Phry'nosoma, *n.* (*Zoöl.*) See HORNED-TOAD.

Phtheirla'sis, *n.* [Gr., from *phtheir,* louse.] (*Med.*) A disease which consists in the excessive multiplicity of lice on the human body, in spite of cleanliness. It has been asserted that the affection has often caused death.

Phthisical, (*-tiz'ik-al,*) *a.* [Gr. *phthisikos.*] Having or belonging to phthisis, or to wasting away; breathing hard; consumptive.

Phthisicky, (*tiz'ik-ȳ,*) *a.* Same as PHTHISICAL, *q. v.*

Phthisiology, (*tiz-i-ol'o-gȳ,*) *n.* [Gr. *phthisis,* and *logos,* treatise.] (*Med.*) A treatise upon phthisis.

Phthisipneumo'nia, Phthisipneumony, (*thiz-ip-.,*) *n.* [Gr. *phthisis,* and *pneumones,* lungs.] (*Med.*) Pulmonary consumption.

Phthisis, or **Consumption,** (*thī'sis,*) *n.* [Gr., from *phthinō,* to decline, decay, waste away.] A disease which spares neither age nor sex, and whose attacks, at first so insidious as almost to escape notice, too frequently lead to a fatal issue. It is the result of the formation and development of tubercles on the lungs. These first appear in the form of small gray semi transparent granulations, which gradually enlarge and become opaque, and after a time empty themselves into the bronchial tubes, and thus gradually destroy the substance of the lung. The causes of this disease are divided into remote and exciting: of the former, the most important is hereditary predisposition. It is not, however, an actual cause of the disease; and hence there are many cases in which the children of consumptive parents do not fall a prey to this disease; but it renders those who are in that condition much more liable to be affected by the exciting causes. Whatever weakens the strength of the system, or interferes with the oxygenation of the blood, tends to the production of this disease. Hence living in bad air, insufficient and unwholesome food, and sedentary pursuits, tend to it. Among the more exciting causes, are exposure to cold or damp, especially after the body has been previously heated, intemperance of any kind, profuse evacuations, and exposure to the reception of dust into the lungs, as in the case of certain artificers, needle-pointers, stone-cutters, and the like. The earliest symptom of consumption that usually manifests itself is a short dry cough, exciting no particular attention, being attributed to a slight cold. It, however, continues, and after a time increases in frequency. The breathing is more easily hurried by bodily motion, and the pulse becomes more frequent, particularly after meals and toward evening. Towards evening, there is also frequently experienced a slight degree of chilliness, followed by heat and nocturnal perspirations. The patient becomes languid and indolent, and gradually loses strength. After a time, the cough becomes more frequent, and is particularly troublesome during the night, accompanied by an expectoration of a clear frothy substance, which afterwards becomes more copious, viscid, and opaque, and is most considerable in the morning; the *sputa* are often tinged with blood, or hæmoptysis occurs in a more marked form, and to a greater extent. As the disease advances, the breathing and pulse become more hurried; the fever is greater, and the perspirations more regular and profuse. The emaciation and weakness go on increasing, a pain is felt in some part of the thorax, which is increased by coughing, and sometimes becomes so acute as to prevent the patient from lying on the affected side. All the symptoms increase toward evening; the face is flushed; the palms of the hands and soles of the feet are affected with a burning heat: the feet and ankles begin to swell; and in the last stage of consumption there is nearly always profuse diarrhœa. The emaciation is extreme; the countenance assumes a cadaverous appearance, the cheeks are prominent, the eyes hollow and languid. Usually the appetite remains entire till the end, and the patient flatters himself with the hope of a speedy recovery, often vainly forming distant projects of interest or amusement, when death puts a period to his existence. Tubercular deposits are also usually found in other organs of the body; the liver is enlarged and changes in appearance, and ulcerations occur in the intestines, the larynx, and trachea. These are so frequent and uniform as to lead to the belief that they form part of the disease. The constitutions that are most liable to its attack are generally characterized either by a fair, delicate, rosy complexion, fair hair, clear skin, and great sensibility, or by dark complexion large features, thick and sallow skin, and heavy general expression. The development of the disease is preceded by a peculiar form of indigestion, known as "strumous dyspepsia." It is specially characterized by a distinc

of fatty food, sometimes also of sugar and alcohol, and is accompanied with heart-burn and acid eructations after taking food. Unlike inflammation, tubercles almost invariably commence at the apex of the lungs, and it is here that they are usually most advanced. In its earliest stage, the further development of this dreadful disease may, in certain cases, be prevented by a skilful physician; but where the disease is once established, little except palliation can be effected. Change of country, diet, habit, and occupation will sometimes seem to suspend its progress; it has also been checked by other diseases, and not unfrequently it lies dormant in females who breed quickly; but at a later period it again shows itself, and proceeds to its fatal end. The duration of this disease depends upon a great variety of circumstances, and varies from a few months up to four, five, or more years; the average, however, may be taken at about two years; but many of the cases terminate fatally between the fourth and ninth month. The question as to the contagiousness of phthisis has been settled in the affirmative since the discovery that it is a microbic disease, its bacterial germ having been discovered. Contagion is believed to arise from the dried sputum, whose bacterial contents are taken up by the air, and much care is now taken in hospitals to prevent dissemination of the germs in this manner, while a strong public sentiment has arisen against the practice of spitting in public conveyances or on footways. The same bacterium produces diseases in other parts of the body, including the serious skin disease known as Lupus. No method of cure by inoculation has yet been satisfactorily demonstrated.

Phylac'tery, Phylac'ter, *n.* [Gr. *phylaktērion*, from *phylassō*, probably akin to Sansk. *pal*, or *pāl*, to watch, to guard.] Any charm, spell, or amulet worn as a protection or preservative from danger or disease. —Among the Hebrews, a slip of parchment inscribed with some text of Scripture, worn by devout persons on the forehead, breast, or neck, as a mark of their religion. —Among the early Christians, a case for preserving the relics of the dead.

Phyl'lis. (*Myth.*) The beautiful daughter of Sithon, King of Thrace, who, being betrothed to Demophoon on his return from the sack of Troy, fell into a languishment because he did not return in due time from a journey, and died of grief, or, by some accounts, hanged herself in despair, upon which her body was changed into an almond-tree.

Phyl'lium, a genus of Orthopterous insects, family *Phasmidæ*, natives of tropical countries, having wings extremely like leaves, not only in color, but in the way in which they are ribbed and veined. The joints of the legs are also expanded in a leaf-like manner.

Phyl'lotaxis, *n.* [Gr. *phyllon*, a leaf, and *taxis*, arrangement.] (*Bot.*) The science of the arrangement of leaves on the stem.

Phyl'lum, Phyllo'dium, *n.* (*Bot.*) A term applied to the petiole or leaf-stalk in the case of certain leafless plants, in which this part becomes so much developed as to assume the appearance and perform the functions of a leaf.

Phy'ma, *n.* [Gr., from *phyo*, I produce.] (*Med.*) A slow, unsatisfactory suppuration; a kind of carbuncle or boil, in which the cellular tissue is involved, but in consequence of the tardy action the abscess is a long time coming to maturity.

Physa'lia, *n.* (*Zoöl.*) A genus of acalephs, sub-order *Siphonophoræ*, containing the Portuguese man-of-war, *P. arethusa*, one of the most remarkable and best known of this group. It consists of a pear-shaped and elegantly crested air-sac, floating lightly upon the surface of the water, and giving off from its under surface numerous long and varied appendages. These appendages are the different members of the community, and perform different functions, some of them eating for the whole, others producing medusa buds, and others being the locomotive members, — the latter having tentacles that stretch out behind the floating community even to the length of 30 feet. The air-sac is 3 or 4 inches long, or more. It is found in the S. coast of the U. S.

Fig. 2105. — PORTUGUESE MAN-OF-WAR.

Phys'alis, *n.* [Gr.] (*Bot.*) A genus of plants, order *Solanaceæ*. They are herbs, rarely shrubs, with axillary or supra-axillary flowers. *P. viscosa*, *pubescens*, or *Pennsylvanica*, the Yellow Henbane, or Ground-cherry, found in dry fields, roadsides, &c., has a stem more or less decumbent, about 1 foot high, often viscid as well as the whole plant; corolla twice as long as the calyx, greenish-yellow, with 5 brownish spots at base inside; fruit yellow or orange-colored, not unpleasant to the taste, inclosed in the enlarged calyx *P. alkekengi*, the Winter-cherry, is a native of S. Europe, has the fruit red or reddish, and is cultivated for ornament.

(*Zoöl.*) One of the PHYSALIA, *q. v.*

Phys'alite, *n.* [Gr. *phusao*, to blow.] (*Min.*) A coarse and almost opaque variety of topaz, which swells when heated.

Phys'eter, *n.* [Gr., a blow-pipe.] (*Zoöl.*) The CACHALOT, *q. v.*

—A kind of filtering apparatus.

Physian'thropy, *n.* [Gr. *physis*, nature, and *anthrōpos*, man.] The doctrinal philosophy of the diseases incidental to human life and their cure.

Physic, (*fiz'ik,*) *n.* [Gr. *physikos*, natural, from *physis*, nature.] The art of healing diseases, originally practised by those who pretended to a special knowledge of nature and her powers. — Medicines or remedies for diseases, to be applied internally. — A cathartic; a purgative medicine; — a term colloquially and popularly used.

—*v. a.* To treat with physic; to purge the bowels with a cathartic. — To treat with remedies; to cure; to heal.

Physical, (*fiz'ik-al,*) *a.* Pertaining to nature or natural productions, or to material things, as opposed to things moral or imaginary; pertaining to the material part or structure of an organized being, particularly man; material; natural; as, a *physical* body, *physical* force. — Belonging, or having reference to physics; treating of, or pertaining to the causes and relations of natural phenomena: as, *physical* laws. — Perceptible to the senses; corporeal; external.

P. Education. See GYMNASTICS.

P. Geography. An account of the earth in all its present relations to organic and inorganic nature. The organic subjects belonging to *P. G.* fall under the headings *Zoölogy*, *Botany*, and *Ethnology*. The history of the past, if inorganic, is *Geology*, if organic, *Palæontology*. Of other departments, *Meteorology* and *Climate* have reference to the phenomena of the atmosphere, and *Hydrology* to those of water. The remainder will be considered in a general way in the present article, and details will be found under various headings here designated. *Descriptive geology* does not come within the scope of the present undertaking; and the astronomical problems, of which there are several that bear on the subject, are considered independently. Under the term *P. G.*, limited as above, are included accounts of the various phenomena of the land. Thus, the distribution of the land, the form of the land, the division of the land into *continents* and *islands*, the *mountains*, *table-lands*, *plains*, and *valleys* of the larger tracts, and the various details connecting these, are discussed in distinct articles. *P. G.* regards the human race and human interests in their relations to external nature only. *P. G.* is the history of the earth in its material organization, as a planet, in so far as it affects and is affected by other bodies of the solar system; as a mass of mixed mineral matter, of which the external crust is varied in its composition, and is subject to certain mechanical and chemical changes, which modify its condition and fitness for life; as the seat of vegetable and animal organization, infinitely varied, and all adapted to the circumstances in which they are placed. As a science including many departments, *P. G.* has risen into great importance within a comparatively brief period, and it is not easy to over-estimate its importance. It is, above all, the only fit and reasonable introduction to geology, for both the organic and inorganic world are undergoing great change around us, and the history of this change is the clue to those other and greater changes that have brought about the existing condition of things.

Phys'icalist, *n.* A believer in the theory that human thought, action, volition, &c., are governed by the physical constitution of man.

Phys'ically, *adv.* Naturally; according to nature; by natural power or the operation of natural laws.

Physician, (*fi-zish'an,*) *n.* [Fr. *physicien*; It. *fisico*, from Gr. *physikos*.] Primarily, one who investigated nature and its laws; a naturalist.

—Specifically, a person skilled in the art of healing; one whose profession is to prescribe medicines for physical diseases.

—One who heals moral diseases.

(*Law.*) A person who has received the degree of doctor of medicine from an incorporated institution; one lawfully engaged in the practice of medicine. Although the *P.* is civilly and criminally responsible for his conduct while discharging the duties of his profession, he is in no sense a warrantor or insurer of a favorable result, without an express contract to that effect. Every person who offers his services to the public generally impliedly contracts with the employer that he is in possession of the necessary ordinary skill and experience which are possessed by those who practise or profess to understand the art or science, and which are generally regarded by those most conversant with the profession as necessary to qualify one to engage in such business successfully. This ordinary skill may differ according to locality and the means of information. The physician's responsibility is the same when he is negligent as when he lacks ordinary skill, although the measure of indemnity and punishment may be different. In England, a *P.* cannot maintain an action for his fees for anything done as *P.* either while attending to or prescribing for a patient; but a distinction is taken when he acts as a surgeon or in any other capacity than that of a *P.*, and in such cases an action for fees will be sustained. All acts of a *P.* as such are considered strictly honorary, and therefore without compensation except when there exists an express contract. In this country, the various states have statutory enactments regulating the collection of fees and the practice of medicine. In some of the states, as Georgia, Alabama, Missouri, &c., a non-licensed *P.* cannot recover for professional services.

Physicist, (*fiz'i-sist,*) *n.* One versed in the science of physics.

Physicolog'ic, *n.* [Gr. *physikos*, physical, and Eng. *logic*.] Logic interpreted or demonstrated by natural philosophy.

Physicolog'ical, *a.* Relating to physicologic.

Phys'ico-mathemat'ics, *n. sing.* Mixed mathematics. See MATHEMATICS.

Phys'ico-philos'ophy, *n.* The philosophy of physics or nature.

Phys'ico-theol'ogy, *n.* Theology illustrated by natural philosophy.

Physics, (*fiz'iks,*) *n. sing.* [Fr. *physique*; Gr. *hē physikē*.] The science of nature. In modern language, however, the term has a less general signification than its derivation implies. Nature signifying the assemblage of all the bodies of the universe, the *science of nature*, comprehends every species of knowledge, which regards the external world. But bodies may be studied under three different points of view; they may be examined with relation to their different properties, with relation to their constituent parts, and with relation to their appearances and exterior qualities. Then these distinct views give rise to the three great divisions of natural science; namely, *chemistry*, *physics*, and *natural history*. Physics has for its object the theory of the properties of bodies and the motions of masses; chemistry studies the motion of their elementary principles, and natural history observes their physiognomy or external appearance.

Physiognom'ic, Physiognom'ical, *a.* Belonging or relating to physiognomy.

Physiog'nomist, Physiog'nomer, *n.* One who is skilled in physiognomy. — One who tells fortunes by observations of the lineaments of the face.

Physiog'nomy, *n.* (Sometimes written *physiognomics*.) [Gr. *physiognōmia* — *physis*, and *gnō-mē*, from *gignōskō*, *gnōnai*, to know.] The art or science of judging of a person's nature or character by his outward look, especially by his facial features and characteristics. That the mental character of an individual tends to stamp itself upon the countenance there can be little doubt; though it is very difficult, or perhaps impossible, to lay down any fixed rules upon the subject. In the ordinary business of life, all men are more or less influenced by the belief that the character and disposition of a person may, in some measure, be judged of by his physical appearance, and more particularly by his features; and none have more confidence in this way of judging than those who have most frequent occasion to act upon it. Young children are also striking physiognomists, and it is very remarkable how very early they manifest likings and dislikings to individuals, judging intuitively, as they must do, from their appearance and manner. Certain feelings and passions of the mind manifest themselves by certain expressions of the face; and as these come to be frequently indulged in, they come to give a permanent cast to the countenance. Where these passions are of a bad or gross nature, most people endeavor to conceal them; and hence the difficulty of laying down rules that will apply to every case. Some persons, too, may receive a peculiar expression of countenance from their parents, or they may unconsciously acquire it from the imitation of others; all of which causes tend to interfere with all attempts to raise physiognomy to the rank of a science. The great writer on this subject is Lavater, to whose curious and interesting work we would refer those who wish for further information on this subject.

—Art of foretelling the future fortunes of individuals by the lineaments of the face.

Physiog'notype, *n.* [Gr. *physiognōmonia*, physiognomy, and *typos*, type.] An apparatus used in taking casts of the human countenance.

Physiog'raphy, *n.* [Gr. *physis*, nature, and *graphein*, to write.] A description of nature.

Physiolog'ic, Physiolog'ical, *a.* Pertaining, or having reference to physiology.

Physiolog'ically, *adv.* According to the principles of physiology.

Physiol'ogist, *n.* (Also written *physiologer*.) One who is versed in the science of physiology; one who treats of physiology.

Physiol'ogy, *n.* [Fr. *physiologie*; Gr. *physiologia* — *physis*, and *logos*, discourse.] Literally, the doctrine or science of nature, comprehending a knowledge of all the physical and natural sciences; and this was the meaning which it originally bore. But as these, in course of time, came to be more particularly studied, they received distinct names, as physics, or natural philosophy, chemistry, astronomy, zoölogy, geology, &c. To the science which treats of the functions of living beings, the term *P.* is still applied, though its meaning is becoming more and more restricted as its various branches become better defined. It is divided into animal, or comparative *P.*, which treats of animals, and human *P.*, which deals with man. By *P.*, as at present used, is generally understood the science of the different functions of which life is the manifestation; *i. e.*, of circulation, nutrition, excretion, respiration, sensation, muscular contraction, digestion, absorption, generation; with other subordinate faculties, as the maintenance of equable temperature, the production of vocal sounds, the mental phenomena. To explain these functions, we must first know the instruments by which they are performed; secondly, the matters which they attract, those which they reject, and the nature of that which remains; thirdly, by what forces these matters

are transported, attracted, retained, and rejected; and finally, the nature of the stimuli appropriate to each part, and the mode in which such part reacts when stimulated.

Physiology, (Vegetable). See BOTANY.

Physique, (*fē'zēk',*) *n.* [Fr.] The natural or physical constitution of a person; as, a man of powerful *physique.*

Physog'rades, *n. pl.* [Gr. *physis,* and Lat. *gradior,* I proceed.] (*Zoöl.*) A group of Acalephæ, comprehending those which swim by means of air-bladders.

Physomyc'etes, *n.* (*Bot.*) An order or group of Fungales, including those whose spores are surrounded by a vesicular veil, or sporangium

Physoste'gia, *n.* [Gr. *physa,* a bladder, and *stegē,* a covering; from the inflated corollas.] (*Bot.*) A genus of plants, order *Lamiaceæ.* The Lion's Heart, *P. Virginiana,* is a beautiful plant, native in Penna., S. and W. States, and often adorning our gardens, where it spreads rapidly. It is 2–3 feet high, very smooth, dark green; stem square, thick, rigid; leaves opposite, closely sessile; flowers in 4-rowed spikes, numerous, dense; corolla pale purple, about an inch long, spotted inside, blossoming in August.

Physostig'ma, *n.* (*Bot.*) A genus of plants, order *Fabaceæ.* See CALABAR-BEAN.

Phytelephas, (*fi-tel'e-fas,*) *n.* [Gr. *phyton,* a plant, and *elephas,* elephant, because it affords a milk which hardens into a substance like ivory.] (*Bot.*) A genus of trees, order *Palmaceæ.* The hard albumen of the seed of *P. macrocarpa* constitutes the vegetable ivory of commerce; it is extensively used by turners. The fruit which contains the seed presents some resemblance to a negro's head.

Phytiv'orous, *a.* [Gr. *phyton,* and Lat. *vorare,* to devour.] Subsisting on plants or herbage; as, a *phytivorous* animal.

Phytochem'istry, Phytoch'imy, *n.* [Gr. *phyton,* and Fr. *chimie,* chemistry.] The chemistry of plants.

Phytocrene, (*fi't-kreen,*) *n.* (*Bot.*) A genus of plants, order *Artocarpaceæ.* The species are termed watervines, on account of the large quantity of watery juice they yield when wounded. By many botanists this genus is considered to constitute a distinct natural order, called *Phytocreaceæ.* The plants are climbing shrubs, natives of the West Indies, with dichlamydeous unisexual flowers, and seeds with a large quantity of albumen.

Phytogeny, (*-toj',*) *n.* [Gr. *phyton,* and *genein,* to produce.] The doctrine of the generation of plants.

Phytogeog'raphy, *n.* [Gr. *phyton, gē,* earth, and *graphein,* to describe.] The geography of plants.

Phytog'lyphy, *n.* [Gr. *phyton,* and *glyphein,* engraving.] Nature-painting. See NATURE

Phytog'raphy, *n.* [Gr. *phyton,* and *graphein,* to write.] The art or science of describing plants systematically. — A description of plants.

Phytolacca'ceæ, *n. pl.* [Gr. *phyton,* and *lakha,* gumlac.] (*Bot.*) The *Phytolacca* fam., an order of plants, alliance *Chenopodales* DIAG. Separate flat sepals, stamens alternate with the sepals, and one or several carpels. Herbs or under-shrubs. Leaves alternate, entire, exstipulate. Flowers perfect, racemose. Calyx 4–5-parted. Ovary superior; styles and stigmas distinct, and equal in number to the carpels. Fruit dry or succulent, each carpel of which it is composed containing 1 ascending seed; embryo curved round mealy albumen, with radicle next the hilum. The plants of this order are natives principally of America, India, and Africa. The most noteworthy of them is *Phytolacca decandra,* commonly called poke, or pocan. Its roots are emetic and purgative. Its ripe berries have been used medicinally in chronic rheumatism and syphilitic affections. Its young shoots are sometimes boiled and eaten as asparagus.

Phy'tollite, *n.* [Gr. *phyton,* a plant, and *lithos,* stone.] A fossil plant or vegetable.

Phytolithol'gy, *n.* [Gr. *phyton,* a plant, *lithos,* stone, and *logos,* treatise.] That department of science which treats of fossilized plants.

Phytol'ogy, *n.* [Gr. *phyton,* a plant, from *phyō,* to grow, and *logos,* discourse.] A discourse or treatise on plants: a description of the kinds and properties of plants; botany

Phy'ton, *n.* [Gr., a plant.] (*Bot.*) A name used to designate the pieces which, by their repetition theoretically, make up a plant, as a joint of stem with its leaf or pair of leaves.

Phyton'omy, Phyton'ymy, *n.* [Gr. *phyton,* and *nomas,* law.] The science of the origin and growth of plants.

Phytopathol'ogy, *n.* [Gr. *phyton, pathos,* disease, and *logos,* discourse.] An account of diseases peculiar to plants.

Phytoph'agous, (*-tof'a-gus,*) *a.* [Gr. *phyton,* and *phagein,* to eat.] Subsisting on plants.

Phytozo'a, *n. pl.* of PHYTOZOON. [Gr. *phyton,* and *zōon,* an animal.] A term almost corresponding to SPERMATOZOA, *q. v.*

Pi, Pie, *n.* (*Typog.*) A mass of printers' types confusedly mixed or unsorted.

Plac'aba, *n.* (*Bot.*) See LEOPOLDINIA.

Piacenza, (anc. *Placentia.*) (*pe-a-chen'za,*) a fortified city of N. Italy, cap. of a prov. of same name, at the junction of the Po and the Trebbia, 37 m. W.N.W. of Parma, and 37 m. S.E. of Milan *Manuf.* Silk stuffs, woollens, hosiery, hats, and earthenware. *Pop.* 39,318.

Piac'ular, Piac'ulous, *a.* [Lat. *piacularis,* from *pio,* to appease.] Expiatory; atoning; having power to atone.

—Requiring expiation; criminal; atrociously bad.

Pi'a Ma'ter, *n.* [Lat., tender mother.] (*Anat.*) The innermost membrane of the brain, which, dipping into all the convolutions or lobes of the brain, protects and supports the organ in every direction.

Pianis'simo, *a.* [It., superl. of *piano.*] (*Mus.*) Very soft; — a direction to perform a certain movement in the gentlest manner.

Pianist, *n.* A performer on the pianoforte.

Pia'no, *a.* [It.] (*Mus.*) Soft; a direction to a musical performer to diminish the volume of tone in certain places.

Pia'no, Pia'noforte, *n.* [It. *piano,* soft, and *forte,* strong.] (*Mus.*) A stringed instrument of the keyed species. Its name, signifying *soft* and *loud,* was probably given to it to distinguish it from the harpsichord and spinet, in which no lightness of touch could lessen the strength of the sound produced, from the quills always striking the strings with equal force; whereas, in the *P.,* the strings are put in vibration by means of small hammers connected by levers with the key or finger-board, which hammers quit the string directly it is struck, a damper falling down upon it the moment the finger quits the key. The invention of the pianoforte is ascribed to a German named Schroeder, who lived at the beginning of the last century. Within the present century this instrument has received many useful and valuable improvements; so that it may now be fairly regarded as next to the organ, the noblest and most elegant instrument in the whole compass of musical practice. The *P.* is made in three distinctive forms: the *grand,* or *concert-grand,* the *square,* and the *upright;* in the first two, the strings run horizontally; in the third, vertically or obliquely upward. Of these, the upright is the form most common in England. The square, long the favorite form in the U. S., is being replaced by the upright, whose advantage lies in its economy of space. The U. S. has long been noted for the perfection in tone and workmanship of its pianos, and possesses some of the largest manufacturing establishments in the world. The number of instruments exported is constantly increasing.

Pian'ograph, *n.* [Gr. *graphein,* to write.] (*Mus.*) A machine which, attached to a pianoforte, transcribes, on paper prepared for the purpose, anything played by the pianist.

Piano'sa, an island of the Mediterranean, 10 m. W. of Cape Elba. It is 3½ m. long, and 2½ broad. It formed part of the territory of Elba.

Pi arists, BRETHREN OF THE PIOUS SCHOOLS, or SCOLOPINI, a religious congregation founded at Rome in 1599 for the education of the poor, was patronized by Paul V. in 1617, and was approved as a religious order by Gregory XV. in 1621.

Pias'sava, *n.* (*Bot.*) See LEOPOLDINIA.

Pias'tre, *n.* [Fr. · It. and Sp. *piastra.*] An Italian coin of variable value, generally worth about 80 cents; also, a Spanish coin, equal to the American dollar.

Piatt (*pī'at*), in *Illinois,* an E. central co.; *area,* about 440 sq. m. *Rivers.* North Fork of Sangamon river, and some less important streams. *Surface,* mostly level; *soil,* fertile. *Cap.* Monticello. *Pop.* (1897) 18,750.

Piatt, in *Pennsylvania,* a township of Lycoming county.

Piauhy, a N.E. prov. of Brazil, bordering on the Atlantic Ocean. It lies between Lat 2° 42′ and 11° 20′ S., and Lon. 40° 30′ and 47° W. *Area,* about 82,595 sq. m. *Surface,* an elevated plain, bounded on all sides but the N. and N.W. by mountains: *soil,* not very fertile, but adapted to pasturage. *Cap.* Parahyba. *Pop.* abt. 255,000.

Piave', a river of Italy, rising in the Alps near Lienz, and after a S.E course of 125 m. flowing into the Adriatic, 22 m. E.N.E. of Venice.

Piaz'za, *n.* [It.] An open area surrounded by buildings; a square.

Piazza, a town of Italy, prov. of Caltanisetta, 18 m. E.S.E. of Caltanisetta. *Manuf.* Woollen cloth and cups. *Pop.* 14,551.

Pi'ca, *n.* (*Zoöl.*) A genus of birds, order *Insessores;* the Magpie, *q. v.*

(*Med.*) A depravation of taste which causes the patient to desire substances which are noxious or not eatable.

(*Print.*) A kind of printing-type of two sizes, *Small Pica,* and *Pica,* the former of which is next in size above Long Primer.

This line is printed in *Pica.*

And this line in *Small Pica.*

Pi'ca, sometimes TICA, a river in the extreme S of Peru, rises in the Andes, and flows S.W. into the Pacific Ocean. Its æstuary is called Pica Bay.

Picador', *n.* [Sp.] See BULL-FIGHT.

Picamar', *n.* [Lat. *pix, picis,* pitch, and *amarus,* bitter.] (*Chem.*) The bitter principle of tar.

Pic'ardy, an old prov of the N.W. of France, now forming the dept. of Somme, and part of the depts. of Oise, Aisne, Pas-de-Calais, and Yonne.

Picaroon', *n.* [Sp *picarom;* It. *piccaro,* from *picare,* to plunder.] One who pickeers or plunders, particularly a wrecker; a pirate; a corsair; a sea-rover.

Picayune', *n.* The Spanish half-real, a silver coin equal to 6¼ cents. The term is of common use in Louisiana.

Picayune', in *Illinois,* a village of Warren co., abt. 45 m. N.E. of Nauvoo.

Piccadilly, *n.* A street of London, Eng., so called from a ruff or collar of points like spear-heads, worn in the time of James I.

Pic'calilli, *n.* A kind of mixed East India pickle, made of vegetables and hot spices.

Piccini, NICOLA, (*pe-che'ne,*) a celebrated Italian musical composer, B. at Bari, 1728; went to Paris in 1776, where a spirited contest was maintained for years between Gluck and him. His principal operas are *Roland, Atys, Iphigenia in Tauris,* and *Dido.* D. at Passy, near Paris, 1800.

Pic'colo, *n.* [It., small.] (*Mus.*) An octave flute.

Piccolomini, (*pik'ko-lo-me'ne,*) the name of a noble family of Sienna, who, in 1538, succeeded the Petrucci as chief of the republic. Their power was but short-lived, however, for in 1541 they were deposed at the instance of Spain. This family has given two popes, Pius II. and III., and a celebrated imperialist general, Octavius *P.,* who chiefly distinguished himself during the Thirty Years' War.

Pichegru, CHARLES, (*peezh'groo,*) a French general, B. at Arbois, 1761, of humble parents, but receiving a good education under the monks of his native town, he entered the army, and rose to be sergeant. The revolution elevated him to the rank of general, and, in 1794, he succeeded General Hoche in the command of the army of the north. He shortly after relieved Landau, and compelled the English to evacuate the Netherlands. He next marched into Holland, of which he made a complete conquest, and, in 1797, was elected a member of the Legislative body: but his opposition to the Directory, and his speeches in favor of the royalist emigrants, occasioned an accusation against him as designing to restore royalty. He was ordered without trial to be transported to Cayenne, from whence he escaped to England, where he remained till the spring of 1804, when he returned to Paris, was again apprehended and sent to the Temple; three weeks afterwards he was found strangled in his bed.

Pichin'cha, a volcano of Ecuador, S. America, in the W. Cordillera of the Andes, abt. 11 m. W.N.W. of Quito; *height,* 15,924 feet.

Pic'idæ, *n. pl.* (*Zoöl.*) A family of birds, order *Scansores.* See WOODPECKER.

Pick, *v. a.* [A. S. *pycan;* Ger. *picken;* Sp. *picar;* Gr. *prkō,* to pull or pluck out.] To pierce; to peck or strike with the bill or beak; to puncture; to open by a pointed instrument; to pull or separate with the teeth, beak, or claws; as, to *pick* a lock, to *pick* oakum, &c. — To pull off or pluck with the fingers something that grows or adheres to another thing; to separate by the hand; as, to *pick* fruit from a tree. — To clean by the teeth, fingers, or claws, or by a small instrument, by separating something that adheres; as, to *pick* one's teeth, to *pick* the meat from a bone. — To take up suddenly; to take away by a rapid or unexpected movement; to steal by taking out with the fingers or hands; as, our riflemen *picked* off the enemy's officers, to *pick* a pocket, &c. — To choose; to select; to cull; — frequently before *out;* as, he was *picked out* for the duty; — hence, to cause or seek industriously; to get into; as, to *pick* a quarrel. — To gather here and there; to collect; to bring together; — frequently with *up.*

"This fellow *picks up* wit as pigeons peas." —*Shaks.*

To pick a hole in one's coat, to cavil; to find fault.

—*v. n.* To eat slowly or by morsels: to nibble. — To do anything nicely or leisurely, or by attending to small things — To pilfer; to steal.

—*n.* [Fr. *pique;* W. *pig;* D *pik.*] A sharp-pointed tool for digging, loosening, or removing in small quantities, as stones, earth, &c.: a pickaxe.—A sharp pointed hammer used in dressing stones. — A tooth-pick. — Choice; selection; right of selection: as, to take one's *pick.*

(*Typog.*) Foul matter which collects on printing types from bad ink and other causes.

Pick'aninny, *n.* [Perhaps from Sp. *picade niño.*] A negro or mulatto infant. (Southern States.)

Pick'apack, *adv.* In the manner of a pack. (Vulgar.)

Pick'away, in *Ohio,* a S. central co.; *area,* abt. 510 sq. m. *Rivers.* Scioto River, and Darby, Deer, and Walnut creeks. *Surface,* mostly level; *soil,* remarkably fertile, especially that of the Pickaway Plains, abt. 3 m. S. of Circleville, which is said to be the richest in the State. *Cap.* Circleville. *Pop.* (1897) 28,250.

—A township of the above co.

Pick'back, *a.* On the back; as, mounted *pickback.* (LOW.)

Picked (*pikt*), *a.* Sharp; having a point.

Pick'edness, *n.* The state or quality of being picked.

Pickeer', Pioneer', *v. a.* [From It. *picare,* to plunder.] To pirate; to pillage; to rob.—To make a flying skirmish, as soldiers.

Pick'ens, in *Alabama,* a W. co., adjoining Mississippi, *area,* about 934 sq. m. *Rivers.* Tombigbee and Sipsey rivers. *Surface,* undulating or hilly; *soil,* fertile. *Cap.* Carrolltou. *Pop.* (1890) 22,470.

Pickens, in *Georgia,* a N. co.; *area,* about 276 sq. m. *Rivers.* Etowah river, and several smaller streams. *Surface,* hilly or mountainous; *soil,* in some parts fertile. *Cap.* Jasper. *Pop.* (1897) 8,730.

Pickens, in *South Carolina,* a N. W. co., adjoining North Carolina on the N.; *area,* about 464 sq. m. *Rivers.* Tugaloo, Chattooga, Saluda, and Kiowee rivers. *Surface,* much diversified, and in some parts mountainous. The Blue Ridge forms a portion of the N.W. boundary, and Table Rock Mountain, in the N. part, is 4,000 feet high. *Soil,* generally fertile. *Products.* Corn, cotton, live stock, &c. *Cap.* Pickens. *Pop.* (1897) 17,120.

Pickens, (Fort.) See PENSACOLA BAY.

Pick'er, *n.* One who picks or culls; as, a *picker* of cotton.

(*Mech.*) A machine for separating fibrous substances; as, a wool *picker.* — A pickaxe; an instrument to pick or separate with. — One who instigates a quarrel between himself and another.

Pick'erel, *n.* [Dim. of PIKE, *q. v.*] (*Zoöl.*) See PIKE

Pick erel Lake, in *Minnesota*, a township of Freeborn co.;

Pick'ering, a town of England, co. of York, 18 m. S. W. of Whitby; *pop* 4,300

Pick'erlug Creek, in *Pennsylvania*, flows into the Schuylkill River from Chester co.

Pick'eringtou, in *Ohio*, a post-village of Fairfield co., abt. 15 m. S.E. of Columbus.

Pick'et, *n.* [Fr. *piquet*, from *piquer*, to pierce.] (*Fortif.*) A stake sharpened or pointed, used in laying out ground, to mark any required point. — A narrow board pointed, used in making a fence; a paling.

(*Mil.*) A guard posted in front of an army, to give notice of the approach of the enemy; — otherwise called *outlying picket*. — A game at cards. Same as PIQUET, *q. v.* — A mode of punishment wherein the offender stands on a pointed stake

—*v. a.* To fortify with pointed stakes. — To inclose or fence with narrow-pointed boards. — To fasten to a *picket* or stake stuck in the ground, as a horse.

Pick'et-fence, *n.* A fence made with pickets or palings.

Pick et-guard, *n.* (*Mil.*) A guard consisting of both infantry and cavalry, kept in readiness for immediate service in the event of a surprise from an enemy; an outlying picket.

Pick ing, *n.* The act of plucking; selecting; gathering; gleaning.—That which is left to be picked, gleaned, or gathered: as, cotton-*pickings*. — The ground shells of oysters used in making garden-walks. — A hard-burned brick. — Act of pilfering; also, the thing or things stolen; as, *pickings* and stealings.

Pickle, (*pik'l,*) *n.* [Du. *pekel*; Ger. *pökel*, pickle.] Brine; a solution of salt and water, or any kind of salt or acid liquor in which fish, flesh, or other substances are preserved.—A vegetable or fruit preserved in pickle. — A state or condition of difficulty or disorder; — in contempt or ridicule. — An imp ish or mischievous child; as, a little *pickle*.

—*v. a.* To preserve in brine or pickle; as, *pickled* cucumbers. — To season in pickle; as, a *pickled* tongue. — To imbue highly with anything bad; as, a *pickled* cheat. — To prepare by imitation and sell as genuine; — said of copies of paintings by the Old Masters. — To subject to a chemical process during manufacture; — said of pins, needles, &c.

Pick'le-herring, *n.* [Du. *pekelharing*; Ger. *pickelhäring*.] A jack-pudding; a merry-andrew; a zany; a buffoon.

Pick'lock, *n.* A pointed instrument for opening locks without the key. — A person who picks locks. — A description of superior wool.

Pick'penny, *n.* A sharper; a person who cheats.

Pick'pocket, *n.* One who steals from the pocket of another.

Pick'purse, *n.* A pickpocket; one who steals a purse from the pocket of another.

Pick'sy, *n.* Same as PIXY, *q. v.*

Pick'wick, *n.* A sharp-pointed instrument for picking the wick of a lamp. — In England, a common penny cigar; — named after *Pickwick*, the hero of one of Dickens' novels.

Pic'ulc, *n.* [Fr. *piquenique*, from *piquer*, to stick, and *nique*, a small coin.] Originally, an entertainment at which each person contributed some dish or article for the general table; now, entertainment carried with them by a party on an excursion of pleasure into the country, and also the party itself. — A kind of small sweet biscuit.

—*v. n.* To go on a picnic.

Pico, (*pē'ko,*) *n.* [Sp.] The peak or pointed head of a mountain.

Pi'co, a mountainous island of the Azores, near the W. coast of Africa; Lat. 38° 28′ N., Lon. 28° 25′ W. *Area*, 254 sq. m. Its highest peak is 7,613 feet. Its sides are covered with vineyards and varied cultivation. *Chief towns.* Lagos, Magdalena, and San Locco. *Pop.* 38,000.

Picotee', *n.* (*Bot.*) See DIANTHUS

Picquet, (*pik'et,*) *n.* Same as PIQUET, *q. v.*

Picra, *n.* [Lat.; Gr. *pikros*, sharp, bitter.] (*Med.*) Powder of aloes with canella.

Picras'sua, or **Picræ'na,** *n.* [Gr. *pikros*, bitter.] (*Bot.*) A genus of plants, order *Simarubaceæ*. The species *P. excelsa*, a native of Jamaica, yields the official *quassia-wood* of the Materia Medica. It is much used as a tonic, febrifuge, and stomachic. It is said to be largely employed by dishonest brewers as a substitute for hops. Cups formed of quassia-wood are used to impart agreeable bitter to liquids which have been allowed to remain in them for some time. An infusion of quassia, sweetened with sugar, is much used as a fly-poison. The active properties of quassia-wood are due chiefly to the presence of an intensely bitter crystalline substance called *quassin*. In Jamaica, the plant is known as the bitter-ash or bitter-wood.—See QUASSIA.

Pi crate, or CARBAZOTATE, *n.* (*Chem.*) A compound of picric or carbazotic acid with a base.

P. of potash. A salt of a beautiful yellow color, crystallizing into prismatic needles, and possessing a brilliant reflexion. It is insoluble in alcohol, but soluble in about 260 parts of water at 15°, or 14 parts of boiling water. Heated with care, it becomes orange-red at the temperature of 300°, but, on cooling, it assumes its original color. Heated to 310°, it detonates with violence. New explosive powders, almost entirely composed of picrate of potash, and nitrate of potash, have been used in the Franco-Prussian war of 1870 with the most appalling effect.

Pic'ric Acid, *n.* (*Chem.*) See CARBAZOTIC ACID.

Pic ris, *n.* [Gr., a bitter plant resembling lettuce.] (*Bot.*) A genus of plants order *Asteraceæ*.

Pic'romel, *n.* [Fr., from Gr. *pikros*, and *meli*, honey.] (*Chem.*) A peculiar substance, of a sweetish-bitter taste, which exists in bile.

Picropharmac'olite, *n.* [Gr. *pikros*, *pharmakon*, drug, and *lithos*, stone.] (*Min.*) A native hydrated arseniate of lime and magnesia, with a large excess of magnesia.

Pic'rophyll, Picroph'yllite, *n.* [Gr. *pikros*, and *phyllon*, leaf.] (*Min.*) An altered Augite, occurring in dark-grayish-green foliated-fibrous matters, resembling serpentine in appearance.

Pic'rosmine, *n.* [Gr. *pikros*, and *osmē*, odor.] (*Min.*) A hydrated silicate of magnesia, named from the bitter argillaceous odor which it yields when breathed upon.

Picrotox'ine, (*Chem.*) See COCCULUS INDICUS.

Pict ish, *a.* Relating, or pertaining to the Picts.

Pic'ton, a town, cap. of Prince Edward co., prov. of Ontario, abt. 40 m. S.S.E. of Kingston. It has an active trade.

Picto'rial, *a.* [Late Lat. *pictorius*, from Lat. *pictor*, a painter.] Pertaining to pictures; illustrated by pictures; forming pictures or engravings.

Picto'rially, *adv.* By pictures: in a pictorial manner.

Pic'tou, a seaport-town of Nova Scotia, cap. of a co. of same name, at the head of Pictou harbor, 85 m. E. of Halifax; *pop.* 3,500.

Picts, *n. pl.* (*Hist.*) The Picts, or the painted, so called from their custom of painting their bodies, are regarded as a Scythian tribe which landed in Ireland about the time of the first peopling of the British islands, and, being expelled thence, settled in the northern parts of Britain. Everything connected with the history of the Picts has been made a matter of controversy, and even the existence of such a people has been contested.

Pict'urable, *a.* That may be painted or pictured.

Pict'ural, *a.* Relating to pictures.

Picture, (*pikt'yur,*) *n.* [Lat. *pictura*, from *pingo*, *pictus*, to paint.] That which is painted; a likeness drawn in colors; hence, any graphic representation. — The art of painting. (R.) — Any resemblance, representation, or image that, by its likeness, vividly recalls some other thing; as, the boy is the *picture* of his father.

(NOTE. *Picture* is sometimes employed in the form of certain self-explaining compounds; as, *picture*-book, *picture*-gallery, *picture*-cleaner, &c.)

—*v. a.* To paint a resemblance of; to represent; to form or present an ideal likeness of.

Pict'ure-frame, *n.* The frame which is placed around a picture to make it appear to advantage.

Picturesque, (*-ĕsk,*) *a.* [Fr. *pittoresque*; Lat. *pictura*, a picture.] In the strict sense of the word, all objects which afford fit combinations of form and color for the imitation of the painter, are called *picturesque*. In literary composition, this term is applied to a style which represents objects and events in such a manner as to call up vivid impressions of visible reality. Commonly, however, the word is employed by many writers to denote such natural objects as have a somewhat rugged appearance, in contradistinction to those objects which have a *sublime* or *beautiful* character. Thus, among trees, not the smooth young beech, nor the fresh and tender ash, but the rugged oak or knotty wych-elm, is *P.* Among animals, the ass is generally thought to be more *P.* than the horse; and among horses, it is the wild and rough forester, or the worn-out cart-horse, to which that title is applied. In our own species, objects merely *P.* are to be found among the wandering tribes of gipsies and beggars. Such objects are neither beautiful nor sublime; but are, nevertheless, endowed with qualities of their own, which are not only highly suited to the painter and his art, but attractive also to the rest of mankind whose minds have been at all cultivated or improved; and to such objects the term *P.* ought to be exclusively applied.

Picturesque'ly, *adv.* In a picturesque manner.

Picturesque'ness, *n.* The state or quality of being picturesque.

Picturize, (*pikt'yur-īz,*) *v. a.* To form into or represent by pictures; to embellish with pictures.

Pic'ul, Pec'ul, or **Pec'al,** *n.* [Malay *pikul*, a man's burden.] In China and the E. Indies, a weight of 133⅓ pounds.

Pid'dle, *v. n.* To urinate; — a childish word.

Pid'dler, *n.* One who piddles.

Pid'dling, *a.* Trivial; insignificant.

Pie, (*pī.*) *n.* [Ir. *pi*, or *pighe*.] An article of food, consisting of paste baked with something in it or under it, as apple, minced-meat, &c.

—[Fr.; Lat. *pica*.] (*Zoöl.*) The MAGPIE, *q. v.*

(*Printing.*) Same as PI, *q. v.*

Pie, *n.* [W. *pi*, and *pia*; Ir. and Gael. *piogh*; Fr. *pie*; Lat. *pica*, a magpie; Sansk. *pika*, the Indian cuckoo.] (*Zoöl.*) Same as PICA, *q. v.*

(*Eccl.*) See PICA.

Pie'bald, *a.* Of various colors; diversified in color; mottled; as, a *piebald* horse.

Piece, *n.* [Fr.; L. Lat. *pecia*, *petia*, a fragment; It. *pezzo*, a bit, piece.] A part or portion of anything separated from the whole in any manner: a share; a fragment. — A part of anything, though not separated, or separated only in idea; as, a *piece* of information. — An individual article; a portion of a thing considered as distinct from other things of the same kind or class: a definite performance; a single effort; — particularly a literary or artistic composition; as, a *piece* of poetry or music, a *piece* of statuary. — A musket, gun, or cannon; as, a *piece* of artillery, a fowling-*piece*. — A coin; as, a fourpenny *piece*. — An individual person — sometimes used in contempt.

"Thy mother was a *piece* of virtue."—*Shaks.*

Apiece, piece by piece; singly. "Creatures who had only one eye and one ear *apiece*." — *Of a piece*, of the same sort or kind; like; sometimes before *with*.

"A poet must be *of a piece with* the spectators." — *Dryden.*

Piece of eight. See PIASTRE. — *To pieces*, to destruction; as, the ship was dashed to *pieces*.

—*v. a.* To enlarge or mend by the addition of a piece; to patch. — To unite; to join.

—*v. n.* To unite by coalescence of pieces or parts; to be compacted, as parts into a whole. — *To piece out*, to enlarge, by adding a piece or pieces.

Piece'-broker, *n.* One who purchases remnants of cloth, &c., to sell again.

Piece'-goods, *n. pl.* Dry-goods generally sold in the piece, as sheetings, shirtings, muslins, &c.

Piece'less, *a.* Not made of pieces; consisting of an entire thing.

Piece'meal, *adv.* In pieces or fragments. — By little and little in succession.

—*a.* Made of parts or pieces; single; separate.

—*n.* A fragment.

Piece'mealed, *a.* Divided into small fragments or parts.

Piece'ner, *n.* One who, in a manufacture, supplies the rolls of wool to the slubber.

Piec'er, *n.* One who pieces; a patcher.

Piece'work, *n.* Work done by the piece or job.

Pied, (*pīd.*) *a.* Variegated with spots of different colors; spotted; parti-colored.

"Meadows trim, with daisies *pied*." — *Milton.*

Piedad', a town of Mexico., abt. 1½ m. S.W. of the city of Mexico. During the Mexican War, it was taken and occupied as an advance-post by the American army, previous to the assault on Chapultepec.

Piedimon'te, a town of S. Italy, prov. of Terra di Lavora; 20 m. N.E. of Caserta. *Manuf.* Cloth and paper. *Pop.* 5,700.

Piedmont, (*pied'mont*) a N.W. division of Italy, formerly the most important part of the kingdom of Sardinia, now forming the N.W. portion of the kingdom of Italy; having N. the Pennine Alps, E. the Ticino and Parma, S. the Maritime Alps and Genoa, and W. the Graian and Cottian Alps. *Area*, 11,867 sq. m. The surface is a succession of hills and fertile valleys. The climate is mild in winter, but in the summer the heat is excessive. *Rivers.* The Po, Tanaro, and the two Doras, are the principal. *Prod.* Wheat, rye, barley, rice, and fruits. Numerous cattle are raised, and the vineyards are extensive. *Min.* Iron, lead, copper, sulphur, marble, cobalt, &c. *Manuf.* Silks, hosiery, woollen and linen goods, brandy, liqueurs, glass, and earthenware. *Chief towns.* Turin (the cap.), Alessandria, Asti, Coni, Novara, Vercelli, Pinerolo, Susa, and Aosta. *Pop.* 3,535,736.

Pied'mont, in *Georgia*, a village of Harris co., abt. 115 m. W.S.W. of Milledgeville.

Pied'mont, in *West Virginia*, a post-village of Mineral co., 28 m. S.W. of Cumberland, Md.

Pied'mont Sta'tion, in *Virginia*, a village of Fauquier co., about 61 m. W. of Alexandria.

Pied'ness, *n.* Variegation; diversity of color.

Piedouche, (*pe-ū-dōōsh',*) *n.* [Fr.] (*Arch. and Sculp.*) A little pedestal for supporting a bust, &c.

Piedras, (*pē'a-dras,*) a promontory of S. America, in the æstuary of the Rio de la Plata, abt. 90 m. S.E. of Buenos Ayres.

Pie'dras, a promontory on the E. coast of Mexico, abt. 65 m. N.W. of Vera Cruz.

Piedroit, (*pe-drwaw'.*) *n.* [Fr. *pied-droit*, straight-foot.] (*Arch.*) A pier or square pillar, hidden partly within a wall, for the purpose of receiving the downward thrust of a vault, or of a girder. It is without base or capital, and therein differs from a pilaster.

Pieds-Noirs, a tribe of North American Indians. See BLACKFEET.

Piel, (*pēl,*) *n.* An iron wedge for boring stones.

Pieled, (*peeld,*) *a.* Bald: naked; bare.

Pielis, or **Pielisiaryl,** (*pe-a'lis,* or *pe-a lis-yar'vee,*) a lake of E. Finland, 60 m. E.N.E. of Knopio, between Lat. 62° 55′ and 63° 35′ N., Lon. 29° and 30° 20′ E. Length 57 m., breadth varying from 6 to 14 m. It communicates with Lake Ornovesi by the River Pielis.

Pieno, (*pe-ā'no,*) *a.* [It., from Lat. *plenus*, full.] (*Mus.*) Full; with all the instruments.

Pier, (*peer,*) *n.* [A.S. *per*, *pere*; Fr. *pierre*, a stone, from Gr. *petra*, a rock.] (*Arch.*) The strong columns on which the arch of a bridge is raised; the solid mass between doors, windows, and other openings in buildings.

(*Engineering.*) The mass of building erected for the purpose of forming harbors, landing-places, or other similar works; a mole.

Pier'age, *n.* The rent or toll paid for using a pier or wharf; wharfage.

Pierce, (*peers,*) *v. a.* [Fr. *percer*, from Lat. *pertundo*, *pertusum*, to make a hole through.] To thrust into with a pointed instrument; to perforate. — To penetrate; to enter; to force a way into; as, a bullet *pierced* his brain. —To penetrate deeply, as the heart; to touch, as the passions; to excite or affect, as the passions. — To dive or penetrate into, as a secret or purpose.

—*v. n.* To enter, as a pointed instrument. — To penetrate; to force a way into or through anything. — To dive or penetrate, as into a secret; to enter. — To affect deeply; as, *piercing* eloquence.

Pierce, FRANKLIN, the 14th President of the United States, son of Brigade-major Benjamin Pierce, who held several political offices in the State of New Hampshire, born in Hillsborough, N. H., 1804, after completing his academical studies, went to Bowdoin College, Maine. On leaving college, he entered the office of Judge Howe, of Northampton, Massachusetts, but returned to his native

State, and finished his studies at Amherst. He was admitted to the bar, and commenced practice in his native town; before the end of two years he was elected a representative in the State Legislature, and during his second year's service was chosen Speaker. In 1833 he was elected to Congress, and remained a member of the House of Representatives for four years. Although a firm supporter of Democratic measures, he seldom distinguished himself as a debater. In 1837 he was elected a member of the U. S. Senate, and at the end of five years resigned his seat, intending to devote himself wholly to his profession, when he settled in Concord, and, resuming his practice at the bar, was successful as an advocate. President Polk offered to make him Attorney-General or Secretary of War, but he refused both of these offices. On the breaking out of the Mexican War, Mr. Pierce enrolled himself as a private soldier in a New England regiment; President Polk sent him a colonel's commission, and raised him to the rank of brigadier-general in March, 1847. On the restoration of peace, he lived in comparative retirement until the proceedings of the Baltimore Democratic Convention in 1852 brought him once more before the public, and he was nominated by that body, with but few dissentient votes, the Democratic candidate for the Presidency of the United States, and in due course was elected to that office; though a man of marked ability, he did not succeed in giving satisfaction to any party. He was succeeded by Mr. Buchanan in 1857. Soon after he travelled extensively in Europe, from which he returned in 1860, but from that time took no part in politics. D. 1869.

Pierce, in *Georgia*, a S.E. co.; *area*, abt. 500 sq. m. *Rivers.* Satilla River, and Hurricane Creek. *Surface*, mostly level; *soil*, sandy and barren. *County-seat*, Blackshear.

Pierce, in *Illinois*, a twp. of De Kalb co.

Pierce, in *Indiana*, a township of Washington county.

Pierce, in *Iowa*, a township of Page co.

Pierce, in *Ohio*, a twp. of Clermont co.

Pierce, in *Washington*, a W. central co., bordering on Puget Sound; *area*, about 1,376 sq. m. *Rivers.* Nesqually, White, and Puyallop rivers. *Surface*, diversified, and in the E. mountainous. Mount Rainier, a peak of the Cascade Range in the S.E., has an elevation of about 12,000 feet; *soil*, generally fertile. *Cap.* Tacoma. *Pop.* (1897) about 64,500.

Pierce, in *Wisconsin*, an extreme W. co., adjoining Minnesota; *area*, about 570 sq. m. *Rivers.* Mississippi, St. Croix, Menomonee, and Rush rivers. Lake Pepin forms a portion of the S. boundary of the co. *Surface*, generally level; *soil*, fertile. *Cap.* Ellsworth. *Pop.* (1895) 23,040.

Pierce'able, *a.* That may be pierced.

Pierce City, in *Idaho*, a post-village, former cap. of Shoshone co., about 90 m. E. of Lewistown.

Pier'cel, *n.* A piercer; a gimlet or other instrument for forming a vent in a barrel of liquor.

Pierce Point, in *Iowa*, a post-village of Dallas co., abt. 27 m. W.N.W. of Des Moines.

Pierc'er, *n.* An instrument that pierces, penetrates, or bores.—One who pierces or perforates.

Pierce'ton, in *Indiana*, a post-town of Kosciusko co., about 9 m. E. S. E. of Warsaw.

Pierce'ville, in *Indiana*, a post-village of Ripley co., abt. 45 m. W. of Cincinnati, Ohio.

Pierc'ingly, *adv.* In a piercing manner; with penetrating force or effect; sharply.

Pierc'ingness, *n.* The power of piercing.

Pier'-glass, *n.* A glass or mirror which hangs against a pier, between windows.

Pier'ian, *a.* [Lat. *pierius*, from Gr. *pierios*, from Mount *Pierus*, in Thessaly, sacred to the Muses.] Relating to the Muses; as, the *Pierian* spring.

Pier'mont, in *New Hampshire*, a post-village and township of Grafton county, about 5 miles S. of Haverhill.

Pier'mont, in *New York*, a post-village of Rockland co., abt. 24 m. N. of New York city.

Pier'pont, in *New York*, a post-township of St. Lawrence co.

Pierpont, in *Ohio*, a post-village and township of Ashtabula co., abt. 218 miles North East of the city of Columbus.

Pierre Bayou', in *Mississippi*, flows into the Mississippi River from Claiborne co.

Pierrepont Manor, (*peer'pont,*) in *New York*, a post-vill. of Jefferson co., abt. 18 m. S.S.W. of Watertown.

Pier'rier, PETRARY, *n.* [Gr. *petros*, a stone.] (*Mil.*) Anciently, an engine for casting stones; afterwards a small kind of cannon; and in modern times a mortar used in sieges for firing stones.

Pier'son, in *Indiana*, a twp. of Vigo co.

Pierson, or PEARSON, in *Michigan*, a post-township of Montcalm co.

Pier'-table, *n.* A table placed between windows.

Pict, *n.* (*Zoöl.*) Same as PICA, *q. v.*

Pi'etism, *n.* The religion of the German Pietists.

Pi'etist, *n.* (*Eccl. Hist.*) One of a sect of religious reformers that sprung up in Germany in the 17th cent., noted for strict piety and great purity of life;—often so called in contempt.

Pietis'tic, Pietis'tical, *a.* Relating to the Pietists; affectedly religious.

Pi'ety, *n.* [Fr. *piété*; It. *pieta*; Lat. *pietas*, from *pius*, pious.] Filial revereuce or veneration toward God as the Father of all; a sense of dependence on the Supreme Being, accompanied with love, habitual reverence, and a disposition to know and obey His will and laws.—Reverence of parents or friends, accompanied with affection and devotion to their honor and happiness.

Pietraper'zia, a town of Italy, in Sicily, 5 m. S.E. of Caltanisetta; *pop.* 8,500.

Piezom'eter, *n.* [Gr. *piezim*, to press, and *metron*, measure.] An instrument for ascertaining the compressibility of liquids.

Piffero, *n.* [It.] (*Mus.*) A fife.

Pig, *n.* [Du. *big*, pig; Norm. *piges*, pigs.] A young sow or boar.—An oblong mass of unforged iron, lead, or other metal, so called because it flows in the melted state into channels branching off from the main channel, called the *Sow.* See IRON.

—In Scotland, an earthen ewer or vessel.

—*v. a.* or *v. n.* To farrow; to bring forth pigs; to bring forth in the manner of pigs.—To lie together like pigs.

Pig'-bed, *n.* (*Founding.*) The bed of moulded sand into which molten iron is run, in order to be cast into pigs.

Pi'galle, JEAN BAPTISTE, an eminent sculptor, b. at Paris, 1714. He studied in Italy, and on his return to France became sculptor to the king, chancellor of the Academy of Painting, and a knight of the order of St. Michael; D. 1785.

Pigeon, (*pij'un,*) *n.* [Fr.; Sp. *pichon*; Lat. *pipio*, a young piping or chirping bird.] (*Zoöl.*) A name common to all the birds composing the family *Columbidæ*, q. v. As the Ring-Dove, Stock-Dove, Passenger-Pigeon, and Turtle-Dove will be found described under those names respectively, we shall notice here exclusively the tame or domesticated *P.*, the tenants of the dove-cot. These are the willing attendants on man, and depend on his bounty, seldom leaving the dwellings provided for them, and only roaming abroad to seek amusement, or to procure subsistence; but when we consider the lightness of their bodies, the great strength of their wing, and the amazing rapidity of their flight, it is a matter of wonder that they should submit even to a partial domestication, or occupy those tenements fitted up for the purpose of breeding and rearing their young. *P.* occur in every climate, and although they thrive best in warm countries, yet with care they succeed also in very northern latitudes. Their manners are gentle and lively; they are fond of society, and have always been held emblematic of peace and innocence; they are faithful to their mates, whom they solicit with the softest cooings, the tenderest caresses, and the most graceful movements. The exterior form of the *P.* is elegant: the bill is weak, straight, slender, somewhat curved at the point, and has a soft protuberance at the base, in which the nostrils are placed; the legs are short and red, and the toes divided to the origin. They moult once, and the sexes do not differ in plumage. It would be as fruitless as unnecessary to attempt to describe *all* the varieties of the tame *P.*; for human art has so much altered the color and figure of this bird, that pigeon-fanciers, by pairing a mule and female of different sorts, can, as they express it, "breed them to a feather." Hence we have the various names of *Carriers*, *Tumblers*, *Jacobins*, *Croppers*, *Pouters*, *Runts*, *Turbits*, *Shakers*, *Fantails*, *Owls*, *Nuns*, &c., all birds that at first may have accidentally varied from the stock-dove. Of all the varieties, the finest is the *Carrier-P.* or *Messenger*,—so called from its being used to convey letters from one place to another. These birds are rather larger than most of the common-sized *P.*; their feathers lie very close and even, and their necks are long and straight; so that when they stand upright on their legs, they show more gentility of shape than most other *P.* From the lower part of the head to the middle of the lower chap there grows out a white, naked, fungous flesh, which is called the wattle, and is generally met by two small protuberances of the same luxuriant flesh, rising on each side of the under chap. The eyes are surrounded with the same sort of corrugated flesh; and the circle around the black pupil of their eyes is commonly of a red brick-dust color, though more esteemed when it is of a brilliant red. When the luxuriant flesh around the eye is thick and broad, it is considered that the Carrier will be a good breeder, and rear very fine young ones. Extraordinary attention was formerly paid to the training of these *P.* An actual post-system, in which *P.* were the messengers, was established by the Sultan Nouredlin Mahmoud, who died in 1174; which flying-post lasted till 1258, when Bagdad fell into the hands of the Mongols, and was destroyed by them. At present they are kept only by some persons as a curiosity, much time and attention being required to train them properly. As soon as the young are fledged, a cock and a hen-bird are made as tame as possible, and accustomed to each other's society. They are then sent, in an uncovered cage, to the place whither they are usually to carry messages. If one of them should be lost, or carried away, after having been well treated for some time, it will certainly return to its mate. A small letter is written on the finest kind of thin paper; then placed lengthwise under one wing, or fastened to the leg.

—A dupe; one who is cheated at cards or in gambling; as, to pluck a *pigeon.* (Cant.)

Pigeon English, the barbarous dialect of broken English used by English and American residents in China in their dealings with the native traders.

—*v. a.* To fleece of money by cheating at cards or dice.

Pigeon, in *Indiana*, a township of Vanderberg co.—A township of Warrick co.

Pigeon Creek, in *Indiana*, enters the Ohio River from Vanderburg co.

Pigeon Creek, in *Missouri*, a post-village of Ralls co., abt. 80 m. N.E. by N. of Jefferson City.

Pigeon-hawk, *n.* (*Zoöl.*) The *Falco columbarius* of Linnæus, a falcon of the warm and temperate parts of America, is 12 to 14 inches long, and the wing 8 to 9 inches; the male 10 to 11 inches, and the wing 8 inches. In the adult the upper parts are bluish-slate, every feather with a longitudinal black line; forehead and throat white; and the other under parts pale-yellowish or reddish-white, every feather with a longitudinal line of brownish-black. The bill is blue, cere and legs yellow, quills black, tipped with ashy-white, tail light bluish-ashy tipped with white, and with a broad subterminal black band, and several other narrower transverse bands of the same color. This spirited little falcon preys upon pigeons, teal, and most of the smaller birds. In the latter part of summer and early autumn it is a constant attendant upon the flocks of birds that are assembling for, or making, their southward migrations, and fattens upon those it chooses to select. It generally flies low, skimming over fields, and along the hedges and skirts of woodlands, searching for its favorite prey.

Pig'eon-hearted, *a.* Timid; easily alarmed or frightened.

Pigeon-hole, *n.* A hole for pigeons to enter the dove-cot.

—*pl.* Divisions or partitions in a bureau, &c., for keeping assorted letters, documents, &c.—An old English game in which balls were rolled through little arches.

Pigeon-livered, (*-liv'erd,*) *a.* Mild; soft; gentle;—said of temper or disposition.

Pigeon River, rises in Steuben co., Indiana, and flowing W.N.W. into Michigan, enters the St. Joseph River in Cass co.

Pigeon River, in *Alabama*, flows into Sepulga River, in Conecuh co.

Pigeonry, (*pij'un-ry,*) *n.* A dovecote; a place where pigeons are kept; a columbary.

Pig'eon-toed, *a.* Having toes turned in.

Pig'-eyed, (*-id,*) *a.* Having small, deeply-sunken eyes.

Pig'gery, *n.* A place where swine are kept.

Pig'gin, *n.* [Gael. *pigean*, an earthen pitcher.] A small wooden vessel with an erect handle, used as a dipper.

Pig'-headed, *a.* Having a large or badly-shaped head; obstinate to a degree of stupidity.

Pig'headedness, *n.* Excessive stupidity or obstinacy.

Pig'-iron, (*-i-urn.*) *n.* Iron in pigs, or oblong blocks or bars, as originally cast in the mould or pig-bed.

Pig'-lead, (*-led,*) *n.* Lead in pigs, or as first separated from the ore.

Pig'mean, *a.* Resembling a pigmy; dwarfish; very small.

Pig'ment, *n.* [Lat. *pigmentum*, from *pingo*, to paint.] Paint; a preparation used by painters, dyers, &c., to impart colors to bodies.—Highly spiced wine, flavored with honey.

(*Anat.*) A term applied to the mucous secretion which covers the iris of the eye and gives it its various colors;—to the dark matter which covers the anterior surface of the choroid membrane;—and to the interior surface of the ciliary processes.

Pigmen'tal, *a.* Pertaining or having reference to pigments.

Pig'mentary, Pigment'ous, *a.* Relating to, or furnished with, pigments or coloring-matter.

Pig'my, *n.* A dwarf. See PYGMY.

Pigmy Ape, *n.* (*Zoöl.*) See MAGOT.

Pignora'tion, *n.* [From Lat. *pignerare*, to pledge.] (*Civ. Law.*) The seizing of cattle doing damage, by way of pledge, until compensation is made.

Pig'norative, *n* (*Law.*) Pledging; pawning.

Pig'-nut, *n.* (*Bot.*) See HICKORY.

Pig'-sty, *n.* A sty or pen for pigs.

Pig'tail, *n.* The tail or caudal appendage of a pig.—A queue: the hair of the head tied behind in the form of a pig's tail.—A kind of tobacco twisted into a cord, and rolled up into a compact mass.

Pigwidgeon, (*-wij'un.*) *n.* A fairy;—hence, colloquially, a name for anything very small.

Pi'ka, *n.* (*Zoöl.*) See LAGOMYS.

Pike, *n.* [Fr. *pique*; A.S. *pïc*, a little pin or needle.] A military defensive weapon formerly much used by foot-soldiers, consisting of a narrow elongated lance-head fixed to a pole, or a simple spike of metal.—A fork used in husbandry; a pitchfork.—A pointed peak, hill, or mountain summit; as, Rivington *Pike*, England.—A turnpike road.

Pike, *n.* (*Zoöl.*) A malacopterygious fish, which, along with the Pickerel, composes the family *Esocidæ*. "They are soft-finned fishes, having the body long, one dorsal generally opposite the anal, and a very large mouth, extensively armed with very sharp teeth. The genus *Esox* is characterized by an oblong, broad and depressed snout. The species are very voracious. The Muskallonge, or Pike, *E. estor*, of the N. American Lakes, is 20 to 48 inches long, and sometimes attains the weight of 20 lbs. The common Pickerel, *E. reticulatus* of the E. States, is from 12 to 36 inches long. The Short-nosed Pickerel, *E. gascialus*, is smaller than the preceding, with a short snout, and is common in the brooks and rivers of N. England."—*Tenney.* The Pikes are remarkable for their length of life, attaining, in some instances, the age of a hundred years. Their flesh is of good quality.

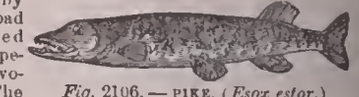
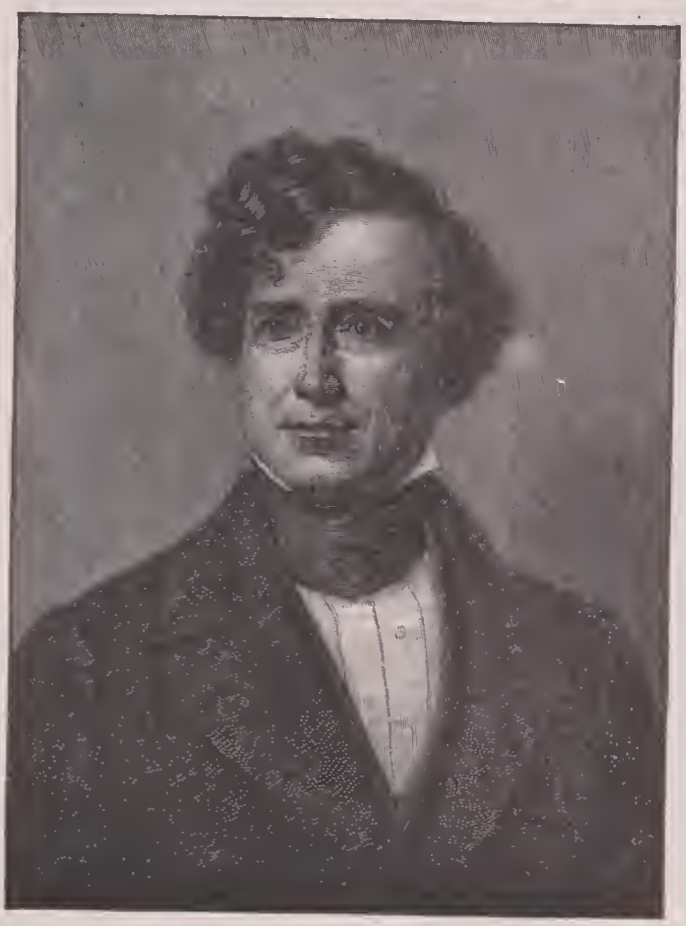


Fig. 2106.—PIKE, (*Esox estor.*)

Pike, in *Alabama*, a S. E. co.; *area*, about 710 sq. m. *Rivers.* Conechu and Pea rivers. *Surface*, nearly level; *soil*, moderately fertile. *Cap.* Troy. *Pop.* (1897) 25,950.

Pike, in *Arkansas*, a S. W. co.; *area*, about 620 sq. m. *Rivers.* Little Missouri, and several other tributaries of the Washita river. *Surface*, diversified; *soil*, well adapted to stock raising. *Min.* Silver, iron, lead, zinc,



Franklin Pierce

1804–1869

cobalt, stone coal, and alabaster. *Cap.* Murfreesborough. *Pop.* (1897) 9,150.

Pike, in *Georgia*, a W. central co.; *area*, about 262 sq. m. *Rivers.* Flint river, and Big Potato, Elkins, Flat, Rose, and South Towaliga creeks. *Surface*, diversified; *soil*, moderately fertile. *Min.* Iron. *Cap.* Zebulon. *Pop.* (1897) 16,940.

Pike, in *Illinois*, a W. co., adjoining Missouri; *area*, about 795 sq. m. *Rivers.* Mississippi and Illinois. *Surface*, undulating prairies partly covered with forests. *Soil*, remarkably fertile. *Min.* Coal in abundance. *Cap.* Pittsfield. *Pop.* (1890) 31,000.

—A township of Livingston co.

Pike, in *Indiana*, a S. W. co.; *area*, about 310 sq. m. *Rivers.* White river and Patoka creek, besides several smaller streams. *Surface*, nearly level; *soil*, very fertile. *Min.* Coal in abundance and of superior quality. *Cap.* Petersburg. *Pop.* (1897) 19,360.

—A township of Jay co.

—A township of Marion co.

—A township of Ohio co.

—A township of Warren co.

Pike, in *Iowa*, a township of Muscatine co.

Pike, in *Kansas*, a township of Lyon co.

Pike, in *Kentucky*, an extreme E. co., adjoining West Virginia on the N. E., and Virginia on the S. E.; *area*, about 780 sq. m. *Rivers.* Tug Fork and West Fork of Big Sandy river. *Surface*, uneven and hilly, being bounded on the S. E. by Cumberland Mountain; *soil*, generally fertile. *Min.* Bituminous coal in large deposits. *Cap.* Piksville. *Pop.* (1897) 17,705.

Pike, in *Mississippi*, a S. co., adjoining Louisiana; *area*, about 720 sq. m. *Surface*, level; *soil*, not very fertile. *Cap.* Magnolia. *Pop.* (1897) 22,150.

Pike, in *Missouri*, an E. by N. co., adjoining Illinois; *area*, about 620 sq. m. *Rivers.* Mississippi, Salt, and Cuivre rivers, and Spencer's, Ramsey's, and Buffalo creeks. *Surface*, mostly level prairies; *soil*, generally fertile. *Min.* Limestone and sandstone. *Cap.* Bowling Green. *Pop.* (1890) 26,321.

—A township of Stoddard co.

Pike, in *New York*, a post-village and township of Wyoming county, about 45 miles east southeast of Buffalo.

Pike, in *North Carolina*, a post-office of Cumberland co.

Pike, in *Ohio*, a S. co.; *area*, about 436 sq. m. *Rivers.* Scioto river, and Beaver and Sunfish creeks. *Surface*, generally hilly; *soil*, very fertile. Producing the usual fruits and cereals of that region in abundance. *Cap.* Waverly. *Pop.* (1897) 18,430.

—A township of Brown county.—A township of Clarke county.—A township of Coshocton county.—A township of Fulton county.—A township of Knox county.—A township of Madison county.—A township of Perry county.—A township of Stark county.—A post-office of Pike county.

Pike, in *Pennsylvania*, an E. by N. co., adjoining New York on the N.E. and New Jersey on the S.E.; *area*, abt. 600 sq. m. *Rivers.* Delaware River, and Lackawaxen, Shohola, and Bushkill creeks. *Surface*, hilly and broken; *soil*, moderately fertile; *Minerals*, excellent building, flagging, and other stone. *Cap.* Milford.

—A township of Berks county.—A post-township of Bradford county.—A township of Clearfield county.—A township of Potter county.

Piked, *a.* Acuminated; ending in a point.

Pike'let, Pike'lin, *n.* In England, a light tea-cake.

Pike'man, *n.*; *pl.* PIKEMEN. A soldier armed with a pike.

Pike Mills, in *Pennsylvania*, a post-village of Potter co., abt. 25 m. E. of Coudersport.

Pike'-perch, *n.* (*Zoöl.*) An acanthopterygious fish, genus *Labrax*, from *Percidæ*. It inhabits the Great Lakes of N. America, is 12 to 18 inches long, cylindrical and tapering, and is popularly known as the Common Pike, Glass-Eye, and Yellow Pike.

Pike's Peak, in the State of *Colorado*, one of the highest summits of the Rocky Mountains, in El Paso co., abt. Lat. 38° 35′ N., Lon. 105° 15′ W.; *height*, as ascertained by Hayden's U. S. explorations, 1876, 14,146 feet. There is a U. S. signal station here.

Pike'staff, *n.* The shaft of a pike.—An alpenstock.

Pikes'ville, or PIKEVILLE, in *Maryland*, a village of Baltimore co.; mail BALTIMORE.

Pike'ton, in *Indiana*, a village of Marion co.; now a suburban part of Indianapolis.

Piketon, or PIKEVILLE, in *Kentucky*, a post-village, cap. of Pike county, about 160 miles south southeast of Frankfort.

Piketon, in *Ohio*, a post-village, former cap. of Pike co., about 65 m. S. of Columbus.

Pike'ville, in *Alabama*, a post-village, former cap. of Marion co., about 68 m. N. N. W. of Tuscaloosa.

Pikeville, in *Mississippi*, a village of Chickasaw co., abt. 14 m. E. of Houston.

Pikevilie, in *Tennessee*, a post-village, cap. of Bledsoe co., abt. 112 m. E.S.E. of Nashville.

Pi'lage, *n.* [From Lat. *pilus*, hair.] The natural coat of hair on animals.

Pilao Arcado, (*pe-lowng ar-ka'do,*) a town of Brazil, on the São Francisco River; Lat. 11° 30′ S., Lon. 42° 40′ W.; *pop.* 5,000.

Pliar', or NEEMBUCU, a town, port of entry, and military depôt of Paraguay, on the Parana River, abt. 170 m. W. S.W. of Asuncion.

Pilar, in Brazil, a town abt. 50 m. W. of Parahyba; *pop.* 4,000 — Another town, about 170 m. N. of Goyaz; *pop* 1,800.

Pi'lares, (Capo de los,) a cape of S. America, forming the N.W. extremity of Terra del Fuego.

Pilas'ter, *n.* [It. *pilastro*; Fr. *pilastre*, from Lat. *pila*, a pillar.] (*Arch.*) A square column or pillar, used in classical architecture, sometimes disengaged, but generally attached to a wall, from which it projects a third, fourth, fifth, or sixth of its breadth. The Greeks formed their pilasters of the same breadth at the top and bottom, (Fig. 2107,) and then gave them capitals and bases different from those of the orders with which they were associated; the Romans usually gave them the same capitals and bases as the columns, and often made them diminish upwards in the same manner.

Fig. 2107. PILASTER.

Pilas'tered, *a.* Having pilasters.

Pi'late, (PONTIUS,) a Roman, who became governor of Judæa A. D. 26. He commanded in that country ten years. The Jews brought Jesus Christ before Pilate, who, perceiving that envy and malice occasioned their charges, would have scourged the prisoner and dismissed him, but being threatened with the wrath of Cæsar, Pilate delivered Jesus, whom he pronounced innocent, to be crucified. He is said to have subsequently treated the Samaritans with great cruelty, for which he was recalled by Tiberius, and banished to Gaul, where he slew himself, A. D. 37 or 38.

Pilat'ka, in *Florida*, a post-village, cap. of Putnam co., 200 m. E.S.E. of Tallahassee.

Pi'lau, *n.* See PILLAU.

Pilaya, or TUPIZA, (*pe-li'a,*) a river of Bolivia, rises on the E. slope of the Easterη Andes, and flowing a general E. course of abt. 300 m., joins the E. branch of the Pilcomay, abt. Lat. 20° 50′ S., Lon. 63° 50′ W.

Pilch', Pilch'er, *n.* [From It. *pellicia*, from Lat. *pellis*, a skin.] Anything lined with fur, as a robe.

Pil'chard, *n.* (*Zoöl.*) The *Clupea pilchardus*, a species of herring very common on the shores of the S.W. of England, but differing from the common herring in many zoölogical characters, among which the larger size of the abdominal region is the one most prominent to ordinary observers.

Pilch'er, *n.* [From It. *pellicia*, a furred coat; Lat. *pellis*, a skin.] Anything lined with fur, as a robe.

(*Zoöl.*) See PILCHARD.

Pilcomayo, or ARAGUAI, (*pil-ko-mi'o,*) a river of S. America, rises between the provinces of Chuquisaca, Potosi, and Tarija, in Bolivia, and flowing S.E. into Paraguay, joins the Paraguay River by two embouchures, a few m. below Asuncion; *length*, abt. 1,000 m.

Pile, *n.* [A. S. *pil*; Fr. *pile*, a heap; Lat. *pila*, a ball.] A heap; a mass or collection of things in a roundish or elevated form; as, a *pile* of stones, a *pile* of wood.— A collection of combustibles for lucremation; as, a funeral *pile*.—An edifice; a large building or mass of buildings; as, a noble *pile*.—A series of iron bars for reheating.—A heap of balls or shot laid in horizontal courses, rising into a pyramidal form.

(*Elect.*) See VOLTAIC ELECTRICITY.

Pile, *n.* [A. S. *pil*; Ger. *pfahl*; Lat. *palus*, a stake, a prop.] (*Engineering.*) A beam of timber or stakes of wood driven firmly into the ground for various purposes; such as forming the foundation for buildings, piers of bridges, &c. Piles may be either round or square, and formed of any timber which is not likely to rot under water. They are generally made of fir; but oak and elm are also largely employed. The end of the pile which enters the ground is pointed and shod with iron, while the top is bound with a strong iron hoop to prevent the wood from splitting under the violent blows required to drive it home. Foundations are never constructed with piles unless the ground is suspected of being unsound, or the weight to be borne is exceedingly great. Piles of cast-iron are now often used, chiefly in the formation of harbors.

(*Coinage.*) One side of a coin; — the opposite of *cross*. Originally, a punch or puncheon used in stamping figures on coins, and containing the figures to be impressed.

(*Her.*) An ordinary which is represented of a wedge-shape, tapering from the chief downwards towards the point; said to represent the piles on which bridges and other erections are founded.

Pile, *n.* [Lat. *pilus*, hair.] A hair; hence, the fibre of textile fabrics; hence, also, the fine hairy substance on the surface of cloth, &c.; as, velvet *pile*.

Pile, *v. a.* To heap; to lay, throw, or collect into a pile or mass; as, to *pile* wood: to accumulate; to amass; as, to *pile* money, to *pile* comments or quotations. — To fill above the brim or top; as, *piled* measure. — To drive piles in; to furnish or fill with piles.

To shut pile, to drive a piling of planks edge to edge in. (See PILING.) — *To pile arms.* (*Mil.*) To place three muskets together in such an upright manner as to afford each other support in common.

Pi'leate, Pi'leated, *a.* [From Lat. *pileus*, a felt hat.] (*Bot.*) Possessing the shape of a head-covering, as a mushroom.

Piled, (*pild,*) *a.* Re-heated; as, *piled* iron.

Pile'-driver, Pile'-engine, *n.* An engine for driving down piles into the earth.

Pileorhi'za, *n.* [Gr. *pilos*, felt cloth, and *riza*, a root.] (*Bot.*) The cap of a root. It is well represented in the ends of the roots of *Nuphar*, where it is seen to form a membranous hood, distinct from the spongiole.

Pi'leous, *a.* Covered with, or consisting of hair; pilose.

Pile'-plank, *n.* One of a number of planks with sharpened points, driven into the ground after the manner of piles.

Pil'ler, *n.* One who piles a heap.

Piles, *n. pl.* [Lat. *pila*, a ball.] (*Med.*) See HÆMORRHOIDS.

Piles'grove, in *New Jersey*, a township of Salem county.

Pi'leus, *n.* [Lat. and Gr., a felt hat.] (*Antiq.*) A kind of felt cap worn by the ancients, and fitting close to the head; a skull-cap.

(*Bot.*) The expanded disc of certain fungi, as the mushroom.

Pil'fer, *v. n.* [Fr. *piller*; Lat. *pilare*, to pillage; primarily to deprive of hair, from *pilus*, a hair.] To steal in small quantities; to practise petty theft.

—*v. a.* To filch; to steal by petty larceny.

Pil'ferer, *n.* One who pilfers; one who commits petty theft.

Pil'feringly, *a.* With petty theft; filchingly.

Pil'fery, *n.* Petty theft.

Pilgar'lic, *n.* One who has lost his hair by disease; — hence, a poor, neglected wretch.

Pil'grim, *n.* [Ger. *pilger*; Fr. *pèlerin*; Sp. *peregrino*; It. *pallegrino*; Lat. *peregrinus*, a foreigner.] A wanderer; a traveller; specifically, one who travels to a distance from his own country to visit a holy shrine, or to pay his devotion to the remains of dead saints.

(*Script.*) One who has only a temporary residence on earth.

—*a.* Pertaining or having reference to pilgrims.

Pil'grimage, *n.* A long journey, particularly a journey to some place deemed sacred and venerable, in order to pay devotion to the relics of some deceased saint. — Hence, any undertaking requiring the exercise of time and patience; time irksomely passed.

"In prison hast thou spent a *pilgrimage*." — *Shak.*

(*Script.*) The journey of human life.

Pilid'ium, *n.* (*Bot.*) The orbicular hemispherical shield or apothecium of a lichen, the outside of which changes to powder, as in calycium.

Piliferous, *a.* [Lat. *pilus*, hair, and *ferre*, to bear.] Beset with hairs; bearing a single hair, as a plant.

Pillig'erous, *a.* [From Lat. *pilus*, hair, and *gerere*, to bear.] Covered with, or bearing hair.

Pil'iform, *a.* [Lat. *pilus*, hair, and *forma*, form.] Having the appearance of hair or down.

Pil'ing, *n.* Act of heaping, or of throwing into a heap. —Act of driving piles. — Piles in place, considered collectively.

Shut piling, a series of piles made of planks or half logs driven edge to edge.

Pill, *n.* [Lat. *pila*, *pilula*.] A medicine in the form of a little ball, to be swallowed entire; — hence, anything nauseous.

—*v. a.* [Fr. *piller*, to strip off.] To pillage; to peel. — To dose with pills.

—*v. n.* To be peeled; to come off in flakes. — To pillage. See PEEL.

Pillage, (*pil'laj,*) *n.* [Fr.] A stripping or depriving of property by violence; act of plundering.

"Thy sons make *pillage* of her chastity." — *Shak.*

—Plunder; spoil; that which is taken from another by open force, particularly and chiefly from enemies in war.

—*v. a.* To plunder; to spoil; to strip of money or goods by open violence; as, soldiers *pillage* the towns of an enemy.

Pil'lager, *n.* One who plunders by open violence.

Pil'lar, *n.* [Fr. *pilier*; Sp. *pilar*, from Lat. *pila*.] A support to the arch, differing from the column which is always round, whereas the pillar may be of any shape.

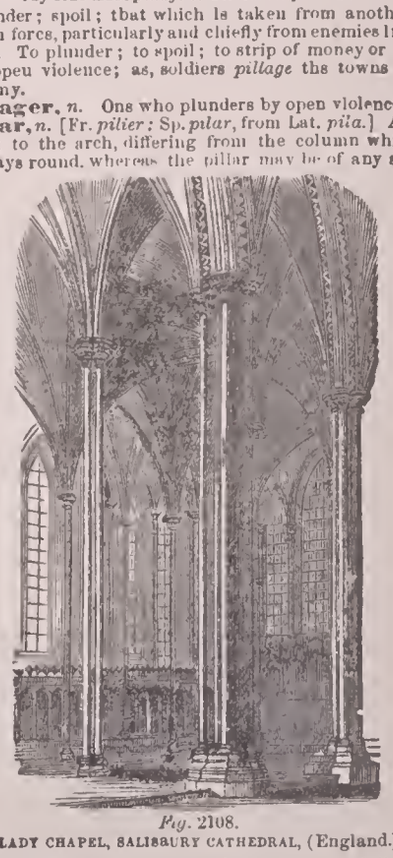


Fig. 2108.

LADY CHAPEL, SALISBURY CATHEDRAL, (England.)

In Gothic architecture, also, the pillars are of different forms at the various epochs of that style. First, in the Norman period, we have plain massive pillars, square, circular, and octagonal, frequently ornamented with

zigzag ornaments, spiral bands, &c., on the surface. As vaulting progressed, the system of breaking the plain surface, and giving to each portion of the vaulting a separate little column, or detached shaft, to support it, was introduced, as in the splendid example shown in Fig. 2108. But, more frequently, shafts were attached to the circular pillars, or little shafts set in nooks cut in the pillar. In the perpendicular buildings the mouldings of the piers occasionally run up into the arches, and form part of the archivolt, and in some cases the mouldings of the pillars are continued in the arches without any capital or impost between them.

—Hence, a supporter; that which sustains or upholds; that on which some superstructure rests; also, a character which resembles a pillar in stability and strength.

"He seemed a *pillar* of state."—*Milton.*

—Anything which resembles a pillar in appearance.

"The Lord went before them . . . by night in a *pillar* of fire." *Ex.* xiii. 21.

(*Manege*) The centre of the manege ground around which a horse turns.

Pil'lared, (*-lurd,*) *a.* Supported by pillars; as, a *pillared* dome.

—Having the form or embodiment of a pillar or pillars.

Pil'laret, *n.* A little pillar.

Pil'larist, *n.* (*Eccl. Hist.*) A stylite. See STYLITE.

Pillau', Pilau', *n.* [Pers. and Turk. *pilâw.*] A Turkish ragout, consisting of boiled rice flavored with mutton fat.

Pil'lau, a seaport-town of E. Prussia, at the extremity of a narrow peninsula, between the Baltic and the inlet called Frische-Haff; Lat. 54° 38′ 4″ N., Lon. 19° 54′ E. *Pop.* 4,000.

Pil'libheet, Pil'ibhit, Pil'libeet, a town of British India, Upper Provinces, presidency of Bengal, 30 m. N.E. of Bareilly.

Pillion, (*pil'yun,*) *n.* [Ir. *pillin;* Gael. *pillean.*] A cushion for a woman to ride on behind a man on horseback; a pad; a pannel; a low saddle; the pad of a saddle that rests on the horse's back. The head-dress of a priest.

Pil'lorize, *v. a.* To punish by setting in the pillory.

Pil'lory, *n.* [Fr. *pilori;* Low Lat. *piloria, pilorium,* a kind of collar, like a pigeon-hole; *pillerium* = Lat. *pila,* a pillar, a column.] A frame of wood erected on posts, with movable boards and holes, through which were formerly put the head and hands of a criminal, to be exposed to public view, and generally to public insult, as a mode of punishment.

—*v. a.* [Fr. *pilorier.*] To punish with the pillory.

Pil'low, *n.* [A. S. *pyle.*] A cushion stuffed with hair, &c.: a bag or cushion of hair, feathers, &c., or other soft substance, to support the head of a person when reposing in a bed; —hence, something that bears or supports.

(*Mech.*) A bearing or journal-box. See JOURNAL-BOX.

(*Naut.*) The block supporting the inner end of a bowsprit.

—A kind of plain, coarse fustian.

Pillow of a plough, a cross-piece of wood serving to raise or lower the beam.

—*v. a.* To rest or lay on for support, as on a pillow.

Pil'low-bier, *n.* Same as PILLOW-CASE, *q. v.*

Pil'low-block, *n.* (*Mech.*) Same as JOURNAL-BOX, *q. v.*

Pil'low-case, *n.* The movable covering which is drawn over a pillow; a pillow-bier; a pillow-slip.

Pil'low-slip, *n.* See PILLOW-CASE.

Pil'lowy, *a.* Resembling a pillow.

Pill-tile, *n.* A corrugated plate of metal or earthenware, used in rolling pills to regulate their size

Pil'nitz, a small town on the Elbe, 4 m. from Dresden. Here, in 1791, the convention which was to maintain the rights of the Bourbons to the throne of France was concluded.

Pi'lon, GERMAIN, a celebrated French sculptor, B. at Loué, near Mans, and D. about 1590. Among his most admired works are — the Group of the Graces, now in the Louvre; the bronze statues of Henry II. and Catherine de Medici, forming part of the monument to Henry at St. Denis: the mausoleum of Du Bellay, &c.

Pilose', *a* [Lat. *pilosus,* from *pilus,* hair.] Hairy; pilous. (*Bot.*) Covered with long, separate hairs.

Pilos'ity, *n.* [Fr. *pilosité;* It. *pilosita.*] Hairiness.

Pilot, *n.* [Fr. *pilote;* It *pilota;* Du. *piloot.*] A person qualified and appointed by proper authority to conduct ships in and out of particular harbors or along certain coasts, at a certain fixed rate, depending on the draught of water. The pilot has the charge of the vessel while in *pilot water,* and the captain or master neglects or opposes the pilot's advice on his own responsibility.

—A guide; a director of one's course.

—*v. a.* To direct, as the course of a ship in any place where navigation is dangerous. — To guide, as a person through dangers or difficulties.

Pilot, in *Illinois,* a township of Kankakee co.—A post-village and township of Vermilion co., abt. 42 m. N.W. of Paris.

Pilot, in *Iowa,* a township of Cherokee co.

Pi'lotage, *n.* The compensation made or allowed to a pilot for directing the course of a ship. — The duty or office of a pilot.

Pi'lot-balloon', *n.* A balloon sent up to learn the direction of the wind.

Pi'lot-bread, *n.* Ship-biscuit; a hard bread used on shipboard.

Pi'lot-cloth, *n.* A strong, coarse cloth used for overcoats.

Pi'lot-engine, *n.* A locomotive sent in advance of a railroad train to clear the way, &c.

Pi'lot-fish, *n.* (*Zool.*) An acanthopterygious fish, of which there are several species composing the genus *Naucrates,* family *Scombridæ.* This fish is in size and shape like the mackerel, and may be immediately recognized by certain conspicuous bands which surround its body. The *P. ductor* will frequently attend a ship during its course for weeks or months together. It is frequently found in company with the shark.

Fig. 2109.—PILOT-FISH (*Naucrates ductor.*)

Pi'lot Grove, in *Illinois,* a township of Hancock county.

Pilot Grove, in *Minnesota,* a post-township of Faribault co.

Pilot Hill, or CENTREVILLE, in *California,* a post-vill. of Eldorado co., abt. 16 m. N.W. of Placerville.

Pilot Knob, in *Indiana,* a post-village of Crawford co., abt. 30 m. W. of New Albany.

Pilot Knob, in *Missouri,* a post-village of Iron co., abt. 87 m. S. by W. of St. Louis. Here is the remarkable Pilot Knob, a hill about 500 feet high, which is an almost solid mass of iron.

Pilot Mound, in *Iowa,* a post-township of Boone co.

Pilot Mound, in *Minnesota,* a post-village and township of Fillmore county, about 26 miles south west of Winona.

Pilot Mountain, or ARARAT, in *N. Carolina,* a spur of the Alleghanies, in Surry co., between the Ararat and Dan Rivers. *Height,* abt. 1,400 feet.

Pilot Peak, in *California,* a summit of the Sierra Nevada, in Plumas co.; Lat. 39° 55′ N. *Height,* 7,300 feet.

Pi'lous, *a.* Hairy; pilose. — Made of hair.

Pil'sen, a town of Bohemia, on the Beraun, a tributary of the Elbe, 52 m. S.W. of Prague. *Manuf.* Woollens, cottons, and leather. *Pop.* 15,000.

Pil'ular, *a.* That relates to pills; as, "*pilular* form."

Pi'ma, in *Arizona,* a S. co., adjoining Mexico on the S.; *area,* about 10,596 sq. m. *Rivers.* Gila, Santa Cruz, San Pedro, and San Domingo rivers. *Surface,* generally hilly and mountainous; *soil,* in the valleys fertile. *Products.* Barley, wheat, corn, hay, live stock. *Min.* Silver and copper. *Cap.* Tucson. *Pop.* (1897) 14,750.

Pim'elite, *n.* [Gr. *pimelē,* fat, and *lithos,* stone.] A hydrated silicate of alumina, magnesia, &c. It is of a greenish color and translucent, with a greasy feel.

Pimen'ta, Pimen'to, *n.* [Fr. *piment.*] (*Bot.*) See EUGENIA.

Pi'mos, a tribe of Indians inhabiting the valley of the Gila, in Arizona Territory. Their number is abt. 2,700, and closely resemble their neighbors the Coco-Maricopas. They are of a dark-brown complexion, thus differing from the olive-featured Indians of California and the redskins E. of the Rocky Mountains. The men have slender forms, but the women, who perform most of the labor, are well made. They show a courageous spirit, and are the most civilized of any of the N. American Indians. They make cotton fabrics, pottery, and other useful articles with much skill, and are noted for their simplicity of character, peacefulness, and honesty. Their only weapon is the bow and arrow.

Pimo'sa, or **Pymo'sa,** in *Iowa,* a township of Cass co.

Pimp, *n.* A person who provides gratifications for the lust of others; a procurer; a panderer.

—*v. n.* To pander; to procure lewd women for the gratification of men.

Pim pernel, *n* (*Bot.*) See ANAGALLIS.

Pimpinel'la, BURNET-SAXIFRAGE, *n.* (*Bot.*) A genus of plants, order *Apiaceæ.* The species *P. anisum* is the anise so much esteemed for its carminative fruits or seeds. See ANISE.

Pimple, (*pim'pl,*) *a.* [A. S. *pimpel;* Lat. *papula,* pimple.] (*Med.*) A small acuminated elevation of the cuticle, with an inflamed base; very seldom containing a fluid, or suppurating, and commonly terminating in scurf or desquamation.

Pim'pled, Pim'ply, *a.* Having pimples on the skin; full of pimples.

Pin, *n.* [A. S. *pinn;* Lat. *penna,* a feather.] A small pointed instrument, commonly made of brass wire blanched and headed, used chiefly in fastening articles of dress. Among the most modern and important improvements introduced in the fabrication of pins, are the machines by which the head is formed from the pin itself, and the machine for sticking the pins in paper, — two American inventions. The consumption in the U. S. is calculated at 20 millions a day.

—A piece of wood or metal sharpened or pointed, used to fasten together boards, planks, or other timber. — A thing of little value; a trifle.

(*Mus.*) A peg used in musical instruments in straining and relaxing the strings.

—Mood; humor; — from the custom of drinking in mugs in which a *pin* was fixed as a measure of the quantity drunk.

"In a merry *pin,* i. e. in merry humor." — *Worcester*

—*v. a.* To fasten with a pin, or with pins of any kind; to join and fasten together. — To inclose; to confine; to pen.

Pinaceæ, CONIFERÆ, *n. pl.* [Lat. *pinas,* the pine.] (*Bot.*) An order of plants, class *Gymnogens* DIAG. A repeatedly branched continuous stem, simple acerose leaves, and females in cones. — They are noble trees or evergreen shrubs, including the Pines, Firs, Juniper, Yew, &c. They have flowers unisexual, the male flowers have either one stamen or one bundle of stamens, the anthers often crested; the female flowers are in cones or solitary; the place of ovaries is supplied by the flat scales of the cones; the ovules are usually in pairs on the face of the scales, either inverted or erect. The fruit is either a cone — the scales of which sometimes become fleshy, and are incorporated into a berry-like fruit — or a solitary naked seed. The seed has a hard crustaceous integument; the embryo is in the midst of fleshy oily albumen: the cotyledons are either two, or numerous and whorled. The mode of branching is peculiar, numerous buds proceeding from the side of the main stem, so as generally to form whorls of branches, which are generally almost horizontal in their direction, while the central vertical shoot runs up often with admirable straightness, and some of the *P.* attain a height unrivalled among other forest-trees. The wood consists of *punctated* cells; the sides of the tubes or elongated cells which form it, and which are nearly of equal diameter, being marked by circular discs, which, when highly magnified (Fig. 2110), exhibit a small internal circle, surrounded by a larger external one. This peculiarity of the wood of the *P.* is important, as enabling us to recognize it in a fossil state, and to refer many fossils, particularly of the coal formation, to this order. By far the greater number of them belong to the northern hemisphere. The *P.* are very long-lived; some of them are supposed to be capable of attaining an age of 2,000 or 3,000 years. When the stem of a coniferous tree is cut across, it does not sprout again from the root. The *P.*, besides the great usefulness of the timber of many, are remarkably productive of turpentines and resins. Astringent substances are also found in their bark, and fixed oil in their seeds. The seeds of some species of *Pine* and *Araucaria* are used as food. — See ABIES, ARAUCARIA, LARCH, PINUS, &c.

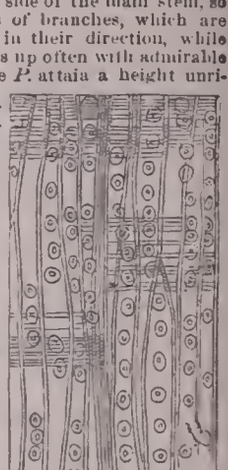


Fig. 2110.
SECTION OF PART OF A STEM OF FIR, HIGHLY MAGNIFIED.

Pinacothe'cn, *n.* [Gr. *pinakothekē,* from *pinax,* a picture.] In ancient architecture, an apartment reserved for the exposition of paintings. This term has been applied by the Germans to signify the buildings erected to serve as a national gallery of the works of their best artists, as in Munich.

Pin'afore, *n.* A child's apron.

Pin'cers, *n. pl.* [O. Fr. *pinses,* a pair of pincers.] An instrument for squeezing or griping anything to be held fast; an instrument for drawing nails from boards and the like.

Pinch, *v. a.* [Fr. *pincer;* It. *pizzicare,* to pinch.] To press hard or squeeze between the ends of the fingers, the teeth, claws, or with an instrument, &c.; to squeeze, as the flesh till it is pained or livid. — To squeeze, gripe, or compress between two hard substances. — To straiten; to oppress with want; to pain by constriction; to press; to distress; to straiten by difficulties; as, *pinched* with the cold, *pinched* with hunger.

—*v. n.* To act with pressing force; to bear hard. — To spare; to be straitened.

—*n.* A close compression with the ends of the fingers; also, that which is taken between the ends of the fingers, as snuff. — Distress inflicted or suffered; pressure; oppression; straits; difficulty.

Pinch'beck, *n.* [From the name of its inventor.] (*Chem.*) An alloy of copper and zinc, resembling gold in its appearance.

Pinch'er, *n.* The person or thing that pinches.

Pinch'ers, *n. pl.* An instrument for griping things to be held fast, drawing nails, &c.

Pinch'tist, *n.* A miser; a pinch-penny.

Pinch'ingly, *adv.* In a pinching manner.

Pinch'-penny, *n.* A penurious person; a miser.

Pinck'ney, the name of an ancient family of S. Carolina, which, from the time of the Revolutionary War, has produced several members distinguished in the military and political history of the U. States.

Pinck'ney, in *Michigan,* a post-village of Livingston co., abt. 45 m. S.E. of Lansing.

Pinckney, in *Missouri,* a post-village of Warren co., abt. 55 m. E. by N. of Jefferson City.

Pinckney, in *N. Carolina,* a village of Rutherford co., abt. 200 m. W. by S. of Raleigh.

Pinckney, in *New York,* a post-township of Lewis co.

Pinck'neyville, in *Georgia,* a village of Gwinett co., abt. 90 m. N.W. of Milledgeville.

Pinckneyville, in *Illinois,* a city, cap. of Perry co., about 134 m. S. of Springfield. *Pop.* (1897) 1,450.

Pinckneyville, in *Mississippi,* a village of Wilkinson co., abt. 135 m. S.W. of Jackson.

Pinckneyville, in *S. Carolina,* a village of Union dist., abt. 70 m. N.N.W. of Columbia.

Pin-cushion, *n.* A small cushion into which pins are stuck for safety and preservation.

Pin'dar, the great Greek lyric poet, B. at or near Thebes, in Bœotia, about B. C. 522. He was of a noble family, said to have been skilled in music, and he learned his father's art of flute-playing. At Athens he was a pupil of Lasus of Hermione, and on his return he was assisted by the advice of his celebrated countrywomen, Myrtis and Corinna, who were also his competitors—frequently successful ones—at the public festivals. *P.* made poetry

and music the business of his life, and composed choral songs for princes and states in all parts of Greece; for which, as was the custom, he received money and gifts. Yet he did not become a mere hireling, but maintained such a dignified position as befitted him as poet and man, and spoke truth fearlessly to all. He did not live at courts, nor take part in public affairs. *P.* excelled in all varieties of choral poetry, hymns to the gods, pæans, odes for processions, drinking-songs, &c. But the only poems of his now extant, are the *Epinikia*, or *Triumphal Odes*, composed in celebration of victories at the great public games — the Olympian, Pythian, Nemean, and Isthmian. The praises of the victor, of his family, and his state, are intermixed with mythical narratives and sententious maxims and admonitions; and the odes — sublime, enthusiastic, and full of lofty thought and sentiment — are marked by an extraordinary variety of style and expression. No two odes have the same metre. *P.* attained the highest renown in his own age, and as a lyrical poet has no rival. When Thebes was destroyed by Alexander, the conqueror spared the house of *P.* D. probably 442.

Pin'dar'ic, *n.* An ode in the style and manner of Pindar, the Greek poet.

Pine, *n.* [A.S. *pinn;* Fr. *pin;* Lat. *pinus.*] (*Bot.*) See PINUS.

—*v. n* [A.S. *pinan*, to languish; O. Ger. *pina*, labor.] To languish; to wither; to decay, with pain, grief, anguish, &c. — To lose flesh or wear away under any distress or anxiety of mind; to waste away with longing for something.

—*v. a.* To grieve for; to bemoan in silence. — To make to languish.

Pine, tn *Indiana*, a township of Benton county. —A township of Porter county.—A township of Warren county.

Pine, in *Minnesota*, an E. co., adjoining Wisconsin; *area*, about 1,400 sq. m. *Rivers.* St. Croix, Snake, and Kettle rivers. *Surface*, uneven and hilly; *soil*, not very fertile. *Cap.* Pine City. *Pop.* (1895) 8,631.

Pine, in *Pennsylvania*, a township of Alleghany county.—A township of Armstrong county.—A township of Columbia county.—A township of Crawford county.—A township of Indiana county.—A township of Lycoming county.—A township of Mercer county.

Pine'al, *a.* [Fr., from Lat. *pinea*, the cone of a pine.] Relating to, or resembling, a pine-cone or pine-apple.

Pineal Eye, *n.* (*Anat.*). Recent research has proved that the Pineal Gland, found in the brain of man and all mammals and reptiles, is the aborted remnant of an eye possessed by some very ancient vertebrate animal it has been found, in a non-functional state, in some low lizards, and was probably of use in earlier forms. This interesting discovery proves that the earliest vertebrates had a single central eye of the invertebrate type, which became aborted when the two vertebrate eyes developed, but left a relic in the Pineal Gland. *q. v.*

Pineal Gland, *n.* (*Anat.*) A small, heart-shaped protuberance of the brain, hanging by two pedunicles from the beds of the optic nerves immediately over the *corpora quadrigemina*. Some fanciful physiologists have asserted that it is the seat of the soul.

Pine'-apple, *n.* (*Bot.*) See ANANASSA.

Pine'apple-oil, *n.* (*Chem.*) A solution of butyric ether in alcohol, has the odor of the pine-apple, and is prepared for the use of confectioners as a flavoring material

Pine Bar'ren Creek, in *Alabama*, enters the Alabama River between Wilcox and Dallas cos.

Pine Bar'rens, *n. pl.* A term applied to level, sandy tracts, covered with pines, in the Southern States.

Pine Bend, in *Minnesota*, a post-village of Dakota co., abt. 15 m. S. by E. of St. Paul.

Pine Bluff, in *Arkansas*, an important city, cap. of Jefferson co., on Mo. Pac. and St. L. & W. R.Rs., 46 m. S.E. of Little Rock; has very large shipments of cotton and hides. *Pop.* (1897) 12,500.

Pine'-clad, Pine'-crowned. *a.* Covered or crowned with pine-trees.

Pine Creek, in *Illinois*, a township of Ogle county.

Pine Creek, in *Indiana*, enters the Wabash River from Warren co.

Pine Creek, in *Michigan*, enters St. Joseph's River from Berrien co.

Pine Creek, in *Pennsylvania*, enters the West Branch of the Susquehanna River near Jersey Shore. — A township of Clinton county.—A township of Jefferson county.

Pine'-finch, *n.* (*Zoöl.*) A North American bird, fam. *Fringillidæ*.

Pine Grove, in *California*, a post-village of Amador co., abt. 9 m. N.E. of Jackson.—A village of Sierra co., abt. 65 m. N.E. of Marysville.

Pine Grove, in *Michigan*, a township of Van Buren co.

Pine Grove, in *Pennsylvania*, a village of Cumberland co., abt. 15 m. S.W. of Carliste. — A village of Mercer co., abt. 10 m. E.S.E. of Mercer. — A post-borough and township of Schuylkill co., abt. 40 m. N.E. of Harrisburg.—A township of Venango co.—A township of Warren co.

Pine Grove, in *W. Virginia*, a post-village of Wetzel co., abt. 40 m. S. of Wheeling.

Pine Grove, in *Wisconsin*, a township of Portage co.

Pine Grove Mills, in *Pennsylvania*, a post-village of Centre co., abt. 90 m. N.W. of Harrisburg.

Pine Hill, in *Georgia*, a village of Talbot co., abt. 25 m. E.N.E. of Columbus.

Pine Island, in *Minnesota*, a post-village and township of Goodhue co., abt. 16 m. N.N.W. of Rochester.

Pi'nel, PHILIPPE, a celebrated French physician, b. at St. André, Tarn, 1745, was admitted a member of the Institute in 1803, and D. 1826. His most valuable works were his *Traité Medico-philosophique de l'Alienation Mentale* (1791), and *La Nosographie Philosophique* (1798), with its commentary *La Médecine Clinique* (1802). *P.* gained for himself undying fame by his reformation of the old barbarous methods of treating the insane. The physicians brought up under the old system were not ashamed to offer a vigorous opposition to *P.*'s philanthropic opinions; but he fortunately succeeded in thoroughly establishing their correctness, and his system in a few years prevailed over the whole of Europe.

Pine Lake, in *Michigan*, a village of Oakland co., abt. 28 m. N.W. of Detroit.

Pine Lake, in *Wisconsin*, a small sheet of water of Waukesha co. — A village of Waukesha co., abt. 26 m. W.S.W. of Milwaukee.

Pine Log, in *California*, a village of Tuolumne co., abt. 12 m. N.N.E. of Sonora.

Pine'-marten, *n.* (*Zoöl.*) The *Martes abietum*, a species of marten which inhabits the pine forests of N. Europe.

Pine Mead'ow, in *Connecticut*, a post-village of Litchfield co., abt. 23 m. W. by N. of Hartford.

Pine'-needle Wool, PINE'-WOOD WOOL, *n.* A fibrous vegetable substance obtained by treating the buds and leaves of trees of the order *Pinaceæ* with a strong solution of carbonate of soda.

Pine Plain, in *Michigan*, a post-township of Allegan co.

Pine Plains, in *New York*, a post-village and township of Duchess county, about 50 miles S. by E. of Albany.

Pine River, in *Michigan*, flows into the Tittibawassee River in Midland co.

—A township of Gratiot co.

Pine River, in *New Hampshire*, enters Ossipee Lake in Carroll co.

Pine River, in *Wisconsin*, enters Wisconsin River in Richland co.

—A post-township of Waushara co.

Pine Rock, in *Illinois*, a twp. of Ogle co.

Pinerolo, (*pi-nai-ro'lo,*) a town of Italy, prov. of Turin, 22 m. S.W. of Turin. *Manuf.* Woollens, silks, paper, and leather. *Pop.* 15,404.

Pine Run, in *Michigan*, a post-village of Genesee co., abt. 11 m. N. of Flint.

Pin'ery, *n.* A pine forest. — The place where pine-apples are grown.

Pine'-sap, *n.* (*Bot.*) See HYPOPITHIS.

Pine Valley, in *Wisconsin*, a township of Clark county.

Pine'ville, in *Georgia*, a village of Marion co., abt. 30 m. S.E. of Columbus.

Pine'ville, in *Missouri*, a post-village and township, cap. of MacDonald county, about 175 miles south-west of Jefferson City.

Pin'ey, *a.* Piny.

—*n.* The resin of *Valeria Indica*.

Pin'ey, or PINY, in *Pennsylvania*, a post-township of Clarion co.

Pin'ey Creek, in *Arkansas*, flows into the Arkansas river from Johnson co.

Pin'ey Fork, in *Arkansas*, a prosperous township of Sharp co.

Pin'ey Point, in *Maryland*, a headland and lighthouse on the E. side of the Potomac River, about 14 m. from its mouth. It exhibits a fixed light 25 ft. high.

Pin'ey (or BIG) **River,** or PINEY FORK, in *Missouri*, rises by several branches in Texas co., and flowing N., enters the Gasconade River in Pulaski co.

Pin'ey River, in *Tennessee*, enters Duck River from Hickman co.

Pin'ey-var'nish, *n.* The resin of *Valeria Indica*.

Pinguicula, (*pin-gwick'u-lă,*) *n.* [Lat., from *pinguis*, fat.] (*Bot.*) A genus of plants, order *Lentibulariaceæ*. The herb called the Butter-wort (*P. vulgaris*), from its property of coagulating milk, belongs to this genus.

Pin-feather, (*-feth'er,*) *n.* The short feathers of a bird just beginning to grow, and which resemble a pin in form.

Pin'-feathered, *a.* Having pin-feathers; having feathers yet only beginning to shoot.

Pin'fold, (written also *penfold,*) *n.* A place in which beasts are confined.

Pin footed, *a.* Having toes or feet bordered by a membrane.

Pingster, Pink'ster, *n.* [Du. *pinkster;* Ger. *pfingster.*] Pentecost; Whitsuntide.

Pinguid, (*pin'gwid,*) *a.* [Lat. *pinguis*, fat.] Fat; unctuous; oleaginous.

Pin'guite, *n.* (*Min.*) A variety of chloropal resembling bole. It is a hydrated silicate of iron, occurring in dark-green masses, which are soft like new soap, and feel greasy.

Pin'guitude, *n.* [Lat. *pinguitudo*, from *pinguis*, fat.] Fatness; unctuousness. (R.)

Pin hold, *n.* A place where a pin holds or fastens anything.

Pin'hole, *n.* A small hole made by the puncture or perforation of a pin; a very small aperture.

Pin'ic Acid, *n.* [Lat. *pinus*, the fir-tree.] (*Chem.*) The principal resinous constituent of common resin or colophony.

Pinion, (*pin'yun,*) *n.* [Lat. *penna*, or *pinna*, a feather.] A wing. — The joint of a bird's wing the remotest from the body. — A fetter for the arms.

—*v. a.* To bind or confine the wings of; to confine by binding the wings. — To cut off, as the first joint of the wings. — To bind or confine, as the arm, or arms, to the body. — Figuratively, to confine; to shackle: to chain, as with rules; to bind; to fasten to.

(*Mech.*) A small wheel that plays in the teeth of a larger one, or sometimes into an arbor, or a spindle, having notches or leaves, which are caught successively by the teeth of the wheel, the motion being thereby communicated to the rest of the machinery.

Pin'ite, *n.* (*Min.*) An alkaline variety of altered iolite. It occurs in six-sided or twelve-sided prisms, with their lateral (sometimes with their terminal) edges replaced. It is named after the mine *Pini*, in Saxony, where the first specimens were discovered in granite.

Pink, *n.* [Du.] An eye; commonly a small eye, or narrow and long, or narrowed by the contraction of lids; as, *pink*-eyed; — used only in composition.

(*Bot.*) See DIANTHUS.

—A light-red or rose-color used by painters, so called from the color of the flower. — Anything supremely bright or excellent.

(*Zoöl.*) A little fish; the minnow.

(*Naut.*) A kind of heavy narrow-sterned ship.

—*v. a.* To work in eyelet holes; to pierce with small holes. — To stab; to pierce. — To dye of the color of pink.

Pink'-eye, (*-i,*) *n.* A small eye.

Pink'-eyed, (*-id.*) *a.* Having small eyes.

Pink'ing-iron, *n.* A cutting instrument for scalloping the edges of ribbons, &c.

Pink'-needle, *n.* A shepherd's hodkin.

Pink'ney (or **Pinek'ney) City,** in *Washington*, a post-village, the former cap. of Spokane co., about 200 m. N. of Walla-Walla.

Pink'-root, *n.* (*Bot.*) See SPIGELIA.

Pink'ster, *n.* See PINGSTER.

Pink'-stern, *n.* (*Naut.*) Narrow-stern.

Pink'-sterned, *a.* (*Naut.*) Having a narrow stern.

Pin'-money, *n.* A sum of money allowed or settled on a wife, as for pins, that is, for her private expenses.

Pin'na, *n.* [Lat., a feather.] (*Zoöl.*) A gen. of lamellibranchiate mollusca, commonly called *wing-shells*, remarkable for the size of the byssus, by which they adhere to the rocks, and which the natives of Sicily manufacture into gloves, socks, and other articles of sale and ornament.

(*Bot.*) A primary branch of the petiole of a bipennate or tripennate leaf.

Pinnace, (*pin'nas,*) *n.* [It. *pinaccia*, dim. of *pino*, a ship.] (*Naut.*) Formerly, a small light vessel with sails and oars; but now generally understood as the second in point of size of the boats belonging to a ship of war.

Pinnacle, (*pin'na-kl,*) *n.* [Lat. *pinnaculum*, dim. of *pinna.*] (*Arch.*) A small square or polygonal pillar, generally, but not necessarily, applied at the angles of a building, terminating upwards pyramidally, and embellished with foliage at the angles of the pyramidal part. It is much used in mediæval architecture, as a termination to buttresses, the tops of gables, &c.; in these positions it is in the form of a spire, with crockets and a finial, and is sometimes surrounded with small shafts, and highly ornamented.

Fig. 2111.
PINNACLE.
(13th century.)

—*v. a.* To build or furnish with pinnacles.

Pin'nate, Pin'nated, *a.* (*Bot.*) See LEAF.

(*Zoöl.*) Applied by Linnæus to the feet of those birds which have the toes bordered by a scalloped membrane, as the coots.

Pin'nately, *adv.* In a pinnate manner.

Pinnat'ifid, *a.* [Lat. *pinnatus*, feathered, and *findere*, to split.] (*Bot.*) Divided in a pinnated manner. See LEAF.

Pinnatilo'bate, *a.* (*Bot.*) Pinnately lobed.

Pinnat'iped, *a* [Lat. *pinnatus*, and *pes, pedis*, foot.] (*Zoöl.*) Fin-footed; having the toes bordered by membranes.

Pin'ner, *n.* One who pins or fastens; also, a pound-keeper.—A pin-maker. — The lappet of a head-dress which flies loose.

Pinniform, *a.* [Lat. *pinna*, and *forma*, a form.] Having the shape of a feather or pin.

Pin'nipeds, *n. pl.* [Lat. *pinna*, and *pes, pedis*, a foot.] (*Zoöl.*) The name of a section of crabs (*Brachyurous Decapod Crustaceans*), in which are comprehended those that have the last pair of feet, if not more, terminated by a flattened joint fitted for swimming.

Pin'nonade, *n.* A confection made chiefly of almonds and pines.

Pin'nulate, *a.* (*Bot.*) That is subdivided into leaflets.

Pin'nule, *n* (*Bot.*) A secondary division or leaflet of a pinnate leaf.

Pin Oak, in *Iowa*, a post-village of Dubuque co., abt. 80 m. N.E. by N. of Iowa City.

Pinos (*pee'nose*), an island of the Republic of Colombia, in the Gulf of Darien; Lat. 9° 1′ 30″ N., Lon. 77° 48′ W.

Pin'-rack, *n.* (*Naut.*) An apparatus at various parts of the upper deck of a ship. It consists of a frame containing sheaves or pulleys, around which ropes can be worked, and pins or cleats to which they can be belayed.

Pint, *n* [A.S. *pynt*; Fr. *pinte.*] A measure of capacity, being the eighth part of a gallon.

Pinta'do, *n.* (*Zoöl.*) See GUINEA-FOWL.

Pin'tail Duck, or **Sprigtail,** *n.* (*Zoöl.*) A species of birds, belonging to the *Anatinæ*, and forming the genus *Dafila*, characterized by the bill long and narrow, tail pointed. The *P.* is a shy and cautious bird, feeding in the mud-flats and shallow fresh-water marshes, but rarely resides on the coast. The male is 26 inches in length and 34 inches in extent.

Fig. 2112.
PINTAIL DUCK, (*Dafila acuta.*)

Pintla'la, or **Pintela'la,** in *Alabama*, a creek flowing into the Alabama River from Montgomery co.

Pintle, (*pin'tl,*) *n.* [Dimin. of *pin.*] A little pin.

(*Artil.*) A long iron bolt to prevent a cannon from recoiling.

(*Naut.*) On ship-board, the hook or upper half of each hinge by which the rudder is hung. The *pintle* projects from the fore-edge of the rudder, as the brace into which it works is fastened to the after-face of the sternpost.

Pint'-stoup, (*-stoop.*) *n.* A vessel of measure containing about 3 English pints.

Pin'us, *n.* (*Bot.*) The Pine, a genus of trees, order *Pinaceæ*, distinguished from allied genera by the male catkins being crowded and racemose, and by the scales of the cones being thickened and angular at the end. Several species are valuable timber-trees; as *P. sylvestris*, the Scotch fir, which yields the timber known as Dantzic, or Riga fir and Russian deal; *P. strobus*, yielding the white-pine, or deal, of the United States; *mitis* and *palustris*, yielding the yellow pine or deal; *P. rigida* (see Fig. 662), *P. lambertiana*, and many more. Pine timber is used to an enormous extent in this country and elsewhere for house-carpentry, joinery, &c. Many valuable products besides timber may be traced to this genus. *P. sylvestris*, the Scotch fir (Fig. 2113), or wild pine, is the source of common turpentine; this yields, by distillation, the useful liquid known as oil, spirits, or essence of turpentine. When subjected to destructive distillation, the wood yields wood-tar and pitch. The inner bark is used in Norway for making the remarkable alimentary substance called *bark-bread.* From the leaves of this species the fleecy substance termed pine-wool, or fir-wood, is prepared; it is used for stuffing mattresses, and is said to be repulsive of vermin. An oil called *fir-wood oil*, said to be obtained

Fig. 2113. — PINUS SYLVESTRIS.

from this substance, has lately been introduced into this country from Germany, and recommended as an external application in rheumatism, neuralgia, &c. *P. pinaster*, or *maritima*, the Cluster-pine, yields Bordeaux turpentine, galipot tar, and pitch. *P. australis*, the Pitch-pine, forms a great portion of the *Pine barrens* of the Southern States, and, along with *P. palustris*, the Swamp or Long-leaved pine, furnishes the greater proportion of the turpentine, tar, &c., consumed in this country, or exported into other countries. *P. tæda*, the Frankincense-pine, also yields turpentine. *P. pinea*, the Stone-pine, has edible seeds, which are used as a dessert under the name of pine-nuts. *P. cembra*, the Siberian stone-pine, has also edible seeds; its young shoots, on being distilled, furnish the so-called Carpathian balsam. *P. pumilio*, the Mugho, or Mountain-pine, yields, by spontaneous exudation, an oleo-resin, called Hungarian balsam. *P. geradiana*, a native of Thibet and Afghanistan, has seeds which are edible. *P. longifolia*, which flourishes in the Himalayas, yields a remarkably fine turpentine.

Pin'weed, *n.* (*Bot.*) See LECHEA.

Pin'y, *a.* Abounding with pine-trees.

Pin'zon, ALONZO, VINCENT YAÑEZ, and MARTIN, three brothers, Spaniards, who had commands in Columbus' first voyage, and by whose exertions mainly it was that a sufficient number of men were induced to risk their lives on this perilous enterprise. Vincent Yañez was the most distinguished of the brothers; he made several voyages, on the most important of which he sailed in December, 1499, and discovered Brazil and the river Amazon, three months before Cabral took possession of South America for the crown of Portugal.

Piom'bo, SEBASTIANO DEL, a celebrated Italian painter, B. at Venice. He was a disciple of Giorgione, and painted historical and portrait pieces. One of his finest works, —"The Raising of Lazarus"—is in the National Gallery in London. Later in life, he quitted his profession to assume the functious of keeper of the signet to Pope Clement VII.; whence arose his name Del Piombo, "of the lead," in allusion to the lead of the seal. Many of the designs of his pictures were furnished by Michael Angelo; Sebastiano supplying the fine coloring, which characterized his style. D. at Rome, 1547.

Pioneer', *v. a.* To go before and prepare, as the way for others.

—*n.* [Fr. *pionnier*, from Lat. *pedito*, to go on foot.] (*Mil.*) The name given to certain soldiers, in all infantry regiments, whose business is to assist in clearing the road before an army, in sinking mines, and throwing up works and fortifications. Pioneers are provided on a march with shovels, axes, spades, pickaxes, and all other necessary implements.

—One who goes before to remove obstructions or prepare the way for another.

Pioneer', in *Iowa*, a township of Cedar co.

Pioneer City, formerly HOGAM, in *Idaho*, a village of Boisé co., about 12 m. N.N.W. of Idaho City.

Pioneer Grove, in *Iowa*, a village of Cedar co., abt. 25 m. N.E. of Iowa City.

Pi'onied, (*-nid,*) *a.* Abounding with pionies.

Pi'ony, Peony, or **Pæony,** *n.* (*Bot.*) See PÆONIA.

Pi'ous, *a.* [Fr. *pieux*; It. *pio*; Lat. *pius.*] Reverencing and honoring the Supreme Being in heart, and in the practice of the duties He has enjoined; godly.—Dictated by reverence to God; proceeding from piety.—Having due respect and affection for parents or other relatives. —Practised under the pretence of religion; as, *pious* frauds.

Pi'ously, *adv.* In a pious manner; with reverence and affection for God; with due regard for natural and civil relations.

Pi'ous-minded, *a.* Of a pious or religious disposition.

Pip, *n.* [Du.: Fr. *pépé*, from *pepier*, to pip, to chirp; Lat. *pipire*; formed from the sound.] A disease of fowls in which a horny pellicle grows on the tip of their tongue. This pellicle, if not removed, proves fatal, as it hinders the birds from feeding.

—A spot on cards.—The seed of an apple, orange, or similar fruit.

—*v. n.* To cry or chirp, as a chicken.

Pi'pa, *n.* (*Zoöl.*) A genus of Batrachian reptiles, closely allied to the common toad, but distinguished by the body being horizontally flattened, the head large and triangular, tongue wanting, tympanum concealed beneath the skin, the eyes small, placed near the margin of the upper jaw. The best known species is the Surinam Toad, *Pipa Surinamensis* (the *Bufo pipa* of Linnæus), which is considerably larger than the common toad. The *P.* lays its eggs in the water, after which they are collected by the male, and placed on the back of the female, the skin enlarging in such a manner as to enclose the eggs in cells; here the development goes on till the young come forth as perfectly formed toads.

Fig. 2114. — SURINAM TOAD,
(*Pipa Surinamensis.*)

Pipe, *n.* [A. S.] A circular or square artificial channel, used for the conveyance of watery fluids, either under pressure or not; or for the passage of aëriform fluids, or of sound. Pipes are made of wood, iron, bath cast and wrought, of lead, copper, tin, stone, stone-ware, brick, glazed brick, &c.; according to the situation in which they are to be employed, or according to the uses to which they are to be converted.

—A wine measure, usually containing very nearly 105 imperial or 126 wine gallons. Two pipes, or 210 imperial gallons, make a tun. But, in practice, the size of the pipe varies according to the kind of wine it contains.

(*Mus.*) A tube in which air is caused to vibrate, so as to produce musical sounds. See ORGAN.

—A long tube or hollow body.

—A tube of baked clay, or other material, with a bowl at one end, used in smoking tobacco. (See TOBACCO-PIPES.) —The organs of voice and respiration.—The key or sound of the voice

(*Mining.*) Ore running endwise into a hole, and not sinking downwards or in a vein.

—*v. n.* To play on a pipe, flute, fife, or other tubular wind-instrument of music.—To have a shrill sound; to whistle.

—*v. a.* To play on a pipe or wind-instrument.—To call by means of a pipe or whistle, as in ships.

Pipe'-clay, *n.* A species of clay used to make earthen vessels, tobacco-pipes, &c.

Pipe Creek, in *Ind.*, affluent of Wabash and White R. —In *Md.*, affluent of Monocacy R.

Pipe'-fish, *n.* The common name of the genus *Syngnathus*, family *Syngnathidæ* Characteristics: the body greatly elongated, slender, and covered with a series of indurated plates, arranged in parallel lines; the nose is long and tubular; the gills are arranged in small round tufts along the branchial arches; and there are no ventral fins.

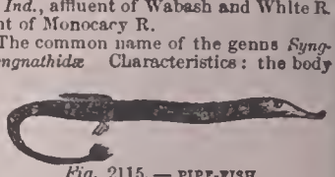


Fig. 2115. — PIPE-FISH,
(*Syngnathus.*)

Pipe-lines, lines of pipes conveying petroleum to shipping points, connected with tanks in the oil districts, and after guaging, run into storage tanks, whence it is flowed to the terminus. Pipes for main line are 4 to 6 in. in diam. A 6 in. pipe will convey abt. 20,000 bbls. per day.

Pi'per, *n.* [From Gr. *pipto*, I digest, because it promotes digestion by its stimulating capacity.] (*Bot.*) The typical gen. of the nat. ord. *Piperaceæ*. The dried unripe fruits of the pepper-vine, *P. nigrum* (*Fig.* 2116), constitute the black pepper of the shops. White pepper is the same fruit in a ripened state, divested of its external pulpy covering. The former is the more pungent and acrid, as the peculiar acrid resin, upon which the properties of the pepper partly depend, disappears

Fig. 2116. — PEPPER-VINE,
(*Piper nigrum.*)

to some extent in the process of ripening. Besides this acrid resin, both black and white pepper contain the alkaloid called *piperine*. Both kinds of pepper are extensively employed as condiments, and medicinally as stimulants and correctives. A spoonful of black pepper mixed with a little water and swallowed, generally gives relief in cases of flatulency. The pepper-vine is a native of India and the Indian islands. *P. trioicum*, and some other species, also produce good pepper.

Piperaceæ, *n. pl.* (*Bot.*) The Pepper family, an order of plants, alliance *Piperales*. DIAG. Solitary carpel, an erect ovule, an embryo lying in vitelline, and opposite or alternate leaves, with or without stipules.—They are herbs or shrubs with jointed stems. Flowers spiked, perfect, without floral envelopes, bracteated; stamens 2 or more: anthers 1-2-celled; ovary simple, 1-celled, with 1 erect orthotropous ovule; stigma sessile. Fruit more or less fleshy, 1-celled, 1-seeded; seed erect. The peppers are exclusively natives of tropical regions, especially in America and the Indian Archipelago. There are 20 genera and 600 species. They are remarkable for acrid, pungent, aromatic, and stimulant properties. See ARTANTHE, CHAVICA, CUBEBA, MACKOPIPER, and PIPER

Piper'ales, *n. pl.* (*Bot.*) An alliance of plants, subclass *Hypogynous Exogens*. DIAG. Achlamydeous flowers, and a minute embryo, at or near the outside of a large quantity of mealy albumen. The alliance includes 3 orders—PIPERACEÆ, CHLORANTHACEÆ, SAURURACEÆ. *q. v.*

Piperine', *n.* [Lat *piper.*] (*Chem.*) A white crystallizable substance extracted from black pepper. It is tasteless, and free from pungency, the acrimony of pepper residing in a peculiar fixed oil. It is regarded as a feeble alkaloid.

Pipe'stone, *n.* (*Min.*) A grayish-blue or black variety of Argillite or clay-slate, found in N. Oregon, and carved by the Indians into bowls of tobacco-pipes.

Pipestone, (*pip'ston,*) in *Michigan*, a post-township of Berrien co.

Pipe'stone, in *Minnesota*, a S.W. co., adjoining South Dakota; *area*, about 430 sq. m. *Rivers.* Redwood and Rock rivers, and Pipestone creek. *Surface*, nearly level; *soil*, in some parts fertile. *Products.* Wheat, oats, barley, hay, live stock. *Cap.* Pipestone. *Pop.* (1895) 7,115.

Pipette', *n.* [Fr. dimin. of *pipe.*] A small glass pipe used by chemists.

Pip'ing, *a.* Weak; feeble; sickly;—from the weak or piping voice of the sick.—Boiling; from the sound of the boiling fluids. (Colloq.)

—*n.* A kind of cord-trimming for ladies' dresses.

—*pl.* (*Bot.*) Pieces cut off; cuttings.

Pip'it, *n.* (*Zoöl.*) See ANTHUS.

Pip'kin, *n.* A small pipe or earthen boiler.

Pip'pin, *n.* [Du. *pippeling.*] (*Bot.*) A kind of tart apple, so called from the pips or dots on it.

Pip'pula Moola, *n.* See CHAVICA.

Pi'pra, *n.*; *pl.* **Pi'prinæ.** (*Zoöl.*) The Manakins, a genus and family of birds, order *Insessores.* They are generally small and of brilliant colors, and inhabitants of the warmer parts of S. America. They have a moderate or short bill, depressed, with broad base, curved ridge, compressed sides, and toothed tip; the nostrils are hidden by the frontal feathers; the wings generally short and pointed; tail short and even; tarsi moderate and slender; toes long; claws acute.

Pipsis'ewa, *n.* (*Bot.*) See PYROLA.

Piqua, in *Indiana,* a village of Stark co., abt. 40 m. N.N.W. of Logansport.

Piqua (*pik'wā*), in *Ohio,* a fine manufacturing and trading town of Miami co., on the Miami river, about 76 m. W. of Columbus. *Pop.* (1897) 10,750.

Piquancy, (*pik'an-sy,*) *n.* The state or quality of being piquant; sharpness; pungency.

Piquant, (*pik'ant,*) *a.* [Fr., from *piquer,* to prick.] Stimulating to the tongue. — Sharp; tart; pungent; severe.

Piquantly, *adv.* With sharpness or tartness.

Pique, (*peek,*) *n.* [Fr., from *piquer.*] Vexation; wounded pride; pet or slight anger. — A strong desire. — Point; nicety; punctilio.

—*v. a.* To irritate; to offend; to excite a degree of anger in. — To excite to action; to touch with envy, jealousy, or other passion. — To pride or value one's self (with the reciprocal pronoun).

Piqueer, (*pik-eer',*) *v. a.* Same as PICKEER, *q. v.*

Piqueer'er, *n.* Same as PICKEERER, *q. v.*

Piquet, (*pe-ket',*) *n.* [Fr.] (*Games.*) This game is of French origin, and is named from the Fr. word *pique,* equivalent to the English "point." It is played by two persons with thirty-two cards, namely: ace, king, queen, knave, ten, nine, eight, and seven, of each suit; and these cards rank according to the succession in which they are here placed, — the ace being higher than the king, the king than the queen, and so on. In reckoning what is called the *point,* the ace counts eleven, the king, queen, and knave, ten each; and the other cards according to the number of their respective pips. In cutting for the deal, he that cuts the lowest piquet card deals; and having shuffled the pack, he presents it to his adversary, who, if he pleases, may shuffle it also. Should he do so, the dealer may shuffle again; and, having done so, places them before the other, who cuts them. The number of points in each game is now one hundred; fifty saves the lurch. The cards are to be dealt two by two, and in no other numbers. In this manner each player is to have twelve cards dealt him, and there will then remain eight cards, which are called the *stock,* and are to be placed on the board directly before the two players. From this, the elder hand has the right to draw five cards in their natural order, and must then discard the same number from his own hand. It is imperative for the elder hand to discard at least one card, but not the whole five. If he discard less than five, he has the privilege of looking at the cards left. His own discard is optional with the dealer, and if chosen, follows after every other hand. Tricks are taken in the usual manner by the superior cards of the same suit. The various denominations of the score are as follows: 1. *Carte Blanche,* which is, when a hand dealt contains no picture-card. This hand enables the holder to count ten, and is counted before any other. 2. *Point,* which is reckoned by the player who has the greater number of cards in any suit, or, if both have an equal number, by the one who has the greater number of pips. Whoever has point counts one of each card he holds. 3. *Sequence,* which is several cards in the same suit following consecutively, as ace, king, queen, or knave; ten, nine, eight, &c. 4. The *Quatorze,* which occurs when a player has four cards of equal value in the four different suits; that is to say, four aces, kings, queens, knaves, or tens, no lower cards counting. Whichever player holds the highest quatorze counts fourteen; those which are highest taking precedence, and preventing any inferior quatorze from being of value. 5. The *Cards.* Two cards, one from each player, make a trick; if each player has six tricks, the cards are divided; but if either wins seven or more tricks, he has "the cards;" that is, he counts ten beyond the number he has already scored. 6. The *Capot.* Whichever player wins all the tricks, wins what is called a *capot,* and instead of ten, adds forty to his score.

Piraeru'ea, a town of Brazil, abt. 85 m. S. of Parnahiba; *pop.* 2,600.

Pi'racy, *n.* [Fr. *piraterie;* It. and Sp. *pirateria.*] The act, practice, or crime of a pirate.

(*Law.*) *P.* consists in committing those acts of robbery and depredation upon the high seas, or other places where the Admiralty has jurisdiction, which, if committed upon land, would have amounted to felony there. This is substantially the definition of this offence by the law of nations, which, on conviction, is punished with death in the United States (Act of Congress, March 3, 1819, made perpetual by Act of May 15, 1820).

—The publishing of the writings of another without permission; the robbing of another by copying his writings.

Pirae'us, a town of Greece in Attica, the port of Athens, and 5 m. from the city. In the neighborhood are still to be seen the ruins of the tomb of Themistocles. *Pop.* 6,000.

Pirahy, (*pe-ra-hee',*) a town of Brazil, on a river of the same name, abt. 52 m. W.N.W. of Rio de Janeiro.

Piram'eter, *n.* [Gr. *peira,* trial, and *metron,* measure.] An instrument for ascertaining the power required to draw carriages over roads.

Piran'has, a river of Brazil, rises in the Serra dos Cairis, and flowing N.E. and N., enters the Atlantic Ocean by 3 mouths.

Pi'rate, *n.* [Fr.; It. *piroto;* Lat. *pirata.*] A robber on the high seas. — An armed ship or vessel which sails without a legal commission, for the purpose of plundering other vessels indiscriminately on the high seas. — One who borrows from or publishes the writings of others without permission.

—*v. n.* To rob on the high seas.

—*v. a.* To take by theft, or without right or permission, as books or writings.

Pirat'ic, *a.* Same as PIRATICAL, *q. v.*

Pirat'ical, *a.* Pertaining to, or consisting in, piracy; robbing or plundering by open violence on the high seas.

Pirat'ically, *adv.* By piracy.

Piratin'im, a town of Brazil, about 75 m. W.N.W. of Rio Grande; *pop.* 3,673.

Pirating', a river of Brazil, flows N.W. into the Uruguay abt. Lat. 28° 10′ S.

Piretib'bi, or PIRETIBBE, a lake of British N. America, about Lat. 51° 30′ N., Lon. 69° W.

Pirl, *v. a.* To twist or twine, as in forming horse-hair into a fishing-line.

Pirma'sens, a town of Rhenish Bavaria, 13 m. E.S.E. of Deux Ponts. *Manuf.* Tobacco, straw hats, glass, and musical instruments. *Pop.* 6,000.

Pir'na, a fortified town of Saxony on the Elbe, 11 m. S.E. of Dresden. *Manuf.* Cotton, linen, and woollen goods. *Pop.* 6,200.

Pirogue, (*pi-rōg',*) *n.* [Fr.; It. *piroga;* Sp. *piragua.*] A kind of canoe, made of the trunk of a tree hollowed out, and used in the Southern and Eastern seas; a dug-out. — In some parts of the U. States a narrow ferry-boat with two masts and a leeboard.

Pirouette, (*pir-oo-el',*) *n.* [Fr.] A whirling or turning about on the toes in dancing.

(*Man.*) The circumvolution of a horse on the same ground.

—*v. n.* To make a pirouette to whirl or turn about on the toes in dancing.

Pisa, (*pē'sah,*) (anc. *Pisæ,*) a city of Central Italy, cap. of the prov. of Pisa, on the Arno, 8 m. from its mouth, 13 m. N.E. of Leghorn, and 50 m. W. of Lucca; Lat. 43° 43′ 11″ N., Lon. 10° 23′ 58″ E. The walls are 5 m. in circuit. The Arno flows through the city, and is crossed by several bridges, the principal one being of fine marble. The cathedral, with its attendant buildings — the baptistery (Fig. 169), the cemetery, and the belfry — is, perhaps, the finest specimen that exists of the style of building called by the Italians the *Gotico-Moresco.* The most remarkable buildings in Pisa are the *Campo Santo,* q. v., and the belfry, or campanile, a cylindrical tower, 178 feet in height, constructed of successive rows of pillars, chiefly of marble; it is extremely graceful in its proportions, but its chief peculiarity consists in its inclination about 13 feet out of the perpendicular, whence it is commonly called the *Leaning Tower of Pisa.* Besides the cathedral, the city contains several other elegant churches. In the square of the university are several handsome buildings, chiefly built of marble, and among the public establishments the hospital is the most conspicuous. The University of Pisa is one of the oldest in Italy, and has four colleges, with forty professors, a library, a botanical garden, a cabinet of natural history, and an observatory. It is the birthplace of Galileo. The mildness of the climate in the winter renders it a great resort for invalids, and the celebrated baths in the vicinity attract visitors from a great distance. *P.* is supposed to have been founded shortly after the Trojan war. It became a Roman colony about B. C. 179, but did not attain to distinction before the 10th century, when it became the leading commercial republic of Italy. During the 11th cent. it maintained its superiority in the Mediterranean, materially assisting the French in the Crusades. Becoming involved in a war with Genoa, it ended in the ruin of *P.* in 1284. *P.* afterwards became the prey of various factions, until finally united to Florence in 1406. *Pop.* 50,341.

Pisa'no, the surname of several distinguished artists of Pisa, very important in the early history of art in Italy. GIUNTA PISANO, or GIUNTA DI GIUSTINO of Pisa, is the earliest known Tuscan painter, and a crucifixion painted by him in the church of Santa Maria degli Angeli, at Assisi, about the year 1236, is still preserved; it is admirable in impasto, and absolutely great as a work of art, compared with anything we know of this early period in Italy. Giunta was anterior to Cimabue, and to him belongs the merit of reviving painting in Italy. — NICCOLA PISANO was equally distinguished as sculptor and architect, and must hold the same rank in the former art that Giunta does in painting. He distinguished himself as early as 1225 at Bologna, where he executed the celebrated tomb of San Domenico. Niccola was also a great architect; he executed the church of the Frari at Venice; he was the pioneer of the *Renaissance* in Italy, in sculpture and in architecture; D. 1278. — GIOVANNI PISANO, the son and assistant of Niccola, and likewise one of the greatest of the early sculptors and architects of Italy, D. at Pisa in 1320, and was placed in the same tomb with his father in the Campo Santo. — ANDREA PISANO was another early artist of Pisa, but nearly a century later than Giunta; he was a sculptor and architect, and the friend of Giotto, a few years his senior. Andrea was born about 1280. Of several works still extant by Andrea, the bronze gates of the Baptistery of St. John at Florence are the most important. These two gates are still perfect; the exact date of their execution is disputed, whether they were finished in 1330, or only commenced in that year. The gates of Andrea were originally in the centre of the Baptistery, opposite to the cathedral, but were afterwards removed to the side, to give place to the more beautiful work of Ghiberti, in the year 1424. Andrea was made citizen of Florence, and died there in 1345.

Pis'eary, *n.* [From Lat. *piscis,* a fish.] (*Law.*) The right of fishing in the waters of another.

Piscas'sick River, in *New Hampshire,* a small stream flowing into the Lamprey River from Rockingham co.

Piscat'aqua River, formed by the Salmon Falls and Cocheco, and several other streams on the E. boundary of Stafford co., New Hampshire, and flowing S.E. enters the Atlantic Ocean between Maine and New Hampshire.

Piscat'aquis, in *Maine,* a river rising in the S.W. part of Piscataquis co., and flowing E. enters the Penobscot river in Penobscot co.

—A N. co.; *area,* about 3,600 sq. m. *Rivers.* Penobscot, Piscataquis, Aroostook, and Kennebec rivers, besides many smaller streams and numerous lakes, as Moosehead, Chesuncook, Sebec, &c. *Surface,* much diversified, and in some parts mountainous; *soil,* in general fertile. *Cap.* Dover. *Pop.* (1897) 17,120.

Piscat'aqnog River, in *New Hampshire,* enters the Merrimack River from Hillsborough co.

Piscat'away, in *Maryland,* a post-village of Prince George co., abt. 16 m. S. of Washington, D. C.

Piscataway, in *New Jersey,* a village and township of Middlesex county, about 5 miles east of New Brunswick.

Piscato'rial, Pis'catory, *a.* [Lat. *piscatorius,* from *piscis,* a fish.] Relating to fishes, or to fishing.

Pis'ces, *n. pl.* [Lat. pl. of *piscis,* a fish.] (*Zoöl.*) See FISH.

(*Astron.*) The first in order of the twelve constellations of the Zodiac, usually represented by two fishes tied a considerable distance apart, at the extremity of a long undulating cord or ribbon. It is bounded N. by Andromeda, W. by Andromeda and Pegasus, S. by the Cascade, and E. by the Whale, the Ram, and the Triangles. Its principal star, El Rischa, is of 2d magnitude.

Piscicapture, (*-si-kapt'yur,*) *n.* [Lat. *piscis,* and *captura,* capture.] Angling; the taking of fishes.

Piscicul'ture, *n.* [Lat. *piscis,* and *cultura,* culture.] The art of breeding, rearing, and cultivating fish.

Piscicul'turist, *n.* One who rears fish.

Piscid'ia, *n.* [From Lat. *piscis,* and *cædo,* to kill.] (*Bot.*) A genus of plants, order *Fabaceæ.* The Dog-wood tree, *P. Erythrina,* of the West Indies, is much esteemed as a hard wood. Its leaves and branches are a poison for fishes; hence its name.

Fig. 2117.—PISCINA (A. D. 1150.)

Pis'eiform, *a.* [Lat. *piscis,* and *forma,* a form.] Resembling a fish.

Pisci'na, *n.* [Lat., a fish-pond.] (*Arch.*) A water-drain in a church, (Fig. 2117,) near the altar on the south side, and usually enriched with ornament. Some churches have double piscinas.

Pis'cinal, *a.* Pertaining to a fish-pond.

Pis'cine, *a.* Relating to fish, or fishes.

Pisciv'orous, *a.* Subsisting on fish.

Pisco, (*pees'ko,*) a seaport-town of Peru, on a river of its own name, abt. 130 m. S.S.E. of Lima.

Pise, (*pe-zu',*) *n.* [Fr. *pisé.*] (*Arch.*) A wall constructed of stiff clay, or other earth, rammed into moulds that give the form of the building, and are removed when the wall is carried up.

Pise'eo, or PIZECO, in *New York,* a village of Hamilton co., on a small lake of its own name, abt. 73 m. N.N.W. of Albany.

Pis'gah, in *Iowa,* a village of Union co., abt. 150 m. S.W. by W. of Iowa City.

Pisgah, in *Missouri,* a post-village of Cooper co., abt. 17 m. S. by E. of Booneville.

Pis'gah, (Mount,) a ridge in the land of Moab, Palestine, in which was Mount Nebo. See NEBO.

Pish', *interj.* A word expressing contempt; — sometimes spoken and written *pshaw.*

Pish'on's Ferry, in *Maine,* a post-village of Kennebec co., abt. 11 m. N. of Waterville.

Pis'iform, *a.* [Lat. *pisum,* a pea, and *forma,* a form.] Of the form of a pea.

Pisistra'tus, a citizen of Athens who raised himself to the sovereign authority in the time of Solon, to whom he was related, B. C. 560. Compelled to retire from the city by the conspiracy of Megaclos and Lycurgus, he returned soon after by effecting a compromise, but was obliged to retire again, and suffer an exile of eleven years, which he spent in making preparations to recover his authority. In the eleventh year he reappeared at the head of an army and regained his power, which he retained till his death, B. C. 527. He was a beneficent ruler, and did much to promote the rise of Greek literature. We owe to him the poems of Homer in their present form, Pisistratus having collected them, as they were scattered in detached parts throughout Greece, and digested them into order.

Pi'so, an eminent Roman family, which produced some great men: as — Piso, Lucius Calpurnius, surnamed *Frugalis*, on account of his frugality, was consul 149 B. C., and terminated the war in Sicily. He composed annals and orations, which are lost. — Piso, Caius, consul 67 B. C., was the author of a law to restrain the factions which usually attend the election of the chief magistrates — Piso, Cneius, was consul under Augustus, and governor of Syria under Tiberius, in which situation he behaved with great cruelty. He was charged with poisoning Germanicus; on which account he destroyed himself, A. D. 20. — Piso, Lucius, a senator, who attended the emperor Valerian into Persia in 258. On the death of that emperor he assumed the imperial title; but was defeated by Valens, who put him to death in 261.

Pi'solite, *n.* [Gr. *pisos*, a pea, and *tithos*, a stone.] (*Geol.*) A rock of which the component particles are rounded stones about the size and shape of peas. Pisolite is generally a limestone, differing only from oölite in the greater size of the egg-like particles of which it is made up. Not unfrequently, however, valuable iron-stones are found in a pisolitic form in rocks belonging to the oölitic period.

Piso'nia, *n.* (*Bot.*) The Fingrigo, a genus of plants, order *Nyctaginaceæ*, consisting of trees or shrubs which have generally emetic and purgative roots.

Piss, *v. n.* [Dn. and Ger. *pissen.*] To discharge urine; to make water; to urinate.
—*n.* Urine; animal water.

Pis'sasphalt, *n.* [Gr. *pissasphaltos.*] (*Min.*) Mineral pitch; a soft bitumen, of the consistence of tar, and intermediate between petroleum and asphalt.

Pissophane, *n.* [Gr. *pissa*, pitch, and *phaïnein*, to seem.] (*Min.*) A hydrated sulphate of alumina and peroxide of iron, found in transparent, stalactitic or amorphous masses, of an olive-green or liver-brown color, resembling pitch in color and fracture.

Pistachia, *n.* (*Bot.*) A genus of plants, order *Anacardiaceæ*. The concrete resin called *mastic* or *mastich*, much used, dissolved in alcohol or turpentine, as a varnish and cement, is obtained from the species *P. lentiscus*. It is principally imported from the island of Chio, where the plant is much cultivated. The liquid oleo-resinous matter called *Chian turpentine* is produced by the species *P. terebinthus*, and is imported from the same island. *P. vera* (Fig. 118,) produces the fruit known as *pistachio*, or *pistacia-nut*, the kernels of which are of a green color, and have a very agreeable flavor. They are highly esteemed by the Turks and Greeks, and are occasionally imported into this country.

Pistachio, *n.* (*Bot.*) See Pistachia.

Pis'tacite, *n.* (*Min.*) A variety of Epidote, *q. v.*

Pistareen', *n* A small Spanish silver coin of the value of $0.16 to $0.18.

Pis'tle, *n.* [Fr.; It. *pesta*, from Lat. *pistare*, to pound, to bruise.] (*Man.*) The track or tread a horseman makes upon the ground he goes over.

Pistia'ceæ, *n pl.* (*Bot.*) The Duckweed family, an order of plants, alliance *Arales*. Diag. No spadix, a one-celled ovary, erect ovules, and a slit embryo. They are floating, aquatic plants, with lenticular or lobed leaves or fronds. The species are found in all regions; their properties are unimportant.

Pisticcio, (*pis-tich'e-o,*) a town of S. Italy, prov. of Potenza, 20 m. S. of Matera. *Manuf.* Woollen cloth. *Pop.* 6,500.

Pis'til, *n.* [Fr.; Lat. *pistillum.*] (*Bot.*) The female system of the flower, or the *ovary*, *style*, and *stigma*, taken together (Fig. 2014). It occupies the centre of the flower, the stamens and floral envelopes being arranged around it, when they are present; the envelopes alone in the unisexual pistillate flower; or it stands by itself when the flower is pistillate and naked. It consists of one or more modified leaves called *carpels*, which are either distinct from each other, as in the columbine and stone-crop, or combined into one body, as in the primrose and tobacco-plant. When there is but one carpel, as in the pea, the pistil is said to be *simple*; when there is more than one, as in the example cited above, it is *compound*. Each carpel consists essentially of a hollow inferior part called the *ovary*, which contains the *ovules*, and a cellular part called the *stigma*, to which the *pollen*, or fertilizing dust from the *anthers*, adheres. The stigma is either placed directly on the ovary, in which case it is said to be *sessile*, as in the barberry, or it is elevated on a stalk prolonged from the ovary, called the *style*, as in the primrose. At the period of fecundation, the stigma becomes moistened by a viscid fluid, which renders the surface more or less sticky, and thus admirably adapted to retain the pollen-grains, which are thrown upon it at the time of the deliscence of the anther. The style is traversed by a very narrow canal, which communicates below with the cavity of the ovary, and above with the stigmas. The walls of the canal are formed of a loose humid tissue, called the *conducting tissue*, from its function of conducting the pollen to the ovules. The terms *apocarpous*, *syncarpous*, &c., are used, when describing the pistil, in the same sense as when they are applied to the fruit, which is, in fact, the mature pistil. See Carpel, Fruit, Ovary, Ovule, and Placenta.

Pistilla'ceous, *a.* (*Bot.*) Growing on a pistil.

Pis'tillate, *a.* (*Bot.*) Having, or consisting of a pistil.

Pistillid'ium, *n.* (*Bot.*) The body which, in mosses, liverworts, &c., answers to the pistil.

Pistilliferous, *a.* (*Bot.*) That has a pistil.

Pistoja, (*pis-to'ya.*) a town of Italy, prov. of Florence, on the Ombrone, 20 m. N.W. of Florence. *Manuf.* Woollens, silk, leather, hardware, and fire-arms. Pistols are said to receive their name from being first manufactured in this town.

Pis'tol, *n.* [Fr. *pistolet*; It. *pistoletta*. See Pistoja.] The smallest description of fire-arm, with a curved stock for use with one hand. The latest improvement on the pistol is the Revolver, *q. v.*
—*v. a.* To shoot with a pistol.

Pistolade', *n.* A pistol-shot; the firing of a pistol.

Pistole', *n.* [Fr.: It. *pistola*, from *piastruola*, dimin. of *piastra*, a piaster.] A gold coin formerly current in some European countries. The Spanish *P.* was worth $3.60; the German *P.* was equivalent to about $2.15.

Pis'tolet, *n.* A little pistol.

Pis'ton, *n.* [Fr. and Sp., from Lat. *pinsere*, *pistum*, to pound.] (*Mach.*) A short cylinder of metal or other solid substance, which fits exactly the cavity of a pump or barrel, and works up and down in it alternately, so as to press or force some fluid into or out of the tube which it fills, as in pumps, fire-engines, steam-engines, &c.

Pis'ton-rod, *n.* The rod with which the piston is moved, as in a pump, &c.

Pisuer'ga, a river of the N. of Spain, rising in the Cantabrian Mountains, and after a S.S.W. course of 140 m., falling into the Douro, 10 m. below Valladolid.

Pi'sum, *n.* [Lat., pea.] (*Bot.*) A genus of plants, order *Fabaceæ*. The species *P. sativum* is the common pea, the most valuable of culinary legumes. Like most domestic plants of great antiquity, its native country is unknown, though it is commonly referred to the S. of Europe. The different varieties of garden-pea and the gray pea, which is cultivated in fields, are all regarded as varieties of *P. sativum*.

Fig. 2118. — Pisum sativum.

Pit, *n.* [A. S. *pyt*, *pytt*; Ir. *pit*; Lat. *puteus*, a well.] An opening or hole in the earth; a hollow; a cavity; a cavity made in the earth by digging; a deep hole in the earth.—An abyss; profundity; hell; as, the bottomless *pit*. — The grave. — An area for cock-fighting. — The part on the ground-floor between the lower range of boxes and the stage of a theatre. — A depression of the body at the stomach. — The cavity under each shoulder; as, the arm-*pit*.—A dint made by impression on a soft substance, as by the finger, &c.— A little hollow in the flesh, made by a pustule, as in small-pox. — A hollow place in the earth excavated for catching wild beasts — In some parts of the U. S., the stone of a fruit, as plum, cherry, &c.

(*Gardening.*) An excavation in the ground, intended to be covered by a frame, and to afford protection to tender plants in winter, or for the forcing of vegetables, fruits, &c. Pits are often walled on all sides, although, in many cottage gardens, excellent use is made of pits which are mere excavations. The ventilation of pits, as much as the weather will permit, is of the greatest importance.

Pit, *v. a.* To press into hollows; to indent. — To mark with little hollows. — To set or place against each other in the same *pit* or area; to set in competition, as in combat.

Pita-Hemp, *n.* See Agave.

Pit'-a-pat, *adv.* In a flutter with palpitation or quick succession of pats or beats; as, his heart went *pit-a-pat*.
—*n.* A light, quick sound, as of a footstep, rain, &c.

Pitcairn, in *New York*, a township of St. Lawrence co.

Pitcairn's Island, in the S. Pacific Ocean, Lat. 25° 3′ 0″ S., Lon 130° 8′ W. It has a circumference of 7 m., and was discovered by Carteret in 1767.

Pitch, *n.* [A. S. *pic*; Ger. *pech*; Gr. *pissa*, or *pitta*; Fr. *poix*.] The residuum which remains after tar has distilled or boiled in an open pot, so as to drive off the volatile matter. It is largely used in ship-building, &c. See Burgundy Pitch.
—*v. a.* To smear or cover over with pitch.
—To darken; to blacken; as if by smearing with pitch.

Pitch, *n.* Height or degree of elevation. — The point where a declivity begins, or the declivity itself; descent; slope; the degree of descent or declivity. — A descent; a fall.

(*Mus.*) A term applied when speaking of the acuteness or gravity of any particular sound or instrument. For instance, if we wish to express that any sound is less acute, or lower than another, we would say it is of a lower *pitch*, and *vice versâ*. The *opera pitch* is much higher than the common *concert pitch*.

(*Wheel-work.*) The distance between the centres of two contiguous teeth. *Pitch-line* is the circle, concentric with the circumference, which passes through all the centres of the teeth.

(*Arch.*) The inclination of the sloping sides of a roof to the horizon. It is usually designated by the ratio of its height to the space covered.

(*Naut.*) The rising or falling of a vessel in a heavy sea.

(*Mining.*) The limit of ground.

Pitch, *v. a.* [W. *piciaw*, to throw, to dart.] To throw, cast, or fling; to thrust, as a long pointed object. — To fix; to plant; to set in array. — To arrange the value of price of.

(*Mus.*) To regulate or set the key-note of a tune in music.
—*v. n.* To light: to settle, as something thrown or flying; to come to rest from flight.
—To fall headlong; to plunge; to fall.
—To fix the choice; — with *on* or *upon*.
—To fix a tent or temporary habitation; to encamp.

(*Naut.*) To rise and fall, as the head and stern of a ship passing over waves.

Pitch'-black, *a.* Black as pitch. (Tautological.)

Pitch-blende, *n.* [Ger. *pechblende.*] (*Min.*) An oxide of uranium, composed of 84·78 per cent. of uranium, and 15·22 oxygen. It is opaque, of a grayish-greenish or brownish-black color, and very brittle. It occurs amorphous, generally massive and disseminated, also botryoidal and reniform, with a columnar or curved lamellar structure. The chief use to which this ore is applied is for the preparation of oxide of uranium, which is employed, under the name of *Uranium Yellow*, for imparting to glass the pale opalescent sea-green color, which is much admired in Turkey. It is also used in porcelain painting, and in a new photographic process, the Wothlytype.

Pitch'-coal, *n.* A kind of bituminous coal; caking coal.

Pitch'-dark, *a.* Very dark; dark as tar or pitch.

Pitch'er, *n.* [Armor. *picher.*] An earthen vessel with a spout for pouring out liquors. — An instrument to pierce the ground in which anything is to be fixed. — A person who pitches anything.

(*Bot.*) See Ascidium.

Pitch'er, in *New York*, a post-village and township of Chenango county, about 16 miles west north-west of Norwich.

Pitch'er-plant, *n.* (*Bot.*) See Nepenthaceæ.

Pitch'er Springs, in *New York*, a post-village of Chenango co., abt. 125 m. W. of Albany.

Pitch'-farthing, *n.* A play in which a coin is pitched or thrown into a hole; — called also *chuck-farthing*.

Pitch'-field, *n.* A pitched battle.

Pitch'-fork, *n.* A fork or farming implement used in pitching or throwing hay or sheaves of grain.

Pitch'iness, *n.* Blackness: darkness. (R.)

Pitch'ing, *n.* Act of throwing, as with a pitch-fork. — A kind of paving with small stones.

(*Naut.*) The raising and falling of the head and stern of a ship.
—*a.* Declivous; descending; sloping, as a hill.

Pitch'ore, *n.* (*Min.*) Pitch-blende.

Pitch'-pine, *n.* (*Bot.*) The *Pinus picea*, from its abundance in resinous matter yielding pitch.

Pitch'-pipe, *n.* (*Mus.*) A wind instrument used by choristers in finding the pitch or elevation of the key.

Pitch'stone, *n.* (*Min.*) A form of Obsidian or Volcanic glass, the lustre of which resembles that of pitch or resin, rather than glass. It is of various colors, and is less glassy than Obsidian, from having cooled more slowly.

Pitch'y, *a.* Smeared with pitch. — Having the qualities of pitch. — Black; dark; dismal.

Pit'-coal, *n.* Mineral coal, as distinguished from charcoal.

Pit'ea, a river of N. Sweden, which, after a S.E course of 180 m., enters the Gulf of Bothnia near *Piteå*, a small seaport-town, cap. of a læn of same name, 110 m. N.N.E. of Umea; *pop.* 1,500.

Pit'eous, *a.* That may excite pity; sorrowful; mournful; wretched; miserable.
—Deserving compassion; affected by pity; compassionate.
—Pitiful: paltry; poor.

Pit'eously, *adv.* In a piteous manner; sorrowfully; mournfully.

Pit'eousness, *n.* State or quality of being piteous; sorrowfulness; tenderness; compassion.

Pit'fall, *n.* A pit slightly covered for concealment, and intended to catch wild beasts or men by their falling into it.

Pith, *n.* [A.S. *pitha.*] (*Bot.*) The cylindrical or angular column of cellular tissue, arising at the neck of the stem of an exogenous plant, and terminating at the leaf-buds, with all of which, whether they are lateral or terminal, it is in direct communication. It forms the centre of a stem, and is covered over by the wood. Its use is to act as a reservoir of nutritious matter for the young leaves when first developing.
—Marrow. — Strength or force; energy; power. — Closeness and vigor of thought and style. — Importance; weight; moment.
—*v. a.* To sever, as the spinal chord.

Pith'ily, *adv.* With strength; with close or concentrated force; cogently; with energy.

Pith'iness, *n.* State or quality of being pithy; concentrated force; strength.

Pith'less, *a.* Destitute of pith: wanting strength. — Wanting cogency or concentrated force.

Pit Hole City, in *Pennsylvania*, a decayed town of Venango co., 15 m. N.E. of Oil City. It has several oil-wells, one of which formerly yielded 7,000 barrels in a day. It once contained more than 10,000 inhabitants, but it is now nearly deserted.

Pith'y, *a.* Consisting of, containing, or abounding in, pith. — Containing concentrated force; forcible; energetic. — Uttering energetic words or expressions.

Pit'iable, *a.* Deserving pity; worthy of compassion, sorrowful: affecting; lamentable: mournful: miserable.

Pit'iableness, *n.* State of being pitiable; state of deserving compassion.

Pit'iably, *adv.* In a pitiable manner; wofully.

Pitic, or Petic, (*pee'tik,*) a town of Mexico, abt. 95 m. S.W. of Arispe; *pop.* 5,500.

Pit'iedly, *adv.* In a situation to be pitied.
Pit'iful, *a.* Full of pity; tender; compassionate. — Miserable; moving compassion. — To be pitied for its littleness or meanness; paltry; contemptible; despicable.
Pit'ifully, *adv.* With pity; compassionately; in a manner to excite pity; contemptibly; with meanness.
Pit'ifulness, *n.* State or quality of being pitiful; tenderness of heart that disposes to pity; mercy; compassion.
Pit'iless, *a.* Feeling no pity; hard-hearted. — Exciting no pity.
Pit'ilessly, *adv.* Without mercy or compassion.
Pit'ilessness, *n.* The state or quality of being pitiless; unmercifulness; insensibility to the distress of others.
Pit'man, *n.; pl.* PITMEN. A man who works in a coal-pit. — The piece of lumber which connects the saw of a saw-mill with the wheel that moves it.
Pit pan, *n.* A long and narrow canoe, with thin and flat projecting ends, used in the W. Indies.
Pit'pat, *n.* and *adv.* Same as PIT-A-PAT, *q. v.*
Pit'saw, *n.* A large saw used by two men, of whom one is in a pit.
Pitt, WILLIAM, an English statesman, and second son of the celebrated Lord Chatham, b. at Hays in Kent, 1759. He was educated at home, under private tuition, until at the age of 14 he entered at Cambridge, and was taught from his earliest youth by his haughty father to consider himself the hope of the country. He thus acquired, at the age when young men are just ridding themselves of boyish slyness, an austere self-possession, which imparted to everything he did an air of wisdom and authority. He never knew the nature of diffidence, and the easy assurance with which he took whatever duty or office presented itself, is supposed, not without good reason, to have deceived the world as to the extent of his capacity. In 1781, he was returned to Parliament for Appleby, and at once threw himself into the business of the session with the confidence of an old debater. He boldly adopted the projects of reform, then raising into shape in Britain side by side with the discontents in France, and in 1782 brought on his motion for a reform in the representation of the people. On the accession of Lord Shelburne's administration in July, he was made Chancellor of the Exchequer, and this invitation to retire from the party, who were deemed utopian theorists, showed that a well-founded reliance was placed in his ambition, overcoming his reforming pro-

Fig. 2119. — WILLIAM PITT.

pensities. It was in December of 1783 that King George dismissed the coalition ministry, and placing young Pitt at the head of the cabinet, conducted with his able championship that battle in which the crown defeated the political aristocracy. Among the statesmen of the day, Dundas, afterwards his right hand man, had the sagacity to see beforehand that he would be victorious, and to sacrifice other prospects for a participation in his fortune. Once established in power, he ruled through seventeen of the most eventful years of European history. When his reign began he had not quite abandoned his old reforming views, and being well versed in the newly promulgated philosophy of Adam Smith, he was partial to the principle of free trade. But the French Revolution drove him back from all progressive projects, and the frightened country submitted to a sort of ministerial and parliamentary despotism. The great conflict, in which the young minister of a constitutional country measured his strength with the young military despot of France, is matter of history familiar to all. That Pitt, although perhaps his powers have been somewhat exaggerated by the panegyrists, showed great resources, cannot be denied. His readiness in debate and promptness in comprehending business have seldom been equalled. What chiefly surprises people of the present day in the history of his career, is the vast amount of dissipation, and especially of drinking, with which his great labors were diversified; but perhaps his frailties have, like his abilities, been exaggerated. It was said of him that he never was truly young, that he never had the freshness, naturalness, and openness of youth; It is certain that he grew old before his time, and he died of a broken and exhausted constitution, January 23, 1806.
Pitt, in *North Carolina*, an E. co.; *area*, abt. 650 sq. m. *Rivers.* Tar and Neuse rivers, and Contentny Creek. *Surface*, nearly level; *soil*, not very fertile. *Cap.* Greenville.
Pitt, in *Ohio*, a twp. of Wyandot co.
Pitt, in *Pennsylvania*, a township of Alleghany county.
Pit'tacal, *n.* [Gr. *pitta, pissa*, pitch, and *kalos*, beautiful.] (*Chem.*) A dark-blue solid substance that has been but little studied. It is one of the products of the destructive distillation of wood.
Pit'tacus, one of the seven sages of Greece, was b. at Mitylene, in the island of Lesbos, about 650 B. C. He was a warrior as well as a philosopher, expelled the tyrant Melanthens from Lesbos; and on becoming its sovereign, B. C. 590, he discharged the duties of his station in the most exemplary manner; retired after a reign of 10 years, and died B. C. 570.
Pit'tance, *n.* [Fr. *pitance*; L. Lat. *pictantia, pitantia*, food in general.] Originally, a portion of food allowed to a monk; an allowance of food given in charity. — A very small quantity, as of money, &c.
Pitt'hem, a town of Belgium, prov. of W. Flanders, 15 m. S.E of Bruges; *pop.* 5,500.
Pittospora'ceæ, *n. pl.* [Gr. *pitta*, pitch, *sporos*, seed.] (*Bot.*) An order of plants, alliance *Berberales*. DIAG. Regular symmetrical flowers, axile and parietal placentæ, stamens alternate with the petals, ascending or horizontal ovules, and imbricated petals. — They are trees or shrubs, chiefly found in Australia, but occasionally in Africa and some other parts of the globe. Lindley enumerates 12 genera, which comprise 78 species. They are remarkable for resinous properties. Some, as certain species of *Billardiera*, have edible fruits, and some are cultivated in this country on account of the beauty of their flowers.
Pitt River, in *California*, enters Sacramento River in Shasta co.
Pitt's Archipelago, a group of islands in the Pacific Ocean off the coast of British N. America, between Lat. 53° and 54° N., and abt. Lon. 130° W.
Pitts'borough, in *Indiana*, a post-village of Hendricks co., abt. 19 m. N.W. of Indianapolis.
Pittsborough, in *Mississippi*, a post-village, cap. of Calhoun co., abt. 55 m. W. by N. of Aberdeen.
Pittsborough, in *N. Carolina*, a post-village, cap. of Chatham co., abt. 34 m. W. of Raleigh.
Pitts'burg, in *Arkansas*, a village of Johnson co., abt. 70 m. E. of Fort Smith.
Pittsburg, in *California*, a village of Shasta co., abt. 25 m. N.E. of Shasta.
Pittsburg, in *Indiana*, a post-village of Carroll co., abt. 65 m. N.W. of Indianapolis.
Pittsburg, in *Iowa*, a post-village of Van Buren co., abt. 78 m. S.S.W. of Iowa City.
Pittsburg, in *Missouri*, a post-village of Hickory co., abt. 85 m. S.W. of Jefferson City.
Pittsburg, in *New Hampshire*, a post-township of Coos co.
Pittsburg, in *Ohio*, a village of Darke co., abt. 25 m. N.W of Dayton.
Pitts'burg, the second city of *Pennsylvania*, is frequently called the "Smoky City," and the "Iron City." These two sobriquets are derived from the manufacturing which has given the city its reputation. The city is situated 750 feet above the level of the ocean, and 180 feet above the level of Lake Erie, on the head-waters of the Ohio, 354 m. W. by N. of Philadelphia, 148 m. S. of Erie, and 193 m. E of Columbus. Lat. 40° 26′ 34″ N.; Lon. 80° 2′ 38″ W. Within the angle formed by the rivers Alleghany and Monongahela, where they meet and give birth to the Ohio (the three rivers forming a water-line which, viewed from the W., resembles a letter Y., except that the Ohio trends somewhat to the N.), lies the original Pittsburg, the inner point being the site of the old Fort Du Quesne of the French, later of Fort Pitt, the nucleus of the city; looking inland from the point the land widens rapidly, and at the same time rises slowly, but quite perceptibly, from the high-water level to an elevation of from 400 to 500 feet. Mostly upon this slope lies the closely built portion of the city, with river-frontage on both the N.W. and the S.W., extending about 8 m., with but a slight inclination northward then southward, in that of the Monongahela. Until 1872 the city was bounded by the two rivers, but during that year it crossed the S.W. boundary

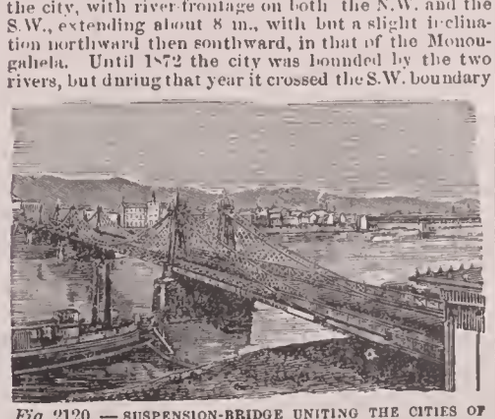


Fig. 2120. — SUSPENSION-BRIDGE UNITING THE CITIES OF PITTSBURG AND ALLEGHANY.

by the annexation of the extensive manufacturing district formerly comprised in the boroughs of Temperanceville, Union, West Pittsburg, Allentown, Mount Washington, Birmingham, East Birmingham, Lower St. Clair, South Pittsburg and Ormsby. In 1874 the city was further enlarged by annexing Wilkins township on the E. Efforts have been made to consolidate Alleghany City with Pittsburg, but without success. The two cities of Pittsburg and Alleghany, practically one in their business, dwellings, churches and factories—although separated in territory by the two rivers, are connected by numerous bridges, amounting practically to continuous streets, over which the street-railway cars run, as from ward to ward in cities not divided by rivers running through their settled area. The first settlement of *P.* was in the stockade erected by Ensign Trent, in Feb., 1754. In April, 1754, it passed into the hands of the French by surrender. In Nov., 1758, it repassed into the possession of the English, under Gen. Forbes, being abandoned by the French. In Jan., 1759, the construction of the first Fort Pitt, from whence the city takes its name, was commenced. In 1764, the first plan of lots, now embraced in four squares of the city, was laid out near the fort. In 1769, a warrant was issued for the survey of the *Manor of Pittsburg.* In Jan., 1784, the first sale of lands by John Penn and John Penn, Jr., the proprietors of the Manor, was made. In July, 1786, the first number of the first paper published west of the Alleghany Mts., was issued at *P.* In Oct., 1790, the postages at *P.*, for the year ending that date, were $110.99. Pittsburg in 1786 contained 36 log-houses, 1 stone 1 frame, and 5 small stores. In 1788 the population was estimated at about 500, which had increased to 1,565 in 1800, the growing settlement being made a borough in 1804 and a city in 1816, at which date its population was about 6,000. Its development, which continued at an increasing rate, was due to the abundance of coal and iron in its vicinity, which quickly brought it into prominence as a manufacturing city, particularly in iron and steel.

Fig. 2121.—CITY HALL.

Coal surrounds the city, exposed in the river bluffs, where the soft shales and sandstones have in the past ages been worn away by the waters to a depth of some 600 feet. In the face of these hills horizontal layers of coal appear, the great *P.* coal layer, over 6 feet in thickness, extending like a broad black band at a height of about 300 feet. This abundant outcrop of coal renders mining operations remarkably easy, and has been an important agent in the prosperity of *P.* In 1784, when, as above said, the Penns made their first sale of lands at *P.*, they also granted rights of mining coal, and the business has steadily continued from that day to this. The manufacture of glass began here in 1796, the establishment being the pioneer in the thriving glass-making business that has grown up in this city and elsewhere in the West. In 1797–98 two national vessels, the armed galleys *President Adams* and *Senator Ross*, were constructed at *P.* Other vessels, ships, brigs and schooners, suitable for sea navigation, followed, and in 1811 the first steamboat for the navigation of the western rivers was built, at a cost of $40,000. Between 1814 and 1836, 252 steamboats were built, and from 1850 onward they were produced at the rate of over 100 annually. The first iron foundry was erected in 1804, and here, in the War of 1812, cannon were cast for Perry's Lake Erie fleet and also for the defence of New Orleans.—*Manuf.* *P.* is pre-eminently a manufacturing city, it being provided by nature in abundance with the requisites of industrial production, particularly in goods of iron and steel, there being produced in this city and its vicinity about one-fifth of all the yield of the United States. In the last census year the city contained 21 blast furnaces, their output being 1,293,435 tons of pig iron, and 33 rolling mills, largely devoted to steel, their output being 1,105,573 tons of steel and 638,450 of iron. There were 49 iron foundries, with a capital of about $10,000,000, while the production of structural iron and steel was 65,000 tons,

and of wrought-iron pipe 350,000 tons. In truth, almost everything that can be made of iron, from tacks and fine wire to masses of many tons in weight, is produced here, while steel goods of every description are made. The other manufactures include glass and glassware of all kinds; silver and nickel-plating; Japan and Britannia ware; tin, brass and aluminum goods; bricks, crucibles and earthenware; wagons, carriages and furniture; brushes, bellows, white lead, lead-paint, shot, and numerous other articles. Of glass factories alone, 34 were devoted to the making of window-glass, 37 to flint and lime glass, 10 to lamp chimneys, 5 to green bottle-glass, and 15 to prescription vials. There are also large concerns for the production of air brakes, electric light apparatus, &c., there being 8 of these concerns, with a capital of over $23,000,000. There is no other city in this country, and few in the world, in which production is so large in comparison with population. This is a natural result of its situation in the midst of one of the richest coal fields on the continent, and the ease with which iron can be supplied, not only the mines of Pennsylvania, but those of Michigan, feeding the *P.* furnaces and forges. The *P.* coal regions extend for 50 miles in each direction, or 2,500 sq. m., the seams varying in thickness from 2 feet in the extreme N.W. to 6 feet at *P.*, 10 feet up the Monongahela, and 12 feet up the Youghiogheny. It is estimated that these seams hold 10,000,000,000 tons of bituminous coal, of which fully half is available for mining. Another advantage possessed by *P.* is the vicinity of the rich Pennsylvania petroleum wells, while the natural gas, which is so frequent an accompaniment of the oil, has for years past proved of the highest value as a cheap, clean and convenient fuel. About 1883 it was brought in pipes to *P.*, and for many years was used for manufacturing and domestic purposes alike, 1,200 miles of pipe being used in its conveyance, and about 7,500,000 cubic feet of gas used daily. During the reign of gas, the application of the title of "Smoky City" became a misnomer, but the growing exhaustion of the supply has forced many firms to return to coal as a fuel and the old aspect of the city is returning. In addition to coal, coke is an important product, there being in the vicinity 15,000 coke-ovens, with a capacity of 6,000,000 tons.—*Commerce.* In addition to its manufactures, *P.* has a large commerce, both domestic and foreign, the Allegheny and Monongahela rivers affording excellent natural channels for the reception of iron and coal from the mines, oil from the wells, and lumber from the forests, while the Ohio forms an equally excellent outlet for the transportation of these raw materials and of the products of manufacture to the various markets along this stream and the Mississippi, and via the Gulf to foreign shores. Still more important is the complete system of railroads with which this city is provided; the Pennsylvania, the Baltimore & Ohio, the Pittsburg, Fort Wayne & Chicago, the Pittsburg, Cincinnati & St. Louis, and various branches of the Pennsylvania, 12 railroads in all, form a complete network of rails, giving this city communication with all parts of the Union. As a commercial city, *P.* is a port of delivery of the district of New Orleans, so that a considerable portion of its foreign commerce cannot be identified, but its domestic and foreign trade steadily increases, year by year. Over $10,000,000 are invested in the river transport business, 4,000,000 tons of coal being shipped in 1890 by river alone. Within recent years a system of dams has been constructed by the U. S. government on the Monongahela and Ohio rivers, by means of which a deep-water harbor may be maintained at *P.* at all seasons. A projected improvement is a ship-canal to connect *P.* with Lake Erie; but at this writing (1897) no actual work has been done, although two or more routes have been partially surveyed as a preliminary measure. *P.* is fortunate in its healthy location and the absence of malarial disease. While built principally in the valley of the rivers, it is surrounded by rolling grounds from 200 to 400 feet in height, upon which elevations, in all directions, are built the finer residences of its citizens, above the smoke of the vast array of workshops below. Of its public buildings, the Court-House, of Quincy granite, was erected at a cost of $2,500,000. In addition, there is a Government building which cost $1,500,000, a City Hall, of white sandstone (Fig. 2121), an Exposition building, and numerous churches, of which may be named the Roman Catholic Cathedral and Trinity Church (Episcopal). The Carnegie Free Library, dedicated in 1890, is richly endowed, and is an important addition to the literary facilities of the city. The system of education is well developed, the city possessing excellent public schools and various institutions for the higher education. There are 27 National and 20 State banks, with a total capital of about $15,000,000, while the assessed valuation of taxable property is $287,322,894 *Pop* (1900) 321,616; Allegheny City 129,896; joint pop. (1900) 451,512.

Pitts'field, in *Georgia*, a village of Henry co.

Pittsfield, in *Illinois*, a post-town and township, cap. of Pike co.

Pittsfield, in *Maine*, a post-township of Somerset co.

Pittsfield, in *Massachusetts*, a post-town and township of Berkshire co., about 151 m. W. of Boston. It is regularly laid out, and generally well built. *Manuf.* Cottou goods, machinery, fire-arms, &c. *Pop.* (1895) 20,447.

Pittsfield, in *Michigan*, a village and township of Washtenaw co.

Pittsfield, in *New Hampshire*, a post-village and township of Merrimack co. *Manuf.* Cottou goods, boots and shoes.

Pitts'field, in *New York*, a post-township of Otsego co.

Pittsfield, in *Ohio*, a post-township of Lorain co.

Pittsfield, in *Pennsylvania*, a post-village and township of Warren co.

Pittsfield, in *Vermont*, a post-township of Rutland co.

Pittsfield, in *Wisconsin*, a township of Brown co.

Pitts'ford, in *Iowa*, a township of Butler co.

Pittsford, in *Michigan*, a post-village and township of Hillsdale co.

Pittsford, in *New York*, a post-village and towuship of Monroe county, about 10 miles south-east of Rochester.

Pittsford, in *Vermont*, a post-village and township of Rutland county, about 45 miles south-west of Montpelier.

Pitt's Grove, in *New Jersey*, a post-township of Salem co.

Pitts'ton, in *Maine*, a post-village and township of Kennebec co., abt. 7 m. S. by E. of Augusta.

Pittston, in *Pennsylvania*, a post-borough and township of Luzerne co., about 10 m. N. E. of Wilkesbarre, on the E. bank of the Susquehanna river. A bridge connects *P.* with West Pittston. An immense coal business is carried on here. *Pop.* (1897) 12,320.

Pitts'town, or **Pitt's Point,** in *Kentucky*, a village of Bullitt co., about 60 m. W. S. W. of Frankfort.

Pittstown, in *New Jersey*, a post-village of Hunterdon co., about 8 m. N.W. of Flemington.

—A village of Salem co., about 28 m. S. of Camden.

Pittstown, in *New York*, a post-village and township of Rensselaer co., about 22 m. N. E. of Albany.

Pittsylva'nia, in *Virginia*, a S. co., adjoining North Carolina; *area*, about 914 sq. m. *Rivers.* Staunton, Dan, and Banister rivers. *Surface*, diversified; *soil*, very fertile. *Min.* Iron and limestone. *Cap.* Chatham. *Pop.* (1897) 61,250.

Pittsylvania Court-House, the former name of Chatham, in *Virginia*, a post-village, cap. of Pittsylvania co., on the Southern Railroad, 16 m. N. of Danville; has a large business in tobacco. *Pop.* (1897) 920.

Pitu'itary, *a.* [Lat. *pituita*, phlegm.] (*Anat.*) Secreting phlegm or mucus; as, the *pituitary* membrane.
Dunglison.

P. gland. (*Anat.*) A gland situated within the cranium, between a fold of the *dura mater*, in the *sella turcica* of the spheroid bone.

P. membrane. (*Anat.*) The mucus membrane of the nose.

Pit'uite, *n.* [Fr.; Lat. *pituita.*] Phlegm; mucus.

Pitu'itous, *a.* Consisting of phlegm.

Pit'y, *n.* [Fr. *pitié;* It. *pieta*; Lat. *pietas*, from *pius*, pious.] The feeling or suffering of one person, excited by the distresses of another; compassion; commiseration; sympathy.—The ground or subject of pity; cause of grief; thing to be regretted. — A cry or call for pity.
—*v. a.* To feel pain or grief, as for one in distress; to have sympathy for; to have tender feelings, as for one excited by his unhappiness.
—*v. n.* To exercise pity; to be compassionate.

Pit'yingly, *adv.* Compassionately; tenderly.

Pityri'asis, *n.* [Gr. *pitura*, bran.] (*Med.*) A cutaneous disease consisting of irregular scaly patches, unattended by inflammation. When it affects infants, it is called *dandruff.* A similar exfoliation of the cuticle in reddish patches is not uncommon in adults. Soap and water, and mild cooling lotions, or very weak nitro-muriatic lotion, are the best applications.

Pity'roid, *a.* [Gr. *pitûra*, bran, and *sidos*, form.] Resembling bran.

Più, (*pe'oo,*) *adv.* [It., from Lat. *plus.*] (*Mus.*) A word frequently applied to another, to increase the strength of its meaning; as, *più allegro*, a little quicker.

Piuuhl, or Livramento, (*pe-oon-yee',*) a town of Brazil, abt 58 m. W.S.W. of Formiga.

Piura, (*pe-oo'ra,*) a town of Peru, on a river of its own name, abt. 120 m. N.N.W. of Lambayeque; *pop.* 22,000.

Pius I., Pope, succeeded Hyginus in 142. D. 157.

Pius II., (*Æneas Sylvius Piccolomini.*) was b. in Tuscany in 1405, of an ancient and illustrious family. In 1431 he assisted at the Council of Basle as secretary; was afterwards secretary to the anti-pope Felix V., and then to the Emperor Frederick III., who sent him on various embassies, and gave him the poetic crown. Eugenius IV. chose him for apostolic secretary, Nicholas V. made him a bishop, and sent him as nuncio to Bohemia, Moravia, and Silesia, and Calixtus III. created him cardinal. *P.* had by this time given up the more liberal opinions on church matters with which he started, and had become a zealous supporter of the power of the Pope, both in opposition to the secular power and to the authority of councils. He was one of the most learned men of his time, and notwithstanding the great change in his views, he distinguished himself by moderation and a conciliatory spirit. He was chosen to succeed Calixtus III. in 1458, and in the following year assembled a congress at Mantua for the purpose of arranging a crusade against the Turks. He soon after published a bull against appeals to a council, which occasioned some dispute with Louis XI. In 1463, by another bull, he retracted his former sentiments respecting the Council of Basle, condemning his defence of it, and praying to be condemned as Æneas Sylvius, but listened to as Pius II. D. at Ancona, August, 1464, whither he went to hasten preparations for war with the Turks. Among the writings of Pius II. are a *History of the Council of Basle; History of Frederick III.; History of Bohemia; Cosmographia*, &c.

Pius III., (*Francesco Piccolomini,*) was nephew to the preceding pontiff. He was elected pope in 1503, but d. in less than a month afterwards.

Pius IV., (*Cardinal de Medici,*) b. at Milan, 1499. He rose by merit to several high employments, and, in 1549 obtained the cardinalship, and, on the death of Paul IV., in 1559, was elected Pope. He confirmed the decrees of the Council of Trent, after the closing of that assembly in 1564. In the following year a conspiracy was formed against his life by Benedict Accolti and others, who were executed. This Pope was not of the celebrated Medici family of Florence. D. 1565.

Pius V., (*Michele Ghislieri,*) was b. in Redmont in 1504, and early entered the Dominican order. He so distinguished himself by his austere life, and his zeal against "heretics," that he was appointed inquisitor in Lombardy, and afterwards inquisitor-general. He was created cardinal in 1557, and was chosen to succeed Pius IV. in 1566. He set himself to effect reforms, both in morals and discipline, excited terror in Italy by the seizure, imprisonment, and burning of those convicted or suspected of heresy, among whom were several persons of note; revived the bull, "In cœnam Domini," but found it impossible to put it in execution; enforced strictly the authority of the Index Expurgatorius; and expelled the Jews from the States of the Church, excepting only the cities of Rome and Ancona. The great victory over the Turks at Lepanto was the result in good part of the efforts of Pius V. His death, in May, 1572, was a matter of general rejoicing, and was publicly celebrated at Constantinople during three days.

Pius VI., (*Giovanni Angelo Braschi.*) was b. at Cesena, in 1717, and succeeded Clement XIV., in 1775. His first act was to make a reform in the public treasury; he then completed the museum in the Vatican; but the greatest work of his pontificate was the draining of the Pontine marshes,—a project which baffled several of the emperors, and many Popes. When the Emperor Joseph II. decreed that all the religious orders in his dominions were free from Papal jurisdiction, Pius, apprehensive of the consequences of such a measure, went in person to Vienna in 1782; but though he was honorably received, his remonstrances were ineffectual. The French Revolution, however, was of more serious consequence to the Papal See. The Pope having favored the allies, Bonaparte entered the ecclesiastical territory, and compelled him to purchase a peace by a contribution of several millions, and delivering up the finest works of painting and sculpture. Basseville was then sent as envoy from the republic to Rome, where he behaved with so much insolence, that the people assassinated him in 1793. General Duphot entered the city with his troops to restore order, but the Papal soldiers routed them, and Duphot was slain. On this Bonaparte again entered Italy, and made the Pope prisoner in the Capitol, which was plundered. The venerable pontiff was carried away by the victors, and hurried over the Alps to Valence, where he d., August 29, 1799.

Pius VII., (*Gregorio Barnaba Chiaramonti,*) b. at Cesena, 1742, became a Benedictine monk, was created cardinal in 1785, and after the death of Pius VI. was chosen, after long deliberations of the conclave, to succeed him, March, 1800. In the following year a concordat with France was concluded at Paris; in 1804 the Pope went to Paris and crowned Napoleon emperor, returning to Rome in May, 1805. Soon after Ancona was seized by the French, and the great quarrel between Napoleon and the Pope began. The occupation of the castle of San Angelo in 1808 was followed by the annexation of the States of the Church to the French empire; on which the Pope published a bull of excommunication against the perpetrators of the invasion. *P.* was then arrested by the French officer Miollis and sent to Savona, and afterwards to Fontainebleau, whence he was not permitted to return to Italy till January, 1814. The Congress of Vienna restored the States of the Church to the Pope, who applied himself thenceforth to internal reforms. He, however, re-established the Jesuits and the Inquisition. The character of Pius VII. was such as to win him the esteem and sympathy of men of all churches and sects. D. Aug. 20th, 1823.

Pius VIII., (*Cardinal Castiglione,*) became pope in succession to Leo XII., in 1829. After a short pontificate of one year, he d., 1830.

Pius IX., (*Giovanni Mario Mastai Ferretti,*) b. at Sinegaglia, May 13, 1790, was intended for the army, but resolved to devote himself to the Church. For several years after his ordination he attended to his pastoral duties with exemplary self-devotion, and was nominated by Pius VII. on a mission to the government of Chili, shortly after the recognition of the independence of that republic. The duties of this mission were performed by him with great discretion; and immediately on his return to Rome he was appointed by Leo XII. to one of the most important of the ecclesiastico civil departments of administration. In 1836 he was sent as apostolic nuncio to Naples, while the cholera was raging there, and his name is still revered by the poorer inhabitants of that city, in gratitude for his disinterested efforts to alleviate their sufferings. In 1840 he was created Cardinal-Archbishop of Imola, in the Romagna, where much political disaffection existed; but he devoted himself to the duties of his diocese with so much zeal and self-denial, and displayed such liberality of sentiment, that he soon gained the affections of the people, and restored peace and tranquillity to the district. Pope Gregory XVI. died June 1, 1846, and Cardinal Ferretti was elected to the papacy under the name of Pius IX., June 16. The new Pope at first acquired much popularity by favoring the hopes and wishes of the people for the reform of the abuses of the government; and the enthusiasm, not only of the Romans, but of the whole Italian people, was raised to the highest pitch. But the French Revolution of 1848 gave a much more

powerful impulse to the enthusiasm, not only of the Italian patriots, but of the friends of liberal institutions all over Europe; awakening a demand, not for mere administrative reforms, but for popular systems of representative government. These sweeping changes the Pope was not prepared to support, and from that moment his popularity began to decline. A policy of reaction commenced, which only widened the breach between the Papal government and the people, and gave an impetus to the agitation for organic changes. The popular disaffection was greatly increased on his taking for his minister Count Rossi, one of the most aristocratic and unpopular men in Rome, when, indeed, the fury of the people could with difficulty be restrained. Count Rossi was assassinated Nov. 15, and Pius himself, a few days later, escaped from Rome in disguise, and arrived safely in Gaëta, the first town in the Neapolitan territory, whither he was followed by the members of the Papal court and the diplomatic corps. He sent to Rome an ordonnance, Nov. 27, declaring void all the acts of the government, which he superseded by a state commission. This document the Roman chambers treated with contempt, appointed a provisional government, and set about improving the victory they had achieved. The Pope remained nearly a year and a half at Gaëta and Portici, an object of sympathy as the head of the Roman Catholic Church. During his absence, Rome, which was in the possession of the native troops under Garibaldi, was besieged, and at last taken by storm by the French army under Gen. Oudinot, after sustaining some reverses. The Pope left Portici, April 4, 1850, escorted by Neapolitan and French dragoons, and accompanied by the King of Naples and several members of his family. He crossed the frontier at Terracina, April 6, and reëntered Rome April 12, amid the thunder of French cannon. His chief ecclesiastical acts are the formal definition of the dogma of the Immaculate Conception, in Dec., 1854; the famous Encyclical of Dec., 1864, which was provoked by the Franco-Italian convention, providing for the withdrawal of the French troops from Rome — an act which was, however, practically annulled by the return of the French forces in 1867, in consequence of an attempt at invasion by Garibaldi; — and the bull summoning the Œcumenical Council of 1869-70, which promulgated the doctrine of Papal infallibility. Died Feb. 7, 1878.

Fig. 2122. — PIUS IX.

Pius X., (*Giuseppe Sarto,*) b. at Riese, in Italy, June 2, 1835, of humble parentage. He was consecrated to the priesthood in 1858 and became a parish priest in 1867. In 1884 he was made Bishop of Mantua and in 1893 was created a Cardinal and appointed Patriarch of Venice, a position which he filled with much dignity and ability. On August 4, 1903, he was elected to the papacy as successor to Pope Leo XIII., assuming the title of Pius X.

Piv'ot, *n.* [Fr., dim. of *pieu ;* It. *pivuolo.*] (*Mech.*) The extremity of the axles about which a body revolves. — That on which anything revolves. — A turning point.

(*Mil.*) The officer or soldier who happens to be at the flank on which a company wheels.

—*v. a.* To place on a pivot.

Piv'otal, *a.* Relating to a pivot.

Pizar'ro, Francisco, the conqueror of Peru, was the illegitimate son of a gentleman of Truxillo, and being left entirely dependent on his mother, a peasant girl, he received no education, and was, in his early years, employed as a swineherd. Quitting this inglorious occupation, he embarked, in 1510, with some other adventurers, for America; and, in 1524, after having distinguished himself under Nuñez de Balboa on many occasions, he associated at Panama with Diego de Almagro and Hernandez Lucque, a priest, in an enterprise to make fresh discoveries. In this voyage they reached the coast of Peru, but being too few to make any attempt at a settlement, *P.* returned to Spain, where all that he gained was a power from the court to prosecute his object. However, having raised some money, he was enabled again, in 1531, to visit Peru, where a civil war was then raging between Huascar, the legitimate monarch, and his half-brother, Atahualpa, or Atabalipa, as he is variously called, the reigning inca. *P.*, by pretending to take the part of the latter, was permitted to march into the interior, where he made the unsuspecting king his prisoner, while partaking of a friendly banquet to which he had invited him and his whole court; then extorting from him, as it is said, a house full of the precious metals by way of ransom, he had him tried for a pretended conspiracy, and condemned him to be burned, allowing him first to be strangled, as a reward for becoming a Christian. In 1533 the conqueror laid the foundation of Lima; but, in 1537, a contest arose between him and Almagro, who was defeated and executed. The son and friends of Almagro, however, avenged his death, and on June 26, 1541, after ruling despotically for six years, *P.* met with the fate he so richly deserved, being assassinated in his palace at Lima.

Pizzica'to. (Abbreviated *pizz.*) [It., twitched.] (*Mus.*) A phrase used to denote that the strings of the violin or violincello, instead of being played, as usual, by the bow, are to be twitched with the fingers, in the manner of a harp or guitar. The ordinary mode of playing is restored by the letters c. *a.* (*col arco,* with the bow).

Piz'zighetone, a fortified town of N. Italy, on the Adda, 12 m. W.S.W. of Verona; *pop.* 4,000.

Piz'zle, *n.* [Ger. *pissel;* Du. *pees.*] The male organ in quadrupeds.

Pizzo, (*pid'zo,*) a town of Italy, prov. of Calabria Ulteriore II., on the Gulf of Santa Eufemia, 5 m. N.E. of Monteleone. Here Murat was shot in 1815. *Pop.* 5,600.

Placabil'ity, *n.* Quality of being placable or appeasable; susceptibility of being pacified.

Pla'cable, *a.* [Lat. *placabilis,* from *placare,* to quiet, from *placere,* to please.] That may be appeased or pacified; appeasable; willing to forgive.

Pla'cableness, *n.* State or quality of being placable; placability.

Placard', *n.* [Fr., from *plague,* plate, from Gr. *plax, plakos,* anything flat and broad.] A written or printed paper, or bill, posted up against a wall, &c.

—*v. a.* To post, as a writing or libel, in a public place. — To notify publicly.

Pla'cate, *v. a.* To appease; to conciliate.

Place, *a.* [Fr.; Sp. *plaza;* Ger. *platz,* from Lat. *platea,* from Gr. *plateia,* a street.] A public square; an open space in a city. — A particular portion of space, of indefinite extent; any portion of space, as distinct from space in general; a locality; site; spot. — Point or degree in order of proceeding; rank; order of priority; dignity or importance. — Residence; mansion; seat; abode. — A city; a town; a village; a collection of dwellings; a fortified town. — A portion or passage of writing, or of a book. — Room or stead, with the sense of substitution. — State of actual operation; effect.

—*v. a.* To put in any place; to put or set in a particular part of the earth, or in something on its surface. — To appoint, set, induct, or establish in an office; to put or set in any particular rank or condition. — To set or fix; to invest; to put out at interest; to lend. — To ascribe; to attribute.

Place'bo, *n.* [Lat., I will please.] (*Med.*) A prescription intended rather to satisfy the patient, than with any expectation of its effecting a cure.

Place'-brick, *n.* An inferior kind of brick, which, from being on the outside of a clamp or kiln, is only imperfectly burned.

Place'less, *a.* Without a place.

Place'man, *n.; pl.* Placemen. A person holding an office or position under the government.

Placen'ta, *n.; pl.* Placentæ. [Lat. *placenta,* a cake; Gr. *plaksus,* a flat-cake, from *plakseis,* flat.] (*Anat.*) The after-birth; a soft, spongy, vascular body, adherent to the uterus, and connected with the fœtus by the umbilical cord, and which serves as an organ of respiration and nutrition. It receives the maternal blood from the tortuous uterine or decidual arteries.

(*Bot.*) A projection on the inner wall of the ovary, to which the ovules or rudimentary seeds are attached. The arrangement of the placentæ, or *placentation,* is a very important character in distinguishing plants. In the *simple ovary,* the placenta is situated at the ventral suture, or the point which corresponds to the union of the two margins of the capillary leaf: such a *P.* is therefore termed *marginal,* or more commonly *axile,* from its being turned towards the axis of the plant. In *compound ovaries,* the placentation is of three kinds; namely, *axile, parietal,* and *free central.* The *axile,* or *central* of some botanists, occurs in all compound, many-celled ovaries; because, in these, each of the component carpels is placed in a similar position to the simple ovary: and hence the placentas situated at their ventral sutures will be arranged in the centre or axis, as in the lily and campanula. The other two kinds of placentation occur in the compound, 1-celled ovary. That termed *parietal* consists in the attachment of ovules to placentæ, either placed directly on the wall of the ovary, as in the mignonette and cactus, or upon incomplete dissepiments, formed by the partially-enfolded carpels, as in the orchis and poppy. In parietal placentation, the number of placentas corresponds to the number of carpels of which the ovary is formed. What is called a *free central P.* is formed when the placentas are not attached to the walls of the ovary, but are situated in the centre of the cavity, and perfectly unconnected with those walls. The pink and primrose families furnish examples of this kind of placentation. It sometimes happens that none of these regular kinds of placentation can be discriminated, the ovules being placed irregularly in the cavity of the ovary. — See Ovary, Ovule, Pistil.

Placen'tal, *a.* Relating to the placenta.

Placen'tary, *a.* That has reference to the placenta.

Placenta'tion, *n.* (*Bot.*) The manner in which the placenta is developed or placed, or in which the ovules are borne.

Placentia, (*plai-sen'shi-a,*) a town of Spain, prov. of Caceres, on the Gerte, 44 m. N.W. of Almaraz. *Manuf.* Hats, leather, and woollen goods. *Pop.* 7,000.

Placen'tia, a seaport-town of Newfoundland, abt. Lat. 47° 11′ 30″ N., Lon. 53° 55′ W. It is situated on a bay of the same name, an inlet of the Atlantic Ocean, and has an active trade. The harbor has 3½ fathoms of water, and the entrance is strongly defended.

Placentif'erous, *a.* (*Bot.*) Belonging to the placenta; having a placenta.

Placen'tiform, *a.* (*Bot.*) Shaped as a placenta.

Place of Arms, *n.* (*Fort.*) An enlargement in the covered way, at the reëntering and salient angles of the counterscarp; — hence the term *reëntering places of arms,* and *salient places of arms.*

Place'-proud, *a.* Proud of station or rank.

Placer, (*plās'er,*) *n.* One who places.

Placer', *n.* [Sp.] That part of a river bank, or bed of a mountain torrent, where gold is found.

Pla'cer, in *California,* a N. co., adjoining Nevada; *area,* about 1,492 sq. m. *Rivers.* Bear river and Middle Fork of American river. Lake Tahoe forms a portion of the E. boundary. *Surface,* diversified, and in some parts mountainous, being traversed by the Sierra Nevada and Snowy Range. *Min.* Gold in considerable quantities. *Cap.* Auburn. *Pop.* (1897) 16,500.

Placer Mountain, in *New Mexico,* a range abt. 20 m. S.W. of Santa Fé; Lat. 35° 29′ N., Lon. 106° 20′ W.

Placer'ville, in *California,* a town and township, cap. of El Dorado co., abt. 50 m. E. by N. of Sacramento. Much gold has been found in the vicinity, and it is a place of considerable business activity.

Placerville, in *Idaho,* a post-village of Boisé co., about 14 m. N.W. of Idaho City.

Pla'cid, *a.* [Lat. *placidus,* pleasing, from *placere,* to please.] Pleasing; gentle; quiet; undisturbed; indicating peace of mind; calm; tranquil.

Placid'ity, *n.* [Lat. *placiditas.*] State or quality of being placid.

Plac'idly, *adv.* Mildly; calmly; without disturbance or passion.

Plac'idness, *n.* Calmness; tranquillity; quietness.

Pla'cita, *n. pl.* [Lat.] (*Hist.*) In the Middle Ages, public courts or assemblies, in which the sovereign presided when a consultation was held upon the affairs of the state.

Plac'oid, Placoid'ian, *a.* [Gr. *plax, plakos,* a plate, and *eidos,* form.] Belonging to the placoids.

Plac'oids, Placoid'ians, *n. pl.* (*Zoöl.*) An order of fishes in the system of Agassiz, in which the scales have each a spine projecting from them; scales of placoid fishes, as *e. g.* the shark and dogfish exhibit when tesselated together; the material which is used commercially under the name of *shagreen.*

Pla'fond, *n.* [Fr.] The ceiling of a room.

Pla'gal, *a.* [Fr.; from Gr. *plagios,* sidewise.] (*Mus.*) Applied to such melodies as have their principle notes lying between the fifth of the key and its octave or twelfth.

Pla'giarism, (*-jī'ar-izm*), *n.* (See Plagiary.) The act of purloining another man's literary works, or introducing passages from another man's writings, and passing them off as one's own; literary theft. "Dictionary writers," says that patriarch of encyclopædia writers, Ephraim Chambers, "at least such as meddle with arts and sciences, seem in this case to be exempted from the common laws of *meum* and *tuum;* they do not pretend to act upon their own bottom, nor to treat the reader at their own cost. Their works are supposed, in great measure, compositions of other people; and whatever they take from others they do it avowedly. In fact, their quality gives them a title to appropriate everything that may be for their purpose, wherever they find it, and they do no otherwise than as the bee does for the public service. Their occupation is not pillaging, but collecting contributions; and if you ask them their authority, they will produce you the practice of their predecessors of all ages and nations."

Pla'giarize, *v. a.* To steal or purloin from the writings of another.

—*v. n.* To be guilty of literary theft.

Pla'giary, Plagiarist, *n.* [Lat. *plagiarius,* from *plagium,* kidnapping, from *plaga,* a snare.] A thief in literature; one who commits plagiarism.

Plagihe'dral, *a.* [Gr. *plagios,* oblique, and *edra,* a base, seat.] (*Crystal.*) That has oblique sides.

Pla'gionite, *n.* [Gr. *plagios,* oblique, from the form of the crystals.] (*Min.*) A sulphide of lead and antimony found in thick, tabular, four-sided prisms, and also massive and granular, of a dark lead-gray color.

Plague, (*plāg,*) *n.* [From Lat. *plaga,* a blow; Gr. *plēgē,* from *plēssein,* to strike.] (*Med.*) A contagious fever, generally of a very severe kind, rapid in its progress, and accompanied by buboes, carbuncles, and petechiæ. It spreads rapidly by contact, and is usually fatal to two-thirds of those whom it attacks. The first symptoms are headache in the forehead and occiput, sometimes accompanied by violent and short tremors, alternating with heat. The eyes become red, and assume a ferocious aspect, the headache increases, and the pain extends to the spine, to the joints, and to the limbs. Then follow vertigo and delirium, at first mild, but afterwards fierce. The tongue is dry and yellowish, but without thirst. There is nausea, with ineffectual attempts, in most cases, to vomit, or if anything is brought up, it is green bile. The respiration is laborious, with general uneasiness. There is nothing particular in the alvine exeretions, although they are sometimes liquid. The urine is often turbid, with an oily aspect. The smell of the patient is occasionally nauseous; but it the disease has lasted a few days, the perspiration has often a sweetish, disagreeable smell. The disease varies in duration from three to seven days; but the patient often dies within a few hours of the attack. Some die at periods from three to four days, without any outward symptoms beyond a peculiar physiognomy, sparkling eyes, and an expression of countenance resembling that of a person under hydrophobia. On dissection, the gall-bladder has been found distended with greenish-black bile, the inside of the intestines and stomach covered with a yellow mucus, and the conglobate glands indu-

rated; but dissections have not, for obvious reasons, been numerous. The medical treatment of *P.* has hitherto been of an empirical character, no treatment attempted having been proved to be of real use. In the French army, the *P.* is of Egyptian origin; the great plague of Athens, which took place 430 B. C., and which is the first instance on record of its appearance in Europe, having been imported from the borders of that country by a circuitous route through Libya. Its first introduction into modern Europe was by means of the Crusades; and since then it has appeared in various places, and by many different courses, but always imported from some part or other of the Turkish empire. It has frequently appeared in London, where, in 1665, it destroyed, on the smallest calculation, 68,600 inhabitants. Various estimates have been given of the frequency of plague epidemics in the principal towns of Egypt, Syria, and Turkey; but the general opinion appears to be that it recurs in those places, at intervals varying from seven to ten years; and that while it is both endemic and contagious in Lower Egypt, from the marshy lands of which it springs, it is merely contagious in Upper Egypt, as well as in Syria, and all the more distant countries to which it may be conveyed. It is now generally acknowledged that the *P.* is contagious, but is a question how far a person who has received the contagion, but in whom the disease has made no progress, can communicate it; and it appears that the body alone, if washed and shaved, does not readily communicate it, except when actually suffering from the disease, in a febrile state, or in a perspiring one. Some of the most remarkable visitations of the *P.* have been that which occurred in Britain, A. D. 430, and which carried off such multitudes that the living were scarcely sufficient to bury the dead; that which destroyed 200,000 of the inhabitants of Constantinople, A. D. 716. In Germany, 90,000 persons died of it in 1348; in Ireland, great numbers died of *P.* in 1466 and 1470; in 1524 Milan lost 50,000 of its inhabitants, and the sickness extended its ravages to Germany, Norway, Denmark, and France. In London, 30,578 persons perished of plague alone in 1603–4, and 35,417 in 1625. The plague carried from Sardinia to Naples in 1656 (being introduced by a transport with soldiers on board,) raged with such violence as to carry off 400,000 of the inhabitants in six months. In Egypt, more than 800,000 died of plague in 1792, and it committed great ravages in 1813 at Malta, and in 1834 in Egypt. — Hence, any pestilence. See YELLOW FEVER.

—Anything troublesome or vexatious; a state of misery; any great natural evil or calamity.

Plague, *v. a.* To infest with disease, calamity, or natural evil of any kind. — To vex; to tease; to harass; to trouble; to embarrass.

Plague'ful, *a.* Abounding with plagues; infected with plagues.

Plague'less, *a.* Free from the plague or plagues.

Plaguer, (*plāg'er,*) *n.* One who teases or annoys.

Plague'-spot, *n.* The spot or mark of a pestilential disease.

Plaguily, (*plāg'i ly,*) *adv.* Vexatiously; horribly. (Colloq.)

Plaguy, (*plāg'y.*) *a.* Vexatious; troublesome. (Colloq.)

Plaice, *n.* [Fr. *plie.*] (*Zoöl.*) See PLEURONECTIDÆ.

Plaid, (*plăd,*) *n.* [Gael. *plaide*, a blanket.] A striped or variegated cloth much worn by the Highlanders of Scotland, forming a prominent part of the national costume, and indicating, by its pattern and color, the different Scottish clans.

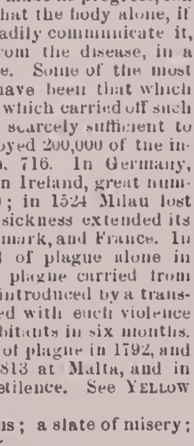


Fig. [illegible]. SCOTTISH PLAID.

Plaid'ing, *n.* Plaid cloth.

Plain, *a.* [Fr.; Sp. *plano*; Lat. *planus.*] Smooth; level; without elevations or depressions. — Open; clear; flat; unencumbered. — Void of ornament; simple. — Artless; not subtle; without disguise, cunning, or affectation. — Straightforward; sincere; candid; frank. — Mere; bare; without art or embellishment. — Evident; clear; discernible; not obscure; manifest.

—*adv.* In a plain manner.

—*n.* [Fr. *plaine.*] (*Geog.*) The general term for all those parts of the dry land which cannot properly be called mountainous, and which compose by far the greater part of the earth's surface. Plains have different physical appearances according to their geographical position, and the peculiar characteristics of each have procured for them different names; thus we have the *steppes* of Asia, the *deserts* of Africa, the *llanos* and *pampas* of S. America, and the *prairies* or *savannahs* of N. America.

—A field of battle.

—*v. a.* To level; to make even.

Plain, in *Indiana*, a township of Kosciusco county.

Plain, in *Ohio*, a township of Franklin county.—A township of Stark county.—A post-township of Wayne county.—A township of Wood county.

Plain, in *Wis.*, a p. o. of Sauk co.

Plain'-chant, *n.* Same as PLAIN SONG, *q. v.*

Plain'-dealer, *n.* One who states his views plainly.

Plain'-dealing, *a.* Honest; open; acting without art.

—*n.* Management void of art, stratagem, or disguise; sincerity.

Plain'field, in *Connecticut*, a post-village and township of Windham county, about 16 miles north-east of Norwich.

Plain'field, in *Illinois*, a post-village and township of Will county, about 155 miles north-east by north of Springfield.

Plainfield, in *Indiana*, a post-town of Hendricks co., about 14 m. S.W. of Indianapolis.

Plainfield, in *Massachusetts*, a post-township of Hampshire co.

Plainfield, in *Michigan*, a township of Iosco co.

—A village and township of Kent co., about 10 m. N.N.E. of Grand Rapids.

Plainfield, in *New Hampshire*, a post-township of Sullivan co.

Plainfield, in *New Jersey*, a city of Union co., on the Cent. R. R. of N. J., 24 m. W.S.W. of New York. The attraction as a place of residence has added much to the importance of this city. Its proximity to New York gives it additional advantages. *Pop.* (1895) 16,329.

Plainfield, in *New York*, a township of Otsego co.

Plainfield, in *Ohio*, a post-village of Coshocton co., abt. 80 m. E.N.E. of Columbus.

Plainfield, in *Pennsylvania*, a post-village of Cumberland co., abt. 7 m. W. by S. of Carlisle.—A township of Northampton co.

Plainfield, in *Vermont*, a post-village and township of Washington co., abt. 8 m. E. of Montpelier.

Plainfield, in *Wisconsin*, a post-township of Waushara co.

Plain'-hearted, *a.* Sincere hearted; without art, hypocrisy, or reserve.

Plain'-heartedness, *n.* The state or quality of being plain-hearted.

Plain'ly, *adv.* In a plain manner.

Plain'ness, *n.* State or quality of being plain.

Plains, in *Pennsylvania*, a township of Luzerne county.

Plains'borough, in *New Jersey*, a post-village of Middlesex co., abt. 14 m. N E. of Trenton.

Plains-of-Abraham, an elevated plateau or table-land of Lower Canada, immediately S. of Quebec. Memorable as the scene of a desperately fought battle (Sept. 13, 1759,) between the French and British forces under Montcalm and Wolfe respectively, in which both generals were killed.

Plains-of-Dura, in *Georgia*, a post-village of Sumpter co., abt. 110 m. S W. of Milledgeville.

Plain'-song, *n.* [Fr. *plain chant*; It. *canto fermo.*] (*Mus.*) A name given by the Church of Rome to the ecclesiastical chant. It is an extremely simple melody, admitting only notes of equal value, rarely extending beyond the compass of an octave, and never exceeding nine notes, the staff on which the notes are placed consisting of only four lines. The clefs are C and F. St. Ambrose is considered to have been the inventor or systematizer of *plain-song*.

Plain-speaking, *n.* Frankness; plainness of speech.

Plain-spoken, *a.* Speaking with plain, unreserved sincerity.

Plains'ville, in *Pennsylvania*, a post-village of Luzerne co., abt. 6. m. N of Wilkesbarre.

Plaint, *n.* [Fr. *plainte*, from Lat. *plango, planctus*, to strike the breast, to lament.] Audible expression of sorrow or complaint, or representation made of injury or wrong done. — Lamentation; complaint; lament.

(*Law.*) A private memorial tendered to a court in which the person sets forth his cause of action in writing.

Plain'tiff, *n.* [Fr. *plaintif*, from *plaindre*, to complain.] (*Law.*) He who complains; he who, in a personal action, seeks a remedy for an injury to his rights.

Plain'tive, *a.* Expressive of sorrow; expressing sorrow or grief. — Repining; mournful: sad.

Plaintively, *adv.* In a plaintive manner; in a manner expressive of grief.

Plaintiveness, *n.* The state or quality of being plaintive.

Plaintless, *a.* Without murmuring or repining; without complaint.

Plain View, in *Illinois*, a post-village of Macoupin co., abt. 48 m. N. by E. of St. Louis, Missouri.

Plain View, in *Minnesota*, a post-village and township of Wabasha county, about 17 miles S by W. of Wabas'ha.

Plain'ville, in *Connecticut*, a post-town of Hartford co., about 14 m. S W. of Hartford.

Plainville, in *New Jersey*, a village of Somerset co., abt. 20 m. N E. of Trenton.

Plainville, in *New York*, a post-village of Onondaga co., abt. 18 m. W.N.W. of Syracuse.

Plainville, in *Ohio*, a post-village of Hamilton co., abt. 10 m. E by N. of Cincinnati.

Plainville, in *Rhode Island*, a village of Providence co., abt. 20 m. N W. of Providence.

Plainville, in *Wisconsin*, a post-village of Adams co., abt. 55 m. N.N.W. of Madison.

Plain'well, or PLAINVILLE, in *Michigan*, a post-village of Allegan co., abt. 14 m. N. by W. of Kalamazoo.

Plain'-work, *n.* Needle-work, as distinguished from embroidery.

Plais'tow, in *New Hampshire*, a post-village and township of Rockingham county, about 35 miles south-east of the City of Concord.

Plait, *n.* [Fr. *plier*, from Lat. *plico, plicatus*, to fold.] A fold; a doubling, as of cloth. — A braid, as of hair or straw.

—*v. a.* To fold; to double in narrow folds — To braid; to interweave, as strands; as, to *plait* hair. — To entangle; to involve.

Plait'er, *n.* One who plaits or braids.

Plak'odine, *n.* [Gr. *plakōdēs*, flat.] (*Min.*) A native sub-arsenide of nickel, occurring in tubular, attached, and sometimes intersecting crystals, of a bronze yellow color.

Plan, *n.* [Lat. *planus*, flat.] (*Arch.*) A word applied to the horizontal section of the walls, partitions, staircases, &c., of a building, showing the disposition of the ground plot and of the upper floors — the word *section*, or *elevation*, being applied to the vertical plans. A *geometrical plan* is that in which the solid and vacant parts are represented in their natural proportion. A *perspective plan* is one that is conducted and exhibited by degradations or diminutions, according to the rules of perspective. A *raised plan* is one where the elevation or upright is shown upon the geometrical plan, so as to hide the distributions.

—Anything devised or projected; scheme; project; contrivance.

—*v. a.* To form a draught or representation of any intended work on a plane surface. — To scheme; to devise; to form in design.

Planch, *v. a.* [Fr. *planche*, a board.] To cover with planks or boards.

Planch'ing, *n.* The laying of floors in a building.

Plane, *a.* [Lat. *planus.*] Without elevations or depressions, as the surface of water at rest.

—*n.* (*Geom., Astron., &c.*) A surface without curvature; or, according to Euclid, it is such a surface that if any two points whatever in it be joined by a straight line, the whole of the straight line will be in the surface. — The term *plane* is frequently used in astronomy, conic sections, &c., to signify an imaginary surface supposed to cut and pass through all solid bodies; and the whole doctrine of conic sections is based on this foundation. In *Mech.*, planes are either horizontal, that is, parallel to the horizon, or inclined to it. In optics, the planes of reflection and refraction are those drawn through the reflected or refracted rays.

(*Carp.*) A tool used to produce straight, flat, and even surfaces upon wood. There are many modifications in this tool, which can have its cutting-edge and under-surface made to almost any contour, so that mouldings of all kinds may be made. The two commonest are the *jack plane*, or *fore-plane*, for rough work, and the *smoothing-plane*, for finishing off plane surfaces.

—*v. a.* To make smooth; to pare off, as the inequalities of the surface of a board or other piece of wood by the service of a *plane*; to free from inequalities of surface.

Plane, *n.* [Gr. *platanos*, from *platus*, broad; Fr. *platane.*] (*Bot.*) See PLATANUS.

Plane'-irons, *n. pl.* (*Carp.*) Cutting irons, either single or double, to insert in a plane.

Planer, *n.* (*Printing.*) A flat piece of wood, used by the compositor for forcing down the type in the form, and making the surface perfectly smooth.

Plan'era, *n.* [After J. S. *Planer*, a German botanist.] A genus of plants, order *Ulmaceæ*. They are N. American and Asiatic trees, closely related to elms. The timber of *P. richardi*, the Zelkona-tree, is much prized.

Plan'et, *n.* [Fr. *planete*; Sp. *planeta*; Gr. *planetes*, from *planao*, to wander.] (*Astron.*) A name given to eight dark bodies which appear bright by reflecting the light of the sun, and which revolve around the latter as a guiding center. They are divided into two groups of four each, the inner comprising Mercury, Venus, Earth, and Mars; the outer, Jupiter, Saturn, Uranus, and Neptune. Those of the inner group are small and rotate on their axes, as far as known, in about 24 hours. The members of the outer group are mammoth as compared with the inner, and have days, as far as known, of about 10 hours. There is as yet no evidence that a planet exists beyond Neptune. There is, however, some evidence to show that there are probably several intramercurial planets; but it will doubtless require several total eclipses of the sun to settle the existence of the four announced in 1878 by Watson and Swift, the actuality of whose discovery has been seriously questioned. The 8 planets are called *major* planets, to distinguish them from the group of minor planets, called *Asteroids* or *Planetoids* (*q. v.*). Following are a few of the elements of the major planets, based on the earth's distance from the sun being 92⅔ million miles (Newcomb). The earth's solar distance is the base-line, the yard-stick that measures the distances and volume of every planet and satellite except the moon. When this yard-stick was assumed to be 95,000,000 miles long, too many miles were measured off for each. Now that we know its true length, we are able to assign to each its true value. The above solar distance of the earth, however, is now known to be too small; the distance from the earth to the sun is very nearly 92⅔ million miles.

Name.	*Solar distance in million miles.*	*Diameter. Miles.*	*Length of Year.*	*Length of Day.*	*Satellites.*
			Days.		
Mercury, ☿	35¾	2,992	87·97	Unknown.	0
Venus, ♀	66¾	7,660	224·70	Unknown.	0
Earth, ⊕	92⅓	7,918	365·26	23h 56m 4·9s	1
Mars, ♂	141	4,211	686·98	24h 37m 22·7s	2
*——			*Years.*		
Jupiter, ♃	480	86,000	11·86	9h 55m 20s	5
Saturn, ♄	881	70,500	29·46	10h 14m	8
Uranus, ♅	1771	31,700	84·02	Unknown.	4
Neptune, ♆	2775	34,500	164·78	Unknown.	1

* Mean solar distance of the Asteroids, 275 million miles.

All the planets revolve around the sun from west to east, and, as far as known, rotate in the same direction.

Saturn is environed in a triple ring, the only ringed world known. Uranus was discovered in 1781 by Sir Wm. Herschel, and Neptune in 1846 by Leverier and Adams. The first asteroid was discovered the first day of the 19th century—Jan. 1, 1801—by Piazzi, and named Ceres. For many years they were discovered by the telescope, but they are now revealed by being impressed on the photographic plate and distinguished from the stars by trails, the camera being lashed to the telescope tube, which for hours is pointed on a star. The stars being points and the asteroids trails, it is easy to select the asteroids, if any, from the stars. On one occasion Barnard found the trail of a comet on the negative plate.

Plane Table, *n.* (*Survey.*) An instrument by means of which a plan is made on the spot, without any protraction or measurement of angles.

Planeta'ble, *n.* See PLANE.

Planeta'rium, *n.* [Lat.; Fr. *planétaire.*] Same as ORRERY, *q. v.*

Plan'etary, *a.* [Fr. *planétaire.*] Pertaining to the planets; as, *planetary* motions. — Consisting of planets; as, the *planetary* system. — Under the dominion or influence of a planet; as, a *planetary* hour. — Produced by planets; as, *planetary* influence. — Having the nature of a planet; erratic or revolving.

P. days. The days of the week as shared among the 7 planets known to the ancients, each having its day; and hence, in most European languages, the days of the week are still denominated from the planets, as Sunday, Monday, &c.

Plan'eted, *a.* Pertaining to planets.

Plan'etoid, *n.* (*Astron.*) Same as ASTEROID, *q. v.*

Planetoid'al, *a.* Pertaining to a planetoid.

Plan'et-stricken, Plan'et-struck, *a.* Affected by the supposed influence of planets; blasted.

Plan'etule, *n.* A small planet.

Plan'gent, *a.* [Lat. *plaagens, plangentis,* from *plangere*, to beat.] The dashing against or beating, as the waves. (R.)

Planifo'lious, *a.* [Lat. *planus,* and *folium,* leaf.] (*Bot.*) Consisting of plain leaves, in circular rows round the centre.

Planim'eter, *n.* [From Eng *plane,* and Gr. *metron.*] An instrument designed to measure, by mechanical means and at once, the area of any plane figure drawn on paper.

Planimetric, Planimetrical, *a.* Pertaining to the measurement of plane surfaces.

Planim'etry, *n.* [Fr. *planimetrie.*] The mensuration of plane surfaces.

Planing Machine, *n.* A tool employed for the purpose of giving a perfectly plane face to iron, stone, or wood. Such engines consist, for the most part, of cutters moving horizontally, or with a rotary motion, fixed in a frame carried over the substance to be operated upon.

Planipet'alous, *a.* (*Bot.*) That has flat petals or leaves.

Plan'ish, *v. a.* To polish; to smooth, as a metallic surface.

Plan'isher, *n.* A person or thing that smoothes metallic substances.

Plan'isphere, *n.* [Fr.; Lat. *planisphærium.*] A sphere projected on a plane. — A map exhibiting the circles of a sphere.

Planispher'ic, *a.* Relating to a planisphere.

Plank, *n.* [Lat. *planka,* from Gr. *plax, plakos,* anything flat and broad.] A flat, broad piece of timber, differing from a board only in being thicker.

—*v. a.* To cover or lay with planks.

Plank'ing, *n.* The act of laying down planks; the material of planks.

Plank'-road, *n.* A road made with planks. (U. S.)

Plank'sheer, *n.* (*Shipbuilding.*) The covering of thick planks bolted longitudinally on the rib and floor-timbers. A similar planking is fastened within. Each line of planking is denominated a *strake;* and different parts of the bottom and sides bear different names, as *black-strakes, wales, thick-stuff, bottom-plank,* &c.

Plan'less, *a.* Without a plan.

Plan'ner, *n.* One who plans or forms a plan; a projector.

Plano-con'cave, *a.* Plane on one side and concave on the other.

Plano-con'ical, *a* Level on one side and conical on the other.

Plano-con'vex, *a.* Flat on one side and convex on the other.

Plano-horizon'tal, *a.* Having a horizontal surface or position.

Fig. 2124.
WEST INDIA PLANORBIS,
(*P. Guadaloupensis.*)

Planor'bis, *n.* [Lat. *planus,* plane, and *orbis,* a circle.] (*Zoöl.*) A genus of snails, chiefly inhabiting ponds or the banks of rivers, and deriving their name from the form of the shell (Fig. 2124), which is that of a flattened orb, occasioned by their volutions being coiled on the same plane. The fossil species are numerous.

Plant, *n.* [A. S. and Du.; Lat. *planta,* a sprout.] An organized, living body, destitute of sensation, and incapable of spontaneous motion, and having the power of propagating itself by seeds. See BOTANY. — A sapling; a young tree. — The sole of the foot. (R.) — The fixtures and tools necessary to carry on any trade or mechanical business.

—*v. a.* To put in the ground and cover, as seeds, bulbs, &c., for growth. — To set in the ground for growth, as a young tree or a vegetable root. — To engender; to set, as the germ of anything that may increase. — To set firmly, to fix, as a standard or flag. — To settle; to fix, as the first inhabitants; to establish, as a colony. — To furnish with plants; to lay out and prepare with plants. — To set, and direct or point, as cannon.

—*v. n.* To perform the act of planting.

Plant'able, *a.* That may be planted.

Plantag'enets, *n. pl.* (*Hist.*) The surname of a line of English kings, who were of French origin on the paternal side, — Henry II. of England, the first of the line, having been the son of Geoffrey V., duke of Anjou, and of Matilda, daughter of Henry I. The Duke of Anjou was so named because he usually wore a sprig of broom—in Latin *planta genista,* in French *plante genêt* — in his cap. Henry II ascended the English throne in 1154, and his descendants reigned during 331 years, the last monarch of the line being Richard III., who fell at the battle of Bosworth, in 1485. In the 14th century the line became divided into two great rival factions, that of York and of Lancaster, or the parties of the Red and White Rose.

Fig. 2125. — GEOFFREY PLANTAGENET.

Plantagina'ceæ, *n. pl.* [From Lat. *planta,* the sole of the foot: — resemblance in the leaves.] (*Bot.*) An order of plants, genus *Cortusales.* — DIAG. Stamens alternate with the petals, 1 style, and a straight inflorescence. — They are herbaceous plants, generally without stems. Leaves commonly ribbed and radicle; flowers usually spiked and perfect, or rarely solitary, and sometimes unisexual; calyx persistent, 4-partite, imbricated; corolla dry and membranous, persistent, 4-partite; ovary simple, 2- or 4-celled from the prolongation of processes from the placenta, style 1; capsule membranous, with transverse dehiscence; placenta free, central; seeds 1, 2, or more, with a mucilaginous testa, embryo transverse in fleshy albumen. These plants abound in cold and temperate climates, but are more or less diffused over the whole globe. There are 3 genera and 120 species. The seeds of *Plantago psyllium, arenaria,* and *cynops,* are demulcent, and have been used like those of flax (linseed) in the preparation of mucilaginous demulcent drinks. The order is unimportant in an economic point of view.

Fig. 2126. — GREATER PLANTAIN,
(*Plantago major.*)

Plant'ago, *n.* (*Bot.*) The typical genus of the PLANTAGINACEÆ, *q. v.*

Plant'ain, *n.* [Fr.; Lat. *plantago,* from *planta,* the sole of the foot.] (*Bot.*) The common name of the genus *Plantago.* (See PLANTAGINACEÆ.) — Also, the name of a species of the genus *Musa.* — See MUSACEÆ.

Plant'ar, *a.* (*Anat.*) Relating or belonging to the sole of the foot.

Plantation, *n.* [Lat. *plantatio,* from *planto,* to plant.] The act of planting or setting in the earth for growth. (R.) — The place planted; ground planted with trees for the purpose of producing timber or other ornament, &c.; a large estate appropriated to the production of cotton, sugar, tobacco, &c. — A colony.

Plant'-cane, *n.* The first crop of sugar-canes, raised from cuttings.

Plant'er, *n.* One who plants, sets, or cultivates — One who introduces or establishes in a new and uncultivated country. — The owner of a plantation.

Plant'ership, *n.* The business of a planter.

Plant'ers, in *Arkansas,* a township of Philips county.

Plant'ersville, in *Alabama,* a post-village of Perry co., abt. 77 m. S. of Tuscaloosa.

Plant'erville, in *S. Carolina,* a village of Georgetown dist., abt. 20 m. N. by E. of Georgetown.

Plantiele, (*plant'i-kl.*) *n.* A young plant.

Plant'igrade, *a.* [Lat. *planta,* and *gradi,* to walk.] (*Zoöl.*) Having the distinctive character of the plantigrades.

Plant'igrades, *n. pl.* (*Zoöl.*) The name of a tribe of carnivorous mammals, comprehending those which apply the whole, or the greater part, of the sole of the foot to the ground in progressive motion.

Plant'ing, *n.* Act or operation of planting, or of setting in the ground for propagation, as seeds, trees, and shrubs. — The art of forming plantations of trees.

Plant'less, *a.* Without plants; destitute of vegetation.

Plant'let, *n.* A little plant.

Plant'-louse, *n.* (*Zoöl.*) See APHIS.

Plants, (Distribution of.) (*Bot.*) It is a matter of common observation that the localities and soils in which plants grow vary much. Some species grow in the shade, while others thrive best in a full glare of light; some prefer alpine districts, others the plains; some are found in dry, others in marshy places; some are submersed in lakes or in the sea, while others live on muddy banks or on sandy shores. It is equally well known that climate exercises a powerful influence on vegetation, modifying the floras in different regions of the globe. Some plants are fitted to bear the rigor and duration of an arctic winter with a moderate summer heat, others require the heat and light of the torrid zone; and between these two extremes there are all varieties of gradation. Thus does vegetation extend over the whole globe from pole to pole, from the summit of the loftiest peak to the depths of the ocean. Palms, bananas, tree-ferns, and orchideous epiphytes are chiefly confined to the tropics; cruciferous and umbelliferous plants are found in temperate regions; some coniferous and amentaceous plants flourish in more northern countries; while saxifrages and lichens extend to the arctic regions. Schouw divided the globe into 25 botanical *regions,* in each of which at least one half of the known species, a quarter of the genera, and some individual families, were peculiar to that region, and found nowhere else. These regions are scattered variously over the globe; but, as shown by Meyen, they admit of an arrangement into zones, each zone surrounding the earth, and including regions in which, although the plants are distinct, yet they are more like and more nearly allied to each other than those of other zones. Starting with the *equatorial zone,* there are on each side of it a *tropical, sub-tropical, warm-temperate, cold-temperate, sub-arctic, arctic,* and *polar zone.* Not only are the regions of plants in each of these zones similar to each other, but there is another kind of similarity in those of corresponding zones in the opposite hemisphere, so that the plants may be said to be, although entirely distinct, representative of each other. The evergreen forest-trees, for instance, of the northern warm-temperate zone, are represented by other evergreen forest-trees in the southern warm-temperate zone, each zone still having its distinct regions of plants. Then, if we regard the vertical distribution of plants, and start from the level of the sea in the equatorial zone up the sides of a great mountain-chain, we pass in succession through spaces answering to these zones, finding *belts* of vegetation as we ascend, either the same as, or representatives of, all the latitudinal zones, till we reach the representative of the polar one at the margin of perpetual snow. Similarly in all other zones, as we ascend from the level of the sea, we pass successively in altitude through the representatives of all the zones that interpose in latitude between the lower one and the pole.

Plantoc'racy, *n.* A body of planters.

Plant'ule, *n.* A small plant.

Planx'ty, *n.* An Irish dance; a jig.

Plaquemine, (*plak-meen',*) in *Louisiana,* an extreme S.E. parish, bordering on the Gulf of Mexico; *area,* abt. 900 sq. m. *River.* Mississippi. *Surface,* low and level, a large portion being occupied by marshes; *soil,* in the more elevated parts fertile, producing more rice than any other parish in the State. *County-seat,* Point à la Hache.

—A post-village, cap. of Iberville parish, abt. 112 m. N.W. of New Orleans.

Plaquemine' Bayou, in *Louisiana,* a stream of Iberville parish, which at high-water connects the Mississippi River with the Atchafalay Bayou.

Plaquemine' Brulée', in *Louisiana,* a small bayou flowing S.W. into the Mermenteau from St. Landry parish.

Plash, *n.* [Du. *plas.*] A small collection of standing water; a puddle. — A branch partly cut off and bound to other branches.

—*v. n.* [Du. *plassen,* to paddle.] To dabble in water; to splash.

—*v. a.* To lop or cut off — To interweave branches.

Plash'ing, *n.* The act of partially cutting and interweaving young trees.

Plash'oot, *n.* A hedge of interwoven boughs.
Plash'y, *a.* Watery; abounding with puddles.
Plasm, *n.* [Fr. *plasme*; Lat. *plasma.*] A mould or matrix in which anything is cast or formed.
(*Physiol.*) The fluid of the blood in which are suspended the red particles, to which its color is due. It consists of serum, holding fibrin in solution. It is sometimes called *liquor sanguinis.*
Plas'ma, *n.* [Gr., an image.] (*Min.*) A slightly translucent chalcedony, used by the ancients as a gem for engraving upon. It is of a grass-green or leek-green color, sprinkled with yellow and whitish specks, and possesses a glistening or waxy lustre. It is found among the ruins of Rome, and is also procured in India and China.
Plasmat'ic, Plasmat'ical, *a.* Giving form; plastic.
Plas'sey, or **Plas'sy,** a former town of British India, which was entirely destroyed by inundation.
Plas'ter, *n.* [A. S. and Dan.; Du. *pleister*; Gr. *emplastron*, from *emplasso*, to daub over.] (*Arch.*) The name applied to cements manufactured from gypsum or sulphate of lime. When burnt at a low heat, this substance is not decomposed, like limestone, but merely parts with its water of solidification. It is then converted into a white powder, absorbing water greedily, and again solidifying. The powder produced is the common *Plaster of Paris.* Combined with alum during the process of calcination, *Keene's cement* is obtained. It dries more slowly than common plaster, but is much harder, of a less opaque white, and is more durable. Reburnt with borax and other substances, still harder and finer cements are made. — See GYPSUM, and LIME (SULPHATE OF).
(*Med.*) An external application of an adhesive nature, spread on leather, cloth, &c., and applied to a sore, a wound, &c.
—*v. a.* To overlay with *plaster*, as the partitions of a house, walls, &c. — To cover with a *plaster*, as a wound. — To conceal, or smooth over the defects of. (Colloq.)
Plas'terer, *n.* One whose trade is to overlay walls with plaster. — One who makes figures in plaster.
Plas'tering, *n.* The plaster-work of a building; a covering of plaster.
Plas'terly, *a.* Resembling plaster.
Plas'ter-stone, *n.* (*Min.*) A term applied to several varieties of gypsum, or hydrated sulphate of lime, and originally to that of the neighborhood of Paris. When heated to about 300°, they lose about 20 per cent. of water, and fall into a white powder, *Plaster of Paris*, which, made into a thin paste with water, soon solidifies, and is largely used for taking casts for busts, figures, and other ornaments; it is also the basis of *stucco* and *scagliola*, or artificial marble.
Plas'tic, *a.* [Fr. *plastique*; Gr. *plasticos*, from *plasso*, to form, to mould.] Having the power to give form or fashion to a mass of matter; as, the *plastic* hand of the Creator. — Capable of being moulded, formed, or modelled; as, *plastic* clay.
Plastic'ity, *n.* The state or quality of being plastic; capable of being formed, moulded, or modelled.
(*Med.*) Plastic force.
Plastico-Dynamics. (*Mech.*) A recent branch of mechanics, which treats of the movements in the interior of plastic solid bodies
Plastog'raphy, *n.* [From Gr. *plastos*, formed, and *graphein*, to write.] The art of forming in plaster.
Plas'tron, *n.* [Fr.; It. *piastrone*; L. Lat. *plastra*, a thin plate of metal.] A piece of leather stuffed; — used by fencers, to receive the pushes made at them.
(*Zoöl.*) The under part of the shell of the crab and the tortoise.
Plat, *v. a.* To plait; to weave; to form by texture.
—*n.* Work done by platting or interweaving.
—[Fr., Dan., and Du., from Gr. *platys*, broad, flat.] A small piece of ground; a portion of flat, even ground; as, a *plat* of rising ground.
Pla'ta, an island of Ecuador, in the Pacific Ocean, abt. 20 m. S.W. of Cape San Lorenzo.
Plata, La. See ARGENTINE REPUBLIC.
Plata, La, a town of the Republic of Colombia, about 62 m. S.S.W. of Neyva.
Plata, (Rio de la,) (*re-o dal la pla'ta,*) a river of S. America, one of the largest in the world. It is, properly speaking, a continuation of the Paraguay, which has its sources about the 15th degree of S. Lat., and, flowing through a flat country, is joined by the Paraua, which robs it of its name, and by a variety of smaller streams, the Parana being joined by the Uruguay. They together expand into the sea-like Plata; and it is to this vast æstuary that the appellation of the Rio de la Plata properly applies. It flows into the ocean, and is without parallel in the rest of the world for width and magnificence, being 125 m. broad at its mouth, from Maldonado on one side, to Cape St. Anthony on the other; and between Monte Video and the Punta de las Pedras, or Stony Point, which some have considered as its proper limits, 80 m. broad. At Buenos Ayres, 200 m. from the mouth, it is about 30 m. broad, and the shores being but little elevated, the eye can seldom reach from one side to the other. This noble expanse is, notwithstanding its extent, deformed by rocks and sand-banks, and rendered of dangerous navigation, not only by its shoals, but likewise by the impetuous winds which sweep at intervals over the vast plains of the Pampas, to the S.W. of Buenos Ayres, whence they are called *pamperos*, and rush down this wild opening with unequalled fury. The only safe port is that of Monte Video, though those of Maldonado, Barragon, Buenos Ayres, and Colonia, afford different degrees of anchorage and security.
Platæ'a, an ancient city of Greece, in Bœotia, on the W. slope of Mount Cithærou, 7 m. S.W. of Thebes. Its neighborhood was the scene of the famous battle with the Persians, in which the Greeks were the victors, B. C. 479.
Plat'an, Plat'ane, *n.* (*Bot.*) The plane-tree. See PLATANUS.
Platana'ceæ, *n. pl.* [From Gr. *platanos, platas*, broad.] (*Bot.*) An order of plants, alliance *Urticales.* They are trees or shrubs with a watery juice. Leaves alternate, with deciduous sheathing stipules. Flowers unisexual, monœcious, in globular amentiferous heads, achlamydeous; male flowers with one stamen and a 2-celled linear anther; female flowers consisting of a 1-celled ovary and a thick style; ovules 1-2, suspended. Fruits arranged in a compact rounded head, and consisting of clavate nuts, each with a persistent style. Seeds 1-2, pendulous; embryo in very thin albumen, with an inferior radicle. The Planes are chiefly natives of America and the Levant. There is but one genus, namely, *Platanus.* Being large, handsome trees, they are commonly grown in parks and squares. The Amer-

Fig. 2127. — PLANE-TREE OR SYCAMORE, (*Platanus occidentalis.*)

can Plane-tree, Buttonwood, or Sycamore, *Platanus occidentalis* (Fig. 2127), is by far the largest (though not the loftiest) tree of the American forests. On the margins of the great rivers of the West, trees are found whose trunks measure from 40 to 50 feet in circumference, or more than 13 feet in diameter.
Plat'anus, *n.* (*Bot.*) See PLATANACEÆ.
Plat'band, *n.* [Fr. *plate-bande*, from *plat*, flat, level, and *bande*, a band.] The border of a flower-garden, or parterre; a border.
(*Arch.*) A plain band or fillet having a small projection.
Plate, *n.* [Fr. *plat*; Ger. *platte*, from Gr. *platys*, broad, flat.] A flat or extended piece of metal. — Armor, composed of flat, broad pieces of metal. — Gold and silver wrought into articles of household furniture. — A shallow, flattish dish or vessel from which provisions are eaten at table. — An engraving from a plate of metal or wood. — A solid page of metal to print from.
(*Arch.*) A general term applied to almost all horizontal timbers which are laid upon walls, &c., to receive other timber-work.
(*Engraving.*) The impression on paper from an engraved copper- or steel-plate.
(*Printing.*) A page of stereotype, electrotype, or fixed metallic types, for printing from.
(*Sports.*) In horse-racing, the cup, vase, or other article of gold or silver plate, which forms the stake to be run for; as, the Queen's *Plate* at Ascot.
—*v. a.* To cover or overlay with a thin plate or coating of metal, as of silver. — To arm with plate or metal for defense. — To beat into laminæ or plates. — To ornament with plating.
Plate'a, or LOCKPORT, in *Pennsylvania*, a post-village of Erie co., about 107 m. N.N.W. of Harrisburg.
Plate'-armor, *n.* An armor consisting entirely of plates of metal, which became general in the 15th century. See ARMOR PLATE.
Plateau, (*pla-to',*) *n.* [Fr.] A plain; particularly, an elevated level surface. See TABLE-LAND.
Plate'ful, *n.* Sufficient to fill a plate.
Plate'-glass, *n.* A superior quality of glass, cast in large thick plates, generally used for mirrors, and the best windows.
Pla'tel, *n.* [Fr.] A small plate or dish.
Plate'-layer, *n.* A laborer who lays down and arranges the iron rails of a railroad.
Plate'-mark, *n.* A special mark or representation stamped on gold or silver plate.
Plat'en, *n.* (*Print.*) The flat part of the press whereby the impression is made.
Plate'-paper, *n.* A heavy, spongy paper, manufactured expressly for printing from engraved plates. It receives the most delicate lines freely, and takes the impression of printer's ink readily; but ordinary writing ink will run and blot its surface. It is wetted for printing upon, and holds considerable moisture when used by the printer; but its passage through the press gives it greater density.
Plate'-printing, *n.* See COPPER-PLATE PRINTING.
Pla'ter, *n.* One who coats metal articles with silver or with gold.
Plate'-rack, *n.* A wooden frame fixed in a scullery to stand plates and dishes in to drain after they are washed.
Plate'-warmer, *n.* A japanned-metal or tinned-case with shelves, for holding plates that are to be warmed before a fire.
Plat'form, *n.* [Eng. *plat*, flat, and *form.*] Something having a flat or extended surface; as, the sketch or delineation of the form of a building upon a plane surface; a plot of ground, or broad, smooth, open walk upon the roof of a building, as seen in Oriental houses; a frame-work of timber or boards horizontally connected, so as to form a roof; a frame-work of timber or boards horizontally joined, so as to form an open and conspicuous standing-place.
—Hence, by analogy, the basis whereon any political party rests its political code of principles; declaration of doctrines, tenets, or opinions to which any body, party, or clique of individuals declare their adhesion; as, the Democratic *platform.*
(*Mil.*) An elevation of earth, or a floor of wood or stone, on which heavy guns are mounted.
(*Building.*) A level surface for receiving the foundations of an edifice or superstructure.
(*Naut.*) The orlop. See ORLOP.
Plat'form-car, *n.* A railroad-car without a covering, or inclosure.
Plat'ina, *n.* [Sp.] (*Min.*) Same as PLATINUM, *q. v.* — Twisted silver wire. — An iron plate for glazing stuff.
Plat'ina-yel'low, *n.* A pigment of a pale-yellow color, compounded of earth and an oxide.
Plat'ing, *n.* The art of covering copper and other metals with silver or gold: it is effected in various ways. Sometimes the silver is attached to and rolled out with the copper by pressure; sometimes the one metal is precipitated from its solutions upon the other; and manufacturers have lately availed themselves of electro-chemical decompositiou for the purpose. See ELECTRO-PLATING.
Platiniferous, Platin'ous, *a.* Containing platinum.
Plat'inize, *v. a.* To coat or to combine with platinum.
Plat'inode, *n.* (*Galvanism.*) Same as CATHODE, *q. v.*
Plat'inum, *n.* [Sp. *platina*, from *plata*, silver.] (*Chem. and Metall.*) This valuable metal is found in nature in small flattened grains, alloyed, more or less, with palladium, rhodium, osmium, ruthenium, and iridium. It occurs chiefly in certain of the alluvial districts of Mexico, Brazil, and the Ural Mountains. The excessive infusibility of platinum renders its purification a very complicated matter. The method generally employed is that devised by Wollaston. The ore is digested in aqua regia until solution takes place; sal ammonia is then added, and the greater part of the *P.* is precipitated, in the form of a yellow double salt, which is sparingly soluble. The mother-liquor still retains a portion of the metal, which is redissolved in aqua regia, after precipitation, by iron, sal-ammonia being added as before. The double salt is washed and heated to redness, to drive off the chlorine and ammonia, and the *P.* is left behind in the metallic state in a spongy mass. This is thoroughly washed and levigated, and afterwards squeezed in a powerful press until it acquires the specific gravity of about 10. It is next exposed to the heat of a powerful wind-furnace, and the ingot is forged by hammering on the ends, the heating and forging being repeated until the mass becomes homogeneous and ductile. *P.*, or platina, as it was formerly called, from a Spanish word signifying little silver, is a white metal possessing properties which render it most valuable in the arts. It is susceptible of a high lustre, and possesses considerable hardness. It is the most ductile of all metals, and is nearly as malleable as gold. It resists heat with great obstinacy, yielding only to the highest temperature obtainable by Beville's oxyhydrogen furnace. At high temperatures it possesses the property of welding. Its power of conducting heat and electricity is inferior to gold and silver. It does not oxidize in air at any temperature, and no single acid has any effect on it. Aqua regia dissolves it slowly. Heated in air with the alkalies, or alkaline earths, it becomes corroded, owing to the formation of a double oxide. Its properties in a minute state of subdivision are interesting. If the protochloride is dissolved in a strong solution of caustic potash, and alcohol added, carbonic acid escapes, and the metal becomes reduced in the form of a fine black powder, known as *platinum-black.* In this finely-divided state it greedily condenses oxygen from the air, absorbing many times its bulk of that gas. If moistened with ether or alcohol, it imparts this oxygen to them, forming new compounds, and glowing with the heat produced. The great infusibility and resistance to ordinary chemical agents possessed by *P.* renders it invaluable to manufacturing and experimental chemists; the advance in chemical science during the last 40 or 50 years being due in no small degree to its introduction as a material for the construction of crucibles, tubes, and retorts. In the purification and concentration of sulphuric acid, large *P.* stills are used. It is used in Russia for coinage. It is easily alloyed with other metals. It combines with carbon, silicon, and the haloids — with oxygen, sulphur, cyanogen, and it is supposed nitrogen, in fulminating *P.* *Equiv.* 194·4; *sp. gr.* 21·5; *symbol* Pt.
Chlorides of P. There are two chlorides of platinum — the protochloride ($PtCl_2$) and the bichloride ($PtCl_4$). To obtain the former, the solution of *P.* in aqua regia is evaporated, and the residue exposed to a heat of 450°

Fahr., until chlorine ceases to be expelled. It is an olive-green powder, insoluble in water, but dissolving easily in caustic potash. It forms double salts with the bichloride of *P.* and with the alkaline chlorides. The *bichloride* is obtained by evaporating the solution of the metal in aqua regia at a temperature not exceeding 212° Fahr. It is readily soluble in water, ether, and alcohol, forming a deep-orange solution. By careful evaporation, it may be obtained in deliquescent prisms. Heated to 450° Fahr., it gives off half its chlorine, and is converted into the protochloride; and if the temperature be further raised, the whole of the chlorine is eliminated. With the chlorides of the alkalies, both natural and artificial, it forms double salts. With ammonia and its chloride, it forms a multitude of salts, of which Miller enumerates no less than twelve. Bichloride of *P.* is invaluable in organic chemistry in determining the formulæ of the artificial alkalies, by the formation of the double chlorides.

Oxides of P. There are two oxides of *P.*, the protoxide (PtO), and the binoxide (PtO_2). The protoxide is known only as a hydrate, obtained as a black powder, by decomposing the protochloride with potash. The anhydrous binoxide is obtained as a black powder, by heating the hydrate, which is thrown down by adding excess of potash to bichloride of *P.*, and decomposing the platinate of potash thus formed with acetic acid. The hydrate is a red-brown powder, resembling sesquioxide of iron, and playing the part of an acid and a base. With potash and soda, crystallizable platinates may be formed; while with nitric and sulphuric acids it forms the nitrate and sulphate of the binoxide.

Sulphides of P. Platinum forms two sulphides,—the protosulphides (PtS) and the bisulphide (PtS_2) but they are of no practical interest.

Plat'itude, *n.* [Fr., from *plat*, flat.] Dulness; flatness; insipidity; — hence, that which exhibits dulness or flatness; a trite remark; a vapid truism; a pretentious observation; a weak or empty quotation.

Pla'to, the great Greek philosopher, was B. at Athens, or in Ægina, in May, B. C. 429, the year in which Pericles died. He was son of Ariston and Perictione, who boasted of their descent from Cadmus and Solon, and he was named Aristocles. The name *Plato* was afterwards applied to him in allusion to his broad brow, broad chest, or fluent speech. Endowed with a highly imaginative and emotional nature, he early began to write poems, but at the same time studied philosophy, and at the age of 20 became the disciple of Socrates. He burnt his poems, remained devotedly attached to Socrates for ten years, attended him on his trial, and was one of the few who listened to the final conversation on the immortality of the soul. After the death of Socrates, he went to Megara, to hear Euclid; thence to Cyrene, and perhaps to Egypt and South Italy. On his return he began to teach at Athens, in the plane-tree grove of the Academia; he taught gratuitously, and had a great number of disciples, many of whom became eminent teachers. Among them was Aristotle, distinguished as the "Mind of the School," and perhaps Demosthenes. Women are said to have attended. In his 40th year, *P.* visited Sicily, but he offended the tyrant Dionysius by the political opinions he uttered, and only escaped death through the influence of his friend, Dion. Two later visits to the court of the younger Dionysius were the only interruptions to his calm life as a teacher and writer at Athens. *P.* never married, had no children, took no active part in public affairs, lived absorbed in the pursuit of truth, and was so marked by gravity and melancholy, that the saying became common, "as sad as Plato." His works have come down to us complete, and are chiefly in the form of dialogues — a form of literature in which he is unrivalled. They are singular in their union of the philosophic and poetic spirit — the depth of the philosopher and the rigorous exactitude of the logician with the highest splendor of imagination of the poet. In range of speculation, the dialogues of *P.* are unparalleled. "Out of Plato," says Emerson, "come all things that are still written and debated among men of thought." And, again, "Plato is philosophy, and philosophy Plato." Attempts have been made to classify the dialogues, but without useful result; and attempts to construct a formal system from them have utterly failed. *P.* did not aim at a system; nor did he even aim so much at teaching truths, as at imparting and illustrating the method by which each should seek truth for himself. We owe to him the threefold division of philosophy into *dialectics*, *physics*, and *ethics*; the first sketch of the laws of thought; the doctrine of "ideas," as the eternal archetypes of all visible things; and the first attempt towards a demonstration of the immortality of the soul. And he proclaims the highest and purest doctrines of morality with clearness, courage, and unhesitating authority. It is difficult to say what idea Plato had of the Deity. It seems, however, that his idea of the good and Him were identical; but whether he regarded Him as a personal being it is impossible to say. *P.* distinguishes two components of the soul — the divine or rational, that which partakes of a divine principle, and participates in the knowledge of the eternal; and the mortal or irrational, that which participates in the motions and changes of the body, and is perishable. The two are united by an intermediate link, which he calls *thumos*, or spirit. He believes in future retribution; exonerates God from responsibility for sin and suffering, and sets forth in elaborate myths the blessedness of the virtuous and the punishments of the vicious. In ethics, the grand idea is the good in its various forms of development. He adopted, as a writer, the method of his great master, who forms also the central figure of the dialogues; and whose opinions and biography are so closely interwoven with them, that we cannot tell whether the light that shines on us comes from this or that side of the twin-star, Socrates and *P.* *P.* died in the act of writing, it is said, in May, 347 B. C. His birthday was long observed as a festival. There is an admirable German translation of *P.* by Schleiermacher, not complete, however; a complete French one by Cousin; and English translations of some of the dialogues by Sydenham; of the whole by Taylor, and of a few by Whewell. Goethe's work, entitled, *Plato and the other Companions of Socrates* (1865), is one of the most important contributions ever made to the study of Greek philosophy.

Fig. 2128. — PLATO, (From an ancient gem.)

Pla'to, a town of the Republic of Colombia, about 12 m. S.S.E. of Teneriffe.

Plato, in *Illinois*, a post-village of Iroquois county about 75 miles S. by W. of Chicago.—A township of Kane co.

Plato, in *Minnesota*, a post-village of McLeod co., abt. 50 m. W.S.W. of St. Paul.

Plato, in *Missouri*, a post-village of Texas co., abt. 44 m. S.S.W. of Rolla.

Plato, in *New York*, a village of Cattaraugus co., abt. 40 m. S. by E. of Buffalo.

Platom'eter, *n.* Same as PLANIMETER, *q. v.*

Platon'ic, *n.* One who receives or adopts the views of Plato.

Platon'ic, Platon'ical, *a.* Pertaining to Plato, or to his philosophy, his school, or his opinions.

Platon'ically, *adv.* After the manner of the Platonists.

Platon'ic-bodies, *n. pl.* (*Geom.*) The five regular geometrical solids, so called because they were treated of or described by Plato. They are the *tetrahedron*, the *hexahedron*, the *octahedron*, the *dodecahedron*, and the *icosahedron*. Besides these five, there can be no other solids bounded by like, equal, and regular plane figures, and whose solid angles are all equal.

Platon'ic Love, *n.* An affection subsisting between two persons of different sex, which is presumed to be unaccompanied by any sensuous emotions, and to be based on moral or intellectual affinities. The expression has originated in the view of Plato, who held that the common sexual love of the race, harassed and afflicted with fleshly longings, is only a subordinate form of that perfect and ideal love of truth which the soul should cultivate.

Pla'tonism, *n.* The doctrines or philosophy of Plato and his followers.

Pla'tonist, *n.* One who professes to be a follower of Plato, and to philosophize as he does; a platonizer.

Pla'tonize, *v. n.* To adopt the opinions of the Platonic school.

—*v. a.* To explain on the principles of the Platonic school, or to accommodate to those principles.

Pla'tonizer, *n.* A Platonist.

Plutoon', *n.* [Fr. *peloton*, a clue of thread, from *peloto*, a ball; Sp. *pélota*, from Lat. *pila*, a playing ball.] (*Mil.*) Formerly a small body of soldiers or musketeers, drawn out of a battalion of foot when they form a hollow square; in the modern sense, two files forming a subdivision of a company of infantry.

Platte, in *Iowa*, a township of Taylor co.

—A township of Union co.

Platte, in *Missouri*, a W. N.W. co., adjoining Kansas; *area*, about 410 sq. m. *Rivers.* Missouri and Platte rivers. *Surface*, undulating; *soil*, very fertile, producing on an average more hemp, wheat, butter, and corn than any other county of the same size in the Union. *Cap.* Platte City. *Pop.* (1897) 18,480.

—A township of Andrew co.

—A township of Buchanan co.

Platte, in *Nebraska*, an E. co.; *area*, about 682 sq. m. *Rivers.* Platte river, Maple creek, and some smaller streams. *Surface*, undulating; *soil*, fertile. *Cap.* Columbus. *Pop.* (1897) 17,360.

Platte City, in *Missouri*, a post-town, cap. of Platte co., about 200 m. W. N.W. of Jefferson City, on the Chicago, Rock Island & Pacific R.R.

Platte'kill, in *New York*, a post-village and township of Ulster county, about 80 miles south by west of Albany.

Plat'ten-See, or **Balaton Lake,** the largest lake of Hungary, 55 m. S.W. of Pesth. It is 48 m. long from N.E. to S.W., and its greatest breadth 10 m.; *area*, 420 sq. m. It receives numerous rivers, the principal of which is Szala, and discharges its surplus waters by the Sarviz and Sio, into the Danube. The water is slightly salt.

Plat'ter, *n.* [From *plat.*] A large, flat, shallow dish for holding the provisions of a table. — One who plats by weaving.

Plat'ter-faced, (*-fāst.*) *a.* Broad-faced.

Platte (or NEBRASKA) **River,** the longest affluent of the Missouri River. It is formed by two branches called North Fork and South Fork of Platte River. The first of these rises among the Wind River Mountains in Wyoming, and flows E.S.E. to Harrison co., Nebraska. The South Fork of the same river has its rise among the Park Mountains in Colorado, and flowing E.N.E. into Nebraska joins the North Fork in Harrison co., thence pursuing a general E. course through two-thirds of the State, it enters the Missouri River between Sarpy and Cass cos. Total length, including the longest (North) Fork, abt. 1,200 m. Though it is more than 3 m. wide at many places, and contains some large islands, it is for the most part little more than a succession of shallow pools; hence the French name Platte, or *shatton*.

Platte River, in *Wisconsin*, flows into the Mississippi River from Grant co.

Platte River, rises by two branches in Iowa, and flowing S. into Missouri, enters Missouri River from Platte co.

Platte'ville, in *Iowa*, a post-village of Taylor co., about 9 m. E. by S. of Bedford.

Platteville, in *Wisconsin*, a prosperous city of Grant co., about 78 m. W.S.W. of Madison. It owes its importance chiefly to the rich lead mines in the vicinity. *Pop.* (1895) 3,321.

Plat'ting, *n.* Slips of cane, straw, &c., woven and plaited for making into hats.

Platts'burg, in *Missouri*, a city, cap. of Clinton co., about 28 m. S.E. of St. Joseph. *Pop.* (1897) 1,825.

Plattsburg, in *New York*, a post-village and township, port of entry, and the cap. of Clinton co., on the Saranac River and Lake Champlain, abt. 160 m. N. by E. of Albany; Lat. 44° 42′ N., Lon. 73° 26′ W. Cumberland Bay affords an excellent harbor, and the village has an active trade. *Manuf.* Flour, machinery, ironware, leather, lumber, &c.

Plattsburg, in *Ohio*, a post-village of Clark co., abt. 11 m. E. by S. of Springfield.

Platts'mouth, in *Nebraska*, a city, cap. of Cass co., on Missouri river, 21 m. S. of Omaha. *Pop.* (1897) 10,000.

Platts'ville, in *Connecticut*, a village of New Haven co., abt. 19 m. N.N.E. of New Haven.

Plattsville, in *Ohio*, a post-village of Shelby co., abt. 37 m. N. of Dayton.

Platt'ville, in *Illinois*, a post-village of Kendall co., abt. 17 m. W. by N. of Joliet.

Plattville, in *Pennsylvania*, a post-village of Cambria co., abt. 24 m. W.N.W. of Altoona.

Platu'rus, *n.* [Gr. *platoros*, broad, and *oura*, a tail.] (*Zoöl.*) A genus of marine snakes.

Plat'y, *a.* Resembling, or consisting of plates.

Platyceph'alous, *a.* [Gr. *platys*, broad, and *kephalē*, head.] Broad-headed.

Plau'dit, *n.* [From Lat. *plaudere*, to applaud.] A clapping of the hands, in token of approbation, praise, or applause; praise bestowed; shout of acclamation.

Plau'ditory, *a.* Applauding: praise-bestowing.

Plauen, (*plow'en,*) a town of Saxony, circle of Zwickau, on the White Elster, 60 miles S.W. of Leipsic. *Manuf.* Cotton goods, paper, leather, muslin and cotton-printing. *Pop.* 16,500.

Plausibil'ity, *n.* [Fr. *plausibilité.*] State or quality of being plausible; speciousness; superficial appearance of right.

Plau'sible, *a.* [Lat. *plausibilis*, from *plaudo.*] That may gain favor or approbation: — hence, superficially pleasing: apparently right; specious; ostensible; colorable; as, a *plausible* excuse, a *plausible* pretext. — Employing specious arguments or discourse; as, a *plausible* speaker.

Plau'sibilize, *v. a.* To render plausible. (a.)

Plau'sibleness, *n.* State or condition of being plausible.

Plau'sibly, *adv.* In a plausible manner.

Plau'sive, *a.* [Lat. *plaudere*, *plausum*, to applaud.] Giving applause; bestowing or expressing praise.

Plau'tus, T. MACCIUS, the most celebrated Roman comic poet, B. in Umbria, probably about B. C. 255. He spent the greater part of his life at Rome, where at one time he is said to have been reduced to the necessity of grinding corn with a handmill for a baker. He began to write plays about 220, and gained immense popularity with his countrymen by his numerous comedies, based, many of them, on Greek models, but made his own by a bold treatment and clever adaptation of them to Roman audiences. Twenty of his comedies are still extant out of the twenty-one pronounced genuine by Varro. One hundred and thirty were current under his name. His plays were still acted in the reign of Domitian, and some of them have been imitated by modern dramatists. There are several English translations of *P.*'s works. Died B. C. 184.

Play, *v. n.* [A. S. *plegan*, *plegian*, to play.] To use any exercise for pleasure or recreation; to do something not as a task or for profit, but for amusement; to sport; to frolic; to frisk. — To toy; to trifle; to act with levity, or wantonly and thoughtlessly. — To game; to gamble; to contend in a game; as, to *play* double or quits. — To practice a trick or deception. — To perform on a musical instrument; as, to *play* on a flute, violin, pianoforte, &c. — To move, or to move with alternate dilatation and contraction, as the lungs; to operate: to act as a machine; to move one way or another, as a wheel or piston: as, to send for engines to *play* against a fire. — To wanton; to move irregularly.

"He *played* familiar his hoary locks." — *Pollok.*

—To act a part on the stage; to personate a character; to act in any particular character.

To play upon, to deceive by false representation; to mock by deceptive illusion. — To give a fanciful turn; to practice sport or sarcastic merriment.

"How every fool can *play upon* the world!" — *Shaks.*

—*v. a.* To put into action or motion; as, to *play* cannon, to *play* a fire-engine. — To use, as an instrument of

music; to *play* the bugle, to *play* the organ. — To act, as a part or character; as, to *play* the fool. — To act or perform by representing a character; as, to *play* the part of "Hamlet." — To perform, as one's part in life.

"I seem a saint, when most I *play* the devil." — *Shaks.*

—To perform in contest for amusement or for a prize; as, to *play* a game of billiards.

To play off, to display; to exhibit; to put in exercise; as, to *play off* tricks upon one's credulity.

Play, *n.* [A. S. *plega*.] Any exercise or series of actions intended for pleasure, amusement, or diversion; a game, as at base-ball, cricket, quoits, &c.—Amusement; sport; frolic: gambols; as, children's *play*. —Gaming; practice of contending for victory, or for a prize; as, he lost a fortune by high *play*. — Practice in any contest; as, sword-*play*. — Action; uss; employment; office; practice; manner of acting in contest or negotiation; as, fair *play*, foul *play*. — A dramatic composition; representation or exhibition of a tragedy or comedy; as, to go to the *play*. — Performance or execution on a musical instrument. — Motion: movement, regular or irregular; as, the *play* of a piston; — hence, also, free and easy action.

"The joints have no *play* between them." — *Mozon.*

—Liberty of action; room for enlargement or exhibition; scope; as, to give full *play* to one's laughter. — State of agitation or ventilation.

"Many ... never heard this question brought in *play*."—*Dryden.*

To hold in play, to keep in full occupation or action; as, *to hold* the foe *in play*. — *Play of colors*, rapid succession of prismatic colors, as in a diamond.

Play'-actor, *n.* An actor of stage-plays; a dramatic player.

Play'-bill, *n.* A printed announcement of a play, with a programme of the casts assigned to the actors therein.

Play'-book, *n.* A book of dramatic compositions.

Play'-day, *n.* A day devoted to recreation; a day of exemption from work; a holiday.

Play'-debt, (*-dĕt*,) *n.* A gaming debt; a debt contracted by play.

Play'er, *n.* [A. S. *plegere*.] One who plays in any game or sport; as, a *player* at cards. — An idler; one who performs anything indifferently.

"You're ... *players* in your housewifery." — *Shaks.*

—An actor or performer of dramatic impersonations. — A mimic. — One who acts a part in a certain manner. — One who performs on a musical instrument. — A gamester; a gambler; as, a high *player*.

Play'fellow, *n.* A playmate; a companion in sports or amusements.

Play'ful, *a.* Full of play; sportive; given to levity or frivolity; as, a *playful* kitten. — Indulging in sportive expression or illustration; as, a *playful* fancy.

Play'fully, *adv.* In a playful manner; sportively.

Play'fulness, *n.* State or quality of being playful; sportiveness.

Play'-game, *n.* Play of children. (R.)

Play'-goer, *n.* One who frequents the performances of stage-plays; a theatrical habitué.

Play'-house, *n.* A house appropriated to the representation of plays or of dramatic compositions; a theatre.

Play'ing, *n.* Act of playing, particularly of performing upon an instrument of music.

Play'ing-card, *n.* One of a set of 52 cards, formed of 4 sets of 13 each, bearing certain painted figures and devices, and used in playing games.

Play'less, *a.* Without play.

Play'mate, *n.* A play-fellow; a companion in sports or pastimes.

Playsome, (*plā'sum*,) *a.* Playful; sportive; wanton; full of levity.

Play'someness, *n.* Playfulness; sportiveness; wantonness.

Play'thing, *n.* A toy; anything that serves to amuse.

Play'wright, (*-rīt*,) *n.* A maker of plays; a writer for the stage.

Plea, (*plē*,) *n.* [O. Fr. *plait*, suit, plea; Fr. *plaider*, to plead, from L. Lat. *placitare*, from Lat. *placitum*, a determination, from *placeo*, to please.] (*Law.*) *In equity:* A special answer showing or relying upon one or more things as a cause why the suit should be either dismissed, or delayed, or barred. *At law:* The defendant's answer by matter of *fact* to the plaintiff's declaration, as distinguished from a demurrer, which is an answer to matter of *law*. See PLEADING.

Pleas of the Crown. (*Old Eng. Law.*) An expression which denoted the divisions of criminal offences generally. The phrase was so used because the sovereign was supposed in law to be the person injured by every wrong done to the community, and therefore was the prosecutor for every such offence.

Pleach, (*plēch*,, *v. a.* [Fr. *plisser*, from Lat. *plicare*, to wind together.] To plash; to come together by interweaving, as boughs of trees; as, "the *pleached* bower." —*Shaks.*

Plead, (*plēd*,) *v. n.* [Fr. *plaider*.] To argue or reason in support of a claim, or in defence against the claim of another; to urge reasons for or against; to attempt to persuade one by argument or supplication; to beseech with earnestness; to urge; as, to *plead* in a person's favor.

(*Law.*) To carry on a plea or suit; to present an answer to the declaration of a plaintiff; to carry on the allegations of the respective parties in a cause.

—*v. a.* To discuss, defend, and endeavor to maintain by arguments or reasons adduced before the tribunal or person who has the magisterial power of determining; to argue at the bar; as, to *plead* a cause before a judge and jury. — To allege, or adduce in proof, support, or vindication; to offer in excuse, apology, or extenuation; as, his character *pleads* in his favor. — To allege or offer in a legal plea or defence, or for repelling a demand in law; as, to *plead* a statute of limitations; to *plead* infancy.

Plead'able, *a.* That may be pleaded; that may be alleged in proof, defence, or vindication; as, this privilege is *pleadable* at law.

Plead'er, *n.* [Fr. *plaideur*.] One who pleads or argues in a court of justice; one who forms pleas or pleadings; one who offers reasons for or against; one who attempts to maintain by arguments; as, a special *pleader*.

Plead'ingly, *adv.* By supplication; in a pleading manner.

Plead'ings, *n. pl.* (*Law.*) The mutual altercations between the plaintiff and defendant in a court of law, in support of their respective claims. The first object in an action is to procure the defendant's appearance, in order that he may have an opportunity of being informed of the plaintiff's demand or complaint, and of encountering it in such manner as he may think fit. This is done by a *summons* or *writ*, issued out of the court in which the action is brought, directed to the intended defendant, and commanding him to cause an appearance to be entered for him in that court in an action at the suit of the plaintiff, within eight days after the writ is served upon him. If the defendant fails to appear, the plaintiff obtains judgment by default. If he appears, he is entitled to receive from the plaintiff a detailed statement of the nature of his complaints, which is called the *declaration* (*narratio*). If the declaration be so framed as to prejudice or embarrass the fair trial of the action, the defendant may apply to the court to have it struck out or amended; or if he denies the sufficiency of the facts as cause of action, he may lodge a *demurrer*, and call upon the court to give judgment in his favor upon that state of facts. Otherwise, the defendant's course is to plead or deliver a *plea*, the general object of which is to make answer in point of fact to the declaration. The plea may be either dilatory or peremptory. *Dilatory* pleas are founded on some matter of fact not connected with the merits of the case, and are either to the jurisdiction, showing that the case is not within the jurisdiction of the court, or pleas of suspension, showing some matter of temporary incapacity to proceed with the suit; or in abatement, showing some matter for abating or quashing the declaration. The effect of a dilatory plea is, if successful, to defeat the particular action, leaving the plaintiff at liberty to commence another in a better form. *Peremptory* pleas, or pleas in bar, are founded on some matter tending to impeach the right of action itself, and their effect is to defeat the plaintiff's claim altogether. Pleas in bar are of various kinds. In general issues, there is a denial of the whole matter of the declaration, or at least of the principal fact upon which it is founded; as that the defendant is not guilty, not indebted, did not promise as alleged, &c. All other pleas in bar are distinguished by the name of *special pleas*. Pleas in bar are also distinguished according to their subject-matter; as pleas in justification or excuse, and pleas in discharge; the former tending to show that there never was any right of action, the latter that the cause of action, though once existing, has been barred by matter subsequent. As regards all pleas in bar, it is a fundamental rule that they must either traverse (*i. e.* deny) the matter of fact in the declaration, or confess and avoid it. The plea being delivered, it then has to be met by the plaintiff within the proper period, upon peril that if he fail to do so, the defendant is entitled to judgment by default. In encountering the plea, the plaintiff has the same right to have it struck out or amended, if its frame be objectionable, as the defendant had with regard to the declaration; he may also demur or plead some matter of fact. If the plaintiff pleads, he is said to reply, which he does by delivering a *replication;* and this, also, as the plea, must either traverse the last pleading or confess and avoid it. Upon the same principles are constructed all the subsequent allegations that may occur on either side until the pleading is exhausted. To the replication the defendant may rejoin, or deliver an answer called a *rejoinder;* the plaintiff may answer the rejoinder by a *surrejoinder;* the defendant may, upon that, deliver a *rebutter*, and this may be followed by a *surrebutter* on the part of the plaintiff; beyond which pleadings seldom happen to extend, and are not distinguished by any particular names; for it is evident that the parties must at length arrive either at some exception by way of demurrer to the sufficiency of the last pleading, which is an *issue in law*, or at the denial on one side of some matter of fact alleged on the other, which is an *issue in fact*. Issues in law are referred to the decision of the judges of the court; issues in fact are decided by trial and evidence.

Pleasance, (*plĕz'ans*,) *n.* [Fr. *plaisance*.] State of being pleasant; — hence, gayety; merriment; joyousness.—A pleasure-garden attached to a mansion.

Pleasant, (*plĕz'ant*,) *a.* [Fr. *plaisant*.] Pleasing; agreeable; gratifying to the mind or senses. — Enlivening; cheerful; affording pleasure or gratification; as, *pleasant* company; gay; humorous; lively; sportive.— Trifling; adapted rather to mirth than use; as, a *pleasant* adventure.

Pleas'ant, in *Illinois*, a township of Fulton county.

Pleasant, in *Indiana*, a township of Allen county. — A township of Grant county. — A township of Johnson county. — A township of La Porte county. — A township of Porter county. — A township of Steuben county.—A post-township of Switzerland county, eleven miles north-west of the town of Vevay. — A township of Wabash county.

Pleas'ant, in *Iowa*, a township of Appanoose county. —A township of Hardin county.—A township of Lucas county.—A township of Monroe county —A township of Poweshiek county.—A township of Union county. —A township of Wapello county.
—A township of Cass county.
—A township of Winneshiek county.
—A township of Wright county.

Pleasant, in the State of *Michigan*, a village of Genesee county, about eleven miles southeast of Flint.

Pleasant, in *Ohio*, a township of Brown county.—A township of Clarke county.—A township of Fairfield county.—A township of Franklin county.—A township of Hancock county.—A township of Hardin county.—A township of Henry county.—A township of Knox county.—A township of Logan county.—A township of Madison county.
—A township of Marion county.
—A township of Putnam county.
—A township of Seneca county.
—A township of Van Wert county.

Pleasant, in *Pennsylvania*, a township of Warren co.

Pleas'ant Grove, in *Illinois*, a township of Coles co.

Pleasant Grove, in *Iowa*, a post-township of Des Moines county.—A township of Floyd county.—A village of Keokuk county, about 40 miles S.W. of Iowa City.—A township of Mahaska county.—A township of Marion co.

Pleasant Grove, in *Louisiana*, a locality of De Soto parish, about 3 m. S.W. of Sabine Cross-Roads. Here, April 8, 1864, Gen. W. H. Emory, coming to the assistance of the advance columns of Gen. Banks' army, met those defeated forces in full retreat from the battle-field of SABINE CROSS-ROADS (*q.v.*), with the Confederates in close pursuit. A sanguinary battle of an hour and a half ensued, in which the Nationals, though able to maintain their position until dark, lost heavily, and in the night were compelled to retreat to PLEASANT HILL, (*q.v.*)

Pleasant Grove, in *Minnesota*, a post-village and township of Olmstead co., abt. 13 m S. by E. of Rochester. This town was devastated by a cyclone in August, 1883, and a large part destroyed.

Pleasant Grove, in *New Jersey*, a village of Morris co., abt. 21 m. W. of Morristown.

Pleas'ant Hall, in *Pennsylvania*, a post-village of Franklin co., abt. 45 m. W.S.W. of Harrisburg.

Pleas'ant Hill, in *Illinois*, a post-village and township of Pike co., abt. 80 m. W.S.W. of Springfield.

Pleasant Hill, in *Indiana*, a post-village of Montgomery co., abt. 58 m. W.N.W. of Indianapolis.

Pleasant Hill, in *Louisiana*, a post-village of De Soto parish, abt. 50 m. S. of Shreveport. Here, on April 9, 1864, occurred a desperate battle between the Union army under Gen. Banks, and the combined Confederate forces of Gens. Kirby Smith, Taylor, and Green. Gen. Banks, having suffered defeat at Sabine Cross-Roads, and again at Pleasant Grove, retreated to this place; and finding that the enemy was pursuing him in force, he took a strong position and prepared to give battle. The contest lasted nearly all day, and resulted in the defeat of the Confederates. The total Union loss in the engagements of April 7-9 amounted to 3,969. The Confederate loss was never reported.

Pleasant Hill, in *Missouri*, a post-village of Cass co., abt. 36 m. S.W. of Lexington.

Pleas'antly, *adv.* In such a manner as to please or gratify; gaily; merrily; in good humor; lightly; indicrously.

Pleas'antness, *n.* State or quality of being pleasant or agreeable; gayety; cheerfulness; merriment.

Pleas'ant Mills, in *New Jersey*, a village of Atlantic co., abt. 15 m. N. of May's Landing.

Pleas'anton, in *Texas*, a post-village, cap. of Atascosa co., abt. 120 m. S.S.W. of Austin.

Pleas'ant Plain, in *Iowa*, a post-village of Jefferson co., abt. 45 m. S.S.W. of Iowa City.

Pleasant Plains, in *Missouri*, a village of Scott co., abt. 30 m. W. of Cairo, Illinois.

Pleasant Plains, in *New York*, a post-village of Dutchess co., abt. 66 m. S. of Albany.

Pleas'ant Prai'rie, in *Minnesota*, a post-village of Wabasha co., abt. 15 m. N. of Rochester.

Pleasant Prairie, in *Missouri*, a village of Greene co., abt. 22 m. E.N.E. of Springfield.

Pleasant Prairie, in *Wisconsin*, a township of Kenosha co.

Pleas'ant Ridge, in *Illinois*, a township of Livingston co.

Pleasant Ridge, in *Iowa*, a village and township of Lee co., abt. 28 m. N. of Keokuk.

Pleas'ant River, in *Maine*, enters the Atlantic Ocean by a bay of its own name, from Washington co.

Pleas'ant Run, in *Indiana*, a township of Lawrence co.

Pleas'ant Run, in *Texas*, a creek flowing into Trinity River from Dallas co.

Pleas'antry, *n.* [Fr. *plaisanterie*.] Gayety; merriment; that which conduces to pleasure, good-humor, or agreeability.—That which conduces to vivacity or liveliness; — hence, sprightly talk; a humorous saying; gentle raillery.

"The ironical *pleasantry* of a finished man of the world." *Macaulay.*

Pleas'ant-tongued, (*-tŭngd*,) *a.* Agreeable in speech; lively-spoken.

Pleas'ants, in *West Virginia*, a N.W. co., adjoining

Ohio; *area*, about 150 sq. m. *Rivers.* Ohio river and Middle Island creek. *Surface*, hilly; *soil*, generally fertile. *Cap.* St. Mary's. *Pop.* (1897) 8,380.

Pleas'ant Spring, in *Wisconsin*, a township of Dane co.

Pleas'ant Unity, in *Pennsylvania*, a post-village of Westmoreland county, about 38 miles east south-east of Pittsburg.

Pleas'ant Vale, in *Illinois*, a post-village and township of Pike county, about 90 miles west by south of Springfield. It is watered by the Mississippi river.

Pleas'ant Val'ley, in *Illinois*, a post-township of Jo Daviess co.

Pleasant Valley, in *Iowa*, a township of Fayette county.—A township of Grundy county.—A township of Johnson county.—A post-township of Scott county.

Pleasant Valley, in *Minnesota*, a township of Mower co.

Pleasant Valley, in *New York*, a post-village and township of Dutchess co., abt. 7 m. N.E. of Poughkeepsie.

Pleasant Valley, in *Ohio*, a post-village of Morgan co., abt. 50 m. S. of Columbus.

Pleasant Valley, in *Pennsylvania*, a township of Potter co.

Pleasant Valley, in *Wisconsin*, a township of Eau Claire county.—A township of Pierce county.—A post-township of St. Croix county.

Pleas'ant View, in *Indiana*, a village of Shelby co., abt. 15 m. S.E. of Indianapolis.

Pleas'antville, in *Illinois*, a village of Fulton co., abt. 50 m. N.W. of Springfield.

Pleasantville, in *Iowa*, a post-town of Marion co., abont 100 m. W.S.W. of Iowa City.

Pleasantville, in *New York*, a post-village of Westchester co., about 34 N. of New York city.

Pleasantville, in *Ohio*, a post-village of Fairfield co., about 30 m. S.E. of Columbus.

Pleasantville, in *Pennsylvania*, a post-borough of Venango co., abt. 7 m. E. of Titusville.

Please, (*plēz,*) *v. a.* [Fr. *plaire*, ppr. *plaisant*, from Lat. *placeo.*] To excite agreeable sensations or emotions in; to gratify; to gladden; as, to *please* one's fancy.—To content; to satisfy; as, her beauty *pleased* the most fastidious taste.

To be pleased in, or *with*, to have complacency or satisfaction in.—*To be pleased to do a thing*, to take pleasure in doing it; to have the good will to do it; as, I am *pleased to do* you a service.

—*v. n.* To like; to choose; to prefer; to condescend; to be pleased;—used ceremoniously, or by way of entreaty.

Pleased'ly, *adv.* In a pleased or gratified manner.

Pleased'ness, *n.* State or condition of being pleased.

Pleas'er, *n.* One who pleases or gratifies.

Pleas'ing, *a.* Giving pleasure or gratification; delightful to the senses or to the mind; grateful; acceptable; pleasant; as, a *pleasing* view, *pleasing* manners, a *pleasing* dream.

Pleas'ingly, *adv.* In a pleasing or agreeable manner.

Pleas'ingness, *n.* Quality of affording pleasure.

Pleas'urable, *a.* That can or may please; pleasing; giving pleasure; affording gratification.

Pleas'urableness, *n.* State or quality of being pleasurable.

Pleas'urably, *adv.* In a pleasurable manner; with gratification of the senses or the mind.

Pleasure, (*plēzh'ur,*) *n.* [Fr. *plaisir.*] The gratification of the senses or of the mind; agreeable sensatione or emotions; excitement, relish, or gladness produced by the attainment or the anticipation of good.—Enjoyment; delight;—sometimes, seusual or carnal gratification.

"Grief still treads upon the heels of *pleasure.*"—*Congreve.*

—Approbation; will; choice; preference; selection; purpose; intention; command; arbitrary determination.—That which pleases; a favor; a boon; a service; as, will you do me a *pleasure?*

(Note. *Pleasure* is sometimes used in the construction of self-explanatory compounds; as, *pleasure*-carriage, *pleasure*-garden, *pleasure*-train, &c.)

—*v. a.* To impart pleasure; to gratify; to delight; to please. (R.)

"A man in love will cross his own inclinations to *pleasure* them whom he loves."—*Tillotson.*

—*v. n.* To seek or take pleasnre; as, to go *pleasuring.* (R.)

Pleasure-gronnd, (*plēzh'-,*) *n.* Ground adjoining a mansion; laid out in an ornamental manner, and appropriated to amusement.

Pleasurist, (*plēzh'-,*) *n.* One who is a slave to worldly pleasures.

Pleat, *v. a.* Same as Plait, *q. v.*

Plebeian, (*ple-bē'yan,*) *a.* [Fr. *plébéien;* Lat. *plebeius*, from *plebs*, *plebis*, the common people.] Pertaining, or having reference to, or consisting of, the common people; vulgar;—opposed to *patrician;* as, a *plebeian* throng, a *plebeian* mind, &c.

—*n.* (*Roman Hist.*) One of the free citizens of Rome who did not come under the class of the patricians or clients. Though personally independent, they had in early times no political power, the government being entirely in the hands of the patricians, who formed the original *populus* (Gr. πόλις) or people.—B.C. 494 the plebeians revolted and obtained a decree of the senate to have two of their order elected annually as tribunes. Three plebeians were created decemvirs abt. B.C. 451. Military tribunes were chosen from the plebeians abt. B.C. 444. A plebeian was raised to the consulate abt. B.C. 366. A plebeian was made one of the censors B.C. 351; two plebeians were appointed consuls B.C. 172; and two censors B.C. 131, thus overthrowing the last of the political barriers existing betweeu them and the patricians.—In modern times, one of the common people or lower classes of men;—so used in countries where there is an aristocracy.

Plebe'ianism, *n.* The conduct of plebeians.

Plebeianize, (*ple-bē'yan-īz,*) *v. a.* To make low, common, or vulgar.

Plé'biscite, *n.* [Fr.; Lat. *plebiscitum*, from *plebs*, *plebis*, and *scitum*, decree.] The name given, in the political phraseology of moderu France, to a decree of the nation obtained by an appeal to universal suffrage. Thus Louis Napoleon, for example, was chosen president, and snbsequently emperor, by a *plébiscite.* In 1870 again, and a few months before his inglorious fall, he had his power enforced by a new *plébiscite.* The word is borrowed from the Latin; but the *plebiscitum* of the Romans properly meant only a law passed at the *Comitia Tributa*, i. e., assembly of the *plebs*, or "commons," as distinguished from the *populus*, or the "nobles;" and although it was ultimately obligatory on both classes of the community, it, of course, could only refer to such matters as it was within the province of the *Comitia Tributa* to legislate upon, and could not fundamentally alter or destroy the constitution.

Plec'tognathes, Plectog'nathi, Plec'tognaths, *n. pl.* [Gr. *plektos*, twisted, and *gnathos*, jaw.] (*Zoöl.*) In the system of Cuvier, and also that of Müller, a small order of osseous fishes, but having the skeleton less perfectly ossified than osseous fishes generally; the skin furnished with ganoid scales or spines; and particularly characterized by having the maxillary and premaxillary bones anchylosed or soldered together.

Plectropha'nes, *n.* (*Zoöl.*) The Ortolan, Buuting, Black-bonnet, Cirl-bunting, &c. A genus of European birds, of the family *Fringillidæ*, characterized by having the bill more or less curved or blunted, the wings half longer than the tail, the hind claw much the largest; colors, black and white. No bird whatever has been so highly celebrated in the annals of gastronomy as the Ortolan, whether we consider the practices resorted to at the present day to fit them for the tables of the wealthy, or refer to the enormous prices paid for them by the epicures of ancient Rome. They are common in Italy and France, where they are caught and fattened for the table, being fed in a dark place with oats or millet, by which process they become so fat that they will weigh three ounces, and would die from that cause alone, were they not killed for the market; when served up they resemble a mass of delicious marrow.

Plec'trum, *n.* [Lat., from Gr. *plessein*, to stroke.] (*Antiq.*) See Lyre.

(*Anat.*) The styloid process of the temporal bone. Also, the nvula, aud the tongue.

Pled, *imp.* and *pp.* of Plead, *q. v.*—Occasionally wrongly used instead of Pleaden.

Pledge, (*plĕj,*) *n.* [O. Fr. *pleige;* L. Lat. *plegium*, surety.] That which fastens or secures in a moral sense; that which is plighted or offered as a warrant or proof of good faith; anything given or considered as a security for the performance of an act.—Something put in pawn; that which is deposited with another as eecurity for the payment of a debt or performance of a contract; a pawn, deposit, or earnest; a gage.—A surety; a hostage.

"I am Grumio's *pledge.*"—*Shaks.*

(*O. Eng. Law.*) A bail; one who undertook to become security for another.

"And nt thy *pledge's* peril keep thy day."—*Dryden.*

—A drinking of health to another.

To hold in pledge, to keep by way of security.—*To put in pledge*, to pawn.

—*v. a.* To give as a warrant, earnest, or eecurity of good faith; to deposit in pawn, or as security.—To engage for by promise or declaration.—To drink the health of another; to honor a toast.

"*Pledge* it merrily, fill your glasses."—*Sheridan.*

Pledgee', *n.* One to whom anything is pledged.

Pledge'less, *a.* Without a pledge; receiving no pledge.

Pledgeor', *n.* (*Law.*) One who pledges;—opposed to pledgee.

Pledg'er, *n.* A pledgeor; one who warrants or secures.—One who invites another to drink by drinking first; one who drinks to the health of another.

Pledget, (*plĕj'et,*) *n.* [Prov. Eng., a small plug.] (*Surg.*) A compress or bandage laid over a wound to absorb the pus and keep it clean.

Ple'iad, *n.* One of the Pleiades, *q. v.*

Pleiades, Pleiads, (*plī'ā-deez,*) *n. pl.* (*Astron.*) A group of stars in the constellation Taurus, the Bull. The stars are so close together that it is difficult to say how many are seen by the naked eye. "They are called seven," says Higenus, "but no one can see more than six;" and six seems to be the number generally visible, though there are many more in the cluster. There is a supposition that some one of the stars once visible has disappeared, or changed its magnitude. According to mythology, the Pleiades were the seven daughters of Atlas, who, being pursued by Orion, were changed by Jupiter into dovee. They were afterwards translated to the heavens, where they formed the assemblage of the Seven Stars in the neck of Taurus.

Pleis'tocene, (*-sēn,*) *a.* [Gr. *pleistos*, most, and *kainos*, new.] (*Geol.*) A term intended to include many of the newest tertiary deposits.

Ple'narily, *adv.* In a plenary manner; fully; entirely; completely.

Ple'nariness, *n.* State or condition of being plenary.

Plen'arty, *n.* (*Eng. Law.*) The state of a benefice occnpied.

Ple'nary, *a.* [It. *plenario*; L. Lat. *plenarius*, from Lat. *plenus*, full.] Full; entire, complete; as, a *plenary* license or indulgence.

Plenary indulgence. (*Eccl.*) In the Roman Catholic Church, an entire remission of penalties due to all sins.—*Plenary inspiration*, inspiration divested of all admixture of error.

Ple'nicorn, *n.* [Lat. *plenus*, full, and *cornu*, horn.] (*Zoöl.*) A ruminant, solid-horned quadruped, as the deer.

Plenip'otence, Plenip'otency, *n.* [Sp. *plenipotencia.*] State or quality of being plenipotent.

Plenip'otent, *a.* [Lat. *plenus*, and *potens*, powerful.] Having full power.

Plenipotentiary, (*-en'shi-a-ry,*) *n.* [Fr. *plénipotentiaire.*] A person invested with full power to transact any business;—usually, an ambassador or envoy to a foreign court furnished with full powers.

—*a.* Containing or invested with full power; as, *plenipotentiary* authority.

Plen'ish, *v. a.* In Scotland, to furnish, as a house; to supply with necessary articles.

Plen'ishing, *n.* In Scotland, the furniture belonging to a house; also, the act of furnishing.

Ple'nist, *n.* [Fr *pléniste*, from Lat. *plenus*, full.] One who holds the doctriue that all space is full of matter; a plenitudinarian.

Plen'itude, *n.* [Fr.; Lat. *plenitudo*, from *plenus*, full.] Complete competence; abundance; exuberance; completeness; as, *plenitude* of means.—Repletion; animal fulness; plethora; redundancy of blood and humors in the animal body.

"Relaxation from *plenitude* is cured by spare diet."—*Arbuthnot.*

Plenitudina'rian, *n.* Same as Plenist, *q. v.*

Plenitu'dinary, *a.* Having plenitude; full; complete; entire; thorough.

Plen'teous, *a.* Possessing or affording plenty; abundant; full; copious; ample; yielding abundance; as, a *plenteous* stock of provisions; a *plenteous* harvest.—Possessing in abundance, and ready to bestow liberally.

Plen'teously, *adv.* In a plenteous or abundant manner.

Plen'teousness, *n.* State of being plenteous; abundance.

Plen'tiful, *a.* Containing plenty; copious; ample; abundant; adequate to every purpose; as, a *plentiful* crop; a *plentiful* supply of water; a *plentiful* fortune.—Yielding abundant crops; affording a full supply; as, a *plentiful* year.

Plen'tifully, *adv.* In a plentiful manner; abundantly; with ample or adequate supply.

Plen'tifulness, *n.* State, quality, or condition of being plentiful; abundance; ample quantity; copiousness.

Plen'ty, *n.* [O. Fr. *plenté*, from L. Lat. *plenitas*—*plenus*, full.] Fulness; abundance; copiousness; sufficient or complete supply.—Fruitfulness.—(Used poetically.)

"The teeming clouds descend in gladsome *plenty.*"—*Thomson.*

—*a.* Plentiful; ample; abundant; copious. (Used chiefly colloquially.)

Ple'num, *n.* [Lat., from *plenus*, full.] Fulness of spatial matter;—the correlative to *vacuum.*

Pleochro'ism, *n.* [Gr. *pleiōn*, more, and *chrōma*, color.] (*Optics.*) The exhibition of several shades of color, as when a mixture of polarized and non-polarized light passes through a double refractory crystal. *Nichol.*

Ple'onasm, *n.* [Gr. *pleonasmos*, from *pleos*, *pleon*, full, filled.] (*Rhet.*) An over-fulness, or redundancy of words in speaking or writiug; the use of more words, to express ideas, than are necessary.

Ple'onaste, *n.* [Fr., from Gr. *pleonazein*, to abound.] (*Min.*) A dark or pearly-black variety of iron and magnesia Spiuel, found at Candy in Ceylon, &c. When cut and polished, *pleonaste* forms a gem of considerable brilliancy.

Ple'onaste, Pleonas'tical, *a.* [Gr. *pleonastikos.*] Pertainiug, or having reference to, or partaking of, pleonasm; redundant.

Pleonas'tically, *adv.* With redundancy of words.

Plescheu, (*plesh'en,*) a town of Prussia, 54 m. S.E. of Posen. *Manuf.* Woollens and tobacco. *Pop.* 5,300.

Plesiomor'phism, *n.* [Gr. *plēsios*, near, and *morphē*, form.] The state of crystallized substances, which, while uearly resembling one another in form, are still essentially different.

Plesiomor'phous, *a.* Having close resemblance in form.

Ple'siosaur, *n.* (*Zoöl.*) An animal of the genus *Plesiosaurus.*

Plesiosan'rus, *n.* [Gr. *plesios*, near; *sauros*, a reptile.] (*Pal.*) The name given to a genus of extinct amphibious saurians, principally remarkable for their length of neck. Their remains are found in the formations from the muschel-kalk to the kalk inclusive: but are most common in the lias and Kimmeridge claybeds. They are closely allied to the *Ichthyosaurus*, and their general appearance must have been very hideous. The head was that of a monstrous lizard, furnished with teeth like those of a crocodile; its neck was of enormous length, resembling the body of a serpent; while the trunk and tail had the proportions of an ordinary quadruped, the ribs of a chameleon, and the paddles of a whale. The remaine of five or six species of plesiosaurians have been found.

Plesis, in *New York*, a post-village of Jefferson co., abt. 88 m. S.W. by S. of Ogdensburg.

Plestehleivo, (*plest-che'i-vo,*) a small lake of Russia, govt. of Vladimir, 70 m. N.W. of Vladimir. Length. 5 m., breadth 4 m. Here Peter the Great first essayed to learn the duties of a sailor, to enable him to form a Russian navy.

Pletho'ra, Pletho'ry, *n.* [O. Fr. *plethore*; Gr. *plēthorē*, from *plēthō*, to be or become full.] Over-fulness; particularly, excess of blood; repletion of animal fluids; — hence, state or condition of being over-full or overloaded in any respect morally or mentally; as, a *plethora* of imagination.

Plethor'ic, *a.* [O. Fr. *plethorique.*] Affected with plethora; having a full habit of body, or the vessels overcharged with fluids;—also, evincing moral or intellectual plethora; as, *plethoric* fulness of thought.

Plethor'ically, *adv.* In a plethoric manner.

Pleu'ra, *n.* [Gr.] (*Anat.*) The membrane which covers the inner surface of the thorax and its viscera. It forms two distinct portions, or bags, which, being applied laterally to each other, form the portions called the *mediastina.*

Pleu'ral, *a.* Having reference, or belonging to the ribs, or to that side of the body where they lie.

Pleurod'gia, *n.* [Gr. *pleura*, side, and *algos*, pain.] (*Med.*) Pain in the side, or about the ribs.

Pleu'risy, *n.* [Fr. *pleuresie*, from Gr. *pleuron*, the side.] (*Med.*) Inflammation of the pleura, or investing membrane of the lungs. Among the causes of pleurisy, the more common are exposure to cold, especially after violent exercise, blows on the chest, fracture of the ribs, tubercles in the lungs. It is most prevalent in winter, and next to that, in autumn. Old persons are most subject to it, but it may occur at any period of life. It is usually distinguished as acute and chronic. The former usually commences with chills, rigors, and the ordinary symptoms of inflammatory fever, accompanied or followed by a sense of weight in the chest, which in a few hours becomes acute pain, usually referred to a point directly below the nipple. There is usually a short, dry cough, and the breathing is frequent, short, and anxious; the pain being increased by a deep inspiration or the act of coughing. Sometimes the patient can only lie upon the affected side, sometimes only upon the opposite one; but usually he prefers lying upon his back. The pulse is frequent and hard, skin hot, cheeks flushed, urine scanty and high-colored, and tongue white. These symptoms are not always so well marked, and the pain is sometimes more diffuse and less severe. In most cases, the acute pain, as well as the fever, subsides on the third or fourth day, and the cough and difficulty of breathing abate, though the pleura still continues in a state of inflammation. By means of auscultation and percussion, the nature of this disease can be much more accurately determined than formerly. The respiratory movements and murmur will be found to be diminished, and sounds of friction will accompany the motions of respiration. Dulness on percussion will be first heard in the most depending part of the chest, afterwards gradually extending over the side affected. In the treatment of this disease the object is to produce the local inflamuation and prevent effusion. Hence, bloodletting, either local, by means of leeches or cupping, or general, from the arm, followed by doses of tartar emetic, brisk aperients, and strict antiphlogistic treatment, are recommended. In chronic pleuritis the symptoms are usually those of the acute form in a mitigated state. It may succeed the acute, or it may come on gradually without any of the more marked features of that disease. There is usually more or less of fever, an acceleration of the pulse, emaciation, difficulty or hurry of breathing, increased by exertion, more or less of pain or soreness, and inability to lie on the healthy side. The treatment of this form of the disease differs from that of the other, the object being to promote the absorption of the effused matter, and also to support the patient's strength. For promoting the absorption of the effused fluid, as well as for preventing its further secretion, counter-irritants are used, as blisters, eruption liniments, tincture of iodine; the last painted over the part, or exhibited internally, will be found to act very beneficially in removing the effusion. The general health is to be improved by a nutritious, but not heating or stimulating diet, and by the cautious exhibition of such tonics as the strength of the patient is able to bear. Change of air will often be found to act most beneficially in such cases, and is frequently found to be efficacious when most other remedies have failed. When other means fail, recourse is sometimes had to the operation of *paracentesis thoracis* for setting free the effused matter; but the operation is attended with considerable danger, and is rarely productive of more than a temporary relief.

Pleurit'ic, Pleuritic'al, *a.* [Gr. *pleuritikos.*] Pertaining to pleurisy; as, *pleuritical* affections. — Diseased with pleurisy.

Pleurit'is, *n.* [Gr.] (*Med.*) Same as PLEURISY, *q. v.*

Pleuronec'tes, *n.*; *pl.* PLEURONECTIDÆ. (*Zoöl.*) A genus and family of Malacopterygious fishes, commonly known by the appellation of *Flat-fish.* They are distinguished not only from all other fishes, but even from all other vertebrated animals, by several peculiarities of structure. Their body is extremely compressed, or flattened at the sides. Both eyes are on one side, and this side always remains uppermost when the animal is swimming. The upper side is in general deeply colored, while the other side is whitish. The two sides of the mouth are not equal, and the pectoral fins are rarely so. The body is depressed, and elevated in the direction of the spinous processes; the dorsal extends along the whole back; the anal occupies the lower edge of the body, and the ventrals are sometimes united with it. They have no air-bladder, and they seldom rise far from the bottom; but when disturbed, they will raise themselves into a vertical position, so as to show their white side, and they then dart along with great rapidity; but they soon return to their usual posture, and glide along with a sort of undulating motion near the bottom. They are found along the shores of almost all countries; and are, generally speaking, wholesome and agreeable food. The Sole, Plaice (Fig. 2129), Turbot, Flounder, &c., are examples of *Pleuronectidæ.*

Fig. 2129.
PLAICE, (*Pleuronectes platessa.*)

Pleurobra'chia, *n.* (*Zoöl.*) A genus of acalephs, belonging to the order of *Ctenophoræ* or *Beroïd Medusæ*; distinguished by having the body spherical or slightly elongated and compressed, the locomotive appendages extending from near the margin of the mouth, in eight rows, towards the opposite centre. One of the most beautiful species is represented in our Fig. 15.

Pleuro-peripneu'mony, Pleuro-pneumo'nia, *n.* [Gr. *pleuros, peri*, around, and *pneumonia*, a lung disease.] (*Med.*) Inflammation of the pleura and lungs.

Plex'iform, *n.* [Lat. *plexus, plectero, plexum*, to twist, and *forma*, form.] Complicated after the manner of network.

Plexim'eter, Plexom'eter, *n.* [Gr. *plessein*, to strike, and *metron*, measure.] (*Med.*) An ivory plate used in examination of the chest by percussion.

Plexure, (*plĕks'yur,*) *n.* Act or process of interweaving; also that which is interwoven.

Plex'us, *n.* [Lat.] (*Physiol.*) Any network or interlacing of vessels, nerves, or fibres.

Pliabil'ity, *n.* State or quality of being pliable, or of bending or yielding to pressure or force without rupture; flexibility; pliableness.

Pli'able, *a.* [Fr., from *plier.*] Easy to bend; that readily yields to pressure without rupture; flexible; supple; pliant; as, India-rubber is a *pliable* substance. — Readily yielding to moral influence, argument, persuasion, or discipline; and, sometimes, in a bad sense, easily adapted to the designs or purposes of another; as, a *pliable* disposition, a *pliable* instrument.

Pli'ableness, *n.* Quality of being pliable, or of yielding to force or to moral influence; pliability; flexibility.

Pli'ably, *adv.* So as to be pliable.

Pli'ancy, *n.* Quality of being pliant; easiness to be bent; readiness to yield to moral influence.

Pli'ant, *a.* [Fr., from *plier.*] That may be easily bent; readily yielding to force or pressure without breaking; flexible; pliable; that may be easily formed or moulded to a different shape; lithe; limber; flexible; as, a *pliant* thread. — Easily yielding to moral influence; easy to be persuaded: tractable; docile; not firm.

"The will was then ductile and *pliant* to right reason." — *South.*

Pli'antly, *adv.* In a pliant or flexible manner.

Pli'antness, *n.* State of being pliant; pliancy.

Pli'ca, *n.* [Lat., a fold.] (*Med.*) A disease endemic in some parts of N. Europe, so called on account of being characterized by interlacing, twisting, and agglutination or matting of the hair.

Pli'cate, Pli'cated, *a.* [From Lat. *plicare*, to fold.] (*Bot.*) Folded like a fan; as, a *plicate* leaf.

Pli'cately, *adv.* In a plicate or folded manner.

Plica'tion, *n.* [O. Fr., from Lat. *plicare*, to fold.] A fold or folding.

Pli'cature, *n.* [From Lat. *plicare*, to fold.] A fold; a doubling.

Plied, (*plīd,*) *imp.* and *pp.* of PLY, *q. v.*

Pli'ers, *n. pl.* [Fr. *plieur*, a folder.] A kind of pincers by which any small thing, as wire, is seized and bent.

Pli'form, *a.* [From *ply*, a fold, and *form.*] In the form of a fold or doubling.

Plight, (*plīt,*) *v. a.* [A. S. *plihtan*, to pledge, from *pleo*, danger, because a pledge is at the risk of the pledger.] To risk or give as a guarantee or proof of good faith; to give as security for the performance of some act; as, to *plight* one's word, &c.; — never applied to property or goods.

—*n.* [A. S. *pliht*, plight, danger.] State of risk or hazard, like that of a thing pledged; exposed condition; perplexity; predicament.

"He . . . would dwell in peril of like painful *plight.*" — *Spenser.*

—Gage; guarantee; security; that which is exposed to risk. — State; condition, without risk or exposure implied.—A network; a fold; an entanglement; as, "Many a folded *plight.*" — *Spenser.*

Plighter', *n.* He who, or that which, plights.

Pliniim'mon, one of the highest mountains of Wales, cos. of Cardigan and Montgomery, 12 m. W. of Cardigan Bay. *Height* 2,463 feet.

Plinth, (*plinth.*) [Gr. *plinthos*, a brick.] A large square member in the form of a brick, and sometimes called *the slipper.* It is employed at the foot or foundation of columns; being that flat square table under the mouldings of the base and pedestal, at the bottom of the whole order. According to the idea of Vitruvius, the plinth seems to have been originally intended to keep the bottom of the primitive wooden pillars from rotting. The *plinth of a statue* is a base or stand, flat, round, or square, serving to support a statue. The *plinth of a wall* is a term applied to two or three rows of bricks advancing out from the walls; or, in general, from any flat high moulding, serving in a front wall to mark the floors, or to sustain the eaves of a wall and the larmier of a chimney.

Pliny, THE ELDER, (*Caius Plinius Secundus,*) one of the most celebrated writers of ancient Rome, was B. A. D. 23, at Verona, or at Como, served in the army in Germany, afterwards became an advocate, and was ultimately procurator in Spain. As an inquirer into the works of nature he was indefatigable, and he lost his life in a last attempt to gratify his thirst for knowledge. Being at Misenum with a fleet, which he commanded, on the 24th of August, A.D. 79, his sister desired him to observe a remarkable cloud that had just appeared. *P.* discovering that it proceeded from Mount Vesuvius, ordered his galleys to sea, to assist the inhabitants on the coast, while he himself steered as near as possible to the foot of the mountain, which now sent forth vast quantities of burning rock and lava. *P.* and his companions landed at Stabiæ, but were soon obliged to leave the town for the fields, where the danger, however, was equally great, from the shower of fire which fell upon them. In this state they made the best of their way to the shore, but *P.*, who was very corpulent, fell down dead, suffocated probably by the noxious vapors. The eruption which caused his death was that in which the cities of Herculaneum and Pompeii were destroyed, in the first year of the Emperor Titus. He wrote several works, which have perished, but his name and fame are preserved by his great work entitled *Natural History*, in 37 books, one of the most precious monuments of antiquity extant. Its contents do not answer to its title, but are immensely various in character. It is a laborious compilation, from almost innumerable sources, of facts, observations, and statements on almost all branches of natural science, on the fine arts, on inventions, and other subjects. Unfortunately, *P.* did not observe for himself with the eye of a naturalist, nor make selections of his materials with the judgment of a critic, nor dispose them in any scientific order. It has been translated into most European languages, and even into Arabic, and has been republished a very great number of times.

Pliny, THE YOUNGER, (*Caius Plinius Cæcilius Secundus*), nephew of the preceding, was born A. D. 62, at Como. He studied under Quintilian, and in his 18th year began to plead in the forum. Soon after this he went as military tribune to Syria; from whence he returned, when he had made one or two campaigns, and settled at Rome. He was promoted to the consular dignity by Trajan, in praise of whom he pronounced a famous oration, which is extant. He was afterwards made proconsul of Bithynia, from whence he wrote to Trajan his curious and well-known account of the Christians, and their manner of worship. The *Epistles of Pliny* are agreeably written, and very instructive; they were translated into English by Lord Orrery and Mr. Melmoth.

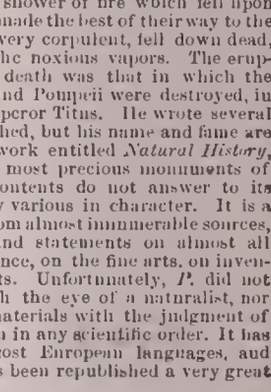


Fig. 2130.
PLINY, THE YOUNGER.

Pli'ocene, *n.* [Gr. *pleion*, more, and *kainos*, new.] (*Geol.*) A name now generally applied to the newer tertiary period, in which more than half of the fossil remains are identical with known living species. The term *Post-pliocene*, *Pleistocene*, or *Post-tertiary* (Fig. 1141), are applied to those more recent groups in which no extinct species of fossil shells are found, but which are below those that contain relics of man.

Pliosau'rus, *n.* [Gr. *pleiōn*, greater, and *sauros*, lizard.] (*Pal.*) A genus of fossil Sauropterygian *Reptilia*, allied to *Plesiosaurus*, but differing from that genus in the shorter and more powerful neck, the more massive proportions of the jaws and paddle-bones.

Plitt, *n.* A Russian instrument of punishment, resembling the knout.

Pioc, *n.* [Fr.] (*Naut.*) A composition of felt and tar for breaming a ship's bottom.

Ploce, (*plō'se,*) *n.* [Gr. *plokē*, complication.] (*Rhet.*) A figure of speech, in which a word is repeated, by way of emphasis, in a manner not only to denote the individual thing expressed by it, but also its characteristic attribute or quality.

"In that great victory *Cæsar* was *Cæsar*, i. e., a mighty conqueror." *Phillips.*

Plo'ceus, *n.* (*Zoöl.*) A genus of birds, family *Icteridæ*, comprising the Weavers of Africa and India, celebrated for their curious nests woven of grass. Some species, like the Republican, *Loxia socia*, Lath., unite by hundreds, and construct a roof, beneath which they build their nests, each being separate and entered from below. The nest of others is a suspended sphere, from which, in some cases, there hangs down a long tube, loosely woven of grass.

Ploek, a city of Poland, on the Vistula, 58 m. W.N.W. of Warsaw. *Manuf.* Principally leather.

Plod, *v. n.* [O. Sax. *lidhan*, to move, to proceed; Icel. *lidha*, to go, to bear up, to endure.] To move onward steadily; to travel laboriously.

"Th' unlettered Christian *plods* on to heaven." — *Dryden.*

—To work slowly, and with continued effort; to toil; to moil; to drudge; to study heavily and continuously.

"She reasoned without *plodding* long." — *Swift.*

—*v. a.* To tread with a heavy, laboring step.

"The ploughman homeward *plods* his weary way." — *Gray.*

Plod'der, *n.* A dull, heavy, laborious person.

"Small have continual *plodders* ever won." — *Shaks.*

Plod'ding, *a.* Diligent, but slow in contrivance or execution.

—*n.* Slow movement or study, with steadiness or persevering industry.

Plod'dingly, *adv.* With slow and steady progress.

Ploermel, a town of France, dept. of Morbihan, 15 m. W. of Pontivy. *Manuf.* Linen. *Pop.* 8,500.

Ploubieres, (*ploo'be-air.*) a town and watering-place of France, dept. Vosges, 14 m. from Epinal. This place is much frequented, on account of its warm saline baths. *Pop.* 2,500.

Plonge, (*plonj.*) **Plongee,** (*plŏn'zhā,*) *n.* (*Mil.*) The dip or declension of the superior slope of a parapet.

Plonsk, or **Plask,** a town of Poland, on the Plonua, 30 m. E.N.E. of Plock; *pop.* 4,000.

Plot, *n.* (A different orthography of PLAT. *q. v.*) A plat or small extent of ground; as, a garden-*plot.*

(*Surveying.*) A plan or draught of a field or piece of land, works, &c.

—[Lat. *plectere, plicare:* Gr. *plekō,* to twist, weave, enfold.] Any scheme, design, or plan of a complicated nature, for the accomplishment of some purpose, usually a mischievous one. — Share or participation in any stratagem, intrigue, or conspiracy. — A form; a scheme; a plan; as, "a purposed *plot* of government." — *Spenser.*

(*Lit.*) The knot, intrigue, or story of a play, novel, or romance, comprising a complication of incidents, which reach a final denouement, or unfolding, by unexpected means.

—*v. n.* To form a scheme of mischief against another, or against a government, or those who administer it. — To contrive a plan or design; to scheme.

—*v. a.* To plan; to devise; to contrive. — To make a plan or delineation of.

"This treatise *plotteth* down Cornwall, as it now standeth." *Carew.*

Plot'ful, *a.* Fruitful in plots.

Plotidæ, *n. pl.* (*Zoöl.*) The Darter family, comprising Natatores birds characterized by a long, straight bill, long wings and tail, and short tarsi. The Snake-bird, Darter, or Water Turkey, *Plotus anhinga,* of Linnæus, is 35 inches long, and the wings 14 inches; its general color is greenish-black. It is found in flocks on the S. coast of the U. States.

Plo'tinus, the celebrated Greek philosopher, founder of the Neo-Platonic school, was born A. D. 203, at Lycopolis, in Egypt. He was trained in the school of Alexandria, under Ammonius Saccas, then visited the East, and about 244 settled at Rome, where he spent the rest of his life as a teacher and writer, enjoying the esteem of the Emperor Gallienus, and of many leading persons. Porphyry, his most eminent disciple, wrote his life, and arranged and published his works, divided into six sets of nine books each (*Enneads*). *P.* was a profound thinker and a deeply religious man, and his system, a sort of mystical idealism, a combination of Platonic with Oriental notions, has been very attractive to many great thinkers in anc. and modern times. D. in Campania, 270.

Plot'ter, *n.* One who plots or contrives; a conspirator; a caballer; an intriguer.

Plot'ting, *n.* (*Surveying*) The art of describing or laying down on paper, &c., the several angles and lines of a tract of ground surveyed by a theodolite, or by the plotting-scale.

Plot'ting-scale, *n.* (*Surveying.*) A mathematical instrument used in *plotting,* or setting off the lengths of lines in surveying. It consists of two graduated ivory scales, one of which is perforated nearly its whole length by a dovetail-shaped groove, for the reception of a sliding piece to which the second scale is attached, and with which it moves, the edge of the second being always at right angles to the edge of the first. By this means the rectangular coördinates of a point are measured at once on the scales, or the position of the point laid down on the plan. The same object is more conveniently attained by means of a graduated *offset scale,* which slides along a similarly graduated fixed scale, to which it always remains perpendicular.

Plougasnou, (*ploo-gaz'nou,*) a town of France, dept. of Finistère, near the English Channel, 8 m. N.N.E. of Morlaix; *pop.* 4,000.

Plougastel-Daulas, (*ploo-gas-tell'da-oo-la,*) a town of France, department of Finistère, 6 m. E. of Brest, near its harbor; *pop.* 5,065.

Plough, (*plou,*) *n.* (Is now almost universally written PLOW.) [D. *ploeg;* A.S. and Swed. *plog;* Ger. *pflug;* akin to Heb. *pâlach.*] The most ancient and most valuable of all agricultural implements for turning up the soil preparatory to receiving the seed. There are traces of the use of the *P.* in the earliest of all written authorities on agriculture; and, judging from its importance in farming operations, it seems scarcely possible that large systems of cultivation could have been carried on without its assistance, in any period or country. Among the ancient Hebrews, it was the practice to plough with two oxen (*Deut.* xxii. 10); their plough had also a coulter and a ploughshare (1 *Sam.* xiii. 20). From other passages, it would appear that they were early aware of the advantages of a winter's fallow. Wheels are a modern invention in comparison with the other parts of a *P.*; but we find representations of ploughs with wheels in early Greek drawings. The Roman *P.* (see Fig. 57) were of very simple form, and closely resembled the *P.* used by the Hindoos and Chinese even at the present day. The ploughs in use in different countries in Europe underwent little change for many centuries, and it is only in late years that any attempt has been made to change their form. In England, the *P.* of the early cultivators were rude and imperfect, for every ploughman made his own plough. It was a law among the early Britons, that no one should guide a plough till he was able to make one. Among the Saxons it was the custom to fasten the horses to the *P.* by their tails. This barbarous practice was not abolished till the reign of Charles II., at which period it was largely practised in Ireland. The Norman *P.*, like that of the latter Saxons, was furnished with wheels; and for a long period this implement was drawn by oxen only. One of the first representations of a horse employed in a *P.* is given in the Bayeux tapestry (A. D. 1086). The Dutch were among the first to introduce improvements in the shape of the *P.* This improved Dutch *P.* was constructed chiefly of wood; the draught-irons, share, and coulter, with the additional plating of iron to the mould-board and sole, being the only parts made of iron. The different parts of a *P.* are now usually cast; so that if any one fails or wears out, it can easily be replaced by removing a few screws or bolts. In modern ploughs the handles should be sufficiently wide apart to permit the ploughman to walk in the furrow, and long enough to give him a full command of the *P.*, so that he can lift or depress it readily, or turn it to the left or right hand at pleasure. The beam should be of such a length that its end, usually called its *head,* shall cut at the point of draught upon a line drawn from that part of the collar to which the traces are fastened to that part of it where it first raises the soil. Much of the steady working of the *P.* at its proper depth depends on the right arrangement of the point of draught. The beam should be curved upwards at the coulter and throat of the plough to clean itself of rubbish. The *ploughshare* is the apex of the sole, as the hind part is called the heel. It varies in shape for different purposes. The upper part over the box of the share forms the first part of the rise of the mould-board. After the coulter and share have made the vertical and horizontal cuts for the depth and width of the furrow, the mould-board turns over the slice and leaves it in its proper position. Much, if not all the beauty of ploughing, depends on the precision with which this part of the plough does its work. The *coulter* is an iron blade or knife inserted into the beam of the

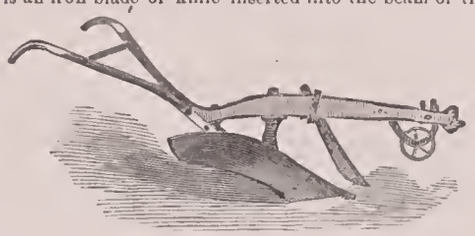


Fig. 2131.— PLOUGH FOR STUBBLE LANDS IN STIFF SOILS.

plough for the purpose of cutting the ground and facilitating the separation of the furrow-slice by the ploughshare. As an example of the modern *P.*, with all its latest improvements, we give (Fig. 2131) the Hallbrook's *P.*, which received the gold medal at the trial of ploughs held at Utica by the New York State Agricultural Society. The application of steam-power to the draught of *P.* is of little use except upon well-tilled land and is especially adapted to the highly cultivated soil of England. The ploughing-machine is, in this case, a frame-work containing three or more ploughs acting nearly abreast, but in succession to one another, so that a number of furrow-slices are turned at once. The whole weight of the machine is carried on large wheels, and there is no pressure on the sole-plate, and none of that consequent hardening of a sub-soil floor upon which, in ordinary ploughing, the furrow-slices lie. This tends to improve the drainage, tilth, and fertility of the soil.

—Figuratively, tillage; husbandry; agriculture; as, "God speed the *plough.*" — A joiner's tool for cutting grooves. — An instrument used by bookbinders, &c., for trimming paper.

Plough, *v. a.* To turn up with the plough, as the soil. — To furrow; to divide; to run through in sailing.

"He *plough'd* the Tyrrhene seas with sails displayed."—*Addison.*

— To turn up and devastate; to tear up or lay waste.

"Let the Volscians *plough* Rome and harrow Italy."—*Shaks.*

—To trim, as paper, with a press or other instrument.

To plough in, to cover by ploughing; as, to *plough in* grain.— *To plough on the back,* to scourge; to mangle: to worry by persecution.— *To plough up* or *out,* to turn out of the ground by ploughing. — *To plough with one's heifer,* to deal with the wife in order to obtain something from the husband. (*Judges* xiv. 18.)

—*v. n.* To turn up the soil with a plough; to labor with a plough.— To make progress by ploughing, or in spite of obstacles.

Plough'able, *a.* That may be ploughed; arable.

Plough'-boy, *n.* A boy who drives or guides a team in ploughing; — hence, a rustic boy.

Plougher, (*plow'er,*) *n.* One who ploughs land; a cultivator.

Plough'-foot, *n.* The bottom part of a plough.

Plough'-gang, Plough'-gate, *n.* In England, a portion of land comprising about 30 acres.

Plough'-head, *n.* The draught-iron at the head of the beam of a plough.

Plough'ing, *n.* (*Agric.*) The act of turning over the soil by means of the plough. Trench-ploughing is effected by the plough passing twice along the same furrow; the first time for the purpose of throwing the surface-soil into the bottom of the furrow; and the second time for raising a furrow-slice from under that which had been already turned over, and raising it up, thus turning it upon the first furrow-slice. By means of this process the surface-soil is entirely buried, and a stratum of sub-soil laid over it; thus effecting in the field what trenching with the spade does in the garden.

Plough'-land, *n.* Land that is ploughed, or suitable for tillage.

Plough'man, *n.* One who ploughs or holds a plough; a cultivator of grain; a husbandman; — hence, a rustic; a countryman.

Plough'-Monday, *n.* In England, the Monday following Twelfth day, formerly selected by farmers as the period for commencing to plough.

Plough'share, *n.* That part of a plough which cuts the ground at the bottom of the furrow, and raises the soil to the mould-board, which turns it over.

Plough-shoe, (*plou'-shōō,*) *n.* A piece of wood resembling a shoe, placed under a plough so that it may be drawn over the ground without penetrating it.

Plough'-sock, *n.* In Scotland, a ploughshare.

Plough'-staff, *n.* A sort of wooden paddle used for cleaning a plough when it becomes choked up with soil, weeds, &c.

Plough'-tail, *n.* The hinder part of a plough.

Plough'-wright, *n.* One who makes or repairs ploughs.

Plov'er, *n.* [Fr. *plurier,* the water-bird.] (*Zoöl.*) The general name of the Grallatores birds composing the family *Charadridæ,* q. v. The genus *Charadrius,* including the European Dotterel, is represented in America by the Golden-*P.*, *C. virginicus* (Fig. 566). The genus *Ægialitis,* which has the plumage without spots, the neck and head generally with dark bands, is principally represented in this hemisphere by the Kill-deer, *A. vociferus,* of N. and S. America, which takes its popular name from its peculiar note; the King-*P.*, or semi-palmated *P.*, *A. semipalmatus,* of all temperate N. America; and by the Piping-*P.*, *A. melodus,* of our Eastern coast.

Plov'er, in *Wisconsin,* a post-village and townsbip of Portage county, about 120 miles north of Madison.

Plow, *n.* See PLOUGH.

Ploy, *v. n.* (*Mil.*) To form a column from the line of battle on some specified subdivision.

Pluck, *v. a.* [A.S. *pluccian;* D. *plukken;* Ger. *pflücken;* W. *plician,* to pluck.] To pull off, up, or out; to pull with sudden force or effect, or to pull off, out, or from, with a twitch as, to *pluck* hair off the skin; to *pluck* grapes from the stalk, to *pluck* one's sleeve. — To strip by plucking; as, to *pluck* a fowl.

—In the English universities, to reject at an examination as incompetent to receive a testimonial for a degree. — *To pluck away,* to tear away; to break apart by pulling. — *To pluck down,* to pull down; to reduce to a lower state. — *To pluck off,* to pull or tear off; as, to *pluck off* the skin. — *To pluck out,* to tear out, or draw out suddenly; as, to *pluck out* the eyes. — *To pluck up,* to tear up by the roots; to eradicate; to destroy; as, to *pluck up* a plant. — To gather up; to summon; as, to *pluck up* heart or spirit.

—*n.* Act of plucking; also, a sudden and forcible pull. — The heart, liver, and lights of an animal, which the butcher first *plucks* or tears out after the animal is killed and opened up, and which are reserved for food. — Good heart; spirit; ardor; perseverance under difficulties; indomitable courage; self-reliant bravery; resolution.

"Decay of English spirit, decay of manly *pluck.*" — *Thackeray.*

Pluck'emin, in *New Jersey,* a post-village of Somerset co., abt. 6 m. N.N.W. of Somerville.

Pluck'er, *n.* One who plucks.

Pluck'ily, *adv.* In a brave, resolute manner.

Pluck'iness, *n.* Quality of pluck; courage; resolution.

Pluck'ing, *n.* In the English universities, failure of a student to pass his preliminary examination for a degree.

Pluck'less, *a.* Without pluck, energy, or courage.

Pluck'y, *a.* (*Comp.* PLUCKIER; *superl.* PLUCKIEST.) Spirited; resolute; having indomitable courage and perseverance.

Pluff, *n.* A Scotticism for the smoke occasioned by an explosion of gunpowder.

Plug, *n.* [D. *plug,* a bung, a peg; Ger. *pflock,* a plug, a peg.] A stopple; any piece of wood or other substance used to stop a hole; a bung; a peg. — The foil used by a dentist to fill the cavity in a tooth. (American.) — A flat, oblong cake of pressed tobacco sweetened with molasses; as, a *plug* of cavendish. — A man's silk hat; so styled from its cylindrical or chimney-pot form; — used as a vulgar colloquialism. — *Hawse-plug.* (*Naut.*) A plug for stopping a hawse-hole. — *Plug centre-bit,* a centre-bit terminating in a small cylinder in lieu of a point, so as to come after and enlarge a hole previously made, or to form a countersink around it. — *Shot-plug.* (*Naut.*) A plug used to fill up a breach made by a cannon-shot in a ship's side, &c.

—*v. a.* To stop with a plug; to make tight and impervious by stopping a hole; as, to *plug* a shot-hole.

Plug'ging, *n.* Act of stopping with a plug; material of which a plug, stopple, or peg is made.

Plug'-rod, *n.* (*Mach.*) The air-pump rod of a Cornish engine. The tappets which give motion to the valve are fixed upon these rods.

Plum, *n.* [A.S. *plume;* D. *pruim;* Ger. *pflaume;* Fr. *prune,* from Lat. *prunum,* a plum.] (*Bot.*) See PRUNUS.

—A sun-dried grape; a raisin; a prune. — The sum of £100,000 sterling ($500,000); used as a cant and colloquial expression; as, he is worth a *plum.*

Plum, in *Pennsylvania,* a township of Alleghany county.

Plum, in *Pennsylvania*, a post-township of Venango co.

Plum'age, *n.* [Fr., from Lat. *pluma*, a feather.] The feathers or plumes which form the covering of a bird.

Plu'mas, in *California*, a N. co.; *area*, about 2,720 sq. m. *Rivers.* Susan river and North and South Forks of Feather river. *Surface*, mountainous; *soil*, in some parts fertile. *Min.* Gold, the mining of which forms the principal occupation of the inhabitants. *Cap.* Quincy. *Pop.* (1897) 5,295.

—A vill. of Sutter co., abt. 40 m. N. of Sacramento City.

Plumas'sary, *n.* [Fr.] A collection of plumes or ornamental feathers.

Plumassier, (*plu-más'ĭ-ā,*) *n.* One who prepares or deals in ornamental plumes or feathers.

Plumb, (*plum.*) *n.* [Fr. *plomb;* from Lat. *plumbum*, lead.] A plummet. See PLUMB-LINE.

—*a.* Perpendicular, that is, standing according to a plumb-line; as, a wall is *plumb.*

—*adv.* In a perpendicular direction; in a line perpendicular to the plane of the horizon; right downward; as, "*plumb* down he falls." — *Milton.*

—*v. a.* To adjust by a plumb-line; to set in a perpendicular direction; as, to *plumb* a wall. — To sound with a plummet, as the depth of water. (R.) — To gauge; to ascertain the depth, quality, dimensions, &c., of; as, to *plumb* a person's mental capacity.

Plumbaginā'ceæ, *n. pl.* [From Lat. *plumbum*, lead.] (*Bot.*) The Leadwort or Thrift family, an order of plants, alliance *Cortusales.* DIAG. Stamens opposite the petals, membranous one-seeded fruit, 5 styles, and a herbaceous stem. — The plants of this order are herbs or under-shrubs, chiefly found growing on the seashore and in salt-marshes, in various parts of the world; but the majority inhabit temperate regions. The roots of several species of the genus *Plumbago* are acrid and vesicant when fresh, as those of *P. Europæa*, the Toothwort, *P. Zeylanica*, and *Scandens.*

Plumbag'inous, *a.* Resembling, consisting of, or containing plumbago.

Plumba'go, *n.* [Lat. *plumbum*, lead.] (*Chem.*) See GRAPHITE.

(*Bot.*) The typical genus of the order PLUMBAGINACEÆ, *q. v.*

Plum'bean, Plum'beous, *a.* Consisting of, or containing or resembling lead; — hence, dull; heavy; inert; obtuse; stupid.

Plumber, (*plŭm'er,*) *n.* A worker in lead; specifically, one who prepares lead pipes and other apparatus for the conveyance of water.

Plumber-block, (*plŭm'er-,*) *n.* (Sometimes written *Plummer-block.*) (*Mach.*) A short carriage or support for a shaft to turn in, with a flat base to bolt on a frame.

Plumbery, (*plŭm'er-ĭ,*) *n.* Manufactures in lead. — The place where lead is wrought. — The art of casting and working lead, or of making leaden pipes and sheets; the business of a plumber.

Plum'bic Acid, *n.* (*Chem.*) Same as binoxide of lead. See LEAD (OXIDES OF).

Plumbiferous, *a.* [Lat. *plumbum*, lead, and *ferre*, to produce.] Lead-bearing; containing lead; as, *plumbiferous* ores.

Plumbing, (*plŭm'ing,*) *n.* The art or process of casting in lead, and using it in building operations. — Specifically, the business of fixing pipes for the conveyance of water. — The operation of sounding or searching among mines. — The lead-piping, &c., taken collectively, employed in conveying water into a building.

Plumb Island, in *Massachusetts*, a long, narrow strip of land in the Atlantic Ocean, off the N.E. coast of Essex co. It is about 8 m. in length, and at the N. end has Newburyport Lights.

Plumb Island, in *New York*, an island and lighthouse at the E. entrance of Long Island Sound. It exhibits a revolving light 63 ft. above sea-level; Lat. 41° 10′ 18″ N., Lon. 72° 13′ 12″ W.

Plumb-line, (*plŭm'-līn,*) *n.* A plummet.

(*Arch.*) A line perpendicular to the horizon, made by dropping a plummet.

Plumb'-rule, *n.* (*Building.*) A narrow board having a plumb-line suspended from its top, used in determining a perpendicular.

Plum'-cake, *n.* A rich cake containing raisins, currants, candied citron, and other fruit.

Plum Creek, in *Pennsylvania*, a township of Armstrong co.

Plume, *n.* [Fr., from Lat. *pluma*, a small, soft feather.] The feather of a bird, particularly the heavier part of a feather. — A feather, or collection of feathers, worn as an ornament, particularly an ostrich's feather. — A token or symbol of honor, stateliness, prowess, and the like; prize in contest.

(*Bot.*) See PLUMULE.

—*v. a.* To pick and adjust, as feathers. — To strip of feathers. — To strip; to pill; to denude. (R.) — To embellish with feathers or plumes; as, the *plumed* troops. (*Shaks.*) — To boast; to pride; to esteem; — used reflexively; as, he *plumes* himself on his courage.

Plume'-alum, *n.* [Lat. *alumen plumiosum.*] Feathery alum.

Plume'less, *a.* Without feathers or plumes.

Plume'let, *n.* A small plume.

Plu'mer, or PLUM'MER, in *Pennsylvania*, a post-village of Venango co., abt. 7 m. N.E. of Oil City.

Plum'ery, *n.* Plumes in general. (R.)

Plumig'erous, *a.* [Lat. *pluma*, a feather, and *gerere*, to bear.] Plume-bearing; having feathers.

Plumil'iform, *a.* [Lat. *plumula*, a little feather, and *forma*, form.] Plume-shaped; having the form of a feather.

Plum'iped, Plum'ipede, *a.* [Lat. *pluma*, feather, and *pes, pedis*, foot.] (*Zoöl.*) Possessing feet covered with feathers.

—*n.* (*Zoöl.*) A feather-footed bird.

Plum'met, *n.* [O. Fr. *plommet.*] A long piece of lead suspended from the end of a line, used in sounding the depth of water. (See DEEP-SEA LINE.) — In carpentry, &c., a weight of lead hung on a cord, by which depths are ascertained and perpendicularity discerned; — hence, any weight. — A piece of lead used by school-children to rule their paper preparatory to writing.

Plummet-line. A line with a plummet attached; a sounding-line.

Plum'ming, *n.* (*Mining.*) The operation of finding by a mine-dial the place where to sink an air-shaft or to bring an adit to the work, or to find which way the lode inclines.

Plumose', **Plum'ous,** *a.* [Lat. *plumosus*, from *pluma*, feather.] Feathered or plumed; having the appearance of a plume or plumes.

(*Bot.*) Feathery; plume-like; having hairs arranged along an axis, as the pappus of thistles, &c.

Plumos'ity, *n.* [O. Fr. *plumosité.*] State or quality of being plumose.

Plump, *n.* [Ger. *plump*, clumsy, unwieldy.] Swelled with fat or flesh to the full size; full; fat; enlarged; round; having a full skin; as, a *plump* lass. — Blunt or direct; downright; unreserved; unqualified; as, a *plump* lie, a *plump* answer, a *plump* denial.

—*v. a.* To make plump; to swell; to extend to fulness; to fatten. — To let fall suddenly and heavily. — At English elections, to give a vote to one candidate only, when two or more are to be elected, thus giving him the advantage over his competitors; — opposed to *split;* as, to *plump* for Gladstone.

—*v. n.* To enlarge to fulness; to become swelled. — To plunge or fall like a heavy mass or lump of dead matter; to let fall suddenly and heavily.

—*adv.* Suddenly; heavily; at once, or with a sudden heavy fall; as, he dropped *plump* on the ground.

Plump'er, *n.* Something carried in the mouth to puff out or dilate the cheeks; anything intended to enlarge or plump out another thing. — In English politics, an entire vote given at an election for one candidate only; — opposed to *split-vote.* — A full, unreserved lie. (Colloq. and vulgar.)

Plum'-pie, *n.* A pie made of plums.

Plump'ly, *adv.* Fully; roundly; without reserve or equivocation; as, I asked her *plumply* to be my wife.

Plump'ness, *n.* State of being plump; embonpoint.

Plum'-porridge, (*por-rĭj,*) *n.* Porridge containing plums.

Plum'-pudding, *n.* A good old English pudding, containing raisins, currants, candied fruits, and spices, mixed with other condiments, and served with brandy-sauce; a Christmas pudding.

Plump'y, *a.* Plump; somewhat fat; roundabout; jolly.

Plum River, in *Illinois*, a post-village of Jo Daviess co., abt. 145 m. W.N.W. of Chicago.

Plum'stead, in *New Jersey*, a township of Ocean county.

Plumstead, in *Pennsylvania*, a township of Bucks co.

Plum'-tree, *n.* A tree that produces plums.

Plu'mula, Plu'mule, *n.* [Fr. *plumule*, from Lat. *plumula*, dimin. of *pluma*, a feather.] (*Bot.*) The growing point of the embryo, situated at the apex of the radicle and at the base of the cotyledons, by which it is protected when young. It is the rudiment of the future stem of a plant.

Plumulose', *a.* Having hairs branching out laterally, like the parts of a feather.

Plum'ville, in *Pennsylvania*, a post-village of Indiana co., abt. 170 m. E.S.E. of Harrisburg.

Plum'y, *a.* [From *plume.*] Covered with feathers; adorned with plumes; as, a *plumy* crest.

Plun'der, *v. a.* [Ger. *plündern;* L. Lat. *blutare*, to despoil.] To steal from; to rob in a forcible manner; to pillage; to spoil; to strip; as, to *plunder* a town. — To take, as the goods of an enemy by open force.

—*n.* That which is taken by theft, robbery, or fraud. — That which is taken from an enemy by open force; pillage; spoil; booty. — Personal property or effects; baggage; — used in cant language.

Plun'derage, *n.* (*Mar.*) Embezzlement of goods on shipboard.

Plun'derer, *n.* One who plunders; a pillager; a robber.

Plunge, (*plŭnj,*) *v. a.* [Fr. *plonger*, to dip, to plunge; W. *plwng*, a plunge, a dip; root Sansk. *plu*, to bathe.] To throw or thrust into water or other fluid substance, or into any substance that is penetrable; to immerse in a fluid; to drive into flesh, &c.; to thrust or drive into a state in which the thing is considered as enveloped or surrounded; as, to *plunge* the feet into water. — To baptize by immersion.

—*v. n.* To thrust or drive one's self into water or a fluid; to dive, or to rush in; to pitch; to take a header. — To fall or rush into distress, or difficulty, or any state or circumstances in which the person or thing is enveloped, inclosed, or overwhelmed; as, to *plunge* into debt, to *plunge* into a war. — To pitch, or throw one's self headlong; to throw the body forward and the hind legs up, as a horse.

—*n.* Act of plunging, or of thrusting into water or any penetrable substance; as, to take a *plunge* in the sea. — Act of being immersed in straits, trials, or difficulties. (R.) — Act of pitching or throwing one's self headlong, like an unruly or spirited horse.

Plungeon, (*plŭn'jon*) *n.* [Fr. *plongeon.*] (*Zoöl.*) The diver, a kind of sea-fowl.

Plun'ger, *n.* One who plunges; a diver. — A long, solid cylinder used as a forcer in pumps. — In England, a cant designation for an officer or trooper belonging to a brigade of heavy cavalry.

Plunger-pole, the pump-rod of a pumping-engine.

Plung'ing, *p. a.* Immersing; diving; pitching headlong.

Plunging bath, or *plunge-bath*, a bath having sufficient space and depth of water to allow persons to dive and swim.

Plunging fire. (*Mil.*) A fire directed against an enemy from some elevated place above.

Plunk'et, *n.* [O. Eng. *plunket*, a light-blue color.] A kind of blue color.

Plun'kett's Creek, in *Pennsylvania*, a township of Lycoming co.

Plu'perfect, *a.* [Lat. *plus quam perfectum.*] (*Gram.*) More than perfect; — designating a tense of the verb which denotes that an action or event took place previous to another past action or event.

Plu'ral, *a.* [Fr. *pluriel;* Lat. *pluralis*, from *plus, pluris*, more.] Relating to, or containing more than one; consisting of two or more, or designating two or more; noting the number of a noun which expresses or designates more than one; as, a *plural* word.

—*n.* The number which designates more than one.

Plural'ity, *n.* [Fr. *pluralité.*] State of being plural; a number consisting of two or more of the same kind; as, a *plurality* of worlds. — A greater number; a state of being or having a greater number. — Possession of more than one benefice held by the same clergyman.

Plurality of votes, excess of votes cast for one individual over those cast for any one of several competing candidates.

Plu'ralize, *v. a.* To make plural by employing the termination of the plural number.

Plu'rally, *adv.* In a sense implying or expressing more than one.

Plu'ries, *n.* [Lat., many times.] (*Law.*) A writ issued subsequently to a first and second writ of the same kind, which have proved ineffectual.

Plurifa'rious, *a.* [Lat. *plurifarius.*] Multifarious; of many kinds, sorts, or degrees.

Plurifo'liate, *a.* [Lat. *plus*, more, and *folium*, leaf.] (*Bot.*) Possessing many small leaves.

Plurilit'eral, *a.* [Lat. *plus, pluris*, more, and *litera*, a letter.] Having more letters than three.

Piuriloc'ular, *a.* [Lat. *plus*, more, and *loculus*, a partition.] (*Bot.*) Possessing several seeded divisions, as certain fruits, such as the orange, &c.

Pluripres'ence, *n.* [Lat. *plus, pluris*, and *præsentia*, presence.] Presence in more places than one. (R.)

Plu'risy, *n.* [From Lat. *plus, pluris*, more.] Plethora.

Plus, [Lat., more.] (*Math.*) In algebra, a term commonly used for *more*, and denoted by the character +, as 6 + 10 = 16; — in contradistinction to —, or *minus*, less, as, 16 — 10 = 6.

Plush, *n.* [Ger. *plüsch;* Fr. *peluche*, from Lat. *pilus*, hair.] A species of shaggy cloth or stuff with a velvet nap on one side, resembling flocculence or small hairs.

Plutarch, (*plu'tark,*) the celebrated Greek biographer and moralist, was a native of Chæronea, in Bœotia. In A. D. 66 he was a pupil of the philosopher Ammonius at Delphi. He visited Italy, and spent some time at Rome, lecturing there on philosophy as early as the reign of Domitian; but his name is not mentioned by any of the eminent Roman writers, his contemporaries. He returned to his native town, where he held various magistracies, and was appointed priest of Apollo. He was still living in 120, but the time of his death is not known. His great work is entitled *Parallel Lives*, and consists of biographies of 46 eminent Greeks and Romans, arranged in pairs, each pair accompanied by a comparison of characters. They are written with a moral purpose, and present not orderly narratives of events, but portraitures of men, drawn with much graphic power, with great good sense, honesty, and kind-heartedness. Few books of ancient or modern times have been so widely read, so generally admired, as these *Lives.* The English translation by the Langhornes is well known; less known, but more spirited, is that by North, made from Amyot's French version, and published in 1579. A new edition of the translation called Dryden's, revised by Clough, appeared in 1859. Most of P.'s other writings are ethical, and are entitled *Moralia.*

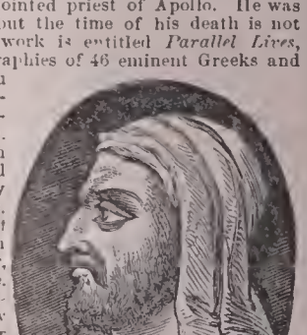


Fig. 2132. — PLUTARCH, (From an ancient gem.)

Pluton'ian, Plu'tonic, *a.* [Fr. *plutonique.*] Pertaining or having reference to Pluto; — hence, subterranean; belonging to the depths of the earth.

P. Theory. (*Geol.*) If we examine a large portion of a continent, especially if it contain within it a lofty mountain range, we rarely fail to discover two classes of rocks, which we can neither assimilate to deposits such as are now accumulated in lakes or seas, nor to those generated by ordinary volcanic action. The members of both these divisions of rocks agree in being highly crystalline and destitute of organic remains.

The rocks of one division have been called *Plutonic*, comprehending all the granites and certain porphyries, which are nearly allied in some of their characters to volcanic formations. The formation of these rocks, according to the Plutonian theory, may be explained as follows:—A passage has been traced from various kinds of granite into different varieties of rocks decidedly volcanic; so that if the latter are of igneous origin, it is scarcely possible to refuse to admit that the granites are so likewise. Secondly, large masses of granite are found to send forth dikes and veins into the contiguous strata, very much in the same way as lava and volcanic matter penetrate aqueous deposits, both the massive granite and the veins causing changes analogous to those which lava and volcanic gases are known to produce. But the Plutonic rocks differ from the volcanic, not only by their more crystalline texture, but also by the absence of tuffs and breccias, which are the products of eruptions at the earth's surface. They differ also by the absence of pores or cellular cavities, which the entangled gases give rise to in ordinary lava. From these and other peculiarities it has been inferred that the granites have been formed at great depths in the earth, and have cooled and crystallized slowly under enormous pressure where the contained gases could not expand. The volcanic rocks, on the contrary, although they also have risen up from below, have cooled from a melted state more rapidly upon or near the surface. From this hypothesis of the great depth at which the granites originated, has been derived the name of *Plutonic rocks*, which they have received to distinguish them from the *volcanic*.

Pluto, (*ploo'tō.*) (*Myth.*) The son of Saturn and Ops, inherited his father's kingdom with his brothers, Jupiter and Neptune. He received as his share the infernal regions. All the goddesses refused to marry him; but, upon seeing Proserpine, the daughter of Ceres, gathering flowers in the plains of Enna, in Sicily, he became enamored of her, and immediately carried her away. Black victims, and particularly a bull, were the only sacrifices offered to him. The dog Cerberus watched at his feet, the harpies hovered around him, Proserpine sat on his left, and the Parcæ occupied his right hand. *P.* is called by some the father of the Eumenides.

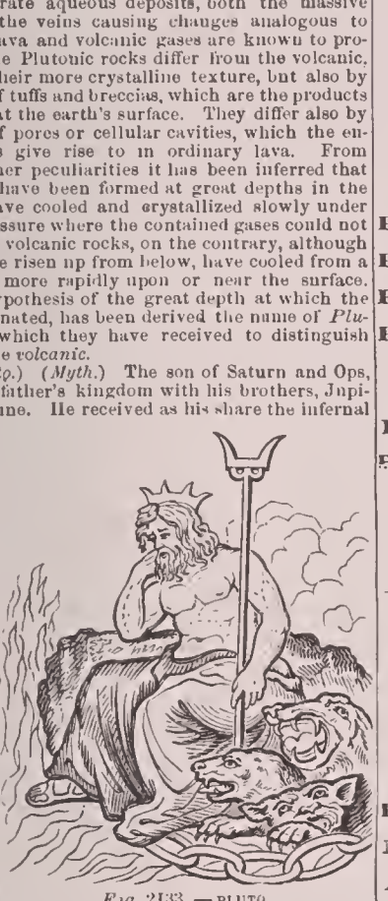


Fig. 2133. — PLUTO.

Pluto'nian, Plu'tonist, *a.* One who upholds the doctrine of formations of the granitic rocks by the action of a central fire.

Plu'tonism, *n.* The PLUTONIC THEORY. *q. v.*

Plutus, (*ploo'tus.*) (*Gr. Myth.*) The god of riches in the Grecian mythology. He was represented as blind, because he distributed riches indiscriminately; he was lame, because he came slowly and gradually; and he had wings, to intimate that he flew away with more velocity than he approached mankind.

Pluviam'eter, Pluviom'eter, *n.* [Lat. *pluvia*, rain.] Same as RAIN-GAUGE, *q. v.*

Plu'viose, *n.* See CALENDAR, § 6.

Plu'vious, *a.* That relates to rain; rainy; pluvial. (R.)

Ply, *v. a.* (*imp.* and *pp.* PLIED.) [Fr. *plier*, to fold, to bend; Lat. *plicare*, to fold, or lay or wind together.] To bend or turn to; to put to or on with force or repetition; to fold or cover over; to lay on. — To employ with diligence; to apply closely and steadily to; to work at; to keep busy at; as to *ply* a pen, needle, oar, &c. — To practise or perform with diligence. — To urge; to press; to solicit with eager importunity.

"He *plies* her hard, and much rain wears the marble."—*Shaks.*

—*v. n.* To work steadily.

"He was obliged to *ply* in the streets as a porter for his livelihood." *Addison.*

—To busy one's self; to be steadily employed.

"A bird new made . . . she *plies* not far from shore."—*Dryden.*

—To go with alacrity or pertinacity.

"Thither he *plies* undaunted."—*Milton.*

—To run regularly between any two ports, as a packet-boat.

(*Naut.*) To endeavor to make headway against the wind; as, *plying* to windward.

—*n.* [Fr. *pli.*] A fold; a bend; a plait. — Bent; bias; inclination; direction; cast.

"The Czar's mind has taken a strange *ply*."—*Macaulay.*

(NOTE. *Ply* is used in composition to denote folds or thicknesses of web; as, a three-*ply* carpet.)

Ply'er, *n.* The person who, or thing which, plies; as, in the plural, a kind of balance employed in raising and letting down a draw-bridge. — A kind of pincers. See PLIERS.

Plym'outh, a seaport-town and naval station of England, co. of Devon, in Lat. 50° 22′ N., Lon. 4° 10′ 2″ W. It is, on account of its harbor and docks, one of the most important maritime places in the kingdom, and is situate at the head of Plymouth Sound, formed by the rivers Plym and Tamar, at their confluence with the sea. The town stands on the eastern side of a peninsula, inclosed between these two rivers, at the mouth of the Plym; and about a mile and a half to the west, on the Tamar, is Devonport, a separate town, dependent on the docks, and nearly equal to Plymouth in size and population. Between Plymouth and Devonport intervenes the town of Stonehouse, which connects the two, and forms almost a continuous line of buildings from the one to the other. The town is old and irregularly built. The principal public buildings are the Guild Hall, Exchange, Custom-House, and Athenæum. The harbor of Plymouth is very capacious, and capable of containing over 2,000 vessels. It has several divisions, or smaller harbors; Sutton Pool, immediately adjoining the town, Catwater Harbor, formed by the æstuary of the Plym, and the Harbor or Bay of Hamoaze, at the mouth of the Tamar. Altogether, there are nine docks, and the one last formed is said to be the largest in Europe. *Manuf.* Sail-cloth, ropes, glass, starch, soap, and sugar-refining.

Plym'outh, in *Connecticut*, a post-township of Litchfield co.

Plymouth, in *Illinois*, a post-village of Hancock co., abt. 85 m. N.W. by W. of Springfield.

Plymouth, in *Indiana*, a city, cap. of Marshall co., about 84 m. E.S.E. of Chicago. *Pop.* (1897) 3,120.

Plymouth, in *Iowa*, a W.N.W. co., adjoining South Dakota; *area*, about 818 sq. m. *Rivers.* Big Sioux and Floyd's rivers, with many smaller streams. *Surface*, generally level; *soil*, fertile. *Cap.* Le Mars. *Pop.* (1895) 21,991.

Plymouth, in *Maine*, a post-village of Penobscot co.

Plymouth, in *Massachusetts*, an E. county, bordering on Cape Cod Bay and the Atlantic Ocean; *area*, about 720 square miles. *Rivers.* Taunton and North rivers, besides numerous less important streams. Its sea-coast is 30 miles in extent, and has many inlets and bays, which afford some excellent harbors. *Surface*, uneven; *soil*, not fertile. *Minerals.* Iron. *Capitol.* Plymouth. —A town and township, port of entry, and the cap. of the above co., on a bay of its own name, abt. 37 m. S. by E. of Boston; Lat. 41° 57′ 26″ N., Lon. 70° 40′ 19″ W. The town is well laid out, and though partly built of wood, contains many handsome structures. *Manuf.* Cotton and woollen goods, iron, &c. *P.* is the oldest town in New England, and Plymouth Rock is still to be seen at the end of Hedges' Wharf, where, on Dec. 22, 1620, the Pilgrims landed from the *Mayflower*.

Plymouth, in *Michigan*, a post-village and township of Wayne county, about 20 miles west by north of the City of Detroit.

Plymouth, in *Minnesota*, a post-township of Hennepin co.

Plymouth, in *Mississippi*, a village of Lowndes co., abt. 140 m. N.E. of Jackson.

Plymouth, in *N. Carolina*, a post-village, port of entry, and the cap. of Washington co., abt. 150 m. E. of Raleigh; *pop.* abt. 1,000. On April 20, 1864, it was taken by assault by the Confederates under Gen. R. F. Hoke.

Plymouth, in *New Hampshire*, a post-village and township, semi-cap. of Grafton co., abt. 51 m. N. by W. of Concord.

Plymouth, in *Pennsylvania*, a post-borough and township of Luzerne co., 4 m. W. of Wilkesbarre. *Pop.* (1897) 11,150.—A township of Montgomery co.

Plymouth, in *Wisconsin*, a township of Juneau co. —A township of Rock co. —A city and township of Sheboygan co., about 14 m. W. of Sheboygan. *Pop.* (1895) 2,213.

Plym'outh Breth'ren, *n. pl.* (*Eccl. Hist.*) A sect which received its name from having originated at Plymouth about 1830. The chief doctrinal peculiarities of the brethren are their professed adherence to the Christianity of the New Testament, and their condemnation both of Established and Nonconformist churches, the former of which they consider too latitudinarian, in desiring to embrace within their pale the whole population of a country; and the latter too sectarian, because they exclude all but the members of their own party. Among their early prominent leaders was John Darby, an Anglican clergyman, after whom the members of the denomination have frequently been called *Darbyites*. They have established themselves in Philadelphia, and some other places of the American Union, but, owing perhaps to their dissensions, their success in this country seems to be quite indifferent.

Plym'outh Hollow, in *Connecticut*, a village of Litchfield co., abt. 25 m. S.W. by W. of Hartford.

Plym'outh Sound, an inlet of the English Channel, between the cos. of Devon and Cornwall. Length, 3 m.; breadth, 4 m.

Plymp'ton, in *Massachusetts*, a post-village and township of Plymouth county, about thirty miles S.E. of Boston.

Pneumatic, Pneumatical, (*nū-măt'ik.*) *a.* [Fr. *pneumatique*; Gr. *pneumatikos*, from *pneuma*, wind, air, from *pneō*, to breathe, to draw breath.] Consisting of, or resembling, air; — opposed to *dense* or solid. — Pertaining to atmospheric air; having reference to pneumatics; as, *pneumatic* experiments. — Moved or played by means of air; as, a pneumatic instrument of music. — Suited to, or employed in, experiments with gases; as, a *pneumatic* cistern. — Adapted to contain air; as, *pneumatic* cells.

Pneumat'ic Despatch. This mode of conveying mails was suggested in two pamphlets published by Medhurst early in the 19th century. A company was formed in London, in 1859, for establishing in that metropolis a system of *pneumatic despatch* tubes, adapted for the conveyance of parcels and light goods; and a permanent tube was laid down between the Euston Station and the Post-office in Eversholt Street, for the conveyance of mail-bags, which are *blown* through the tube from the station northward by compressed air, while the return mail-bags are *sucked* through the tubes southward by rarefied air; the compression in the one case, and the rarefaction in the other, being very slight, only a few ounces on the square inch. This tube was opened Feb. 20, 1863. The system is now largely in use for a variety of purposes, more especially in the department stores in the principal cities, and in the post-offices of Philadelphia and elsewhere. See POSTAL SERVICE.

Pneumat'ic Rail'way. See RAILROAD.

Pneumatic-tire, *n.* A wheel tire applied about 1889 to bicycle wheels to replace the solid rubber tire previously used. It is a hollow tube of rubber filled with compressed air, which is forced into it by an air-pump. The P.-t. has so increased the ease and speed of riding that it has been applied to the wheels of pleasure and other carriages, and, of large size, is being used on automobile wheels. Its serious defect is its liability to become punctured, with loss of air and sudden collapse. Pneumatic rubber horse collars are also coming into use, and are likely to prove a great improvement over the hard leather collars.

Pneumat'ics, *n. pl.* That branch of physical science which treats of the mechanical properties of elastic fluids, and principally of atmospheric air. To a certain extent the mechanical properties of the air seem to have been known to the ancients. Not only does Aristotle mention that a bladder filled with air weighs more than when it is empty, but Ctesibus, who lived 130 years B. C., appears to have invented a species of forcing-pump for raising water, and of instruments for producing sound by the passage of air through orifices in tubes.—(*Vitruvius*, lib. ix., x.) These inventions are proof that the elastic force of compressed air was then comprehended. For a long time the ascent of water in pumps, upon raising the piston, was ascribed to nature's abhorrence of a vacuum. When, however, it was found that the height of the column of water raised never exceeded a certain quantity—about thirty-four feet—this idea was gradually exploded. The explanation of the true cause of the phenomenon — the vacuum between the piston and the surface of the column, and the pressure of the atmosphere on the external water—was first determined by Torricelli; the same philosopher also calculated the pressure of the atmosphere by the weight of the column of mercury supported in a tube closed at the upper extremity. (See BAROMETER.) The next result of the study of *pneumatics* was the discovery of the thermometer, soon after the commencement of the 17th century. Steam began to be used as a moving power for pumps and other machinery, in the beginning of the 18th century. The law of the resistance of the air to bodies moving in it was first discovered by Sir Isaac Newton; but the intensity of this resistance against military projectiles was first determined for the inferior projectiles by Robins, in 1740. Dr. Hutton afterwards obtained a formula which is sufficiently correct for any velocity. Robins, Euler, and Hutton, by their researches, determined the expansion of fired gunpowder; and that of steam was investigated by Dalton, in England, and Prouy and Arago, in France. — The different forms of pneumatic apparatus will be found described under the articles AIR-PUMP, BAROMETER, PUMP, &c.

Pneumat'ocele, (*-sēl.*) *n.* [Gr. *pneuma*, air, and *kēlē*, a tumor.] (*Surg.*) A dilatation of the scrotum by means of air.

Pneumatol'ogy, *n.* [Gr. *pneuma*, *pneumatos*, air, spirit, and *logos*, discourse.] The doctrine of spiritual substances, or the science of mind or spirit, treating of the divine mind, the angelic mind, and the human mind.

Pneumogas'tric, *a.* [Gr. *pneumōn*, a lung, and *gaster*, stomach.] (*Anat.*) Pertaining or having reference to the lungs and stomach, as the *pneumogastric* nerves.

Pneumog'raphy, Pneumol'ogy, *n.* [Gr. *pneumōn*, a lung, and *graphein*, to describe, or *logos*, discourse.] (*Anat.*) A description of the lungs.

Pneumom'eter, *n.* [Gr. *pneuma*, and *metron*, measure.] A gasometer constructed for the purpose of measuring the quantity of air taken into the lungs, and again given out, at each inspiration and expiration.

Pneumom'etry, *n.* Art, process, or operation of determining the capacity of the lungs for air.

Pneumo'nia, Pneumoni'tis, Pneu'mony, *n.* [Gr. *pneumōn*, the lung.] (*Med.*) An inflammation of the substance of the lungs. It may be occasioned by any of the causes which produce inflammation in general — vicissitudes of temperature, the application of cold, violent exercise of the body, exertions of voice, &c. It occurs most frequently in the winter and spring months. It is characterized by fever, difficulty of breathing, cough, dryness of the skin, heat, anxiety, thirst, and a sense of weight and pain in the head, unless the pleura be likewise affected. At first, the cough is frequently dry and without expectoration; but after one or two days matter is brought up, viscid and rusty-colored, and often streaked with blood. In favorable cases, this disease may decline on the third or fourth day, but more frequently it is protracted to ten days or a fortnight. In unfavorable cases the symptoms increase on the third or fourth day, and become more and more aggravated, until at length the patient dies exhausted or asphyxiated. A high degree of fever, attended with delirium, great difficulty of breathing, acute pain and dry cough, denote great danger; while, on the

contrary, an abatement of the febrile symptoms, and of the difficulty of breathing and pain, taking place on the coming on of a free expectoration, or other critical evacuation, promise fair for recovery. The treatment in the early stage of the disease is by free bleeding from the arm, followed by a brisk purgative and tartar emetic, to bring about immediate resolution. When more advanced, local bleeding by cupping or leeches, with counter-irritation, must take the place of general bleeding. During convalescence, or after suppuration, tonic medicines, and a nourishing but not stimulating diet, are necessary to support the strength of the patient.

Pneumon'ic, *a.* Having reference to the lungs; pulmonic.

—*n.* A medicine for diseases of the lungs.

Pnigal'ian, *n.* [Gr. *pnigalīōn.*] (*Med.*) Nightmare; incubus.

Pnyx, (*nīks.*) [Gr.] (*Gr. Hist.*) The place of assembly for the Athenian demos, to the west of the Areopagus, on a slope connected with Mount Lycabettus. It was semi-circular in form, and had an area of about 12,000 square yards. On the north side was the Bema, or tribune, cut out of the rock, and commanding a view of the sea from behind, and of the Propylæa and Parthenon in front.

Po, the largest river of Italy, which it traverses from west to east, irrigating, with its affluents, the entire plain of Piedmont and Lombardy. It rises in the Cottian Alps, flows north-east to Turin, and holding an easterly course throughout the whole length of Lombardy, discharges itself by a number of mouths into the Adriatic, about 30 miles from Venice. Its estimated length is abt. 340 m., nearly 300 of which are navigable.

Po'a, *n.* [Gr., grass.] (*Bot.*) A genus of plants, order *Graminaceæ.* This species are very numerous, and some of them very abundant in the pastrages of North America. One of the commonest of all weeds is the Annual Spear-Grass, *P. annua.* The Spear-Grass, *P. pratensis;* the Roughish Meadow-Grass, *P. trivialis;* and the Blue-Grass, *P. compressa,* are very excellent and abundant grasses, both for hay and pasturage. The Wood Spear-Grass, *P. nemoralis,* is one of the few grasses which thrive in shady places.

Poach, (*pōach.*) *v. a.* [Fr. *pocher,* to bruise, to fry, as eggs: allied to Eng. *poke.*] To cook, as eggs, by breaking them into a vessel of boiling water; also, to cook with butter, after breaking into a vessel.—To encroach upon another's grounds, and to steal game, or carry it away privately; to kill or destroy game contrary to law; — hence, to plunder by stealth; to steal.

"They *poach* Parnassus, and lay claim for praise."—*Garth.*

—*v. n.* In England, to kill or destroy game contrary to law; to trespass on another person's lands, and carry game away privily in a bag.—To be trodden with deep tracks, as soft ground.

—*v. a.* [Fr. *poquer,* to shock.] To pierce or spear; as, to *poach* salmon. (Eng.)—To tread on soft ground, as cattle, whose feet penetrate the soil or soft substance, and leave deep tracks.

Poach'ard, *n.* (*Zoöl.*) See POCHARD.

Poach'er, n. One who steals game.

"Ken, an old *poacher* after game."—*Yalden.*

Poach'iness, *n.* State of being poachy.

Poach'ing, n. Act or employment of a poacher.

Poach'y, *a.* Wet and soft; such as the feet of cattle will penetrate to some depth, as land.

Poak, Poake, *n.* Refuse from the preparation of skins, such as hair, lime, &c.

Pocahon'tas, daughter of Powhatan, a powerful Indian chief of Virginia, B. about 1595. She displayed a friendliness towards the British colonists, first at 12 years of age, in saving the life of Capt. John Smith, who had been captured and condemned to death by her father, and on several other occasions making known to the English their danger when about to be attacked. In 1612, while on a visit to a neighboring tribe, she was seized, and held as a hostage by the English, as a safeguard against the hostility of her tribe. While on shipboard she became acquainted with, and married John Rolfe, an Englishman, who took her to England, where, in 1616, she was presented at court. She had one son, from whom numerous wealthy families of Virginia claim descent. D. in England, while preparing to return to America, in 1617.

Pocahon'tas, in *Arkansas,* a post-village, cap. of Randolph co., abt. 145 m. N.E. of Little Rock.

Pocahontas, in *Illinois,* a post-village of Bend co., abt. 10 m. S.W. of Greenville.

Pocahontas, in *Iowa,* a N.W. central co.; *area,* abt. 550 sq. m. *Rivers.* Lizard's River, and many smaller streams. *Surface,* generally level; *soil,* fertile. *Cap.* Pocahontas. *Pop.* (1895) 12,142.

Pocahontas, in *Tennessee,* a post-town of Hardeman co., about 75 m. E. of Memphis.

Pocahontas, in *West Virginia,* an E. co., adjoining Virginia; *area,* about 600 sq. m. *Rivers.* Greenbrier, Elk, and Gauley rivers. *Surface,* much diversified, the Alleghanies forming the S.E., and the Greenbrier the N.W. boundaries; *soil,* in some parts fertile. A cave has been discovered in this co., which is said to almost equal the celebrated Weir Cave in size and extent. *Cap* Marlinton. *Pop.* (1897) 7,560.

Pocas'set, in *Massachusetts,* a post-village of Barnstable co., abt. 60 m. S.S.E. of Boston.

Poch'ard, *n.* (*Zoöl.*) The common name of *Fuligula,* a genus of oceanic ducks, family *Anatidæ,* some species of which are found on the coasts of N. America, migrating southward as far as Louisiana. They have the bill as long, or nearly as long, as the head, broad and very flat, a little dilated towards the tip, the lamellæ of the upper mandible not projecting beyond the margin, the wings and tail short, the tail rounded.

Pock, n. [A. S. *poc,* or *pocc*; Du. *pok*; Ger. *pocke.*] (*Med.*) A pustule raised on the surface of the body in the disease called the small-pox.

Pock'ared, (*-ārd,*) **Pock'fretten,** *a.* Pitted with the small-pox.

Pock'-broken, *a.* Marked or pitted with the small-pox.

Pock'et, *n.* [Fr. *pochette,* from *poche;* allied to A. S *pocca,* a bag, a pouch.] A small bag or pouch inserted in a garment for carrying small articles.—A small bag or net to receive the balls in the game of billiards.—Half a sack in quantity, or about 168 lbs.; — said of certain articles of trade; as, a *pocket* of wool, a *pocket* of hops.—A large bag for holding cowries and the like.

(*Mining.*) A small cavity in a rock, &c., containing gold.

(NOTE. *Pocket* is frequently used in the formation of self-explaining compounds; as, *pocket*-comb, *pocket*-handkerchief, *pocket*-money, *pocket* picking, &c.)

—*v. a.* To put, place, or conceal in the pocket; as, to *pocket* money.— To take in a clandestine manner.

To pocket an affront or *insult,* to receive an affront or indignity without open resentment; or, at all events, without seeking redress, or demanding satisfaction.

Pock'et-book, *n.* A small, leather-covered book, used for carrying notes, papers, &c., in the pocket.

Pock'etful, *n.; pl.* POCKETFULS. Enough to fill a pocket.

Pock'et-hole, *n.* The orifice of a pocket.

Pock'et-knife, (*-nīf.*) *n.* A knife with blades folding into the handle, so as to be carried in the pocket.

Pock'et-lid, *n.* The flap over the opening of a pocket.

Pock'et-money, *n.* Money for the pocket, or for petty or occasional expenses.

Pock'et-piece, *n.* A piece of money carried in the pocket for luck, and not to be spent.

Pock'et-pistol, *n.* A pistol to be carried in the pocket. A colloquialism for a *pocket-flask* of liquor.

Pock'et-picking, *n.* Act of picking the pocket; practice of stealing from the pocket.

Pock'fretten, *n.* Same as POCKARED, *q. v.*

Pock'-hole, *n.* The pit or hole made by a pock.

Pock'iness, *n.* State or condition of being pock-marked.

Pock'ish, *a.* Affected with the small-pox.

Pock'-mark, *n.* A mark, pit, or scar made by the small-pox.

Pock'-pitted, *a.* Pitted by the small-pox.

Pock'y, *a.* Full of pocks: infected with the small-pox. — Vile; rascally; contemptible. (Colloq. and vulgar.)

Po'co, *adv.* [It.] (*Mus.*) A little; — principally employed in phrases designating the time or movement; as, *poco largo,* rather slow.

Poco a poco. (*Mus.*) Little by little; by degrees; as, *poco a poco* crescendo, gradually increasing in loudness

Poco-cu'rantism, *n.* [It. *poco,* little, and *curante,* careful, from *curare,* to care.] Indifference; impenetrability to impressions; state or quality of manifesting little care or interest.

Poco'moke River, in *Maryland,* flows S.S.W. into a bay of its own name, an arm of Chesapeake Bay, between Somerset co., Maryland, and Accomac co., Virginia.

Poco'son, n. A Virginian localism for a reclaimed tract of boggy ground.

Pocotali'go, in *W. Virginia,* a small river flowing into the Great Kanawha from Kanawha co.

Poc'ulliform, *n.* [Lat. *pocalum,* a cup, and *forma,* form.] Cup-shaped.

Pod, n. [A.S., a covering.] (*Bot.*) Same as LEGUME, *q. v.*

Pod'agra, *n.* [Gr., from *pous, podos,* the foot, and *agra,* a catching.] (*Med.*) The GOUT, *q. v.*

Podag'ric, Podag'rical, *a.* Pertaining to, or partaking of, the gout; gouty. — Suffering from, or afflicted with, the gout.

Pod'agrous, *a.* Gouty; podagric; having the gout.

Pod'der, *n.* One who gathers pods.

Podes'ta, *n.* [It., from Lat. *potestas,* magistracy.] One of the chief magistrates of Genoa and Venice.

Podge, (*pŏj.*) *n.* A puddle; a plash.

Podgorit'za, a town of European Turkey, in Albania, 38 m. N. of Scutari; *pop.* 6,000.

Podgy, (*pŭj'ў,*) *a.* Pudgy; fat and stumpy; as, a *podgy* hand.

Pod'iceps, *n.* (*Zoöl.*) See COLYMBIDÆ.

Po di Pri'maro, a river of N. Italy, a continuation of the Reno, rising near Pistoja, and after an E. course of 90 m., assumes the name of Traghetto, falling into the Adriatic at Porto di Primaro, 13 m. N.E. of Ravenna.

Po'dium, *n.* [Lat., from Gr. *podion,* dimin. of *pous, podos,* foot.] (*Arch.*) In Roman amphitheatres, a massive wall running around the arena. On the top of the *P.* were the seats assigned to spectators of the highest rank; above these seats rose the mœniana, or radiating seats on the sloping walls of the building.

Podo'lia, or **Po'dolsk,** a govt. of European Russia, between Lat. 47° 30′ and 49° 45′ N., Lon. 26° 25′ and 30° 48′ E.; having N. Volhynia, E. Kiev and Kherson, S. Kherson and Bessarabia, W. Gallicia and Bessarabia. *Area,* 15,200 sq. m. The surface is generally level, the soil fertile, and the climate healthy. *Rivers.* Dneister and Bug. *Prod.* Corn, hops, hemp, flax, tobacco, and various fruits. The vine and mulberry are cultivated, and numerous cattle are reared. *Min.* Lime, nitre, and alabaster. *Manuf.* Woollen cloth, leather, and potash. Trade is wholly in the hands of Jews. *Cap.* Kaminietz. *Pop.* 1,868,857, chiefly Poles.

Podophyl'lum, *n.* [Gr. *pous,* a foot, *phullon,* a leaf — from the shape of its leaf.] (*Bot.*) A genus of plants, order *Ranunculaceæ.* The May-apple, or Wild Lemon, *P. peltatum,* is a common herb throughout the American States. Its fruit is a berry, about the size of an egg, of a light-yellow color, and having a pleasant sub-acid taste. The Indians of N. America have employed a decoction of the leaves and stalks for ages, in diseases requiring a cathartic. Latterly, this plant has attracted much attention, in consequence of the discovery of its active resinous principle, which, under the name of *podophyllin,* is now coming into use as a cathartic, and as a therapeutic substitute for mercury.

Pod'osperm, *n.* [Gr. *pous, podos,* foot, and *sperma,* seed.] (*Bot.*) The umbilical cord of an ovule.

Podostema'ceæ, *n. pl.* (*Bot.*) The Threadfoot or River-weed family, an order of plants, alliance *Rutales.* DIAG. Many-seeded fruit, which is finally apocarpous; and apetalous, very imperfect flowers. They are aquatic, herbaceous plants, having much the appearance of mosses and liverworts. There are 21 genera, including about 100 species, principally natives of S. America.

Po'e, *n.* A kind of farinaceous food used by some of the Pacific Islanders.

Poe, EDGAR ALLAN, a young American litterateur, B. at Baltimore in 1811. He had fine natural talent, and received a good education, but threw away all his advantages, and shortened his life by his immoral and drunken habits. D. in an hospital of his native city, after a restless, wandering life, October, 1849. His productions consisted of tales and poems, which were contributed to periodicals, and which display singular power of imagination, a quick sense of the beautiful, and great command of impressive and also musical language. His tales were remarkable for their fantastic character, his poems for the melody of their language.

Po'em, *n.* [Fr. *poème;* Lat. *poema* = Gr. *poiēma,* a composition in verse, from *poiēō,* to make.] The work, production, or creation of a poet; specifically, a metrical composition; a composition in which the verses consist of certain measures, whether in blank verse or in rhyme; a piece of poetry; as, the *poems* of Homer, Dante, or Byron; — correlative to *prose.* — Hence, rarely, an imaginative composition, divested of the peculiar attributes of verse; as, the *poems* of Ossian.

Poemat'ic, *a.* [Gr. *poimatikos.*] Belonging to, or possessing the characteristics of, a poem.

Pœnol'ogy, *n.* Same as PENOLOGY, *q. v.*

Poes'tenkill, in *New York,* a small river flowing into the Hudson River from Rensselaer co.

—A post-village and township of Rensselaer co., abt. 11 m. E. of Albany.

Po'esy, *n.* [Fr. *poésie;* Lat. *poesis* = Gr. *poiēsis.*] The art or skill of making or composing poems; as, "thy heav'nly gift of *poesy.*" (*Dryden.*) — Poetry; metrical composition. — A short conceit engraved on a ring or other thing; a posy.

Po'et, *n.* [Fr. *poète;* Lat. *poeta* = Gr. *poiētes,* from *poiēō,* to make, create.] The maker, inventor, or creator of a poem; the author or producer of a metrical composition. — One skilled in making poetry, or who has a particular genius for metrical composition; one distinguished for poetic talents.

Po'etaster, *n.* A pitiful rhymer; a writer of doggerel verses: a petty poet.

Po'etastry, *n.* Doggerel; mean poetry. (R.)

Po'etess, *n.* A female poet.

Poet'ic, Poet'ical, *a.* [Fr. *poétique.*] Pertaining or relating to poetry; suitable to poetry; as, *poetic* genius, *poetic* taste, *poetic* license. — Expressed in poetry or measure; as, *poetical* composition. — Possessing the peculiar attributes or beauties of poetry; sublime; as, a passage highly *poetical.*

Poet'ically, *adv.* In a poetical manner; with the qualities of poetry; by the art of poetry.

Poet'ics, *n.* The doctrine of poetry.

Po'etize, *v. a.* [Fr. *poétiser.*] To write as a poet; to compose verse.

Po'et-musician, (*-zĭsh'an,*) *n.* The bard and lyrist of former times; — so called as uniting the artistic professions of poetry and music.

Po'etry, *n.* [O. Fr. *poëterie.*] Art or practice of composing in verse; prose composition in the language of excited imagination and feeling; poesy. — Poetical or metrical composition or verse; as, epic or heroic *poetry,* ballad *poetry,* lyric *poetry,* dramatic *poetry.* — Imaginative composition, whether in prose or verse. — The history of poetry is treated in this work in connection with the literature of the principal nations of the world. — See also BALLAD, DRAMA, EPIC POETRY, LYRIC POETRY, &c.

Po'etship, *n.* State, quality, or condition of a poet.

Po'et-sucker, *n.* A half-fledged, immature poet; — used in contempt.

Pog'gy, *n.* See PORGEE.

Pog'gy Islands. See NASSAU ISLANDS.

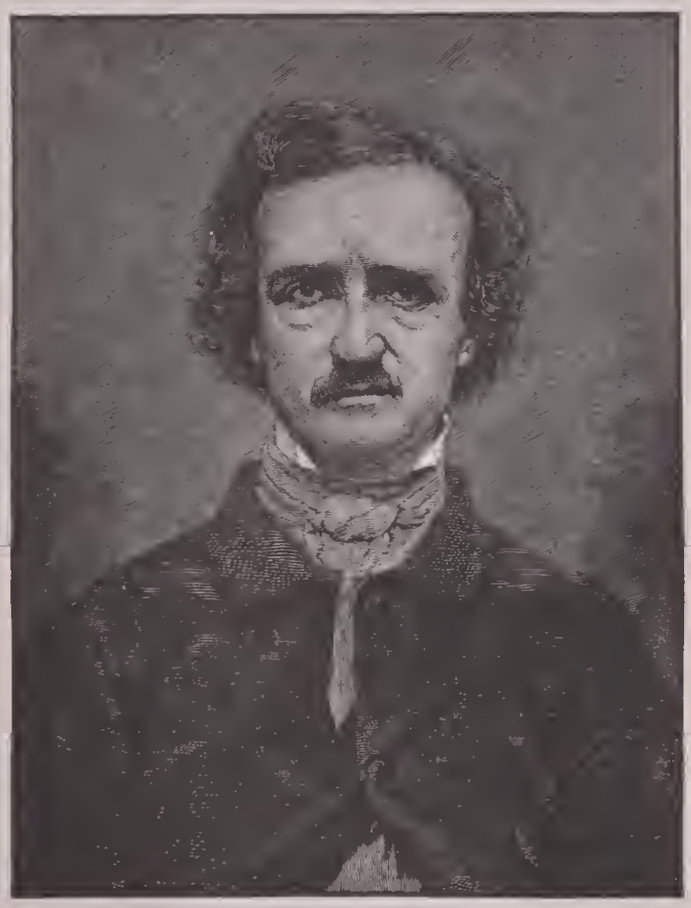
Pogoste'mon, *n.* [Gr. *pogon,* a beard, and *stemon,* a thread.] (*Bot.*) A genus of plants, order *Lamiaceæ,* which yields the patchouly scent. The plant itself, called *P. patchouly,* is an unattractive sub-shrubby species, found wild in India and Malacca. The odor, which is peculiar, is highly popular not only in Europe, but in India, where it is one of the commonest perfumes found in the bazaars. The leaves and young tops yield by distillation the volatile oil from which essence of patchouly is prepared. Genuine Indian shawls and Indian ink were formerly distinguished by their odor of patchouly; but since the perfume has become common in Europe the test does not hold good. Ill effects, such as loss of appetite and sleep, nervous attacks, &c., have been ascribed to the excessive employment of patchouly as a perfume. It is called *Pucha-pat* by the Malays.

Poh, (*pō.*) *interj.* An exclamation indicating contempt or aversion, equivalent to *pish, pshaw.*

Pohat'coug (or PONAT'CHUNK) **Creek,** in *New Jersey,* enters the Delaware River from Hunterdon co.

Pocahontas

1595(?)–1617



Edgar Allan Poe

1811–1849

Poho'no, or Bridal Veil Fall, in *California*, a fall of the Merced River, in the Yosemite Valley, Mariposa co. It is 40 ft. broad, with a perpendicular height of 900 ft.

Poignancy, (*poin'an-sy̆,*) *n.* Quality of being poignant; sharpness; pungency; power of stimulating the organs of taste; point; keenness; power of irritation; asperity, as of wit or satire; severity; acuteness, as of grief.

Poignant, (*poin'ant,*) *a.* [Fr., from *poindre* = Lat. *pungere*, to puncture, to sting.] Sharp; pungent; pricking; piercing; stimulating the organs of taste; — applied to something tasted.

"No *poignant* sauce gave relish to her meat."—*Dryden.*

—Pointed; keen; bitter; irritating; satirical; severe; biting; piercing; very painful or acute; as, *poignant* wit, *poignant* pain or disease.

Poignantly, (*poin'ant-ly̆,*) *adv.* In a stimulating, piercing, or irritating manner; with keenness or point.

Poikilit'ic, *a.* See Poecilitic.

Poind, *v. a.* To pound; to immure or enclose in a pen or pound: as, to *poind* stray cattle.

Pound'er, *n.* In Scotland, one who distrains cattle for rent.

Poin'dexter, in *Georgia*, a village of Marion co., abt. 45 m. E. of Columbus.

Poin'dexter's Store, in *Virginia*, a post-village of Louisa co., abt. 68 m. N.W. of Richmond.

Poin'sett, in *Arkansas*, a N.E. co.; *area*, about 1,300 sq. m. *Rivers.* St. Francis and Anguille rivers, besides many smaller streams. Lake St. Frances washes the N.E. angle of the co. *Surface*, mostly level and low, large tracts being occupied by swamps; *soil*, in some parts fertile. *Cap.* Harrisburg. *Pop.* (1897) 4,570.

Point, *n.* [Fr., from Lat. *punctum*, a puncture, a small hole.] That which pricks, penetrates, or pierces, as the sharp or acute end of any piercing instrument or body, as of a needle, a pin, an awl, a thorn, a bayonet, &c. — A steel instrument having a sharp point or end, used as engravers' etchers, &c.; — sometimes called, also, *pointer.* — A small cape, headland, or promontory; a tract of land extending into the sea, a lake, or river, beyond the shore-line, and becoming narrow at the end; as, Montauk *Point.* — The mark made by the end of a sharp, piercing instrument like a needle; — hence, a small space; a mere spot actually indicated. — An indivisible part of time; an instant; a moment; — hence, a critical moment; the brink; verge; as, at the *point* of death. — The sting of an epigram; a lively turn of thought or expression that strikes with force and agreeable surprise; the pith or gist of an argument; the conclusion to which a discourse or anecdote is directed: as, to come to the *point.* — Punctilio; nicety; scrupulosity; exactness of ceremony; as, a *point* of honor. — Degree; state of elevation, depression, or extension; condition; rank; whatever serves to mark progress or indicate a transition from one state or position to another; as, a *point* of precedence.

"I have touch'd the highest *point* of all my greatness."—*Shaks.*

—In punctuation, a character used to mark the divisions of sentences in writing, or the pauses to be observed in reading or speaking, as the comma, &c. — Salient trait or characteristic; peculiarity; that feature or attribute which arrests attention; as, he has some good *points* in his nature, the *points* of a horse, dog, &c. — Aim; end; purpose; thing to be reached, or accomplishment; as, it was the *point* of my ambition.

"True to the kindred *points* of Heaven and Home."—*Wordsworth.*

—*pl* Metal tags of an ornamental character, affixed to the ends of the ribands used for tying the different articles of dress upon the person, in the 15th and 16th centuries; — they occupied the place of the modern button.

—Place to which anything is directed, or the direction in which an object is presented to the eye; as, a *point* of light. — Act of aiming or striking. — A single position or assertion; a single part of a complicated question or the whole.

(*Geom.*) That which has position but not magnitude. The extremities of a line are *points.*

(*Navig.*) One of the 32 divisions into which the circumference of the horizon and the mariner's compass are distinguished, each comprehending 11° 15′.

(*Astron.*) A certain place marked in the heavens, or distinguished for its importance in astronomical calculations; as, the equinoctial, solstitial, nodal, and vertical *points.*

(*Mus.*) A dot placed at the right hand of a note, to raise its value or prolong its time by one half.—A note; a tune.

(*Her.*) An ordinary somewhat resembling the *pile*, but issuing from the base of the escutcheon instead of the chief.

—Particular; instance; single thing or subject; as, in *point* of fact, in *point* of time.

"This letter is, in every *point*, an admirable pattern of writing." *Swift.*

(*Naut.*) See Reef-point.

(*Railroad Eng.*) In England, the switch of a railroad track.

(Note. The word *point* is used generally in the sciences and arts, either in the geometrical sense, or in that of degree, condition, or change, and with some accompanying qualifying term; as, melting-*point*, freezing-*point.*)

At the point, *on the point*, as near as possible; on the brink or verge; as, she was *on the point* of going.—*Nine points of the law*, the greater weight of authority; all but the tenth point of the law. — *Point-no-point*, a manner of proceeding or discussion, which, after much display of action or argument, proves abortive. —*Point of horse.* (*Mining.*) The spot where the vein of ore is divided into one or more branches — *Point of intersection*, the point where two lines meet and cross each other. — *Point of sight.* (*Perspec.*) The principal vanishing point, because all horizontal objects that are parallel to the middle visual ray will vanish in that point. —*Point of view*, position from which any object is seen or considered. — *To make or to gain a point*, to accomplish what one had in view; also, to make an advance by a step, grade, or position. — *To strain a point*, to go beyond a fixed limit: to exceed the bounds of strict justice, duty, or propriety; as, he *strained a point* to oblige his friend. — *To mark* or *score a point*, to note down successful hits, runs, &c., as in cricket, billiards, &c. — *Vowel point*, in some Eastern and ancient languages, a mark placed above or below the consonant, or annexed to it, representing the vowel sound preceding or following the consonant.

Point, *v. a.* To sharpen to a point; to cut, forge, grind, or file to an acute end; to give a point to; as, to *point* a dagger. — To direct toward an object or place, to show its position, or excite attention to it; to direct the eye or notice. — To aim; to direct toward an object; as, to *point* a musket at an enemy. — To indicate application; to show, by way of example.

"Nature seems to *point* us out the way."—*Locke.*

—To indicate the presence of by a pause in motion and a fixed look, as game. — To punctuate; to mark with characters for the purpose of distinguishing the members of a sentence, and designating the pauses; to mark with vowel-points; as, to *point* a composition.

(*Building.*) To fill the interstices with mortar, and smooth their surface with the point of a trowel; as, to *point* masonry or brick-work.

To point a rope, to cause it to taper at the end by taking away a few strands, and, with these, working a mat over it, so that it may readily pass through a hole. *To point a sail*, to affix points through the eyelet-holes of the reefs. —*To point out*, to indicate clearly; to show by direction of the finger or other means. —*To point a ship's yards*, to brace them so that the wind shall strike them obliquely.

—*v. n.* To direct the finger for designating an object, and drawing attention to it; preceding *at.* — To indicate by a fixed and prolonged look, as dogs do to sportsmen. — To show distinctly by any means.

(*Med.*) To head; to approach the surface; — said of an abscess.

To point at, to behave to with scorn, derision, or aversion, by directing attention to.

"Now must the world *point at* poor Catherine."—*Shaks.*

Point, in *Illinois*, a township of Calhoun county.

Point, in *Indiana*, a twp. of Posey co.

Point, in *Pennsylvania*, a township of Northumberland co.

Point'al, *a.* [Fr.] (*Bot.*) The pistil of a plant.

Point à la Hache, in *Louisiana*, a post-village, cap. of Plaquemine parish, abt. 46 m. S.E. of New Orleans.

Point-a-Pitre, (La,) a town of the island of Guadeloupe, W. Indies, abt. 18 m. N.E. of Basseterre; *pop.* 12,103.

Point Arena, in *California*, a post-town of Mendocino co., about 125 m. N.W. of San Francisco.

Point au Fer, in *Louisiana*, a headland and lighthouse on the E. side of the entrance to Atchafalaya Bay. It exhibits a fixed light 70 ft. above the sea; Lat. 29° 19′ N., Lon. 91° 22′ W.

Point'-blank, *n* [Fr. *point-blanc*, white point.] (*Mil.*) The point at which the line of sight intersects the trajectory of a projectile.

Natural point-blank, that when the line of sight is horizontal.

—*a.* Aimed directly toward the mark.— Hence, by analogy, plain; direct; express; as, a *point-blank* denial.

Point-blank range, the range of the apparent right line of a ball discharged.—*Point-blank shot*, the shot of a gun pointed directly at the mark.

—*adv.* In a *point-blank* manner; expressly; plainly.

Point Bluff, in *Wisconsin*, a post-village of Adams co., abt. 10 m. E. of Manston.

Point Boni'ta, in *California*, a headland forming the S. extremity of Marin co., on the N. side of the Golden Gate, abt. 3½ m. N. of Point Lobos.

Point Com'meree, in *Indiana*, a post-village of Greene co., abt. 80 m. W.S.W. of Indianapolis.

Point-d'appui, (*pwŏng'dàp-pwē.*) *n.* [Fr.] Basis; pivot; point of support; a fixed point on which troops move, and operations rest.

Point de Galle, a fortified seaport-town of the S.W. of Ceylon, 70 m. S.E. of Colombo; Lat. 6° N., Lon. 80° 15′ E.

Point Douglas, in *Minnesota*, a post-village of Washington co., abt. 26 m. S.E. of St. Paul.

Pointe Coupée, in *Louisiana*, a S.E. central co.; *area*, abt. 600 sq. m. *Rivers.* Mississippi and Atchafalaya rivers, besides several less important streams. *Surface*, low and level; *soil*, generally very fertile. *Cap.* New Roads. *Pop.* (1897) 21,100.

—A post-village, former cap. of above co.

Point'ed, *p. a.* Having a sharp point; sharp; acuminated; as, a *pointed* stake.— Characterized by keenness, pungency, or epigrammatical smartness; as, *pointed* wit, a *pointed* rebuke.

Point'ed Architec'ture. See Mediæval Architecture.

Point'edly̆, *adv.* In a pointed manner; with lively turns of thought or expression.— With direct assertion; with express reference to a subject; with explicitness; plumply; as, I asked him *pointedly* not to press the matter.

Point'edness, *n.* Quality of being pointed: sharpness; epigrammatical keenness or smartness; as, *pointedness* of expression.

Pointe du Lac, a village of St. Maurice co., prov. of Quebec, about 81 m. N.N.E. of Montreal. *Pop.* 1,500.

Point'el, *n.* [From *point.*] A writing implement for the tablets used in the Middle Ages.—Chequered-work for paving floors.

Point'er, *n.* He who, or that which points, as the hand of a time-piece.—A graving tool.

(*Zoöl.*) A breed of valuable sporting dogs, the *Canis familiaris avicularis.* They are used in finding feathered game of various sorts, partridges, pheasants, &c. When they scent their game, they suddenly stop, and remain motionless as a statue, until the sportsman comes near enough, and is prepared to take his shot; he then gives the word, and the dog immediately springs the game. So admirably have these dogs been trained,

Fig. 2134. — POINTER.

that their acquired propensities seem almost as inherent as a natural instinct, and appear to be transmitted from parent to progeny: at least, they now require but very little *breaking* to stand at any kind of game. Their scent and sight are equally acute. In all probability Spain is the native country of this valuable dog, which is found there, and also in France, with very slight difference of form; but the English breed is much to be preferred, for good temper, beauty of appearance, docility, patience, and activity.

(*Astron.*) One of the two bright stars in the body of the Great Bear, which point to the pole star, and enable it to be readily singled out.

(*Naut.*) One of the timbers connecting the stern-frame with the after-body of a ship.

Point Gal'linas, a cape of the Republic of Colombia, forming the N. extremity of S. America; Lat. 12° 30′ N., Lon. 71° 40′ W.

Point'ing, *n.* Art or act of making the divisions of a writing; punctuation.— State of being pointed with marks, or of having points.—Act of placing a gun, so as to give the shot a particular direction.—Act of filling the interstices of a wall, &c., with mortar; or the material wherewith the operation is performed.

Point'ing-stock, *n.* An object of scorn or derision; a laughing-stock.

Point Isa'bel, in *Kentucky*, a village of Pulaski co., abt. 97 m. S. of Frankfort.

Point Isabel, in *Texas*, a post-village, and port of entry of Cameron co., abt. 30 m. E.N.E. of Brownsville.

Point Judith, in *Rhode Island*, a headland and lighthouse on the W. side of Narragansett Bay.

Point Lace, *n.* See Lace.

Point'less, *a.* Having no point; blunt; without keenness or smartness; dull; stupid; obtuse; as, a *pointless* needle, a *pointless* remark.

Point'leted, *a.* (*Bot.*) Apiculate.

Point Lobos, in *California*, a headland on the S. side of the Golden Gate, abt. 6 m. W. of San Francisco.

Point of Rocks, in *Maryland*, a post-village of Frederick co., abt. 65 m. N.W. by N. of Annapolis.

Point Pleas'ant, in *Illinois*, a township of Warren co.

Point Pleasant, in *Iowa*, a post-village of Hardin co., abt. 5 m. W. of Eldora.

Point Pleasant, in *Missouri*, a post-village of New Madrid co., abt. 8 m. S. of New Madrid.

Point Pleasant, in *Ohio*, a post-village of Clermont co., abt. 25 m. S.E. of Cincinnati. It is the birth-place of Gen. U S Grant.

Point Pleasant, in *Pennsylvania*, a post-village of Bucks co., abt 120 m. E of Harrisburg.

Point Pleasant, in *West Virginia*, a post-town, cap. of Mason co., about 175 m. S.W. of Wheeling.

Points of the Com'pass. See Compass.

Points of the Escutch'eon. (*Her.*) See Escutcheon.

Point'ville, in *New Jersey*, a post-village of Burlington co., abt. 11 m. E. of Mount Holly.

Poiré, (*pwoi-ra',*) a town of W. France, dept. of Vendée, 7 m. N.W. of Napoléon Vendée; *pop.* 4,030

Poiri'no, a town of Italy, prov. of Turin, 14 m. S.E. of Turin; *pop.* 6,006.

Poise, *v. a.* [Fr. *peser*, from Lat. *pendo*, *pensum*, to cause to hang down.] To balance in weight; to make of equal weight; as, to *poise* the scales of a balance.— To hold or place in equilibrium or equiponderance. — To load with weight for balancing. — To weigh; to examine or determine, as by the balance. — To oppress; to overburden; to weigh down.

"Lest leaden slumber *poise* one down to-morrow." —*Shaks.*

—*n.* [Fr. *poids*, from *peser.*] Weight; gravity; that which causes a body to descend or gravitate toward the centre.— The weight or mass of metal used in weighing with steelyards, to balance the substance weighed.

Balance; equilibrium; equipoise; equiponderance.—A regulatlug power; that which balances; as, tho *poise* of judgment is ofteu deficient in men of imagination.

Poison, (*poi'zn,*) *n.* [Fr.; from low Lat. *potionore,* from Lat. *potio,* a potion, a draught.] Any substance which, when administered in small quantities, is capable of acting deleteriously on the body. In general language, however, the term is applied to those substances only which destroy life in small doses. In medical jurisprudence it is found very difficult to lay down the exact boundary-line between medicines and poisons. A writer in legal medicine has suggested the following definitioa: "A poisou is a substance which, when taken internally, is capable of destroying life without acting mechanically on the system." The law, however, never regards the manner in which the substance administered acts. If it be capable of destroying life, or injuring the health of an individual, it is of little consequence, so far as the responsibility of a poisoner is concerned, whether the action on the body be of a mechanical or a chemical nature. Tho words of the statute on poisoning are very general, and embrace all kinds of substances, whether they be popularly or professionally regarded as poisons or not. Thus it is laid down that "whoever shall administer, or cause to be taken by any person, any poison, or other destructive thing, with intent to commit murder, shall be guilty of felony, and being convicted thereof, shall suffer death." Poisons have been divided into three classes, according to their mode of action on the system; namely, *irritants, narcotics,* and *narcotico-irritants.* The narcotic and narcotico-irritants may, however, be regarded as one large class,—the *neurotics*—as their special action is to affect directly one or more parts of the aervous system. Narcotic poisons can also be subdivided into *cerebral, spinal,* and *cerebro-spinol,* according to whether the substance affects directly the brain, the spinal marrow, or both of these organs. Irritant poisons, when taken ia small doses, speedily occasion violent vomiting and purging. These symptoms are either accompanied or followed by intense pain in the abdomen. As their name implies, their action is to irritate aud inflaaie. Many substances belonging to this class of poisons possess corrosive properties; such as the stroag aineral acids, caustic alkalies, bromine, corrosive subliaate, and others. Some irritants do not possess any corrosive action; such as arsenic, the poisonous salts of baryta, carbonate of lead, cantharides, &c., which are called pure irritants; they exert no destructive chemical action on the tissues, but simply irritato them. — The cases in which there are antidotes qualified to neutralize chemically the action of the poison aro few in number. For the *mineral acids* we must prescribe chalk or magnesia in water, with the view of neutralizing them, after which milk should be given freely. The *alkalies and their carbonotes* must be neutralized by vinegar and water, or lemon-juice mixed with water, after which milk should be given. For *oxalic acid,* tho antidote is chalk or magnesia in water, by which an insoluble oxalate of lime or magnesia is formed. For *arsenic,* the hydrated peroxide of iron has been regarded as an antidote, but its efficacy is doubtful. Vomiting should be excited by the administration of a scruple of sulphate of zinc in warm water, and after the stomach has been well cleared out, demulcent fluids, such as flour aad water, or milk, should be given. *Corrosive sublimate* combines with albumen (white of egg), and forms an insoluble iaert mass; *nitrate of silver* is neutralized by chloride of sodium (common salt) dissolved ia water; *tartarized antimony* is, to a great degree, rendered inert by the adainistration of a decoctioa of bark of gall-nuts; and *acetate of lead* is rendered inert by the administration of sulphate of magnesia, which converts it into an insoluble sulphate of lead. In all cases of suspected poisoning, in which the nature of tho poison is not known, the safest course is at oace to produco vomitiug by sulphate of zinc, or ia its absence by a dessert-spoonful of flour of mustard suspended in tepid water, and to continue the vomitiag till all the contents of the stomach are discharged, after which milk should be given freely. (See Arsenic.) — Most of tho known gases — except hydrogen, nitrogen, aad oxygen — have a poisonous action when inhaled into the lungs; but in these cases death, if it ensues, is popularly said to be due to *suffocation,* although, strictly speaking, a person who dies from the effect of carbonic acid, or sulphuretted hydrogea, or of aay other noxious gas, is ia reality just as much poisoned as if he had taken oxalic acid or arseaic. The poisons that may affect the body by direct introduction into the circulation, through a puncture or abrasion, may bo derived from the miaeral, the vegetable, or the animal kingdom; but, with a few exceptions (as, for example, Wourali Poison, *q. v.*), the poisons derived from the mineral and vegetable kingdoms would act as efficiently if introduced into the stomach as if injected into the circulating blood; while the animal poisons act only by direct introduction into the blood, and are iaert when introduced into the stomach.

—By implication, aaything which deteriorates, taints, impairs, or destroys nuoral health or purity; as, the *poison* of sin or infidelity.

—*v. a.* To infect with poison or anything fatal to life; as, to *poison* an arrow.—To attack, iajure, or kill by *poison.*

—To taint; to mar; to impair, as one's enjoyment; to corrupt, as the morals.

"Notions with which the schools had *poisoned* our youth."
Davenant.

Poi'sonable, *a.* That may be poisoned.

Poisoner, (*poi'zn-er,*) *n.* Oae who poisons or corrupts; that which taints or corrupts.

Poi'son-fang, *n.* See Serpent.

Poi'son-gland, *n.* One of those glands which secrete an acrid or venomous liquor, conveyed along an instrument capable of inflicting a wound, are so termed. The glauds at the sides of the head of poisonous serpents, those at the base of the hollow jaws of the centipede, or at the aculeated tail of the scorpion, and that communicating with the sting of the bee, are examples.

Poi'son-hemlock, *n.* (*Bot.*) See Conium.

Poi'son-ivy, Poi'son-oak, *n.* (*Bot.*) Seo Rhus.

Poi'sonous, *a.* Having the qualities of, or containing poison; venomous; deadly; corrupting; impairing soundness or purity.

Poi'sonous Dar'nel, *n.* (*Bot.*) See Lolium.

Poi'sonously, *adv.* With poisouous, fatal, or injurious effects.

Poi'sonousness, *n.* Quality of being injurious, or of being fatal or injurious to health, sounduess, or purity.

Pois queniques, *n.* (*Bot.*) See Moringaceæ.

Poissy, (*pwas-see',*) a town of France, dept. of Seine-et-Loire, on the Seine, 10 m N.N.W. of Versailles; *pop.* 4,300.

Poitiers, (*pwoi-te'ai,*) a city of France, cap. of dept. of Vienne, on the Clair, a tributary of the Vienne, 58 m. S.S.E. of Tours. It has several fine squares, the principal of which is the *Place Impériale.* The most prominent public buildings are the cathedral, hall of justice, and public library, contaiuing 25,000 volumes. *Manuf.* Woollen goods, hosiery, lace, hats, &c. It is the scene of the victory of the English, under Edward the Black Prince, over the French, under John I. and his son Philip, both of whom were taken prisoners, in 1356. *Pop.* 31,034.

Poiton, (*poi-too',*) a former prov. of France, now comprising the depts. of Charente, Deux-Sèvres, Indre-et-Loire, Vendée, and Vieane. *Cap.* Fontenay.

Poitrine, (*pwa'treen,*) *n.* [Fr.] In ancient armor, the breastplate of a knight; also, the overlapping scales or sheets of metal which covered the breast of a war-horse.

Pokag'on, in *Michigan,* a post-village and township of Cass co., abt. 7 m. N.E. of Niles.

Poke, *n.* [A. S. *pocca;* Icel. *poki,* a sack, a bag.] A pocket; a small bag. —A long, wide sleeve, formerly worn.

To buy a pig in a poke (i. e., a hag), to buy a thing without seeing it, or ascertaining its quality or value.

Poke, *v. a.* [D. *poken,* to poke; Icel. *piaka,* to stimulate, to urge on.] To thrust or push against with anything pointed; — hence, to feel or search for with a long instrument. — To thrust at with the horns, as an ox.

To poke fun, to make fun; to joke; to jest; to act the droll.

To poke fun at, to make a butt or laughing-stock of; to jeer; to ridicule. (Colloquially used.)

—*v. n.* To grope, as in the dark, with the hand or hands thrust forward.

To poke at, to make a thrnst with the horns.

Poke, *n.* A thrust; a push; as, to give a person a *poke* in the ribs.

—An Americanism for an idle, dawdling, or stupid person.

—A yoke to preveut unruly beasts from breaking through fences. (U. S.)

—*v. a.* To harness with a poke; as, to *poke* an ox.

Poke, *n.* (*Bot.*) See Phytolaccaceæ.

Poke'-bonnet, *n.* A long, straight, projecting hounet, like those worn by Quakeresses.

Poke'gamn, in *Wisconsin,* a township of Douglas county.

Pok'er, *n.* He who or that which pokes. — An iron instrument used in poking or stirring a fire.

(*Naut.*) Au instrument employed in driviug hoops on masts.

Pok'er, *n.* A game at cards played in the U. States.

Pok'er, *n.* [Dan. *pokker,* the devil.] A bugbear; a hobgoblin. (Vulgar.)

Pok'er Flat, or Pocket Flat, in *California,* a village of Sierra co., abt. 60 m. N.E. of Marysville.

Po'kono, in *Pennsylvania,* a creek flowing into Brodhead's Creek from Monroe co.

—A township of Monroe co.

Po'kono Mountain, or High Knob, in *Pennsylvania,* a spur of the Alleghanies in Carbon and Monroe cos.

Pok'erish, *a.* Calculated to awaken fear; abounding iu terrifying influences or objects. (American.)

Pok'er-pictnre, *n.* A sort of picture made by drawing a heated poker over the surface of white-wood, deal, &c.

Poke'-weed, *n.* (*Bot.*) See Phytolaccaceæ.

Pok'ing, *a.* Drudging; servile; also, prying.

Pok'ing-stick, *n.* A steel rod formerly used in adjustiag the plaits of ruffs.

Pok'y, *a.* Stupid; dull; inane; spiritless.

Polac'ca, Pola'cre, *n.* [Fr. *polaque;* Sp. *polacre;* It. *polacca.*] (*Naut.*) A merchant-vessel used in the Mediterranean, having three pole-masts, without tops, caps, or cross-trees, with a bowsprit of one piece.

(*Mus.*) See Polonaise.

Po'land. [Fr. *Pologne.*] Oace a large and important kingdom situated in the N.E. of Europe, but now expunged from all maps as an indepeadent country. *P.* was bounded on the N. by the Baltic, S. by Wallachia, Moldavia, and Hungary, W. by Geraaany, aad E. by Russia. *P.* was tho most level country in Europe, the Carpathian mountains on the S. and W., as a boundary from Hungary, being the only monntain-range of any height in the kingdom. The rivers of chief aote are the Vistula, Bug, Niemen, Dwina, Dneiper, and Daeister, either flowing into the Baltic or the Euxine. The principal mineral products are iron, lead, gold, and silver, with salt, which last, from the abundance of the yield, and the size and richness of the mines, was coasidered as the natural wealth of the country. The climate of *P.* is extremely cold, humid, and nuhealthy; the soil generally fertile, for though agriculture was always neglected, the yield of corn was enormous. Cattle and wheat are still the chief agricultural products. *P.* was anciently divided into twelve provinces, each of which being governed by a chief, called a *Palatine.* The Poles were originally a tribe of Vandals, whose history is quite unkuown before the sixth century. About the year 750, the people, oppressed by their petty chiefs, were resolved to shake off the tyranny of their rulers, and elected a chief magistrate to govern them, under the title of Duke. This state of things endured till the year 999, when the reigning duke, Boleslass, having made himself illustrious hy his conquests and military genius, was dignified with the title of king by Otho III., Emperor of Germany, from which time the title hecamo established in *P.;* and, though the crown was elective, it often continued in the same family for many years, passing from father to son. From the 13th century, tho Poles became the most warlike nation in Europe, and from the time when the Turks first crossed the Hellespont and settled in Greece, *P.* was denominated the shield of Eastern Europe. In 1674, John Sobieski was advanced to the kingly dignity, and under him the Polish arms acquired a glory that eclipsed all other nations of that age. Sobieski formed a league with the Emperor Leopold, and when that monarch had been defeated, and his capital on the point of falling into the hands of the Turks, Sobieski advancod to Vienna, raised the siege, and, defeating the invaders, drove them back in rout to Constantinople. The war of succession that succeeded, between Charles XII. of Sweden and Frederic Augustus of Saxouy, almost ruined the kingdoaa, and hastened its fatal end. Count Poniatowski, who, in 1764, was elected to the throne by the name of Stanislaus Augustus, was the last king of Poland. Under this unfortunate sovereigu, the country becamo the theatre of a long and devastating war; the cities were pillaged, the country deluged by hosts of Cossacks and brutal Muscovite soldiery, and *P.* in the end divided hetween Catherine of Russia, Joseph II., emperor of Germany, and Frederic of Prussia. This shameful partition of an ancient nation, which drove Stanislaus in exile to France, was perpetrated in 1772. In 1795, a further dismemberment was effected between the three great powers, and the whole of *P.* absorbed, except the ancient city of Cracow, with a few miles of adjacent country, which, elected into a free and independent state, was left to point to future ages where the once warlike nation of *P.* stood ou the physical map of Europe. Of the three spoilers of *P.*, Russia possesses the largest share of territory and population. Frequent iasurrections have occurred. In 1830, a revolution took place, but ended in the surrender of Warsaw and the dispersion of the Poles. In 1832, what remained of *P.* was declared a part of the Russian empire. In 1846, an attempt was made at Cracow to recover independence, but it ended in the subjugation of the last remnant of the country, which was annexed to Austria. In 1863, the Polish people, under the leadership of Langiewicz, made another abortivo attempt to free their country from the Russian yoke. In 1864, the Russian govt. issued an ukase relieving the Polish peasantry from the oppressive demands exacted by the land-proprietors, and tho country has, from that time to the present, remained tranquil.

Po'land, (Kingdom of,) a part of Russian Poland, constituted a kingdom in 1862, under the grand-duke Constantine as viceroy, comprising the chief part of that which, from 1807 to 1813, formed the duchy of Warsaw. It cousists of the ceutral provinces of Poland, bounded all along its frontier by the respective acquisitions of Russia, Austria, and Prussia. *Political Divisions.* These comprise six governments — Warsaw, Radom, Lublin, Plock, Augustowa, and the city of Wursaw. *Area,* 49,290 sq. m. *Desc.* A vast plaia covered with extensive forests, and well watered. *Prod.* Rye, buckwheat, oats, barley, hemp, flax, and tobacco. *Min.* Bog-iron, zinc, copper, coal, and salt. The commerce of the country is mostly in the hands of the Jews. *Pop.* (1897) 9,212,500. Lat. between 50° 4′ and 55° 6′ N., Lon. between 17° 40′ and 24° 18′ E. See Galicia.

Poland, in *Indiana,* a post-villago of Clay co., about 25 m. E. of Terre Haute.

Poland, in *Kansas,* a village of Chase co., about 27 m W. of Emporia.

Poland, in *Maine,* a post-township of Androscoggin co

Poland, in *New York,* a township of Chautauqua co *Pop.* (1897) 1,720. It contains the post-village of Polann Center, about 20 m. S.S.E. of Maysville.

—A post-village of Herkimer co., about 15 m. N.E. of Utica.

Poland, in *Ohio,* a post-village and township of Mahoning co., abt. 174 m. N.E. of Columbus.

Poland, in *Wisconsin,* a village of Washington co., abt. 28 m. W.N.W. of Milwaukee.

Po'lander, *n.* (*Geog.*) A Pole; a native or inhabitant of Poland.

Po'lar, *a.* [Fr. *polaire;* L. Lat. *polaris,* from *polos* = Gr. *polos,* a pivot or hiage on which anything turns.] Pertaiaing, or having reference to the pole or the poles of the earth, or of the world, or to the poles of artificial globes; situated near one of the poles; proceeding from one of the regions near the poles; as, *polar* winds, the *polar* regions, *polar* seas. — Pertainiag or relating to the magnetic pole, or to the point to which the magnetic needle is directed.

(*Geom.*) Belonging to, reckoned from, or possessing, a common radiating point; as, *polar* coördinates.

Polar axis, that axis of an astronomical instrument, as an equatorial, which is parallel to the earth's axis.

Polar bear. (*Zoöl.*) See BEAR.

Polar circles. (*Astron. and Geog.*) See ARCTIC and ANTARCTIC CIRCLES.

Polar coördinates. (*Math.*) Coördinates consisting of a radius rector and its angle of inclination to another line, or a line and plane. — *Polar dial*, a dial having its plane parallel to the earth's axis. — *Polar distance.* See MURAL CIRCLE.

Polar currents. (*Geog.*) Great ocean currents which flow continually from the polar regions towards the equator, caused by the evaporation in the tropical regions, and by the flowing off of the warmer or surface currents. The ice, with the waters in contact with it, being of less specific gravity than that below the surface, the former, as it accumulates, is driven towards the equator by the earth's diurnal motion, in the most direct channel. The current from the Arctic circle flows in two channels, one descending along the coast of Greenland, and the other coming down through Davis' Strait along the coast of Labrador. They unite at the mouth of the straits, and flow in one current S. along the coast of Newfoundland until it meets the Gulf Stream, with which, however, it does not coalesce, but continues its course as an under-current westward, along the American continent, as has been proved by the observations of Lieuts. Maury and Walsh of the U. S. navy, and other experienced navigators.

Polar equation of a line or surface, an equation which demonstrates the relation between the polar coördinates of every point of the line.

Polar projection, the projection of a portion of the surface of a sphere on the plane of one of the polar circles, the eye, or point of projection, being at the centre of the sphere.

Pol'archy, *n.* Same as POLYARCHY, *q. v.*

Polar'ic, *a.* Same as POLAR. (R.)

Polarim'eter, *n.* (*Optics.*) Same as POLARISCOPE, *q. v.*

Polarim'etry, *n.* [Eng. *polar*, and Gr. *metron*, measure.] Act, art, or process of measuring the polarization of light.

Pol'aris, *n.* [Lat.] (*Astron.*) The pole-star.

Polar'iscope, *n.* [Eng. *polar*, and Gr. *skopein*, to view.] (*Optics.*) An instrument consisting of a polarizer and an analyzer, employed in the polarization of light, and in the analyzation of its properties.

Polaris'tic, *a.* Belonging to or displaying poles; possessing a polar arrangement or disposition; proceeding from, or bearing upon, the presence of poles or polar characteristics; as, *polaristic* attraction or repulsion.

Polar'ity, *n.* [Fr. *polarité.*] (*Phys.*) Property of pointing towards the poles of the earth, as that possessed by a magnet; property in certain bodies which causes them to point to given poles.

Po'larizable, *a.* Susceptible of polarization.

Polariza'tion, *n.* [Fr. *polarisation.*] The act of giving polarity to a body; state of being polarized, or of having polarity.

P. of light. See LIGHT.

Po'larize, *v. a.* [Fr. *polariser.*] To communicate polarity or polarization to.

Po'larizer, *n.* That which polarizes.

Po'lar Regions, the zones which encompass the North and South Poles within the Arctic and Antarctic circles.

Po'lary, *a.* Having a tendency or direction to a pole. (R.)

Pol-de-Léon, (St.,) a town of France, dept. of Finisterre, 10 m. N.W. of Morlaix; *pop.* 6,704.

Pol'der, *n.* [D. and Low Ger.] In Belgium and the Netherlands, a term applied to a tract of low land reclaimed and embanked from the sea; also a tract of marshy or fenny land.

Pold'way, *n.* A sort of coarse sacking resembling gummy-cloth, and used for coal-bags, &c.

Pole, REGINALD, Cardinal, an eminent statesman, and archbishop of Canterbury in the reign of Queen Mary, was descended from the blood-royal of England, and b. at Stourton Castle, in Staffordshire, in 1500. He was educated at Sheen Monastery and Magdalen College, Oxford; and after obtaining preferment in the church, went to Italy, where he long resided. During his residence there he became the friend of Bembo, Contarini, Caraffa, and Aloysius Priuli, the last named becoming his constant companion. On his return to England he opposed the divorce of Henry VIII. from Catherine of Aragon in such earnest terms, that the king drove him from his presence, and never saw him more. He again left England, was made a cardinal in Dec., 1536, and had the offer of the popedom on the death of Paul III. After he had left England Henry put to death his mother, and other members of his family, for corresponding with him. He found protection at Rome, was employed as nuncio, and was named president of the Council of Trent. When Mary ascended the throne, *P.* returned to England as legate, in which capacity he absolved the parliament from their sin of heresy, and reconciled the nation to the Holy See. The very day after the burning of Cranmer, the cardinal was consecrated archbishop of Canterbury; soon after which, he was elected chancellor of both universities, survived the queen but one day, and D. Nov. 18, 1558. He was buried in Canterbury Cathedral, but his tomb has long lain neglected and scarcely distinguishable.

Pole, *n.* [A. S. *pal, pol, pil*; Ger. *pfahl*; Lat. *palus*, a pale, a stake.] A long staff, or lengthy slender piece of wood like the stem of a small tree divested of its branches; — used with various applications; as, a tall piece of timber erected in a perpendicular position, as, a *May-pole*, a *liberty-pole*, a *hop-pole*, a *bean-pole*, &c. — A carriage-*pole*; that is, a horizontal pole separating two draught or carriage horses attached to a vehicle. — A rod; a perch; a measure of length of 5½ yards; also, a square measure of 30¼ square yards. — An instrument for measuring.

Under bare poles. (*Naut.*) Having all the sails in and furled, said of a ship; as, to scud *under bare poles.*

—*v. a.* To furnish with poles for support or inclosure; as, to *pole* hops. — To bear, carry, or convey on poles; as, to *pole* straw into a loft. — To impel by poles, as a boat; to push forward by the help of poles.

Pole, *n.* [Fr. *pole*; It. *polo*; Lat. *polus* = Gr. *polos*, a pivot or hinge on which anything turns.] (*Physics.*) A pivot or axle on which anything turns, particularly, the axis of the sphere. — One of the extremities of the axis on which the celestial sphere revolves. — One of the extremities of the earth's axis; as, the North or South *Pole.*

(*Astron.*) The star which is vertical to the North Pole of the earth. See POLE-STAR.

(*Magnetism.*) One of the two points in a magnet, &c., in which polar force is manifested; a point of maximum intensity of a force which has polarity; as, the *poles* of a battery. See MAGNET.

—Poetically, that part of the heavens about the pole; hence, the firmament; the sky.

"Were I so tall to reach the *pole.*"—*Pope.*

Pole of maximum cold, one of the points on the terrestrial sphere, where the mean annual temperature is lowest, as compared with that of all other places around it. — *Poles of the earth*, or *terrestrial poles.* (*Geog.*) The two opposite points on the earth's surface, forming the extremities of its axis.—*Poles of the heavens*, or *celestial poles*, the two opposite extremities in the celestial sphere, coincident with the earth's axis, and around which the heavens appear to revolve.

Pole, *n.* (*Geog.*) A native or inhabitant of Poland; a Polander.

Pole'-axe, *n.* See BATTLE-AXE.

Pole'cat, *n.* [Supposed an abbreviation of *Polish cat.*] (*Zoöl.*) A sub-genus of quadrupeds in the family *Mustelidæ.* The *P., Putorius vulgaris*, or *Putorius alpinus*, is common to all parts of Europe, and is extremely destructive to poultry, and regarded as the most voracious and insatiable of all the weasel tribe, being generally known under the names of the *Foumart, Fitchew*, and *Fitchet.* Its great peculiarity is the possession of a series of small glands near the *viscus*, which secrete an intensely acrid ammoniacal fluid, which the animal has the power of voiding when pursued or under danger of its life, and which, from its intensely offensive odor, no dog, beast, or man can pass without such a delay as will allow time for the escape of the animal.

Fig. 2135. — POLECAT.

Pole'-evil, *n.* (*Farriery.*) See POLL-EVIL.

Pole'-lathe, *n.* A simple form of lathe, worked by a cord attached to the treadle, and connecting with an oscillating pole above.

Pole'-mast, *n.* (*Naut.*) A mast made of a single tree or spar, as distinguished from one consisting of several pieces.

Polem'ic, Polem'ical, *a.* [Fr. *polémique*; Gr. *polemikos.*] Militant; controversial; disputative: intended to maintain an opinion or system in opposition to others; as, a *polemic* book or treatise, *polemic* divinity. — Engaged in supporting an opinion, argument, or system by controversy; given to disputation; as, a *polemical* writer.

Polem'ic, Polem'icist, *n.* A disputant; a controversialist; one who seeks to controvert the opinion or system advocated by another.

Polemi'cally, *adv.* With controversy, disputation, or contention.

Polem'ics, *n. sing.* Contest or controversy, especially in matters of religious doctrine.

Polem'ist, *n.* A polemic. (R.)

Polemonia'ceæ, *n. pl.* (*Bot.*) The Phlox family, an order of plants, alliance *Solanales.* DIAG. 5 free stamens, axile placentæ, and straight plano-convex cotyledons. — They are herbs with opposite or alternate leaves. Calyx 5-partod, persistent, and generally regular. Corolla 5-lobed, with contorted, or occasionally imbricated æstivation. Stamens alternate with the segments of the corolla; pollen usually of a blue color. Ovary 3-celled; styled 1; stigma trifid. Fruit capsular, 3-celled, 3-valved. Seeds few or many; embryo straight, in the axis of copious horny albumen. There are 17 genera, comprising 104 species. They abound in the temperate parts of North and South America. Many species are cultivated in gardens on account of the prettiness of their flowers.

Pole'monium, *n.* The genus PHLOX, *q. v.*

Polem'oscope, *n.* [Fr., a field-glass, from Gr. *polemos*, war, and *skopein*, to view.] (*Optics.*) An oblique perspective glass contrived for seeing objects askant to the eye; — sometimes, also, termed *diagonal* or *side opera-glass.*

Polen'ta, *n.* [It., from Lat. *polenta*, peeled barley.] (*Cookery.*) An Italian pudding made of Indian meal. In France, a pudding made of chestnut-meal boiled in milk.

Pol'er, *n.* One who poles.

Pole'-star, *n.* (*Astron.*) The star towards which either end of its axis of rotation happens to be directed at any particular epoch. Thus the earth's axis, prolonged at the present time towards the north, passes by a star in the constellation *Ursa Minor*, which is thence called the Pole-star, or *Polaris.* Similarly, the axis prolonged southwards passes through the constellation of the *Southern Cross.*

—By analogy, that which serves as a beacon, guide, or director.

Po'lianite, *n.* (*Min.*) A crystallized peroxide of manganese.

Policas'tro, a town of S. Italy, prov. of Calabria Ulteriore II., 19 m. W.N.W. of Cotrone; *pop.* 4,500.

Policastro, a seaport-town of S. Italy, prov. of Principato Citeriore, on the Gulf of Policastro, 22 m. S. of Diano: *pop.* 7,000.

Police, (*-lēs,*) *n.* [Fr., from Gr. *politeia*, civil polity, a state, from *politēs*, a citizen, from *polis*, a city.] The government of a city or town; the administration of the laws and regulations of a city or incorporated town or borough. — The internal regulation and government of a kingdom or state.

—A body of civil officers, organized for the preservation of public order, and for enforcing the laws applying to the health and sanitary condition of a community.

Police-constable or *officer*, a functionary intrusted with the execution of the police regulations of a city or county; a policeman. — *Police-inspector*, a superior police officer. — *Police-jury*, in Louisiana, a body of officers, who collectively exercise jurisdiction in certain cases of police, as levying taxes and the like. (*Webster.*) — *Police-magistrate*, a judicial law-officer who presides over a police-court. — *Police-sergeant*, a superior police officer. — *Police-station*, the place where the police assemble and report for duty, and to which prisoners are temporarily taken for detention previous to their committal or discharge.

Policeman, (*-lēs-*)*n.*; *pl.* POLICEMEN. A police-constable.

Policial, (*-lish-,*) *a.* Pertaining or relating to the police. (R.)

Pol'icy, *n.* [Fr. *police*; Gr. *politeia.*] The art or manner of governing a city, state, or nation; or that system of measures which the sovereign or ruler of a country adopts and pursues, as best adapted to the interests of the nation; the course or management of public affairs, with respect either to foreign affairs or to internal arrangement or management, with regard to the national prosperity. — Hence, the system of management or administrative method of any nation, community, or institution. — Prudence or wisdom in rulers or individuals in the management of public or private concerns; — hence, worldly wisdom; cunning; stratagem. — Dexterity of management or administrative powers. — In Scotland, the pleasure-grounds on a gentleman's demesne.

—*n.* [Sp. *poliza*; It. *polizza*, a bill or schedule, corrupted from Lat. pl. *polyptycha*, registers, account-books, from Gr. *polys*, many, and *ptyx, ptychos*, a fold.] A warrant or voucher for money in the public funds.

(*Law.*) The writing or instrument by which a contract of indemnity is effected between the insurer and the insured; as, a *policy* of life insurance, a *policy* of marine insurance.

Interest policy, a policy bearing on the face of it a declaration that the assured possesses a real, *bona fide* interest in the matter assured. — *Floating policy*, a policy of insurance extending over an indefinite time, and applicable to various risks and interests. — *Wager policy*, a policy bearing on the face of it a proof that the contract embodied therein is found on an ideal risk without insured interest to the insurer. — A policy is said to be *valued* when the agreed value of the interest involved is declared on the face of it; *open*, when the value of the interest is not so declared.

Poli'cy-book, *n.* A book kept in an insurance office for the registry of policies granted.

Pol'icy-holder, *n.* One to whom a policy of insurance is granted.

Polignano, (*pol-een-ya'no,*) a town of S. Italy, prov. of Terra di Bari, 26 m. E.S.E. of Bari; *pop.* 4,500.

Poligny, (*po-leen'ye,*) a town of France, dept. of Jura, 13 m. N.E. of Lons-le-Saulnier; *pop.* 6,000.

Pol'ing, *n.* Act of poling; as, the *poling* of hops, beans, &c.—Act of impelling with a pole; as, the *poling* of a boat.—One of the planks, boards, or stakes used to uphold the earth while excavating, tunnelling, &c.

(*Gardening.*) Act or progress of freeing the walks from worm-casts by means of long poles.

Polish, (*pŏl'ish,*) *n.* [From Pole.] (*Geog.*) Pertaining or relating to Poland or its people.

Polish, (*pŏl'ish,*) *v. a.* (*imp.* and *pp.* POLISHED (*pŏl'isht.*) [Fr. *polir, polissant*, from Lat. *polio*, to smooth, furbish.] To make smooth and glossy, usually by friction; as, to *polish* marble, metals, &c. — To refine; to wear off rudeness, rusticity, or roughness of manners; to make refined, elegant, and polite; as, *polished* life.

—*v. n.* To become smooth; to receive a gloss; to take a smooth and glossy surface

—*n.* A smooth, glossy surface produced by burnishing or friction; as, to give boots a bright *polish* —Refinement; politeness; elegance of manners.

Pol'ishable, *a.* Susceptible of polish.

Polishedness, (*pŏl'isht-ness,*) *n* State of being polished, or of being refined and elegant.

Pol'isher, *n.* The person who, or instrument or substance which, polishes.

Pol'ishing-iron, *n.* A smoothing-iron; a flat-iron.

Pol'ishing-slate, *n.* A hone; a whetstone.

Pol'ishing-snake, *n.* A lithographer's tool.

Polisti'na, a town of S. Italy, prov. of Calabria Ulteriore I., 13 m. E.N.E. of Palmi; *pop.* 6,000.

Polite', *a.* [Lat. *politus*, from *polio*, to polish.] Polished in manner; having elegance or refinement of deportment; courteous; complaisant; urbane; well-bred; civil.

Polite'ly, *adv.* With elegance of manners; courteously; genteelly.

Polite'ness, *n.* Quality of being polite; polish or elegance of manners or deportment; gentility; good-breeding; urbanity; ease and gracefulness of manners, combined with attention to the convenience of others; refinement; complaisance; courtesy; obliging attentions.

"Wit is by *politeness* keenest set." — *Young.*

Politesse, (*-tes,*) *n.* [Fr.] Politeness; good-breeding.

Politic, *a.* [Fr. *politique*; Lat. *politicus*] Of, or belonging to citizens; political; as, the body *politic.* — Belonging, or having reference to, or promoting a policy, particularly, a national policy; well-devised; adapted to its end, right or wrong; — said of measures; as, a *politic* step, a *politic* scheme.—Wise, prudent, and sagacious in devising and pursuing measures adapted to promote the public welfare; ingenious in originating, or promoting, or carrying out any scheme of national or personal aggrandizement, or in adapting means to the end, whether good or evil; — said of persons; as, a *politic* statesman, a *politic* manner.

Political, *a.* [Lat. *politicus;* Gr. *politikos,* from *polites,* a citizen.] Having a regular system of government. (a.)—Pertaining or relating to policy, or to civil government and its administration; pertaining to a nation or state, or to nations and states, as distinguished from civil or municipal bodies; as, a *political* writer, a *political* measure, a *political* economy, the *political* state of Europe, &c.—Public; treating of politics or government; derived from office or connection with government; as, *political* power, a *political* character.

Political arithmetic, the art of ratiocination by statistics; application of figures to political economy.

Political economy, that department of social philosophy which treats of the sources and methods of application of national wealth and prosperity. See PHILOSOPHY.

Political geography, that department of geography which treats of the various countries of the earth, or the different nations into which they are divided, and recounts and illustrates their moral and social status, and their political constitution.

Political'ism, *n.* Party spirit in political affairs.

Politically, *adv.* In a political manner; with relation to the government of a nation or state; having relation to politics.

Politicaster, *n.* A sucking statesman; a petty politician; an empiric in political matters. (R.)

Politician, (*-tish'an.*) *n.* [Fr. *politicien.*] One versed in politics, or in the science of government and the art of governing; one devoted to political matters. — A schemer; a man of artful designs and deep contrivances. (a.)

Politicist, (*-sist,*) *n.* A publicist; a political writer. (R.)

Politicly, *adv.* In a political manner; sagaciously; artfully; diplomatically.

Politics, *n. sing.* [Fr. *politique,* from Gr. *hē politikē,* from *politikos.*] In its widest acceptation, is both the science and the art of government, or the science whose object is the regulation of man in all his relations as the member of a state, and the application of this science; but it is more commonly used to signify the course pursued by the government of a country, particularly in its relations with foreign states. (See DIPLOMACY.) As a state is a body of men united together for mutual benefit, and the better to carry out the ends of life, politics extends to the various means by which these purposes are effected, and includes whatever is the subject of positive laws. It includes the various branches of international law, constitutional law, political economy, diplomacy, police, &c. The political sciences are usually divided into the abstract, or purely philosophical, and the historical and practical.

Polity, *n.* [Gr. *politeia.*] Policy; the form or constitution of civil government of a nation or state; the constitution or general fundamental principles of govt. of any class of citizens, considered in an appropriate character, or as a subordinate state; as, ecclesiastical *polity.*

(NOTE. *Policy* and *polity* were originally of identical meaning. Among the moderns, however, the term *policy* is applied to the administration of political affairs; *polity* to the structure, form, or basis of government.)

Polizzi, a town of Italy, in Sicily, 18 m. S.E. of Palermo; *pop.* 6,000.

Polk, JAMES KNOX, an American statesman, and 11th President of the U. States, b. in Mecklenburg co., N. C., in 1795. After graduating at the University of North Carolina, *P.* studied law, and was admitted to the bar in 1820. In 1825, he entered Congress as a Democrat, and speedily became one of the foremost adversaries of the government of J. Q. Adams, and, subsequently, a warm supporter of that of General Jackson. In 1835, *P.* was elected speaker, and re-elected in 1837, presiding over the House for five sessions. In 1839 he was chosen governor of Tennessee, and, in 1844, elected to the Presidency of the Republic. His tenure of office was characterized by the active prosecution of war against Mexico, and the eventual cession of New Mexico and Upper California to the U. States; the settlement of the Oregon boundary question, and the enactment of the tariff of 1846. Retiring from office March 4, 1849, he died three months afterward.

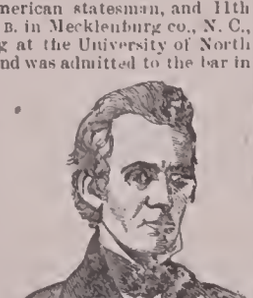


Fig. 2136. — J. K. POLK.

Polk, in *Arkansas,* a W. co., adjoining the Indian Territory; *area,* 935 sq. m. *Rivers.* Washita river, Saline and Cossetose creeks, and Rolling Fork of North Little river. *Surface,* much diversified; *soil,* fertile, and adapted to the production of wheat, Indian corn, &c. *Min.* Iron, lead, and silver are said to be found in some parts. *Cap.* Dallas. *Pop.* (1897) 10,100.

—A township of Calhoun co.

—A township of Montgomery co.

—A township of Newton co.

Polk, in *Georgia,* a N.W. co., adjoining Alabama; *area,* about 330 sq. m. *Rivers.* Euharlee creek, and numerous smaller streams. *Surface,* diversified; *soil,* fertile. *Cap.* Cedartown. *Pop.* (1897) 15,650.

Polk, in *Indiana,* a township of Huntingdon co.

—A township of Marshall co.

—A township of Monroe co.

—A township of Washington co.

Polk, in *Iowa,* a central co.; *area,* about 576 sq. m. *Rivers.* Des Moines, Skunk, Raccoon, North, South, and Middle rivers. *Surface,* generally level; *soil,* extremely fertile. *Cap.* Des Moines, which is also the seat of the State government. *Pop.* (1895) 72,888.

—A township of Benton co.

—A township of Bremer co.

—A township of Jefferson co.

—A village of Lucas co.

—A village of Mahaska co.

—A township of Marion co.

—A township of Taylor co.

—A township of Wapello co.

Polk, in *Minnesota,* a N.W. co., adjoining North Dakota; *area,* about 3,030 sq. m. *Rivers.* Red River of the North, Red Lake, Clear Water, and Wild Rice rivers, besides many smaller streams, and almost innumerable lakes, the largest of which latter is Red Lake (35 m. long) on the N. border of the co. *Surface,* nearly level; *soil,* in the vicinity of the streams very fertile. *Cap.* Crookston. *Pop.* (1895) 39,209.

Polk, in *Missouri,* a S.W. central co.; *area,* about 640 sq. m. *Rivers.* Pomme de Terre river, East Fork of Sac river, and Lindley's creek. *Surface,* level or gently undulating; *soil,* fertile. *Min.* Iron and lead, and also numerous springs of limewater. *Cap.* Bolivar. *Pop.* (1897) 21,450.

Polk, in *North Carolina,* a S.W. co., adjoining South Carolina; *area,* about 276 sq. m. *Rivers.* Green and North Pacolet rivers. *Surface,* hilly; *soil,* in some parts fertile. *Cap.* Columbus. *Pop.* (1897) 6,150.

Polk, in *Ohio,* a post-village of Ashland co., about 25 m. N.E. of Mansfield.

—A township of Crawford co.

Polk, in *Oregon,* a N.W. co.; *area,* about 615 sq. m. *Rivers.* Willamette, Rickreal, and Luckamute rivers, and South Fork of Yam Hill river. *Surface,* much diversified; *soil,* moderately fertile, and well adapted to grazing. *Cap.* Dallas. *Pop.* (1897) 8,450.

Polk, in *Pennsylvania,* a prosperous township of Monroe co.

Polk, in *Tennessee,* an extreme S.E. co., adjoining North Carolina on the E., and Georgia on the S.; *area,* about 400 sq. m. *Rivers.* Hiawassee and Amoee rivers. *Surface,* mountainous; *soil,* in some parts fertile. *Min.* Copper in considerable deposits has been discovered. *Cap.* Benton. *Pop.* (1897) 8,990.

Polk, in *Texas,* an E. co.; *area,* about 1,200 sq. m. *Rivers.* Trinity and Big Sandy rivers, and East Fork of San Jacinto river. *Surface,* nearly level; *soil,* generally very fertile. *Cap.* Livingston. *Pop.* (1897) 11,550.

Polk, in *Wisconsin,* a N.W. co., adjoining Minnesota; *area,* about 850 sq. m. *Rivers.* St. Croix and Apple rivers. *Surface,* hilly and broken; *soil,* moderately fertile. *Cap.* Osceola Mills. *Pop.* (1895) 16,117.

—A township of Washington co.

Polka, *n.* [Bohem. *pulka,* half.] (*Dancing.*) A modern dance of Polish origin, resembling the mazourka, and danced by two persons; also, the air played to the dance.

Polka-jacket, *n.* A close, knitted jacket worn by females.

Polk City, or **Polk,** in *Iowa,* a post-village of Polk co., about 16 m. N. by W. of Des Moines.

Polk'ton, in *Michigan,* a township of Ottawa co.

Polk'ville, in *Alabama,* a village of Calhoun co., about 15 m. S.W. of Jacksonville.

Polkville, in *New Jersey,* a post-village of Warren co., about 10 m. N. by E. of Belvidere.

Polkville, in *Pennsylvania,* a village of Columbia co., about 18 m. N. of Bloomsburg.

Poll, (*pōl,*) *n.* [Du. *bol,* a ball, the head; Ger. *bolle;* allied to *ball* and *bowl.*] The head, or the back part of the head. — A registry of heads, that is, of persons. — The entry of the names of electors who vote for civil officers; — hence, an election of civil officers, or the place of election; as, our candidate headed the *poll.* — A fish. See POLLARD.

—*v. a.* To cut off, as the hair of the head: to clip; to lop; to shear closely; to mow; as, to *poll* the boughs of a tree; to *poll* a sheep, to *poll* grass. — To take, as a list or register of heads or persons. — To enter, as names in a list, for taxation. — To insert into a number, as a voter. — To receive or give, as votes; to bring to the poll; as, he *polled* a majority of votes.

(*Law.*) To cut in a straight line without indentation; as, a *polled* deed.

To poll a jury, to make an individual examination of each member of a jury as to his agreement in a verdict which has been given by them collectively.

Poll, *n.* A nickname for a parrot.

—[Gr. *oi polloi,* the many.] At Cambridge University, England, a student who does not compete for honors, but is satisfied to obtain a degree merely.

Polla, a town of S. Italy, prov. of Principato Citeriore, on the Tanagro, 10 m. N.N.W. of Sala. *Manuf.* Silk thread, woollen cloth, and caps. *Pop.* 5,000.

Pollack, *n.* (*Zoöl.*) See MERLANGUS.

Pollard, *n.* [From *poll.*] A tree that is polled, or that has its top lopped off that it may throw out branches; as, a *pollard*-oak. — A clipped coin; — hence, a spurious piece of money. — The chub-fish, or poll. — A mixture of bran and meal, used as food for cattle. — A stag that has cast his horns.

—*v. a.* To poll; to lop the tops off, as trees.

Poll'-book, *n.* A register containing the names of citizens entitled to exercise the voting franchise.

Poll'-clerk, *n.* A person who registers the names of voters at elections, when they appear to deliver their vote.

Polled, (*pōld,*) *p. a.* Cropped; clipped; shorn; lopped, as trees; brought to the poll, as votes; having cast the horns, as a stag; — hence, without horns; as, *polled* cattle.

Pollen, *n.* [Lat.] A fine bran or flower.

(*Bot.*) The fertilizing powder contained in the anther. When mature, each pollen-grain is a cellular body, having two membranous coverings, — an internal or *intine,* and an external or *extine.* The intine is thin and transparent, and possesses great power of extension; it is uniform in different kinds of pollen. The extine is a firm membrane, which defines the figure of the pollen-grain and gives color to it; it is either smooth or covered with numerous projections, granules, points, minute hairs, or crested reticulations; the color is generally yellow, and the surface is often covered with a viscid or oily matter. Within these coverings a granular semi-fluid matter, called the *fovilla,* is contained; this matter is, without doubt, the essential part of the pollen-grain. At the period of fecundation, or, in other words, when the dehiscence of the anthers takes place, the pollen-grains are thrown upon the stigma, which has become moistened by a sticky juice. The effect of the moisture on the pollen-grain is very remarkable; the intine protrudes through one or more of the pores or slits of the extine, in the form of a delicate tube filled with the fovilla, and called the *pollen-tube;* this penetrates through the tissue of the stigma and the style to the ovules. This tube frequently attains the length of several inches.

Pollen'arious, *a.* Consisting of meal or pollen.

Pollenza, (*pol-lain'tha,*) a town of the island of Majorca, 28 m. N.E. of Palma. *Manuf.* Black woollen cloth. *Pop.* 6,500.

Pollicitation, (*-lis-i-ta'shun,*) *n.* [From Lat. *pollicitari,* to promise.] A promise; a voluntary engagement.

Pollinif'erous, *n.* [Lat. *pollen,* and *ferre,* to bear.] Pollen-producing.

Pol'linose, *a.* Besprent with a mealy powder somewhat like the pollen of flowers.

Pol'liwig, Pol'liwog, *n.* A vulgarism for a tadpole.

Pollock', in *Pennsylvania,* a township of Lawrence co.

Pollock-shaws', a town of Scotland, co. of Renfrew, on the White Cart, 2½ m. S.W. of Glasgow. *Manuf.* Silk and cotton goods. *Pop.* 6,500.

Pollute', *v. a.* [Lat. *polluo, pollutum,* to soil, to defile, from Gr. *pēlos,* clay, earth.] To dirty; to soil; to defile; to make foul or unclean. — To contaminate; to taint or affect with guilt; to defile morally; to corrupt; to vitiate; to infect or impair by mixture of ill, moral, or physical. — To make unclean or impure, in a legal or ceremonial sense. — To violate; to debauch; to abuse; — used in reference to the sexual organs.

—*a.* Defiled; polluted; violated.

Pollut'edly, *adv.* In a state of pollution.

Pollut'edness, *n.* State or quality of being polluted; pollution; defilement.

Pollut'er, *n.* One who pollutes or profanes; a defiler.

Pollut'ing, *p. a.* Defiling, or having a tendency to pollute.

Pollut'ingly, *adv.* In a manner to pollute or corrupt.

Pollution, (*-lū'shun,*) *n.* [Fr., from Lat. *pollutio.*] Act of polluting; state of being polluted; defilement; uncleanness; impurity. — Among the Jews, the state of being legally or ceremonially unclean.

(*Med.*) Emission of semen without sexual intercourse.

Pol'lux, (*Myth.*) A celebrated hero of the Grecian mythology, and twin brother of Castor, after whose death he implored Jupiter to render him immortal. His prayer could not be entirely granted, but Jupiter divided immortality between the brothers, each living and dying alternately.

(*Astron.*) One of the twins forming the constellation *Gemini.* Also the name of a star of the second magnitude in the same constellation.

(*Min.*) A hydrated silicate of alumina, potash, and soda, remarkable for containing 34 per cent. of cæsium. It is a rare mineral.

Po'lo, in *Illinois,* a prosperous city of Ogle co., about 22 m. S. of Freeport. *Pop.* (1897) 2,150.

Polo, MARCO, the celebrated traveller of the 13th cent., was the son of a Venetian merchant, who, with his brother, had penetrated to the court of Kublai, the great khan of the Tartars. This prince, being highly entertained with their account of Europe, made them his ambassadors to the Pope; on which they travelled back to Rome, and, with two missionaries, once more visited Tartary, accompanied by the young Marco, who became a great favorite with the kahn. Having acquired the different dialects of Tartary, he was employed on various embassies; and after a residence of 17 years, all the three Venetians returned to their own country in 1295, with immense wealth. Marco afterwards served his country at sea against the Genoese, and, being taken prisoner, remained many years in confinement, the

James Knox Polk

1795–1849

tedium of which he beguiled by composing the history of his *Travels*. Marco Polo relates many things which appear incredible, but the general truthfulness of his narrative has been established by succeeding travellers. An English translation of the *Travels of Marco Polo* was published by William Marsden, the orientalist, in 1817.

Polonaise', *n.* [Fr., from *Polonais*, Polish.] A robe worn by ladies of Polish origin.

(*Mus.*) A Polish air and dance; — also called *Polacca*. The musical movement is of three crotchets in a bar, with the rhythmical cæsura on the last.

Polonese', *n.* The Polish language.

—*a.* Belonging to Poland; Polish.

Polo'ny, *n.* [A corruption of *Bologna* sausage.] A kind of seasoned sausage made of half-cooked meat.

Polotzk', or **Polock**, a town of Russian Poland, govt. of Vitebsk, at the junction of the Dwina and the Polota, 60 m. W.N.W. of Vitebsk; *pop.* 11,000.

Pol'ron, *n.* See POWLDRON.

Pol, (St.,) a town of France, dept. of Pas de Calais, 20 m. W.N.W. of Arras; *pop.* 7,100.

Polt, *n.* [Lat. *pultare*, to beat.] A blow or stroke.

Polta'va, or **Pul'towa**, a govt. of S. Russia, between Lat. 48° 25′ and 51° 6′ N., Lon. 30° 45′ and 36° 40′ E., having N. Tchermjov, E. Kharkov, S. Ekaterinoslav, and W. the river Dnieper; *area*, 19,000 sq. m. The surface is level, and the soil fertile. *Rivers*, Vorskla, Piriol, and Sula. *Prod.* Corn, hemp, flax, red-pepper, tobacco, and fruits. Numerous cattle are reared. *Manuf.* Linen, woollen, and cotton fabrics, leather, and candles. *Cap.* Poltava.

POLTAVA, or PULTOWA, cap. of the above govt., on the Vorskla, 70 m. W.S.W. of Kharkov; Lat. 49° 35′ 4″ N., Lon. 34° 41′ 15″ E. Here the Swedes, under Charles XII., were defeated by the Russians, under Peter the Great, in 1709.

Pol'ten, (St.,) a fortified town of Lower Austria, on the Fraser, 35 m. W. of Vienna. *Manuf.* Cotton goods, paper, glass, and earthenware. *Pop.* 6,000.

Pol'tin, *n.* A Prussian silver coin equivalent to about 38 cents.

Poltroon', *n.* [Fr. and Sp. *poltron*; It. *poltrone*, from *poltro*, dastardly, — *poltrire*, to be idle.] A lazy, idle, sluggish, useless fellow; an arrant coward; a dastard; a wretch without spirit or courage.

—*a.* Base; mean; low; vile; contemptible.

Poltroon'ery, *n.* [Fr. *poltronnerie*.] Cowardice; want of manly spirit; baseness of mind; dastardness.

Poltroon'ish, *a.* Cowardly; characterized by baseness or poltroonery.

Pol'verine, *n.* [It. *polverino*, from Lat. *pulvis*, *pulveris*.] Calcined vegetable ashes brought from the Levant, and used in the manufacture of glass.

Po'ly, Po'ley, *n.* (*Bot.*) See TEUCRIUM.

Po'ly, a prefix from the Gr. *polys*, used in many compound words, and denoting *many*; as in *polygamy*, a plurality of wives.

Polyacous'tic, *a.* [Gr. *polys*, many, and *akouslikos*, acoustic.] Serving to multiply or magnify sound.

—*n.* An instrument to multiply sounds.

Polyacous'tics, *n. sing.* Art of multiplying or magnifying sounds.

Polyadel'phous, *a.* [Gr. *polys*, many, and *adelphos*, a brother.] (*Bot.*) A term applied to flowers which have the stamens united into several distinct sets.

Polyan'dria, *n.* [Gr. *polys*, and *anēr*, *andros*, man, male.] (*Bot.*) The thirteenth class in the Linnæan system. It includes those plants the flowers of which have hypogynous stamens more than twenty in number.

Polyan'dry, *n.* [Gr. *polyandria*.] Plurality of husbands. See POLYGAMY.

Polyan'thes, *n.* [Gr. *polys*, many, and *anthos*, flower.] (*Bot.*) A genus of plants, order *Liliaceæ*. The most familiar species is the Tuberose, met with in our hothouses, and prized on account of the fragrance of its flowers. It is a perennial, with bulb-tuberous stems, throwing up from the heart of leaves a tall flowering scape, which supports at top a short, many-flowered spike, of creamy-white, highly-fragrant flowers, the double forms of which are greatly prized.

Polyan'thus, *n.* (*Bot.*) An umbellate-flowered variety of Primrose (*Primula vulgaris*), cultivated in gardens for its variously-colored, gay-looking flowers.

Fig. 2137. — POLYANTHUS.

Poly'archist, (*-ark-*,) *n.* An advocate or upholder of polyarchy.

Poly'archy, *n.* [Gr. *polys*, many, and *archos*, rule.] A government by many persons, of whatever order or class.

Polyanto'graphy, *n.* [Gr. *polys*, and Eng. *autography*.] Art or practice of multiplying copies of one's own handwriting, or of manuscripts, by engraving on stone; — a particular species of lithography.

Polybas'ic, *a.* [Gr. *polys*, many, and *basis*, base.] (*Chem.*) Combined with, or having several bases.

Poly'basite, *n.* (*Min.*) A sulphantimonite of silver, in which part of the silver is replaced by copper, and part of the antimony by arsenic. It occurs in short, tabular, six-sided prisms, which are striated parallel to their bases, opaque, and of an iron-black color by reflected light, but cherry-red in thin slices when viewed by transmitted light.

Poly'bius, the Greek historian, was B. at Megalopolis, probably about B. C. 204. He was the son of Lycortas, who succeeded Philopœmen as general of the Achæan League, and he profited both by the example and instructions of Philopœmen. In the funeral procession of the latter from Messene to Megalopolis, *P.* bore the urn containing the ashes of his friend. He was one of the thousand Achæans carried to Italy in 168, on the charge of not having assisted the Romans against Perseus. He lived in the house of Æmilius Paulus, and became the intimate friend of his son Scipio; returned with his fellow-exiles to Greece, in 151; accompanied Scipio to the siege of Carthage, whence he hastened back to Greece, and rendered such services as he could to his country, then conquered by the Romans. His great work is a general history of the affairs of Greece and Rome from B. C. 220 to B. C. 146, the epoch of the fall of Corinth, prefaced by a summary view of early Roman history. Five only of its forty books are now extant, with some fragments of the rest, but these are among the most important literary remains of antiquity; for *P.* spared no pains to ascertain facts, studied and travelled extensively, had practical acquaintance, both with politics and war, and insight into the relations of things. His aim was didactic, and a large part of his history consists of disquisitions. He wrote several other works, but they have perished. He D. at the age of 82.

Polycan'dro, an island of the Grecian Archipelago, 16 m. E. of Milo; *area*, 20 sq. m. The surface is rugged, but produces corn. *Pop.* 2,000.

Polycar'pous, *a.* (*Bot.*) Having several pistils in one flower; bearing flowers time after time.

Poly'carp, (St.,) one of the apostolical fathers of the church, and a Christian martyr, who, according to tradition, was a disciple of the Apostle John, and by him appointed bishop of Smyrna. He made many converts, enjoyed the friendship of Ignatius, and opposed the heresies of Marcion and Valentinus; but during the persecution of the Christians under Marcus Aurelius, he suffered martyrdom with the most heroic fortitude, A. D. 166. His short *Epistle to the Philippians* is the only one of his writings that has been preserved.

Poly'chord, (*-kord,*) *n.* (*Mus.*) An ancient instrument having ten strings.—An apparatus for coupling two octave notes of a pianoforte or like instrument. *Simmonds.*

—*a.* [Gr. *polys*, many, and *chordē*, a cord.] Many-corded; many-stringed.

Poly'chroite, *n.* [Gr. *polys*, many, and *chroa*, *chroic*, color.] The coloring matter of saffron, so called from the variety of colors which it exhibits when acted upon by various reagents.

Polychromat'ic Acid, *n.* (*Chem.*) A compound resulting from the action of nitric acid upon aloes. When used as a dye-stuff it yields a variety of colors.

Poly'chrome, *n.* Executed in the manner or style of polychromy; as, *polychrome* statuary.

Poly'chrome Printing, *n.* [Gr. *polys*, many, *chroma*, color.] The name sometimes applied to the reproduction of paintings and colored drawings by mechanical means. The effects sought by *polychrome printing* may be obtained both by lithography and wood-cut printing, although the former process is, up to the present time, the one most generally adopted. The imitation of drawings and paintings by means of lithography is usually termed chromo-lithography. In this case the fac-simile of the original is produced by means of an almost infinite variety of tints, obtained by numerous impressions. An outline of the subject is first of all obtained, after which a number of stones, each charged with a particular tint, are impressed, until the desired harmonious blending of color is effected. The sequence of these impressions, the charging of the stones with primary or secondary colors, the application of the sharp dark touches, and the final glaze or finishing wash, together make up an operation requiring the nicest eye for artistic effect. Many of the more elaborate designs,— the "Venice," and the "Ulysses deriding Polyphemus," of Turner, for instance — require from thirty to forty stones to produce a finished print. In the printing of wood-cuts, the process, so far as the use of a great variety of impressions, can be taken by the readier and more economical mode by which ordinary printing-types are struck off. Certain broad effects are capable of being produced; but, as yet, the process of polychrome printing, by means of a succession of wood-blocks, is in a very incomplete and crude condition. Nevertheless, a few years back the idea of copying pictures by mechanical means was deemed to be an impossibility. Fortunately, the practice of multiplying designs has now become an art of great importance and utility, acting, as it does, as a pioneer for original works, and spreading a taste for the fine arts among the public generally.

Pol'ychromy, *n.* [Gr. *polys*, many, and *chrōma*, color.] (*Ancient Art.*) The art of coloring statuary to imitate nature; or particular buildings, in harmonious prismatic or compound tints. Both arts were practised by the nations of antiquity to a considerable extent, and from a very early period.

Polyco'nic, *a.* [Gr. *polys*, many, and *kōnos*, cone.] Pertaining to, or having many cones; as, a *polyconic* projection.

Polycotyled'onous, *a.* Having many cotyledons, or more than two lobes, to the seed.

Polyeracy, (*-lik'-*,) *n.* [Gr. *polys*, and *kratein*, to rule.] Government by many rulers.

Polydip'sia, *n.* [Gr. *polys*, and *dipsa*, thirst.] (*Med.*) Incessant thirst, accompanied by a parched mouth, and occasioned by disease.

Polyem'bryonate, Polyembryon'ic, *a.* [Gr. *polys*, many, and *embryon*, embryo.] (*Bot.*) Having, or consisting of, several embryos.

Polyembry'ony, *n.* (*Bot.*) The existence of two or more embryos in the same seed.

Poly'foil, *n.* [Gr. *polys*, and Lat. *folium*, leaf.] (*Arch.*) An ornament formed by a moulding disposed in a number of segments of circles.

Polyg'ala, *n.* [Gr. *polys*, much, and *gala*, milk.] (*Bot.*) The species *P. vulgaris*, the common Milkwort, is an inconspicuous but beautiful plant, with blue, pink, or white flowers, found in dry pastures and peaty fens. This and many other species have bitter properties; they have been used medicinally as tonics, stimulants, diaphoretics, &c. *P. senega*, the Senega snake-root, is a most interesting species. Its root was first introduced into medicine as an antidote to the bites of snakes, but it is now considered useless in such cases. It is, however, a valuable drug, and is officinal in this country, being used either in large doses as an emetic and cathartic, or in small doses as an expectorant, diaphoretic, diuretic, and emmenagogue. Its principal virtues are due to the presence of a very acrid solid substance, which has been called *senegin*, *polygalin*, and *polygalic acid*. Many other species, American, European, and Asiatic, possess very similar properties, and one species, *P. venenosa*, a native of Java, has the acrid principle in so concentrated a state as to render the whole plant poisonous. An Arabian species, *P. tinctoria*, is used for dyeing.

Polygala'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Sapindales*. DIAG. Complete (irregular), unsymmetrical flowers, naked petals, 1-celled anthers opening by pores, and comiculate seeds. — Some genera of the order are found in almost every part of the globe. The individual genera are, however, generally confined to particular regions, with the exception of the genus *Polygala*, which is very widely distributed, being found in almost every description of station, and in both warm and temperate regions. A few species have edible fruits, but the order generally is characterized by bitterness and acridity. There are 20 genera and nearly 500 species.

Polyg'amist, *n.* A person who practises polygamy or maintains its lawfulness; a Mormon.

Polyg'amize, *v. a.* To practise polygamy; to marry several wives.

Polyg'amous, *a.* Consisting of, or inclined to polygamy; having a plurality of wives.

(*Bot.*) A term employed to designate those plants which produce both unisexual and hermaphrodite flowers, either on the same or different plants. In the Linnæan sexual system, these plants formed a class, *Polygamia*, the genera included in which were perhaps more completely disjoined from their natural allies than those of any other class of that system, forming by themselves a very heterogeneous assemblage.

Polygamy, (*pol-ig'ā-me,*) *n.* [Gr. *polugamia*, from *polus*, many, and *gamos*, marriage.] The state of a man having more wives than one, or a wife having more husbands than one, at the same time. The latter is sometimes, for the sake of distinction, called *polyandry*. This is a condition which seems alike contrary to nature and reason. From the equality that exists in the two sexes, and from God having originally created but one male and one female, the intention of Providence clearly is that one man should only have one woman; "for," says Dr. Daley, "if to one man be allowed an exclusive right to five or more women, four or more men must be deprived of the exclusive possession of any, which could never be the order intended." Among Eastern nations, however, *P.* has existed from time immemorial. It prevailed before the flood, and was common among the patriarchs. It was tolerated by the laws of Moses, but the custom appears to have died out; for in the New Testament we meet with no trace of it, and the passages which refer to marriage seem to imply that monogamy alone was lawful. The Mohammedan religion allows a man to have four wives; but the permission is rarely used except by the rich, and the Arabs scarcely ever have more than one wife. In Thibet and a few other places polyandry prevails. Among the ancient Greeks, at least of later times, *P.* was never practised, although in the Homeric age it seems to have prevailed to some extent. In republican Rome it was unknown, but it afterwards was not uncommon; Marc Antony being mentioned as the first who took two wives. Montesquieu, Voltaire, and others, attempt to account for the prevalence of *P.* in the East on the ground of the premature old age of the female sex in those regions; the former, also, on the ground of the proportion of females being there greater than of males —an assertion which, though supported by the authority of several travellers, is by no means proved; and even if true, is not at all unlikely to be the result of *P.* The Germans, according to Tacitus, were almost

the only barbarous people that were content with a single wife.—See MOAMONS.
(*Law.*) See BIGAMY.

Polygas'tric, *a.* (*Zoöl.*) Having many stomachs; as, *polygastric* animalcules.

Polygenet'ic, *a.* Possessing several distinct sources; originating in various places or times.

Polygenous, (*-lĭj'-*) *a.* [Gr. *polys*, and *genein*, to produce.] Consisting of many kinds.

Poly'glot, *a.* [Gr. *polys*, and *glōtta*, the tongue.] Many-tongued; having or containing many, or several, languages; as, a *polyglot* Bible.
—*n.* A person acquainted with several languages.—A book printed in several languages, which are so displayed on its pages as to be seen at one view, for ease of comparison with each other; more especially, the Holy Scriptures so written and arranged.

Polyglot'tous, *a.* Speaking many languages; as, the *polyglottous* tribes of America.

Poly'gon, *n.* [Gr. *polys*, and *gonia*, angle.] (*Geom.*) A plane figure of many angles and sides; particularly, one having more than four angles or sides.
Polygon of forces. (*Mech.*) The name given to a theorem, as follows: If any number of forces act upon a point, and a polygon be taken, one of the sides of which is formed by one of the forces, and the following sides in succession by lines representing the other forces in magnitude, and parallel to their directions, then the line which completes the polygon will represent the resultant of all the forces.

Polygona'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Silenales*. DIAG: Orthotropal ovule, and a usually triangular nut.—They are herbs with alternate leaves and ochreate stipules. Flowers perfect, or sometimes unisexual. Calyx free, more or less persistent: imbricated. Stamens hypogynous or perigynous; anthers dehiscing longitudinally. Ovary superior, 1-celled; styles and stigmas 2–3; ovule solitary and orthotropous. Fruit usually a triangular nut. Seed solitary, erect; embryo usually with farinaceous albumen, inverted with a superior radicle. There are about 34 genera and 500 species, generally diffused over the globe, but particularly abundant in temperate regions. They are chiefly remarkable for the presence of acid, astringent, and purgative properties. Rhubarb, sorrel, buckwheat, and bistort-root are some of the useful products of this family. See POLYGONUM.

Polyg'onal, Polyg'onous, *a.* Many-angled.
Polygonal numbers. (*Arith.*) The successive sums of the terms of an arithmetical series beginning with unity.

Polygona'tum, *n.* [Gr. *polys*, many, *gonu*, joints; it has numerous knots.] (*Bot.*) A genus of plants, order *Liliaceæ*. The rhizomes of *P. officinale* are sold in the herb-shops under the name of *Solomon's seal*, and are employed as a popular application to remove the marks from bruised parts of the body.

Polygonom'etry, *n.* [Gr. *polygōnos*, and *metron*, measure.] The doctrine of polygons.

Polyg'onum, *n.* (*Bot.*) The typical genus of the order *Polygonaceæ*. The roots of *P. bistorta*, commonly called Bistort-root, are a powerful astringent. The leaves of *P. hydropiper* are very acrid;—hence, the common name of Water-pepper which is given to this plant. Blue and yellow dyes are obtained from different species.

Poly'gram, *n.* [Gr. *polys*, and *gramma*, a line.] A figure consisting of many lines or sides.

Poly'graph, *n.* [Gr. *polys*, and *graphē*, I write.] An instrument for multiplyiug copies of a writing easily and expeditiously.
(*Bibliog.*) A collection of different works, either by one or several authors.

Polygraph'ic, Polygraph'ical, *a.* Belouging to, or employed in, polygraphy; as, a *polygraphic* instrument.—Performed with, or executed by, a polygraph: as, a *polygraphic* writing.

Poly'graphy, *n.* [Gr. *polys*, and *graphē*.] The art of writing in various ciphers, and of deciphering the same.

Polygyn'ia, *n.* [Gr. *polys*, and *gynē*, woman.] (*Bot.*) An order of plants in the Linnæan system, having many styles.

Polyg'yny, *n.* [Gr. *polys*, and *gynē*, woman.] The practice of having a plurality of wives at the same time.

Poly'halite, *n.* [Gr. *polys*, and *als*, salt.] (*Min.*) A hydrous sulphate of lime, potash, and magnesia, with muriate of soda.

Polyhe'dral, Polyhed'rical, *a.* (*Geom.*) Many-sided, as a solid body.
Polyhedral angle, an angle bounded by three or more plane angles, having a common vertex.

Polyhe'dron, *n.* [Gr. *polys*, and *hedra*, a side.] (*Geom.*) A solid bounded by many planes or *faces*. Each face is bounded by three or more right lines or *edges*, and three or more faces by their intersections form a *corner*.
(*Optics.*) A multiplying glass.

Polyhe'drous, *a.* Same as POLYHEDAAL, *q. v.*

Polyhis'tor, *n.* [Gr. *polys*, much, and *istor*.] One learned in various branches of knowledge. (R.)

Polyhy'drite, *n.* [Gr. *polys*, and *ydōr*, water.] (*Min.*) Same as HISINGERITE, *q. v.*

Polyhym'nia, *n.* [Lat.; Gr. *Polymnia*.] (*Myth.*) The muse of lyric poetry.

Polymath'ic, *a.* Belonging to polymathy; having a knowledge of various branches of learning.

Polym'athy, *n.* [Gr. *polys*, much, and *mathein*, to learn.] Knowledge of many arts and sciences; acquaintance with various departments of knowledge.

Polym'erism, *n.* [Gr. *polys*, and *meros*, part.] (*Chem.*) A form of Isomerism. See ISOMERIC.

Polym'erous, *a.* (*Bot.*) With parts in each set.
(*Chem.*) Characterized by polymerism.

Polymig'nite, *n.* [Gr. *polys*, and *mignumi*, to mix.] (*Min.*) A titanate of zirconia, which occurs in long, thin, prismatic crystals, with a brilliant sub-metallic lustre.

Polymor'phic, Polymor'phous, *a.* Having several different forms.

Polymor'phism, *n.* (*Crystallog.*) It has been observed that some substances crystallize in two incompatible forms, that is, in forms belonging to two different systems; such forms have been called *dimorphous*, and the phenomenon itself *polymorphism*. It has been noticed by Laurent, and particularly by Pasteur, that the forms of dimorphous crystals almost always occur near the boundary-lines, as it were, of the two systems. The two forms of crystallized sulphur, carbonate of lime, arsenious anhydride, iodide of mercury, &c., are mutually related in this manner. *P.* frequently enables us to recognize an *isomorphism* (q. v.) that would otherwise be overlooked. Thus, the salts of potassium and sodium are for the most part isomorphous, but nitrate of potash usually crystallizes in right rhombic prisms, and nitrate of soda in rhomboids. It appears, however, that both salts can crystallize in both systems, and that the corresponding forms are isomorphous. In fact, the two salts are iso-dimorphous, only that nitrate of potash most commonly affects the one form, and nitrate of soda the other. In a similar manner, the carbonates of lead and lime are iso-dimorphous, the ordinary form of the one corresponding to the rare form of the other. A few substances, such as titanic acid, are trimorphous; and, according to Mitscherlich, the sulphates and seleniates of zinc are iso-trimorphous.
(*Zoöl.*) Power of assuming different forms.
(*Bot.*) Power of widely-varying forms.

Polyne'mus, *n.* A genus of fishes, allied to the Perch family, including the Mango-fish, which inhabits the Bay of Bengal, and is accounted one of the most delicious fishes of India, and is named from its beautiful yellow color, resembling that of a ripe mango.

Polynesia, (*-nē'zha,*) *n.* [Fr. *Polynésie*, from Gr. *polys*, and *nēsso*, island.] A term applied to the numerous islands in the Pacific Ocean, E. of Australasia and the Philippine islands, extending 30° on each side of the equator, Lon. from 35° E. to 135° W. The islands are distributed into numerous groups; the principal groups N. of the equator are the Pelew, Ladrone or Mariana, Caroline, Radack, Marshall, Gilbert, and Sandwich Islands. Those S. of the equator are the Ellice, the Phœnix, Union, Feejee, Friendly, Navigator's, Cook's or Harvey's, the Society, Marquesas, Dangerous Archipelago, Pitcairn's Island, and Easter Island, *q. v.*

Polynesian, (*-nē'zhan,*) *a.* Pertaining or relating to Polynesia.

Polyn'ia, *n.* The Russian designation of the iceless sea around the North Pole.

Polyno'mial, *n.* [Gr. *polys*, and *nomos*, name.] (*Math.*) An algebraical quantity consisting of many terms.
—*a.* Containing many terms or names; multinomial.

Polyom'matous, *a.* [Gr. *polys*, and *omma*, the eye.] Many-eyed.

Polyon'omous, *a.* [Gr. *polys*, and *noma*.] Many-named or titled.

Polyon'omy, *n.* The description of the same object under different names.

Polyop'tron, Polyop'trum, *n.* [Gr. *polys*, and *opan*, future.] (*Optics.*) A glass through which objects appear multiplied, but diminished. It consists of a lens, one side of which is plane, while in the other are ground several spherical concavities. Each of these concavities becomes a plano-convex lens, through which an object appears diminished; and when there are a number of them together, the object will be seen through each, and thus multiplied.

Polyora'ma, *n.* [Gr. *polys*, and *orama*, a view.] A view of many objects.

Polyp', *n.* (*Zoöl.*) See POLYPUS.

Polyp'arous, *a.* [Gr. *polys*, many, and Lat. *parere*, to produce.] Bringing forth many.

Pol'ypary, *n.* [From Lat. *polypus*.] Coral;—so termed from being formed by polyps.

Polype'an, *a.* Belonging, or relating to, or consisting of polyps.

Polypet'alous, *a.* [Gr. *polys*, and *petalon*, leaf.] (*Bot.*) See PETAL.

Polyphagous, (*-lĭf'a-gus,*) *a.* [Gr. *polys*, and *phagein*, to eat.] Subsisting on many kinds of food.

Polyphe'mus. (*Myth.*) The king of all the Cyclops in Sicily, and son of Neptune and Thoosa. He is represented as a monster of immense strength, and with one eye in the middle of the forehead. He fed upon human flesh, and kept his flocks on the coasts of Sicily, when Ulysses, at his return from the Trojan war, was driven there. The Grecian prince and twelve of his companions visited the coast, and were seized by the Cyclops, who daily devoured two of them in his cave, in which they were confined. Ulysses would have shared the same fate, had he not intoxicated the Cyclops, and put out his eye with a firebrand while asleep. *P.*, awaked by the sudden pain, stopped the entrance of his cave; but Ulysses made his escape by creeping between the legs of the rams of the Cyclops, which had been put up in the cave. *P.* became enamored of Galatæa, but his addresses were disregarded, and the nymph shunned his presence. The Cyclops then crushed the head of Acis, his rival, with a piece of broken rock.

Polyphon'ic, Polyph'onous, *a.* Having or consisting of many voices or sounds.
(*Mus.*) Contrapuntal.

Polyph'onism, Polyph'ony, *n.* [Gr. *polys*, and *phonē*, sound.] Multiplicity of sounds, as in the reverberations of an echo.
(*Mus.*) Contrapuntal composition.

Polyph'onist, *n.* A ventriloquist.
(*Mus.*) A contrapuntist.

Pol'yphore, *n.* [Gr. *polys*, and *phorein*, to bear.] (*Bot.*) A receptacle which bears many ovaries.

Polyph'yllous, *a.* [Gr. *polys*, and *phyllon*, a leaf.] (*Bot.*) Many-leaved; as, a *polyphyllous* calyx.

Polyp'idom, *n.* [Lat. *polypus*, and *domus*, house.] A hive of polyps.

Polypiferous, *a.* [Lat. *polypus*, and *ferre*, to bear.] Producing polyps.

Pol'ypite, *n.* (*Pal.*) A fossil polypus.

Polyplec'trum, *n.* [Gr. *polys*, and *plēktron*, an instrument for striking the lyre.] (*Mus.*) A musical instrument formerly in vogue.

Polypodia'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Filicales*. It is the most comprehensive of the natural orders under which Ferns are arranged, including nearly all the species which are known. It is distinguished mainly by the presence, in the spore-cases, of an elastic-jointed ring, which nearly surrounds them, and by the contraction of which they seem to burst open when ripe.

Polypo'dium, *n.* (*Bot.*) A genus of Ferns, order *Polypodiaceæ*, characterized by the sporangia being in circular clusters and naked, and by the edge of the frond being flat, not reflexed. There are six species found in the United Kingdom, but most of them are rare plants, except in certain localities dear to the fern-collector. *P. vulgare*, the common Polypody, found on shady banks, walls, and old trees, is a beautiful fern. The fronds are

Fig. 2138.—POLYPODIUM.
1. *P. dryopteris*; 2. *P. vulgare*.

deeply pinnatifid; the lobes linear-oblong, somewhat serrate, all parallel, the upper ones becoming gradually smaller. The rhizomes of some species of this genus are used medicinally in Peru, and are said to possess sudorific, diuretic, febrifugal, and anti-venereal properties.

Poly'poid, *n.* [Gr. *polypous*, polyp, and *eïdos*, form.] Resembling a polypus.

Polyp'orite, *n.* (*Pal.*) A fossil plant having many pores.

Polyp'orous, *a.* [Gr. *polys*, and *poros*, pore.] Having numerous pores or passages.

Polyp'orus, *n.* (*Bot.*) A genus of Fungales. One species has been named *P. destructor*, from the circumstance that the development of its spores in timber is one of the causes of *dry rot*. From various species, *Amadon*, or *German tinder*, is made.

Polyp'ous, *a.* Characterized by many feet or roots; resembling the polypus: as, a *polypous* concretion.

Polyp'toton, *n.* [Lat., from Gr. *polys*, and *ptōsis*, case.] (*Rhet.*) A figure of speech by which a word is repeated in different forms, cases, numbers, and the like.

Pol'ypus, Pol'yp, *n.*; Eng. *pl.* POLYPUSES, Lat. *pl.* POLYPI. [Lat. *polypus*; from Gr. *polypous*—*polys*, many and *pous*, a foot.] An individual member of any of the fixed Cœlenterata (*q. v.*). In Greek and Latin works the term polypus or polypous is usually applied to the octopus (whence its name *poulpe*) or some other cuttle-fish, and sometimes to the many-footed wood-louse, oniscus. Reaumur and Jussieu first applied it to the zoöphytes, while Lamarck used it in a wider significance. It has been applied to the Polyzoa and Tunicata, but has gradually become narrowed in significance to designate only such animals as the hydra, sea-anemone, and related forms. At one time a class of polypi was recognized, but this designation has become obsolete and the word polyp become simply a general term for individual cœlenterates. These animals are distinctly marked from those of the higher classes in there being no distinction between the digestive cavity and body cavity, they being simply sac-like animals, with a single opening that serves the double purpose of mouth and vent, and a single cavity, in which the process of digestion takes place. But folds of the body wall (*septa*) extend into this open space and thus greatly widen the extent of digestive surface. The mouth is surrounded by tentacles varying in size and number. Some of the lowest of these animals, as the hydra, have remarkable powers of self-recuperation,

portions broken from it developing into complete animals, while the mother form regains its full organism. In these low forms of animal life the cryptogamic members of the plant kingdom are often so closely simulated that it was long difficult to discover their true affinities. Their tentacles, by means of which they obtain their food, are the only parts capable of voluntary motion, and for a long time they were called and looked upon as *animal-plants*. The animal nature of coral polyps was first observed by Imperati and Gesner in 1699, and in 1727 Peysonnell first discovered the living inhabitants of the horny or stony coralline mass. These discoveries were afterward confirmed by Trembley, whose treatise on the structure and animal functions of the playtoid *Hydræ* and *Plumatellæ* of fresh water opened a new field of research into the nature and relations of many neglected forms of life. Polyps, as a rule, are attached by the basal portion to submarine rocks or other extraneous objects, the reproduction of these adhesive forms largely depending on the formation of gemmules or reproductive buds, each of which, when releasing its dependence on the parent form, is endowed with active powers of locomotion, and passes a short period in free swimming life, ultimately becoming attached to its future fixed place of residence. When the gemmules first appear on the surface of the parent animal they are in the form of small black spots, which eventually enlarge, become pyriform, and protrude from the sides of the internal canals of the parent, adhering by their narrow ends. When set free they swim by the aid of cilia. In becoming adherent they fix themselves by the narrow end, which soon spreads to form a broad base of attachment. In addition to this method of increase there is true sexual reproduction. In the sea-anemones the sexes are either separate or united, the eggs are fertilized within the body cavity, and the planula-like larvæ issue from the mouth. In the coral polyps the sexes are usually separate, and even distinct colonies may be entirely male or female, while in other cases hermaphroditic forms occur. As is common in sessile passive organisms, vegetative reproduction, or the budding process above described, is a marked feature. The great majority of corals form colonies, yet division of labor is a very rare phenomenon, each acting as an isolated individual. In the hydrozoan cœlenterates a very different state of affairs exists, these possessing a marked division of labor to such an extent that four or five separate duties are fulfilled by the different members of the colony, the form being differentiated in accordance with the character of the work to be performed. The *P.* are divided into the *Entoprocta* and the *Ectoprocta*, the former having the vent within and the latter outside of the circle of tentacles. The former are few in number and are all marine; the latter are numerous and largely subdivided. They exist in all geological ages after the Silurian.

(*Surg.*) A tumor of a pyramidal shape, and a species of zoöphite, appertaining as much to the animal as to vegetable life. A polypus is so named from a popular idea that it has a multiplicity of roots or feet. It is a fungous growth that sometimes manifests itself in different parts of the human body, — most frequently, however, in the nose, the uterus, and vagina, the nose being of all others the most frequent locality in which it is found. — Polypi are of two kinds, the inoffensive and the malignant. Of the first, there are three kinds, — the *fleshy* polypus (red, soft, and free from pain, like a piece of flesh hanging down from the part), the *gelatinous* (a soft, semi-transparent tumor, yellow in color), and the third, the *hydatid* polypus (which assumes the form of a cyst, and may burst at any moment, and discharge its contained fluid). — The malignant or cancerous polypus is hard, scirrhous, and painful, and is only, with few exceptions, found in old people, or those somewhat advanced in life. This variety is sometimes called *fungoid* polypus. — The cause of this disease is quite unknown. Theories have been advanced to show that it proceeds from some hereditary taint of the blood or fluids of the body, and that, like cancer, it depends on the presence of fungoid animalculæ in the blood; but as yet no reliable explanation has been advanced to prove on what this fungous growth really depends. — The treatment of polypi, whether in the nostril, vagina, or uterus, consists in simple extirpation, the *speculum* being used in some situations to show their relative positions. A ligature is then thrown round their pedunclc, or root, and tied; and when the growth has been thrown off by slonghing, the base or root is cicatrized with nitrate of silver.

Poly'schematist, (*-skē-*,) *n.* [Gr. *polys*, and *schema*, manner.] Existing in a diversity of forms or fashions.

Poly'scope, *n.* [Gr. *polys*, and *skopein*, to view.] A multiplying glass.

Polyseph'alous, *a.* [Gr. *polys*, and Eng *sepal*.] (*Bot.*) Possessing more than one sepal.

Poly'spast, *n.* [Fr. *polyspaste*; Gr. *polyspastos*.] A term used by some of the old writers on mechanics, to denote an assemblage of pulleys for raising heavy weights.

Poly'spermous, *a.* [Gr. *polys*, and *sperma*, seed.] (*Bot.*) Many-seeded; as, a *polyspermous* capsule.

Polyspo'rous, *a.* [Gr. *polys*, and *sporos*, spore.] (*Bot.*) Having many spores.

Polysyllab'ic, Polysyllab'ical, *a.* [Fr. *polysyllabique*; Gr. *polys*, many, and *syllabē*, syllable.] Consisting of many syllables, or pertaining to a polysyllable.

Poly'syllabicism, (*-sizm*,) **Poly'syllabism,** *n.* State or quality of having many syllables.

Polysyl'lable, *n.* [Gr. *polys*, and Eng. *syllable*.] A word consisting of more syllables than three.

—*a.* Polysyllabic.

Polysyn'deton, *n.* [Gr. *polys*, many, and *syndetos*, bound together.] (*Rhet.*) A figure of speech by which the copulative is often repeated, as in the sentence, "I came, and saw, and spoke, and conquered."

Polysyn'thetic, *a.* [Gr. *polys*, and *synthesis*, a composition.] Making a multiplied compound.

Polytechnic, Polytechnical, (*-tĕk'nik*,) *a.* [Fr. *polytechnique*; Gr. *polytechnos* — *polys*, and *techné*, an art.] Comprising or embracing many arts; — applied especially to a school in which many branches of science and art are taught, with particular reference to their special application.

Polythal'amous, *a.* [Gr. *polys*, and *thalamos*, a chamber.] Many-chambered, as certain cephalopods having multilocular shells.

Polythe'ism, *n.* [Fr. *polythéisme*; Gr. *polys*, many, and *theos*, God.] The doctrine of a plurality of gods; opposed to Monotheism, which maintains the existence only of one. The two extremes of *P.* may be regarded as Dualism, or the belief in two supreme beings — a good and an evil, and Pantheism, which regards all nature as but God. (See PANTHEISM.) Some consider Polytheism as having originated in a corruption of Monotheism; others regard it as deification of the powers of nature. *P.* differs from idolatry in not of necessity including the motion of forms, which the latter always does, whether it refers to one god or several.

Poly'theist, *n.* A believer in, or one who supports the doctrine of, a plurality of gods.

Polytheis'tic, Polytheis'tical, *a.* Pertaining or relating to Polytheism; as, *polytheistic* worship. — Maintaining a belief in a plurality of gods; as, a *polytheistic* writer.

Poly'theize, *v. n.* To believe in a plurality of gods; to uphold or disseminate the doctrine of Polytheism.

Polyto'mous, *a.* [Gr. *polys*, many, and *tomē*, an incision.] (*Bot.*) Subdivided into many distinct, subordinate parts, which, owing to want of junction with the petiole, are not perfect leaflets; — said of leaves.

Poly'zoa, *n.* [Gr. *polys*, many, and *zoön*, an animal.] (*Zoöl.*) See BRYOZOA.

Poly'zoan, Poly'zoon, *n.* (*Zoöl.*) One of the Polyzoa, or BRYOZOA, *q. v.*

Pomace, (*pŭm'as*,) **Pom'inage,** *n.* [L. Lat. *pomacium*.] The substance of apples or of similar fruit crushed by grinding.

Poma'ceæ, *n. pl.* [Lat. *pomum*, an apple.] (*Bot.*) That division of the natural order *Rosaceæ* to which the Apple, Pear, Quince, and Medlar belong. It differs from *Rosaceæ* proper in having an inferior ovary.

Poma'ceous, (*-shŭs*,) *a.* [Lat. *pomum*, apple.] Consisting of apples. — Resembling pomace.

Pomade', *n.* [Fr. *pommade*, from Lat. *pomum*, the preparation having been formerly made from apples.] A perfumed unguent; — especially, a fragrant ointment for the hair.

Pomarape, (*po-ma-ra'pa*,) a summit of the Andes in Bolivia; Lat. 18° 8′ S., Lon. 69° 3′ W.; *height*, 21,700 ft.

Po'maria, in *S. Carolina*, a post-village of Newberry dist., abt. 32 m. N.W. of Columbia.

Pomari'co, a town of S. Italy, prov. of Potenza, 10 m. S.S.E. of Matera; *pop.* 5,000.

Poma'ta, a village of Bolivia, abt. 97 m. W.N.W. of La Paz. It is situated on the S.W. shore of Lake Titicoca, 13,040 feet above sea-level.

Poma'tum, *n.* A perfumed pomade or ointment for the hair.

—*v. a.* To apply pomatum to, as the hair.

Pom'ba, (Villa da,) a town of Brazil, abt. 69 m. E.S.E. of Ouro Preto.

Pom'bal, a town of Portugal, prov. of Estremadura, 20 m. N.E. of Leiria; *pop.* 5,000.

Pom'bal, a town of Brazil, abt. 250 m. W. of Parahiba; *pop.* 4,000.

Pome, *n.* [Lat. *pomum*.] (*Bot.*) The inferior syncarpous fruit, well known under the forms of apple, pear, quince, medlar, haw, &c. It is indehiscent and fleshy, 2 or more celled, and few-seeded. The *endocarp* (Fig. 940), is papery, cartilaginous, or bony; this is surrounded by a fleshy mass, consisting of *mesocarp* and *epicarp*, which is usually considered to be formed by the cohesion of the general parenchyma of the ovary with the calyx. In the apple, for example, the separable skin is the *epicarp*; the fleshy part, which is eaten, the *mesocarp*; and the core, containing the seeds, is the *endocarp*. According to some botanists, the outer fleshy portion of the *pome* is an enlarged concave receptacle, and the bony or cartilaginous cells are distinct carpels, the walls of which are formed of the three layers of the pericarp, completely united and indistinguishable. The pome characterizes the sub-order *Pomeæ*, of the order *Rosaceæ*. (See FRUIT.)

Pomegranate, (*pŭm-grănĕt'*,) *n.* (*Bot.*) See PUNICA.

—An ornament like a pomegranate, attached to the ephod of the Jewish high-priest.

Pomel', *n.* (*Arch.*) A brass or knob used as an ornamental top of a conical or dome-shaped roof of a turret, &c.

Pomera'nia, a prov. of Prussia, bordering on the S. coast of the Baltic, having on the E., S., and W. West Prussia, Brandenburg, and Mecklenburg; *area*, 12,000 sq. m. The surface is generally flat, and in parts marshy, and the soil moderately fertile. *Rivers.* Oder, Leba, Stolpe, Rega, Persante, Ucker, Peene, and Ihna. The Haff is a large inland bay, or rather lake, of an oblong form, which communicates with the Baltic by the months of the Oder. *Prod.* Wheat, barley, rye, oats, potatoes, flax, hemp, and tobacco. Great numbers of cattle are reared. *Min.* Iron, alum, and salt. *Manuf.* Linen and woollen stuffs, iron and glass-ware. *Chief towns.* Stettin, Stralsund and Kœslin.

Pomeroon', a river of British Guiana, flowing into the Atlantic Ocean, abt. 40 m. N.W. of the estuary of the Essequibo.

Pom'eroy, in *Ohio*, a city, cap. of Meigs co., about 100 m. S.E. of Columbus. It is well built, conveniently located for trade, and contains numerous manufactories. *P.* owes its rapid growth chiefly to the rich coal mines in the vicinity and the extensive salt manufactories there located. *Pop.* (1897) 5,350.

Pome'roy, Pomeroy'al, *a.* [Fr. *pomme*, and *roi*, *roy*, king.] The royal apple.

Pom'ey, *n.*; *pl.* POMEYS. [Fr. *pommé*. like an apple.] (*Her.*) A roundel; the figure of an apple blazoned in green.

Pom'fret, *n.* (*Zoöl.*) The common name of the acanthopterygious fishes comprising the genus *Stromateus*. They have the same compressed form as the Dory (*Zeus*), and the same smooth epidermis; but the muzzle is blunt, and not retractile. They are found in the Mediterranean, the Indian Ocean, and the Pacific.

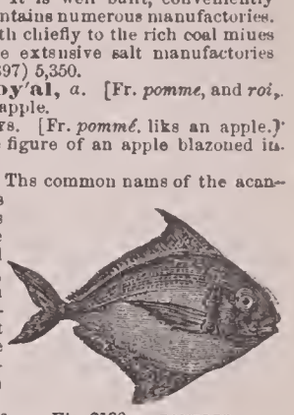


Fig. 2139. — POMFRET, (*Stromateus niger.*)

Pom'fret, a town of England. See PONTEFRACT.

Pom'fret, in *Connecticut*, a post-village and township of Windham county, about 33 miles north by east of Norwich.

Pomfret, in *New York*, a township of Chautauqua co.

Pomfret, in *Vermont*, a post-township of Windsor co.

Pom'fret-cake, *n.* A licorice-cake.

Pomif'erous, *a.* [Fr. *pomifere*; Lat. *pomifer*, from *pomum*, apple.] (*Bot.*) Apple-bearing; — applied to plants of the cacerrbitaceous class, in contradistinction to the *bacciferous* or berry-bearing plants.

Pom'mage, *n.* See POMACE.

Pomme de Terre River, in *Missouri*, rises in Greene co., and flowing N. enters the Osage River in Benton co.

Pommée, (*pom-ma'*,) *a.* (*Her.*) With the ends terminating in rounded bosses, resembling apples; — said of crosses.

Pommel, (*pŭm'mel*,) *n.* [Fr. *pommeau*, from Lat. *pomum*, an apple.] A knob, ball, or boss; especially, the knob on a sword-hilt; the protuberant part of a saddle-bow; the rounded knob on a chair-frame.

—*v. a.* To beat or bruise, as with a *pommel* — that is, with something thick, heavy, or bulky.

Pommelion, (*-mĕl'yun*,) *n.* [Lat. *pomilio*, pygmy.] (*Ord.*) The cascabel of a cannon. (R.)

Pom'melled, (*-meld*,) *a.* (*Her.*) Furnished with pommels, as a sword, dagger, and the like.

Pom'melling, *n.* A beating or bruising.

Pomol'ogist, *n.* [Fr. *pomologue*.] A lover of pomology.

Pomol'ogy, (*-jy*,) *n.* [Fr. *pomologie*, from Lat. *pomum*, fruit, apple, and Gr. *logos*, discourse.] The sciences of raising fruits.

Pomo'na, *n.* [Lat. *pomum*, apple.] (*Myth.*) The Italian goddess of fruit-trees.

Pomo'na, or MAINLAND, the largest of the Orkney Islands, and nearly in their centre; *area*, 150 sq. m. It is generally barren, and in parts covered with marshes, with several fresh-water lakes. Large numbers of swine are raised. *Towns.* Kirkwall and Stromness. *Pop.* 16,141.

Pomo'na, in *Idaho*, an unimportant village of Boisé co., about 33 m. N.E. of Boisé City.

Pomon'ic, *a.* [Lat. *pomum*, apple.] Pertaining, or having reference to apples.

Pomp, *n.* [Fr. *pompe*; Lat. *pompa*, from Gr. *pompē*, a solemn procession.] A procession distinguished by ostentatious splendor. — Show of splendor or magnificence; ostentatious parade; pageantry.

—*v. n.* To make an ostentatious display of pomp. (R.)

Pompadour, JEANNE ANTOINETTE POISSON, MARCHIONESS DE, (*pom'pa-door*,) the mistress of Louis XV., in whose affections she succeeded Madame de Chateauroux, was the daughter of a financier, and B. in 1720. At the age of 21 she was married to M. d'Etioles; first attracted the king's notice while he was hunting in the forest of Senart; appeared at court in 1745, under the title of Marchioness de Pompadour; and D. in 1764, aged 44 years. She certainly used her influence with the king in promoting the progress of the fine arts, but her cupidity and extravagance were unbounded; and many of the evils which oppressed France in the succeeding reign have been attributed to the power she possessed of filling the most important offices of the state with her favorites, whose measures were generally inglorious, both at home and abroad.

Pom'peii, a city of Italy, in the plain at the foot of Mount Vesuvius, and about twelve or thirteen miles south-east from Naples. Pompeii seems to have been one of the fashionable provincial cities of the Roman empire at the commencement of the Christian era; but, with the neighboring city of Herculaneum, was entirely destroyed by an eruption of Vesuvius, A.D. 79, being buried under the incessant shower of lava-stones which fell on it without intermission for many hours, entirely altering the physical aspect of the surrounding country, and totally obliterating every vestige of the two contiguous cities. Though the greater number of the inhabitants escaped, many hundreds must have perished in their

houses, as the skeletons of soldiers on guard, priests at their refection, and others found in the excavations unquestionably certify. From the year 79 to 1750, — when the city was exhumed, after nearly seventeen centuries, — this interesting memorial of Roman luxury, greatness, and civilization remained unnoticed and forgotten, beneath the feet of succeeding generations, and at last was only brought to light by an accidental operation of some peasants. It would be impossible in our brief space to attempt even an enumeration of the objects discovered in this now famous city, or to detail the valuable results which have flowed from the work of excavation. Suffice it to say that in all the departments of social life — in the affairs of domestic and of public life, of the worship of the gods, and the shows of the arena — in architecture (see Fig. 231), painting, and sculpture — in fine, in all the appliances of comfort and of luxury in a wealthy community, we have, as it were, a living picture of a city 1,800 years ago.

Pom'pelmous, or **Pompel'moose,** *n.* (*Bot.*) The fruit of *Citrus pompelmous*. See CITRUS.

Pom'perung River, in *Connecticut*, enters the Housatonic River in New Haven co.

Pompey, (CNEIUS POMPEIUS MAGNUS,) (*pom'pe,*) son of Pompeius Strabo, a Roman general, was born 106 B. C. He distinguished himself against the enemies of the Roman senate, both within the state and without, and at last fell in the struggle against Cæsar for absolute power. The events which mark his career are briefly these: — Like his father, under whom he commenced his military career, serving against Marius. *P.* ranged himself with the aristocratic party of the republic. He was in his twenty-third year only when he raised three complete legions, 60,000 men, at his own expense, and took the field in behalf of Sylla — at that juncture returning from his expedition against Mithridates. By his twenty-sixth year *P.* had defeated the remains of the Marian party in Cisalpine Gaul, Sicily, and Africa, and on his return to Rome, B. C. 83, was hailed *Magnus* — the great — by Sylla; his audacious perseverance also procuring for him the honors of a triumph. On the death of Sylla, in B. C. 78, Pompey went as proconsul to Spain, where the plebeian war was continued by Sertorius, and after a four years' arduous struggle, he remained master of the field, his opponent having been betrayed and assassinated. He returned to Italy in time to give the finishing blow to the similar victories of Crassus, and in B. C. 70 Pompey and Crassus were elected consuls. In possession of this office, he restored the tribunitial power, and afterwards dismissed his army, remaining at Rome as a private citizen. In the beginning of the year B. C. 67, he was intrusted with extraordinary powers, in order to destroy the lawless bands and the piratical adventurers who infested the coasts of the Mediterranean, and having effected this, he was made absolute dictator in the East, and superseded Lucullus in the command against Mithridates. The latter he completely routed in B. C. 66, and soon after becoming master of Asia Minor, pursued his conquests through Syria and Palestine as far as the Red Sea. For these services he obtained a third magnificent triumph at Rome, and in B. C. 60 joined Cæsar and Crassus in the *triumvirate*, the former of whom gave him his daughter Julia in marriage. Succeeding events caused *P.* to draw closer to the senatorial party, and with him, as the representative of the patrician republic, went Cato, the honest enemy of the ambition of Cæsar. In B. C. 54 Julia died; in the year following, Crassus was slain in Asia; and now the hostility between Cæsar and Pompey rapidly developed itself. The former having applied for the consulship, refused to present himself in Rome as a private citizen, and a decree of the senate declared him a public enemy unless he resigned his command. Instead of doing so, Cæsar crossed the Rubicon with his troops B. C. 49, and *P.*, accompanied by Cato, Cicero, and the other nobles of Rome, fell back upon Greece, where the great battle of Pharsalia decided his fate. *P.* was advised to seek an asylum in Egypt, then ruled by a sovereign he had protected, Ptolemy XII. He was received with pretended friendship, but treacherously murdered as soon as he had stepped ashore, B. C. 48, and his head being cut off, it was sent to Cæsar, who turned away from it and could not restrain his tears. *P.* fell, and with him the republic of Rome, for want of the art of government; the brilliancy of his early victories carried him to power, but the remembrance of his greatness in the field was a poor compensation for the anarchy that prevailed at Rome. CNEIUS, son of *P.*, who endeavored to carry on the war against Cæsar, was defeated and killed at Munda, B. C. 45. SEXTUS, the younger brother of Cneius, continued the war for 10 years, and rendered himself formidable as a naval commander; but he was at last defeated and killed by order of Antony, B. C. 35.

Pom'pey, in *New York*, a post-township of Onondaga co., containing the post-villages of Pompey Centre and Pompey Hill, about 146 miles west of the city of Albany.

Pompo'leon, *n.* (*Bot.*) Same as POMPELMOUS, *q. v.*

Pom'pon, *n.* [Fr.] (*Mil.*) A tuft or bob of wool worn on the front top of a soldier's shako, in lieu of a feather.

Pompos'ity, *n.* [Sp. *pomposidad.*] The state or quality of being pompous; pompousness; ostentation.

Pompo'so, *a.* [It.] (*Mus.*) Grand and stately.

Pom'pous, *a.* [Fr. *pompeux*; Lat. *pomposus.*] Splendid; magnificent; displaying pomp or showy grandeur. — Ostentatious; boastful; swelling, as with overweening pride or personal consequence; as, a *pompous* individual; *pompous* vanity, &c.

Pom'pously, *adv.* Magnificently; splendidly; ostentatiously; with great parade, show, or display.

Pom'pousness, *n.* State or quality of being pompous; magnificence; splendor.

Pomp'ton, in *New Jersey*, a small river flowing into the Passaic River, between Passaic and Morris cos. — A post-village and township of Passaic co.; abt. 70 m. N.E. from Trenton.

Po'mum Adami. [Lat., Adam's apple.] (*Anat.*) The name given to the sharp protuberance observable in the throat of men, and is formed by the union of the two thyroid cartilages, the external protection of the larynx, or organ of voice. These cartilages being much smaller in females than in males, accounts for the apparent non-existence of the *Pomum Adami* in women.

Ponca, in *Nebraska*, a city and township, cap. of Dixon co., on the Chic., St. P., Minn. & Omaha R.R., 20 m. W.N.W. of Sioux City, Iowa; in a productive agricultural region. *Pop.* (1897) 1,550.

Poncho, (*pŏn'tcho,*) *n.* [Sp.] A kind of blanket-cloak or cape worn by Hispaño-Americans, having a slit in the middle for the head to pass through.

Pond, *n.* [A. S. *pyndan*, to shut in; Lat. *pontus*; Gr. *pontos*, the sea.] A circumscribed and stagnant body of fresh water, either natural or artificial, and smaller than a lake; a pool; a mere.

—*v. n.* To form into a pond.

Pond Eddy, in *New York*, a post-village of Sullivan co., abt. 109 m. N.W. of New York city.

Pon'der, *v. a.* [Fr. *pondérer*; Lat. *ponderare*, from *pondere*, to weigh.] To weigh in the mind; to consider; to examine with deliberate thought.

—*v. n.* To think; to muse; to cogitate; to deliberate; — with *on*.

Ponderabil'ity, *n.* [Fr. *pondérabilité.*] State or condition of being ponderable.

Pon'derable, *a.* [Fr.; Lat. *ponderabilis.*] Susceptible of being weighed.

Pon'deral, *a.* [Fr.] Estimated or determined by weight rather than by bulk or number; — distinguished from *numeral*; as a *ponderal* drachma, *ponderal* libra.

Pon'derance, *n.* [Lat. *ponderans* — *ponderare*, to weigh.] Weight; gravity; heaviness.

Pon'derer, *n.* One who thinks, ponders, or deliberates.

Pon'deringly, *adv.* With cogitation or deliberation.

Ponderos'ity, *n.* [O. Fr. *ponderosité.*] State of being ponderous; weight; gravity; ponderance.

Pon'derous, *a.* [Lat. *ponderosus.*] Weighty; very heavy; as, a *ponderous* load. — Important; momentous; as, a *ponderous* undertaking. — Forcible; strong; impulsive; as, a *ponderous* blow; *ponderous* spar.

Pon'derously, *adv.* With great weight or ponderosity.

Pon'derousness, *n.* Weight; gravity; state of being ponderous.

Pon'dicherry, a town of Hindostan, the principal French settlement on the coast of Coromandel, 83 m. S.S.W. of Madras; Lat. 11° 57′ N., Lon. 79° 49′ E. It is situated on a flat sandy plain near the sea, is regularly built, and is the centre of a large trade with the rest of the Coromandel coast, Sumatra, the Isle de Bourbon, the Mauritius, and Senegal. It was purchased by the French from the Bejapoor sovereign in 1672.

Pond Island, in *Maine*, an island and lighthouse at the entrance of Kennebec River. It exhibits a fixed light 52 ft. above the sea; Lat. 43° 42′ N., Lon. 69° 44′ W.

Pond River, in *Kentucky*, enters Green River between Hopkins and Muhlenburg cos.

Pond-weed, *n.* (*Bot.*) See POTAMOGETON.

Pone, *n.* A kind of bread, made, particularly in the Southern States, of corn-meal, often with eggs and flour; also called *corn-pone*.

Po'nent, *n.* [Sp. *poniente*, the west, from Lat. *ponens* — *ponere*, to set.] Western; occidental; — opposed to *levant*. (R.)

Pongee, (*-jee',*) *n.* An inferior quality of India silk.

Ponghee, (*-gē',*) *n.* In Burmah, one of the higher order of priests.

Pon'go, *n.* (*Zoöl.*) This term was used to define the large adult form of the Orang-outang (*Pithecus satyrus*), which was supposed, even in the time of Cuvier, to be a distinct species; the term *pongo*, borrowed from Africa, being applied to denote the great anthropoid ape of the Malay Archipelago.

Poniard, (*pŏn'yard,*) *n.* [Fr. *poignard.*] A small, pointed dagger; a stiletto.

Poniatowski, JOSEPH, PRINCE, (*pon'e-a-tow'ske.*) This distinguished Polish general was born at Warsaw, in 1763, and when young entered the Austrian service, but when the Poles rose against Russia he quitted it, and joining his countrymen, fought with them under Kosciusko. Upon the defeat of this general, *P.* sought refuge in Vienna, till the French entered Warsaw in 1806, when he was appointed to the command of the Polish army which was to coöperate with the French against Russia. In 1812 Napoleon gave him the command of the 5th corps of the Grand Army, which consisted almost entirely of Poles. In the subsequent battles he distinguished himself by his skill and bravery, and covered himself with glory in the retreat from Moscow. Napoleon estimated his services so highly, that shortly before the battle of Leipsic he created him a Marshal of France. After this disastrous battle, the French were flying in utter confusion over the Elster; the bridge was blocked up, prisoners were taken by thousands, and many who plunged into the stream perished. The whole of the rear-guard fell into the hands of the allies, together with the King of Saxony and his whole court. Marshal Macdonald with difficulty gained the opposite bank, but the unfortunate *P.* was drowned in the attempt, 1813.

Poniatowski, STANISLAUS, COUNT DE, father of Stanislaus Augustus, king of Poland, castellan of Cracovia, and a companion-in-arms of Charles XII., flourished 1678–1762.

Pons, a town of France, dept. of Charente-Inférieure, 12 m. from Saintes; *pop.* 7,000.

Pon'tac, *n.* [From *Pontac*, a town in the S. of France.] A kind of Constantia wine, brought from the Cape of Good Hope.

Pont-a-Mous'son, a town of France, dept. of Meurthe, on the Moselle, 16 m. N. of Nancy. *Manuf.* Woollen-stuffs, earthenware, printing-type, tobacco-pipes, and beet-root sugar. *Pop.* 8,115.

Pontarlier, (*pon-tar'le-ai,*) a town of France, dept. of Doubs, on the Doubs, 40 m. from Besançon. *Manuf.* Paper and leather. *Pop.* 5,000.

Pont'chartrain (Lake,) in *Louisiana*, a considerable sheet of water, abt. 5 m. N. of New Orleans, bordered by the parishes of St. Tammany, Livingston, John Baptist, and Orleans. It covers an area of abt. 950 sq. m., is nearly circular in outline, and has a maximum depth of 20 feet. It communicates with the Gulf of Mexico eastwardly through Lake Borgne, and with the Mississippi River southwardly through St. John's Bayou. It is also connected with Lake Maurepas on the W.

Ponte-Cor'vo, a town of Italy, prov. of Terra di Lavoro, on the Garigliano, 20 m. S.E. of Frosinone, and 37 N.W. of Capua. It gave the title of prince to Bernadotte. *Pop.* 8,871.

Ponte-Delga'do, a seaport, and largest city of the Azores, on the S. side of the island of St. Michael; Lat. 37° 45′ 10″ N., Lon. 25° 41′ 15″ W. It is strongly fortified, and has considerable trade. *Chief exp.* Wheat, maize, and fruits. *Pop.* 22,000.

Ponteder'aceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Liliales*. DIAG. A naked perianth, circinate when withering, anthers turned inward, and nearly albumen. They are unimportant aquatic plants, natives of America, East Indies, and Africa.

Pontee', *n.* [Fr. and Sp. *pontil.*] An instrument used in the manufacture of glass, for taking the hot glass out of the fusing-pot. (Also written *pontil*, *puntel*, and *punty.*)

Ponte'fract, or **Pom'fret,** a town of England, co. of York, near the Aire, 21 m. S.W. of York, and 174 m. N. of London; *pop.* 5,346.

Pon'te Lagosen'ro, a town of Italy, prov. of Ferrara, on the Po, 4 m. N. of Ferrara; *pop.* 6,000.

Ponteve'dra, a town of Spain, prov. of Galicia, on the Crez, 35 m. S. of Santiago; *pop.* 6,630.

Pon'tia, *n.* (*Zoöl.*) A genus of diurnal *Lepidoptera*, containing many species, among which is *P. brassicæ*, or Cabbage-butterfly (Fig. 2140). This common and destructive insect makes its appearance in our gardens about the middle of May, and lays its eggs on the under side of cabbage leaves. Both sexes have the upper surface of all the wings white, with the tip of the anterior wings above black, the patch on its inner edge being indented, and the extreme tip being slightly irrorated with white: beneath, the under surface of the anterior wings is yellowish, the base slightly irrorated with dusky, and two transverse spots adorning the disc. The posterior wings are pale-yellowish, rather sprinkled with dusky. The body and antennæ are black above and white beneath. There are, however, several varieties of this butterfly, slightly differing from each other. The caterpillar is bluish-green, with three yellow longitudinal lines, one on the back, the others on the sides; between these are several tubercular spots, each bearing a small hair: the tail is black. They are hatched in a few days, and continue to feed together till the end of June: when they have found a convenient place to attach themselves, they fasten their tail by a web, and carry a strong thread of silk round the upper part of their body; after hanging a few hours the chrysalis (which is greenish, spotted with black, with three yellow stripes,) is perfectly formed; and in about six days the butterfly appears. The eggs laid by the second brood produce caterpillars, which feed during the remainder of the summer, and remain in the pupa state during the winter, to be hatched in the succeeding spring. So prolific is this destructive species, that were it not for the ichneumon fly, which deposits her eggs within the body of the caterpillar, and in the larva state continues to prey on its vitals, the ravages of this insect would be of the most serious consequence to our vegetable productions.

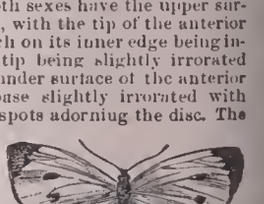


Fig. 2140.
CABBAGE-BUTTERFLY.

Pon'tiac, in *Illinois*, a city and township, cap. of Livingston co., 90 m. S.W. of Chicago. *Pop.* (1897) 3,150.

Pontiac, in *Michigan*, a prosperous city and township, cap. of Oakland co., about 25 m. N. N.W. of Detroit. *Pop.* (1897) 8,450.

Pontiac, in *New York*, a post-village of Erie co., about 22 m. S. by W. of Buffalo.

Pontiac, in *Ohio*, a village of Huron co.

Pontianak, (*pon-te-a-nak',*) the principal Dutch settlement on the W. coast of Borneo, on the river Campuas. It is fortified, and exports gold-dust, pepper, and edible-birds' nests. *Pop.* 20,000.

Pon'tic, *a.* [Lat. *Ponticus*; Gr. *Pontikos.*] (*Geog.*) Pertaining to the Euxine or Black Sea, the ancient *Pontus*.

Pontifex Maximus (Pont. Max.). See PONTIFF.

Pon'tiff, *n.* [Lat. *Pontifex.*] (*Roman Hist.*) The highest Roman sacerdotal title. Numa is said to have instituted four pontifices, chosen from the patricians; to which were added, long afterwards, four plebeians. Sylla

Alexander Pope

1688–1744

increased their number to fifteen. The chief of the pontifices was called the *pontifex maximus*, and was always created by the people, being generally chosen from those who had borne the first offices in the state. His station was one of great dignity and power, as he not only had supreme authority in religious matters, but, in consequence of the close connection between the civil government and religion of Rome, exercised considerable political influence. The title of *pontifex maximus* being for life, Augustus never assumed it till the death of Lepidus, after which it was always held by himself and his successors to the time of Theodosius. The insignia consisted of the toga prætexta, and a conical woollen cap with a tassel.

(*Eccl.*) In the Roman Catholic Church, a title assumed by the Pope; he has also the title of *Pontifex Maximus*.—Among the ancient Jews, the chief-priest.

Pontific, *a.* Relating to, or consisting of priests; as, the *pontific* college. (*Milton.*)—Belonging, or having reference to the Pope, or to the Roman Catholic Church.

Pontifical, *a.* [Lat. *pontificalis.*] Pertaining to a high-priest; as, *pontifical* authority;—hence, belonging to the Pope.—Splendid; magnificent; as, "a robe *pontifical*."—*Shaks.*

—*n.* [L. Lat. *pontificale.*] A book containing the formulæ of religious rites and ceremonies.

—*pl.* The vestments and ornaments worn by a priest, or by the Pope; as, "dressed in full *pontificals*."—*W. Scott.*

Pontifically, *adv.* In a pontifical manner.

Pontifical States. See STATES OF THE CHURCH.

Pontificate, *n.* [Lat. *pontificatus*; Fr. *pontificat.*] State, office, or dignity of a high-priest.—Specifically, the papacy; popedom; papal office; as, to be elected to the *pontificate*.—Reign of a pope; as, the *pontificate* of Leo X.

Pontine Marshes, (*pon'teen,*) an extensive marshy tract of Italy, in the S. part of the Campagna di Roma, extending from Cisterna in the N., to Terracina in the S., a distance of 30 miles, the breadth varying from 4 to 11 m. The region is very fertile, but pestilential. Efforts have been made at different times to drain it, but without effect. It is traversed by the road from Rome to Naples.

Pontivy, (*pon'te-ve,*) a town of France, dept. of Morbihan, on the Blavet, 30 m. N.N.W. of Vannes. *Manuf.* Leather, and agricultural implements. *Pop.* 8,000.

Pont'levis, *n.* [Fr., a drawbridge.] (*Man.*) The disorderly action of a horse in resistance to its rider, in which the animal rears up several times, running on his hind legs, so as to be in danger of falling backward.

Pontoise, (*pon-twawse'*,) a town of France, dept. of Seine-et-Oise, at the junction of the Oise and Viosne, 20 m. N. of Versailles. *Manuf.* Watches, jewelry, chemicals, cotton-yarn; also, numerous flour-mills. *Pop.* 7,000.

Ponton', Pontoon', *n.* [Fr. *ponton*, from Lat. *pons, pontis*, a bridge.] (*Mil.*) A light, portable framework, used in forming a bridge quickly for the passage of troops over a river, &c.

(*Naut.*) A low, flat vessel resembling a barge, and furnished with apparatus for the raising and careening of ships, &c.; a lighter.

Ponton-bridge, a bridge formed with pontoons.

Ponton-train. (*Mil.*) The carriages for transport of pontons, or of the materials for constructing a ponton-bridge.

Pontonier', Pontonnier', *n.* [Fr. *pontonnier.*] A soldier artificer who constructs ponton-bridges.

Pon'toosuck, in *Illinois*, a post-village and township of Hancock co., abt. 215 m. N.N.W. of St. Louis, Missouri.

Pontoosuck, in *Massachusetts*, a village of Berkshire co., abt. 115 m. W. by S. of Boston.

Pontotoc', in *Mississippi*, a N.N.E. co.; *area*, about 530 sq. m. *Rivers.* Tallahatchee and Loosascoona rivers, besides several creeks. *Surface*, undulating or nearly level; *soil*, fertile. *Cap.* Pontotoc. *Pop.* (1897) 16,200.

—A thriving post-town, located on the Gulf & Chicago R.R., 50 m. S.S.E. of Holly Springs. *Pop.* (1897) 650.

Pontremoli, (*pon-trai-mo'le,*) a fortified town of Italy, prov. of Florence, 23 m. N.W. of Carrara. *Manuf.* Silks and linens. *Pop.* 5,000.

Pont-rolant, *n.* [Fr. *pont*, bridge, and *rolant*, flying.] (*Mil.*) A flying bridge, used in sieges for crossing moats, ditches, &c.

Pont-St. Esprit, a town of France, dept. of Gard, on the Rhine, 31 m. N.N.E. of Nimes; *pop.* 5,500.

Pon'tus. (*Anc. Geog.*) The N.E. province of Asia Minor, bounded N. by the Euxine Sea, W. by Galatia and Paphlagonia, S. by Cappadocia and part of Armenia, and E. by Colchis. It was originally governed by kings, and was in its most flourishing state under Mithridates the Great, who waged a long and celebrated war with the Romans, but was at length subdued by Pompey; after which Pontus became a province of the Roman empire. The geographer Strabo was born in Amasia, its capital: and one of its principal towns, Trapezus, still flourishes under the name of Trebizond.

Pontypool, (*pon'ti-pool,*) a town of England, co. of Monmouth, 15½ m. S.W. of Monmouth, and 182 m. W. of London; *pop.* 4,600.

Po'ny, Po'ney, *n.*; *pl.* PONIES. [Fr. *poni.*] A small horse.—In England, a slang or sporting-term for £25 sterling; as, I will lay a *pony* against the field; *i. e.*, to bet in favor of one favorite horse against the remaining horses entered in a race.—In England, a cant university phrase for a translation of some author studied, with the view of quickly conning a lesson.

Pony-engine, in the U. States, a locomotive employed in switching railroad cars from one track to another.

Pood, *n.* [Russ. *pud.*] A Russian weight, equal to 36 lbs. avoirdupois.

Poo'dle, *n.* [Ger. *pudel.*] A dog covered with long silky hair; a lap-dog; as, a French *poodle*.

Pooh, *interj.* Poh; pshaw; pish;—an expression of aversion or contempt.

Pool, *n.* [A. S. *pôl, pul.*] A small, and generally deep, mass of fresh water, occurring in the course of a stream, or supplied by a spring; also, a pond.—A small body of stagnant water; a puddle.

—[Fr. *poule*, from Lat. *pullus*, a pullet.] The stake played for in certain games of cards, billiards, &c.

Pool, in *Michigan*, a post-village of Midland co., abt. 33 m. W.N.W. of Bay City.

Pool-ball, *n.* One of several ivory balls, used in playing *pool*, a game at billiards.

Poole, a seaport-town of England, co. of Dorset, on a peninsula, connected with the mainland by a narrow isthmus, 21 m. E. of Dorchester. It has an excellent harbor and considerable trade. *Pop.* 8,759.

Pool Island, in *Maryland*, an island and lighthouse in Chesapeake Bay exhibiting a fixed light, abt. 18 m. E. by N. of Baltimore.

Pooler', *n.* A pole or paddle to stir a tan-vat.

Pooles'ville, in *Maryland*, a post-village of Montgomery co., abt. 65 m. W.N.W. of Annapolis.

Pool'ville, in *New York*, a post-village of Madison co., abt. 95 m. W.N.W. of Albany.

Poo'na, Poo'nah, or **Pu'na,** a city of British India, cap. of a dist. of the same name, in the pres. of Bombay, at the junction of the Moola and Moota, 75 m. S.E. of Bombay; *pop.* 76,000.

Poop, *n.* [Fr. *poupe*; It. *poppa*; Lat. *puppis.*] (*Naut.*) A partial deck extending from about the mizzen-mast close aft, above the complete deck of the vessel. It is rapidly disappearing from modern ships, as a useless cause of leeway and a mark for an enemy's shot.

—*v. a.* (*Naut.*) To strike upon the stern of, as a heavy sea.—To strike in the stern, as one vessel whose stern comes in contact with the stern of another vessel.

—*v. n.* To pop; to make a short, snapping noise; also, to eructate.

Pooped, (*poopt,*) *a.* (*Naut.*) Furnished with a poop, as a ship.

Poop'ing, *n.* (*Naut.*) The blow of a heavy sea on the stern of a vessel, when scudding in a gale of wind;—also, the action of one vessel's stern coming in contact with the stern of another vessel.

Poor, *a.* [Fr. *pauvre*; It. *povero*; Lat. *pauper.*] Destitute of means or property; wanting in material worldly wealth; needy; indigent; necessitous; as, *poor* people.

(*Law.*) So utterly destitute of property or means of livelihood as to be entitled to maintenance at the public cost.—Hence, lean; deficient in fat, fleshiness, or plumpness; emaciated; meagre; sorry; lank; in bad case; as, a *poor* horse, ass, &c.—Lacking in strength and corporeal vigor;—applied to health; as, his health is but *poor*.—Of trifling value, worth, moment, or importance; inferior; insignificant;—said of material things; as, a *poor* coat, a *poor* flower.—Barren; sterile; without fecundity or fertility; as, *poor* land, a *poor* soil.—Lacking in strength, elegance, or appropriateness;—applied to literary composition; as, a *poor* treatise, a *poor* sermon, a *poor* novel.—Paltry; mean; ill-adapted for an end or occasion; valueless; as, a *poor* excuse.—Deserving of pity, sympathy, or true appreciation;—used, sometimes, as a word of endearment, and sometimes as a term of mild contempt.

"*Poor*, little, pretty, flattering thing."—*Prior.*

The poor, the indigent; the needy; those who are destitute of worldly means, or property.

"The short and simple annals of *the poor*."—*Gray.*

Poor'-box, *n.* A depository for contributions to the poor.

Poor'bunder, or **Poor'under,** a fortified seaport town of Hindostan, prov. of Guzerat; Lat. 21° 39′ N., Lon. 69° 48′ E.

Poor'-house, *n.* A public institution for the support of the destitute poor; a work-house; an alms-house.

Poor'john, *n.* The fish called *hake*. See MERLUCIUS.

Poor'-laws, *n. pl.* Laws providing for the support of the destitute poor.

Poor'liness, *n.* State or condition of being poorly; feebleness.

Poor'ly, *adv.* In a poor state, manner, or condition; without wealth or sufficient means; as, to live *poorly*.—With little or no success; without prosperity or advantage; having deficiency of growth, profit, or plenty; as, they managed *poorly*.—Meanly; without nerve or spirit.—Without dignity, superiority, or excellence; as, he acted his part *poorly*.

—*a.* Indisposed; not in ordinary good health; somewhat sick or invalid; as, to feel *poorly*. (Used colloquially.)

Poor Man's Weather-glass, *n.* (*Bot.*) See ANAGALLIS.

Poor'ness, *n.* State or condition of being poor, in any of its senses; want of means or property; poverty; indigence; need; necessitousness; want of success or prosperity; lack of worth, value, or importance; sterility; lack of productiveness; meanness; want; lowness; as, *poorness* of living, *poorness* of land, *poorness* and degeneracy of spirit, &c.

Poor'-rate, *n.* A tax or assessment levied on the public at large for the relief of the poor.

Poor'-spir'ited, *a.* Base; mean of spirit; cowardly; timorous.

Poor'-spir'itedness, *n.* State or quality of being poor-spirited.

Pop, *n.* [L. Ger. *pup*, a fart.] A small, quick sound or report; as, the *pop* made by extracting a cork from a bottle of champagne.—The beverage which issues from the bottle containing it with a *pop*, or explosive sound;—chiefly used in composition; as, ginger-*pop*.

—*v. n.* To make a short, sharp, sudden sound.—To enter or issue forth with a sharp, sudden motion.—To dart; to move from place to place suddenly.

—*v. a.* To push or cause to advance suddenly; to bring to notice upon the spur of a moment; as, he *popped* his head in.—To cause to *pop*, as corn; to cause to dilate and collapse suddenly with heat.

To pop off. To shift off; to push away.—*To pop the question.* To ask a woman to be one's wife. (Colloq.)

—*adv.* Suddenly; impromptu; appearing on the spur of the moment.

Popac'ton (or PEPACTON) **Riv'er,** in *New York*, flows S.W. into the Delaware River from Delaware co.

Popayan', a city of the Republic of Colombia, cap. of the province of same name, on the Cauca river, Lat. 2° 28′ 38″ N., Lon. 76° 36′ W. *Pop.* (1897) 22,200.

Pop'-corn, *n.* Corn or maize suitable for popping.—Corn which has been popped, or caused by heat to burst suddenly, so as to dilate and expose the inner part of the kernel;—generally termed *popped-corn*.

Pope, *n.* [Lat. *papa*, father, bishop; Gr. *pappos*, father.] (*Eccl.*) A title originally applied to all bishops, and still given to all priests of the Greek and Russo-Greek Church, but restricted in the west to the sovereign pontiff of the Roman Catholic Church. According to the Roman Catholic faith, the pope derives his power from being the successor of St. Peter, the *rock* upon which Christ was to build his Church. He is therefore the visible head of the Church, the invisible head being Jesus Christ. The Roman Catholics maintain that the bishop of Rome has always been recognized as superior to all other Christian bishops, while the Protestant historians state generally his supremacy from the 4th century. The mode of electing popes is noticed under CONCLAVE (*q. v.*); and an account of their temporal power, now vanished, will be given under STATES OF THE CHURCH, (*q. v.*) For the history of all the popes from St. Peter down to Leo XIII., see their different names.

Pope, ALEXANDER, a celebrated English poet, b. 1688, in London. His parents being Roman Catholics, he was placed, at 8 years of age, under one Taverner, a priest, who taught him the rudiments of Latin and Greek. At the age of 12, he retired with his parents to Blinfield, in Windsor Forest, where his father had purchased a small estate. Here he wrote his *Ode on Solitude*, which appears as the first-fruits of his poetic genius. It was here, also, that he first met with the works of Waller, Spenser, and Dryden. But on perusing Dryden, he abandoned the rest, and studied him as his model. At the age of 16, he wrote his *Pastorals*, which procured him the friendship of the principal wits of the time. His next performance was the *Essay on Criticism*, published in 1711. *The Messiah* appeared first in the *Spectator*; and this was followed by his *Ode on St. Cecelia's Day*. About this period, also, he produced the *Rape of the Lock*, occasioned by Lord Petre's cutting off a ringlet of Mrs. Arabella Fermore's hair. He next brought out his *Epistle from Eloisa to Abelard*, *The Temple of Fame*, and *Windsor Forest*. Pope now undertook his translation of the *Iliad*, which he published by subscription, and cleared by it above $25,000, part of which he laid out in the purchase of a house at Twickenham, whither he removed in 1715. After completing the *Iliad*, he undertook the *Odyssey*, for which also he obtained a liberal subscription. He was, however, materially assisted in these works by the learning and abilities of others, particularly Broome, Fenton, and Parnell.

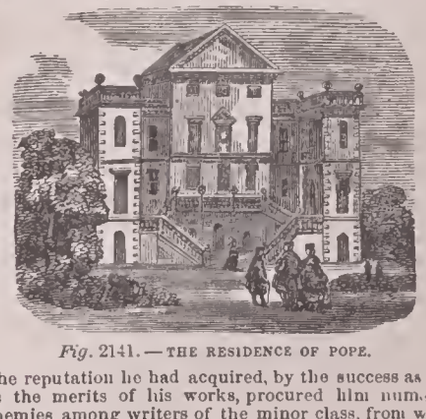


Fig. 2141.—THE RESIDENCE OF POPE.

The reputation he had acquired, by the success as well as the merits of his works, procured him numerous enemies among writers of the minor class, from whom he experienced frequent splenetic attacks. Perhaps it would have been more to his honor had he taken no notice of them; but in 1727 he vented his resentment in a mock-heroic, entitled *The Dunciad*, in which he took more than warrantable revenge, and what was worse, exposed to ridicule many ingenious and respectable persons who had given him no offence. In 1729, by the advice of Lord Bolingbroke he turned his pen to a moral and philosophical subject. The result was his *Essay on Man*, an ethical poem addressed to that statesman, which attracted universal admiration. It was followed by *Imitations of Horace*, accompanied by a *Prologue and Epilogue to the Satires*, and by *Moral Epistles*, which exhibit him as a satirist of the school of Boileau. In 1737, Pope printed his *Letters* by subscription, for which he alleged, as his excuse, that some of his epistles had been surreptitiously published by Edmund Curll. In 1742, at the suggestion of Warburt

ton, he added a fourth book to his *Dunciad*, intended to ridicule useless and frivolous studies, in which he attacked Colly Cibber, then poet-laureate. Cibber retaliated by a pamphlet, which told some ludicrous stories of his antagonist, and so irritated the latter that in a new edition of the *Dunciad* he deposed Theobald, its original hero, and promoted Cibber in his place, who, although a great coxcomb, could scarcely be deemed a dunce. An oppressive asthma began now to indicate a commencing decline; and while he was engaged in preparing a complete edition of his works, he expired, May 30, 1744.

Pope, John, Major-Gensral in the U. S. army, son of Judge Pope of Illinois, born at Kaskaskia, in that State, in March, 1823, entered West Point in 1838, graduated with Rosecranz in 1842, and in Aug., 1846, joined the army under Gen. Taylor, in Mexico. From the termination of that struggle till 1861 he was chiefly engaged in surveying expeditions. When the Civil War broke out, Capt. Pope was appointed Brig.-Gen. of Volunteers, and in Dec., 1861, while surveying under Gen. Halleck, he cleared Central Missouri of the Confederate forces. In March, 1862, he was appointed Major-Gen. of Volunteers, and soon after captured New Madrid, with all its guns and stores. He took part in the siege of Corinth, and after its evacuation he followed up the retreat of the Confederates. In June, 1862, he was appointed to the command of the Army of Virginia, comprising the forces under Fremont, Banks, McDowell, and Sturgis; and, July 14, 1862, was appointed Brig.-Gen. in the U. S. army. Great things were expected from him, as he had acquired high reputation by some daring exploits in minor operations. But these hopes were doomed to be disappointed. Very soon after his appointment to the chief command, a series of disastrous defeats sustained by the army under his orders spread consternation through the Northern States. Gen. Pope withdrew the Army of the Potomac, Aug. 20, to the north side of the Rappahannock, where he was quickly followed by the Confederate forces under Generals Lee and "Stonewall" Jackson, and he retreated towards Warrenton. Gen. Pope's army was thrown into disorder, and his baggage captured by the Confederates, Aug. 25; the troops under Gen. Burnside evacuated Fredericksburg, and retired to Aquia Creek, Aug. 29; and on that and the following day the second battle of Bull Run was fought, which ended in the complete defeat of Gen. Pope, and his withdrawal to Centreville. He was relieved from the command of the Army of the Potomac, and his services were transferred to another field of action — that of checking the predatory incursions of the Indian frontier tribes.

Pope, in *Arkansas*, a N.W. central co.; *area*, about 795 sq. m. *Rivers.* Arkansas river, and Big Piney and Illinois creeks. *Surface,* diversified; *soil*, generally fertile. *Cap.* Russellville. *Pop.* (1897) 21,250.

Pope, in *Illinois*, a S. by E. co., adjoining Kentucky; *area*, about 360 sq. m. *Rivers.* Ohio river, and Lusk and Big Bay creeks. *Surface*, undulating; *soil*, generally fertile. *Minerals.* Iron and lead. *Cap.* Golconda. *Pop.* (1897) 15,010.

Pope, in *Minnesota*, a W. central co.; *area*, about 720 sq. m. *Rivers.* Chippewa and Little Chippewa rivers, with several smaller streams and lakes. *Surface*, nearly level; *soil*, fertile. *Cap.* Glenwood. *Pop.* (1897) 12,200.

Pope'dom, *n.* [A.S.] The jurisdiction of the Pope; the place, office, or rank of the Pope; papal dignity.

Pope Joan, *n.* (*Games.*) An old English game at cards, played by any number from three to a dozen persons.

Popering'en, a town of Belgium, prov. of W. Flanders, 6 m. W.S.W. of Ypres. *Manuf.* Coarse woolleus, lace, and serges. *Pop.* 11,200.

Pop'ery, *n.* (*Eccl.*) The religion of the Roman Catholic Church, comprehending doctrines and practices; — a word used by the Protestants.

Pope's-eye, *n.* The gland encircled with fat in the middle of the thigh.

Pope's-head, *n.* A large round brush, with a long handle, used in dusting ceilings.

Pope's-nose, or **Par'son's-nose,** *n.* The protuberance at one end of a roast turkey, goose, &c.; — sometimes considered a tit-bit.

Pop'gun, *n.* A small gun or tube used by children to pop with, or shoot with, and make an explosive report.

Pop'injay, *n.* [Sp. *papagayo.*] A parrot; also, a wood-pecker. — A device resembling a parrot, put on a pole as a mark to be shot at. — A fop; a coxcomb; a gay, debonnair young fellow.

Pop'ish, *a.* Relating to, or taught by the Pope; pertaining or having reference to the Pope, or to the Roman Catholic Church; as, *Popish* ceremonies.

Pop'ishly, *adv.* In a Popish manner; with an inclination to Popery.

Pop'lar, *n.* [Fr. *peuplier;* It. *pioppo.*] (*Bot.*) See Populus and Liriodendron.

Poplar Bluff, in *Missouri*, a city, cap. of Butler co., about 130 m. S. of St. Louis. *Pop.* (1897) 2,350.

Poplar Creek, in *Tennessee*, enters Clinch River in Roane co.

Poplar Grove, in *Illinois*, a post-village of Boone co., abt. 16 m. E.N.E. of Rockford.

Poplar Grove, in *Tennessee*, a village of Gibson co., abt. 144 m. W. of Nashville.

Poplar Plains, in *Kentucky*, a post-village of Fleming co., abt. 80 m. E. of Frankfort.

Poplar Ridge, in *New York*, a post-village of Cayuga co., abt. 15 m. S.W. by S. of Auburn.

Pop'lartown, in *Maryland*, a village of Worcester co., abt. 12 m. N.E. of Snow Hill.

Pop'lin, *n.* [Fr. *papeline.*] A cloth-stuff made of silk and worsted, much used as a material for ladies' dresses; as, Irish *poplins*, brocaded *poplins*, figured *poplins*, watered *poplins.*

Poplit'ic, Poplit'ical, *a.* [From Lat. *poplitis*, the ham; Fr. *poplité, poplitique.*] Belonging, or relating to the ham, or under-part of the knee-joint.

Popocatepetl', [Mexican, "smoking mountain,"] an active volcano of Mexico, abt. 35 m. S.W. of La Puebla. *Height*, 20,000 feet. The crater is 1000 feet deep and abt. 3 m. in circumference. This is the highest mountain on the N. American continent.

Po'po Islands, a group in the Eastern Archipelago, between Gilolo and Papua. The principal island is in Lat. 1° 15′ S., Lon. 129° 45′ E., with a circum. of 50 m.

Popoli, (*pŏp'o-le,*) a town of S. Italy, prov. of Abruzzo Ulteriore II., on the Pescara, 8 m. N.N.W. of Salmona; *pop.* 4,000.

Pop'pet, *n.* See Puppet. — A term of endearment frequently applied to young children.

—*pl.* (*Naut.*) Perpendicular pieces of timber fixed on the fore and aftermost parts of the bilge-ways, to support a ship while being launched.

Pop'pet-head, *n.* (*Mech.*) That part of a lathe which holds the back-centre, and can be fixed on any part of the bed.

Poppi, (*pop'pe,*) a town of Italy, prov. of Florence, on the Arno, 25 m. E. of Florence; *pop.* 6,000.

Pop'ple, *v. n.* To bob up and down, like a cork dropped on water.

—To bubble up. (An English provincialism.)

—*n.* The poplar. (Used as a localism both in England and the U. States.)

Pop'pose-root, *n.* (*Bot.*) See Leontice.

Pop'py, *n.* [A.S. *popeg, popei;* It. *papavero;* Fr. *pavot;* Lat. *papaver.*] (*Bot.*) See Papaveraceæ.

Pop'py, Pop'py-head, (and sometimes poop,) *n.* [Fr. *poupée.*] (*Arch.*) A carved ornament at the apex of a standard or open seat in Gothic churches, also carved into an ornamental finial, pomel, crest, &c.

Pop'ulace, Pop'ulacy, *n.* [Fr., from Lat. *populus.*] The common people; the commonality; the vulgar; the multitude; the mob.

Pop'ular, *a.* [Fr. *populaire.*] Pertaining or having reference to the common people. — Suitable to common people; familiar; plain; easy to be comprehended; not critical or abstruse as, a *popular* edition of a scientific work. — Hence, occasionally, vulgar; common; inferior; as, a *popular* saying. — Beloved by or pleasing to the people; enjoying the favor of the community at large; as, a *popular* sovereign, a *popular* government, a *popular* preacher or author. — Studious of public favor; ambitious. — Prevailing among the people; generally circulated or diffused; as, a *popular* malady, a *popular* delusion, a *popular* prejudice.

Popular action. (*Law.*) An action which gives a penalty to the person that sues for the same.

Popular'ity, *n.* [Lat. *popularitas;* Fr. *popularité.*] State or quality of being popular; state of possessing the affections and confidence of the people in general; public favor.

—State or quality of being adapted to impress the popular mind; — hence, the condition of being common, inferior, or vulgar.

Populariza'tion, *n.* Act of making popular among a people.

Pop'ularize, *v. a.* To make popular or suitable to the common mind; to spread or disseminate among the people; as, to *popularize* science or literature.

Pop'ularizer, *n.* One who popularizes.

Pop'ularly, *adv.* In a popular manner; so as to be pleasing or satisfactory to the people. — According to the conceptions of the common people.

Pop'ularness, *n.* State of being popular, or suited to the ideas and tastes of the common people.

Pop'ulate, *v. a.* [From Lat. *populus.*] To people; to furnish with inhabitants, whether by natural increase, or by immigration or colonization; as, to *populate* a country.

—*v. n.* To propagate inhabitants.

Popula'tion, *n.* [Fr.] The act or operation of peopling, or furnishing with inhabitants; multiplication of people in general.

—The whole number of people or inhabitants in a country, or portion of a country.

(*Pol. Economy.*) *P.* is the most important branch of the science, being both the means and the end of national wealth; it is, at the same time, one of the most obscure and difficult subjects to understand, and has given rise to a large amount of discussion. It was formerly a maxim in politics, that a country could not be overpeopled, as it was supposed that the means of subsistence increased in proportion to the increase of the population, and that this could never be a cause of its falling into want and misery. Some states, therefore, as that of ancient Rome, took means to encourage matrimony, by relieving from taxation and preferring to public offices those that married and had children. Others, again, have maintained that it is the policy of states to check the increase of population. Malthus asserts that the increase of the population of a country beyond a certain limit, depending on the means of subsistence, is an evil, which will augment year after year, as the disproportion between the population and the means of subsistence increases. He further asserts that all civilized countries are either at the point, or more or less near it, where as much food is produced from the soil as in any possible way can be obtained from it; and supposing that more could be gained by greater efforts and more industry, it will never be in such proportion as the yearly increase of the *P.*; and thus want and misery are approaching in all civilized countries, against which there is no other remedy than that the government either check the increase of population, or remove from the country the yearly arising surplus, by means of colonies and other measures conformable to this purpose. Every species of plant or animal which is capable of increase, either by generation or by seed, increases in a geometrical ratio, depending on the average power of reproduction and the average period of existence of the individuals of which it is constituted. He further asserts that population, when unchecked, increases in a geometrical progression of such a nature as to double itself every 25 years; at which rate the inhabitants of every country would, in the course of five centuries, increase to above a million times their present number; which, as regards Western Europe, would not allow the people even standing-room. There are, however, so many elements to be taken into account, which are entirely lost sight of in these arguments, as to deprive them of any weight or importance. A single instance of a state which has suffered in this way cannot be produced, and the resources of nature are so bountiful and manifold as to afford little reasonable fear for such an issue. Nature has provided a thousand ways to prevent the increase of the human race beyond the means necessary for its subsistence. Like a careful mistress, she deals out her bounties with a sparing hand, but ever, as the necessities of her dependents increase, she finds means to supply their wants. Much of the earth still remains uncultivated or untouched by the hand of man, and much of that which is touched is very imperfectly dealt with; for who can say what may be yet done by more improved means of cultivation, by machinery, chemistry, &c.? Finally, the extension of the principles of commerce and free trade will open up to each other the extreme parts of the earth.

Pop'ulin, *n.* [Fr., from Lat. *populus*, poplar.] (*Chem.*) A crystallizable substance separated from the bark of the poplar-tree, *Populus tremula*. *Form.* $C_{40}H_{22}O_{16}$.

Pop'ulous, *a.* [Fr. *populeux;* Lat. *populosus.*] Abounding in people; full of inhabitants; containing many inhabitants in proportion to the extent of ground or country; as, a *populous* city or region. — Adapted to common people; — hence, inferior; common; vulgar. (a.)

Pop'ulously, *adv.* With many inhabitants in proportion to the extent of country.

Pop'ulousness, *n.* State of being populous, or of having many inhabitants in proportion to the extent of country.

Pop'ulus, *n.* [Lat., the poplar.] (*Bot.*) A genus of plants, ord. *Salicaceæ.* All the species are rapid-growing, soft-wooded timber trees, some of which attain a great size. They have broad, heart-shaped, ovate, triangular, or lozenge-shaped, deciduous leaves, or rather long stalks. The catkins appear long before the leaves, and proceed from distinct lateral buds. Few of the species are of much value for their timber, which is generally white, soft, and light; but from their rapid growth, they are useful as yielding fire-wood, when the scarcity of other fuel renders it necessary to plant trees for this purpose. The Lombardy poplar, *P. fastigiata* or *dilatata*, probably introduced into Europe from Persia, attains a height of 100, or even 150 feet, and is remarkable for its erect form, contracted head, and very rapid growth, (Fig. 2142.) It is often planted as an ornamental tree, although not so generally as in the end of last century. The wood is of almost no value. The species commonly known as Black Italian poplar, *P. monilifera* or *acladesca*, is a native not of Italy, but of N. America, and is more correctly called Canadian poplar, the female catkins of which resemble a string of pearls. It is frequently planted both as an ornamental tree and for the sake of its timber, which is useful for flooring, &c. Its leaves are deltoid. It is of very rapid growth, and attains a height of 100–120 feet. The Balsam poplar, or Tacamahac, *P. balsamifera*, a very common ornamental tree, is a native both of North America and of Siberia, and has whitish, ovate-oblong leaves, which in spring are of a delicate yellow tint, and have an agreeable fragrance. The leaf buds are viscid. The erect, fastigiate manner of growth approaches that of the Lombardy poplar. The resinous exudation of the buds (*Tacamahac*) is said to be diuretic and antispasmodic; and an ointment made from the buds is used for tumors, wounds, and burns. The Cotton-wood, *P. canadensis*, of N. America, particularly abundant on the upper parts of the Mississippi and Missouri, is valued as a timber tree. The Ontario poplar, *P. candicans*, has the same balsamic character as *P. balsamifera*, and is chiefly distinguished from it by its

Fig. 2142. — Lombardy Poplar, (*Populus fastigiata.*)

larger leaves. In size of leaf, no other species equals *P. heterophylla*, a native of the Southern States, the leaves of which are often six inches long.

Porcelain, (*pōrs-lān,*) *n.* [Fr. *porcelaine;* Sp. *porcelána;* It. *porcellana.*] (*Manuf.*) *P.*, in its more general sense, includes all kinds of earthenware which are white, semi-transparent, and have some degree of a vitreous texture; but in its more limited sense it denotes only the finer kinds; and as this kind of ware has been, from the earliest times, manufactured most perfectly in China, it has been called Chinese porcelain, or China-ware. The first *P.* seen in Europe was brought from China and Japan, and having excited great admiration by its fineness of texture, transparency, and its beautiful colors, many attempts to imitate it were made by European manufacturers, and were first successful in Saxony. The manufacture was afterwards introduced into France, and successively into England, Germany, and Italy, where it has arrived at various degrees of perfection, but is still inferior to the production of eastern countries. The finest and best *P.* of China is made in a village called King-te-tchiug, in the province of Kiang-si, which is said to have furnished the emperors of China with *P.* since the year 442 of the Christian æra. The chief ingredients which enter into the composition of Chinese *P.* are petuntse and kaolin, two kinds of earth, from the mixture of which the paste is obtained; the petuntse being of a pure white, and, when fully prepared, in the form of an impalpable powder, while the kaolin is intermixed with small shining particles. The petuntse originally consists of the fragments of rock dug from certain quarries; the color of the stone which answers the purpose best inclining, according to the Chinese, somewhat to green. It requires many operations to fit it for the purpose of the manufacturer; while the kaolin, on the other hand, is found in nature in a state almost ready for him, in small lumps, in mines, the external strata of which are composed of a kind of red earth. Chinese *P.* owes its fabric and texture to the kaolin, which endows it with the property of resisting the most powerful heat, while its strength and consistency is obtained by fusion with the petuntse, which enables it to resist the action of the more powerful agents. It is said that the Chinese have latterly discovered a substitute for kaolin in a stone called *boa-ché*, which is of a saponaceous quality, and enables them to manufacture *P.* of a much more beautiful kind than formerly; but as it is scarce and dear, it is rarely employed in the fabrication of the body of the *P.*, the workmen being content with making it into a fine size, and immersing the vessel into it, that it may receive a coat before it is painted and glazed. After a piece of *P.* has been properly formed, it passes into the hands of the painters, who divide the labor between them; one tracing out the first colored circle which ornaments the brim of the vessel, another designing the flowers, and a third painting them, and so on. One of the kinds of varnish employed, called *tsou-you*, is procured from white flint, and has the peculiar property of making those pieces of porcelain upon which it is laid appear to be covered with an infinitude of veins in every direction. After the *P.* has received its proper form, its colors and all the intended ornaments, it is transferred from the manufactory to the furnace. The small pieces of *P.*, such as tea-cups, are inclosed in cases about four inches in height; each piece being placed upon a saucer of earth about twice as thick as a crown-piece, and equal in breadth to its bottom. These small cases are also sprinkled over with the dust of the kaolin, and having been placed in the furnace on a bed of coarse sand, half a foot in thickness, are exposed to the action of the fire until the workman observes that all the cases are red hot, and that the colors of the porcelain appear with full lustre, when he judges that it is in a proper state. Manufactories for the fabrication of *P.* are now established in almost all the states of Europe; but in no state have such attempts been made to discover the best method of manufacturing *P.*, or so many manufactories of it been established, as in France. The *P.* of Chantilly, Villersi, and Orleans have a distinguished merit; but the *P.* produced at Sèvres has long held the first rank, from its shining white, its beautiful glazing, its colored grounds, and the regularity and elegance of its forms. In England, but little progress was made in the manufacture of *P.* until towards the end of the last century. At an earlier period there was a manufactory carried on by some Germans at Chelsea, afterwards removed to Derby, of porcelain of a very superior quality; but whence they derived their materials is now uncertain. About the year 1768, however, the discovery in Cornwall of mines of clay and stone, similar to those used in France and Germany, and which are believed to be the kaolin and petuntse of the Chinese, soon enabled English manufacturers to improve their *P.*, by discontinuing the use of frit or glass as a component part of the basis or body of the ware, and substituting a mixture of the fusible and infusible earths as the basis of their *P.*, as had been done at a much earlier period in Germany and France. After all, the most perfect *P.* is nothing else than a fine white stone-ware; and if the earths of which stone-ware is made were free from heterogeneous coloring matters, which prevent their whiteness and semi-transparency; if vessels were properly formed; if all the proper attention were given; and if these vessels were covered over with a fine glazing, they would form as perfect *P.* as that of Japan. There are two kinds of *P.*,—one called hard, the other tender. Hard porcelain is composed of a clay containing silica, which is infusible, and preserves its whiteness in a strong heat, and of a flux consisting of silica and lime. The glaze of this ware is earthy, and admits of no metallic substance or alkali. Tender *P.* consists of a vitreous frit, which is rendered opaque by the mixture of a calcareous clay. It is glazed with artificial glass, into the composition of which silica, alkalies, and lead enter. The materials of which the glazing is composed are previously prepared by fusing together all the substances of which they consist, and thus forming a vitreous mass. This mass of vitrified matter is then ground in a mill, and the powder thus obtained mixed with a sufficient quantity of water until it becomes of the consistency of cream. The pieces of *P.* are dipped hastily into this liquid and withdrawn; and as they greedily imbibe the water, there remains on the surface a uniform coating of the glazing materials. When they are dry they are replaced in the furnace, and kept there until the glazing is perfectly fused. Unglazed *P.*, said to be in a state of biscuit, has the appearance of white marble; and, for particular purposes, the *P.* is sometimes allowed to remain in this state, and particularly when it is employed in smaller and finer pieces of sculpture, as the fineness of the workmanship and the sharpness of the figures would be greatly injured by a coat of glazing. See POTTERY.

Porcela'neous, Por'celanous, *a.* [From Eng. *porcelain.*] Pertaining, or relating to, or resembling, porcelain; as, *porcelaneous* shells.

Por'cellanite, *n.* [Fr.] (*Min.*) Clay altered by heat, so as frequently to resemble jasper;—called, also, *porcelain-jasper.*

Porch, (*pōrch,*) *n.* [Fr. *porche;* It. *portico*, from Lat. *porticus*—*porta*, a gate, entrance.] (*Arch.*) A roof supported on pillars before a door; a kind of vestibule supported by columns. Any small portico considerably lower than the main structure to which it is attached may be so termed, in contradistinction from one carried up the height of the building, or as high as the principal cornice. In mediæval architecture porches were almost universal in churches. In France, many splendid porches or portals remain; they are among the most beautiful specimens of mediæval art.

The Porch. (*Antiq.*) A public portico in Athens, where Zeno, the philosopher, taught his disciples. See STOICS.

Porcine, (*-sīn,*) *n.* [Lat. *porcinus*, from *porcus*, a swine.] Pertaining or relating to swine; as, the *porcine* species of animals.

Por'co, a spur of the Andes in Bolivia, Lat. 19° 45′ S., Lon. 65° 30′ W. *Height*, 16,000 ft. From this mountain, it is said, the Incas derived immense quantities of silver. Near it is the town of Porco, cap. of a prov. of the same name, abt. 20 m. S.W. of Potosi.

Por'cos, ILHA DOS, a group of islets of Brazil, in the Bay of Flamengos, abt. 16 m. N.E. of the island of São Sebastião.

Por'cupine, *n.* [Fr. *porc-épic;* It. *porcospinoso.*] The common name of the *Rodentia*, comprising the genus Ereshizon, family *Hystricidæ*, characterized by a flat cranium, short muzzle, medium-sized tail, and spines which are short and half hidden in the hair. The white haired, or Canada Porcupine, *E. dorsatus*, F. Cuv., of Northern United States and Canada, is about two feet long to the tail, which is seven inches. The tail and

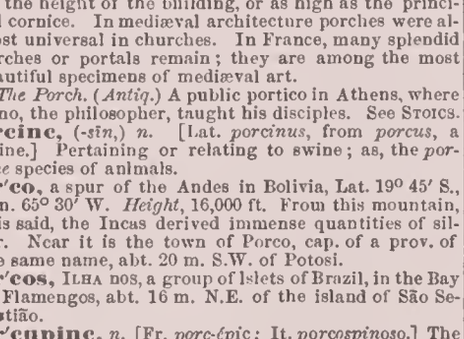


Fig. 2143. — PORCUPINE.

upper parts are covered with a mass of white spines, with dusky and bearded tips. The general color of the fur is dark brown, among which are long hairs with white tips. This animal is extremely sluggish, making but little effort to escape from man or beast; but its formidable armor is an effectual defence. It readily climbs trees, and feeds upon bark, leaves, and tender ears of Indian corn. It lives in hollow trees and in holes among the rocks.

Por'cupine-wood, *n.* The hard, outer portion of the trunk of *Cocos nucifera;*—so called, because, when cut horizontally, the fibres of the wood resemble the quills of the porcupine.

Pore, *n.* [Fr.; Lat. *porus;* Gr. *poros*, from *peirō*, to pierce or pass through.] One of the small interstices between the particles or molecules of matter which compose animal, vegetable, and mineral bodies. There are many considerations which prove that all bodies, even the densest, are composed of molecules, not in absolute contact, but separated from each other by intervals, which, though so small as to be inappreciable to the senses, have nevertheless a magnitude considerable in respect of the molecules themselves; and it has been inferred that gold has more pores than solid parts; whence, any substance of the specific gravity of water must have many times more pores than solid parts.

—*v. n.* [Probably from Gr. *ephorāō*, to look upon—*epi*, and *horāō*, to see.] To look with steady, continued, and concentrated attention or application; to examine with unremitting perseverance; sometimes with *on* or *over.*

"The eye grows weary with *poring* perpetually on the same thing." *Dryden.*

Por'er, *n.* One who pores or studies without intermission.

Por'gee, POR'GY, PAU'GIE, POG'GY, *n.* (*Zoöl.*) See SPARIDÆ.

Po'riform, *a.* [Fr. *poriforme*, from Lat. *porus*, pore, and *forma*, form.] Resembling a pore; in the form of a small interstice or puncture.

Por'ism, *n.* (*Math.*) A theorem so easy of solution as to be almost self-evident.

Po'riness, *n.* State or condition of having numerous pores.

Po'rism, *n.* [Fr. *porisme;* Gr. *porisma*, something deduced from a previous proposition.] (*Geom.*) A name applied to a proposition affirming the possibility of finding such conditions as will render a certain problem indeterminate, or capable of innumerable solutions. (*Playfair.*)—A corollary.

Porismat'ic, Porismatic'al, Poris'tic, Poris'tical, *a.* [Fr. *poristique*; Gr. *poristikos.*] Pertaining, or relating to, or having the nature of a porism.

Pork, *n.* [Fr. *pore;* It. *porco;* Lat. *porcus;* O. Gr. *porkos*, a pig; Ir. *porcan.*] (Etymol. unknown.) The flesh of swine, fresh or salted, used for food.

(*Hygiene.*) Of all animal fibre taken as aliment, fresh pork takes the longest time to be acted on by the gastric juice and digested;—hence, to the invalid, or person affected with a debilitated stomach, pork is the most improper article of diet he can consume. When smoked and properly dried, as in the form of bacon or ham, it becomes, however, an article not only beneficial as a food, but useful as a medicine, for, when taken at breakfast, it often acts as a direct stimulant to a debilitated stomach.

Pork'er, *n.* A hog.

Pork'et, *n.* A pig; a young hog.

Pork'ling, *n.* A young pig.

Pornog'raphy, *n.* [Gr. *pornē*, a harlot, and *graphein*, to write.] Licentious painting, employed to decorate the walls of rooms sacred to bacchanalian orgies, and of which examples exist in Pompeii.

Po'ror, (anc. *Sphœria,*) a small island of Greece, 7 m. S. of Ægina. It is the scene of the conferences which settled the new Greek monarchy of 1828.

Poros'ity, *n.* [Fr. *porosité.*] State or quality of being porous, or of having small interstices or pores; a property of matter in consequence of which its particles are not in perfect or absolute contact, but are separated by small intervals:—opposed to density.

Porot'ic, *n.* [Gr. *porōs*, callus.] (*Med.*) A remedy supposed capable of assisting the formation of a callus. *Dunglison.*

Por'ous, *n.* [Fr. *poroux.*] Having pores or small interstices between the particles which compose a body; as, *porous* wood.

Por'ously, *adv.* In a porous manner; with pores.

Por'ousness, *n.* Porosity; state or quality of having pores.

Porphyritic, (*-fi-rit'ik,*) *a.* Belonging to, resembling, or consisting of, porphyry; as, *porphyritic* mountains.

Por'phyrize, *v. a.* [Gr. *porphyrizein*, to be purplish.] To cause to resemble porphyry.

Porphyrogen'itus, a name borne by the children of the emperors of the East (see CONSTANTINE), either because they were swathed in a robe of purple at their birth, or because they were born in a chamber hung with purple, to which the empresses of the East retired at the period of their accouchement.

Porphyry, (*pōr'fi-rȳ,*) *n.* [Fr. *porphyre;* Gr. *porphyritēs*, from *porphura*, purple.] (*Min.*) A term originally confined to an Egyptian rock used in sculpture, and known now as Rosso-antico. It is composed, according to Delesse, of a red felspathic base, in which are disseminated rose-colored crystals of the felspar called *oligoclase*, with some plates of blackish hornblende and grains of oxidized iron ore. The term is not now, however, used to denote any particular rock, but is applied to any rock which, like the Rosso-antico, has a homogeneous earthy or compact base, through which are scattered distinct crystals of one or more minerals of contemporary origin with the base. Thus, gray volcanic trachyte often abounds in crystals of glassy felspar, forming a trachytic porphyry; or crystals of felspar, quartz, or calcareous spar, disseminated through a base of greenstone, form a greenstone porphyry. In the same way, there are pitchstone porphyry, basaltic porphyry, claystone porphyry, &c.

Por'phyry. [Gr. *Porphyrius*, i. e., a bearer of purple.] A Platonic philosopher, born at Tyre, 233, who studied eloquence at Athens under Longinus, and philosophy at Rome under Plotinus, whose life he wrote. His learning was great, and he composed many works, one of which, against the Scriptures, was burned by order of Theodosius the Great. D. at Rome, 304.

Por'poise, *n.* (*Zoöl.*) See DELPHINIDÆ.

Porpo'ra, NICOLO, B. at Naples, 1689, was the celebrated pupil of the no less celebrated Alessandro Scarlatti. In early life he left home, and composed and brought out operas with great success in Vienna, Venice, Dresden, and several other continental cities. He afterwards became one of the principal masters in the conservatory at Venice, and late in life retired to Naples, where he died in great poverty at the age of 82. Porpora was particularly fortunate as a singing-master; and among his most celebrated pupils were Farinelli, Mingotte, and Caffarelli, besides many other dramatic vocalists.

Porporino, (*-rē'-,*) *n.* [It.] A composition of quicksilver, tin, and sulphur, which produced a yellow metallic powder, that was employed instead of gold by the mediæval artists when they wished to economize.

Porraceous, (*-rā'shus,*) *a.* [Lat. *porraceus,* from *porrum, porrus,* a leek.] Greenish; resembling the color of a leek.

Porrect', *a.* [From Lat. *porrigere,* to etretch out.] (*Zoöl.*) Stretched or spread out, or extended horizontally.

Por'ret, *n.* A leek or small onion.

Porridge, (*pŏr'rij,*) *n.* [Perhape a corruption of *pottage.*] A kind of food made by boiling meal or meat in water; broth; hasty-pudding; panada; as, oatmeal-*porridge,* bean-*porridge,* milk-*porridge,* &c.

Por'ringer, (*-jĕr,*) *n.* [From *porridge.*] A small metal vessel in which children eat porridge or milk.

Porsen'na, or PORSEN'A, a celebrated leader and king of Etruria, who declared war against the Romane because they refused to restore Tarqnin to his throne. At first successful, he would have entered the gates of Rome had not Horatine Coccles stood at the head of a bridge and resisted the fury of the whole Etrurian army, while his companione behind were cutting off the communication with the opposite shore. This act of bravery astonished Porsenna; but when he had seen Mutius Scævola, who had entered his camp with the intention of murdering him, burn his hand without emotion, to convince him of his fortitude, he no longer dared to make head against so brave a people. He made a peace with the Romans, and never after supported the claims of Tarquin. The etory of Porsenna's attack upon Rome forms the subject of one of Lord Macaulay'e etirring *Lays of Ancient Rome.*

Port, *n.* [Fr.; It., from Lat. *porta,* a gate.] Any hay, cove, inlet, or recess of the eea or of a lake, or the mouth of a river, which ships or vessels may enter, and where they can lie safe from injury by etorme.—A gate; an entrance; a passage-way.

(*Naut.*) An embrasure or opening in the side of a ship-of-war or other vessel, through which the guns are discharged; aleo, the lid which closes a port-hole;—otherwise written *port-hole.*

(*Mach.*) A passage leading to a steam-way; an opening through which steam, &c., may pase to the valves of an engine.

—[Fr. *port,* from Lat. *portare,* to carry.] Manner of movement or walk; personal bearing; carriage; demeanor; mieu; deportment; exterual appearance.

"And bear the name and *port* of gentleman."—*Shaks.*

(*Naut.*) The larboard or left side of a ship;—opposed to *starboard;* as, the helm is a-*port.*

—[From *Oporto,* Portugal.] A dark-purple astringent, full-bodied wine brought from Portugal.

Port-admiral. (*Nav.*) The admiral having charge of a naval port, station, or rendezvous. This office does not exist in the American navy.—*Port charges.* (*Com.*) Charges to which a ship is liable while in port, as wharfage, dockage, &c.—*Port of entry.* A port or harbor where a custom-house is established for the legal entry of goods, merchandise, &c.—*Port of the voice.* Mode of management of the voice in singing.—*Steam-port* and *Exhaust-port.* (*Mach.*) The openings employed for the entrance or exit of the steam, respectively.

—*v. a.* (*Naut.*) To turn or put to the left or larboard side, as of a ship; as, to *port* the helm.

(*Mil.*) To hold, as a musket, in a sloping position upward across the body, eo that its stock is in front of tho right hip, and the barrel in front of the left shoulder; as, to *port* arms.

Portabil'ity, *n.* State of being portable; adaptation to be carried.

Port'able, *a* [Lat. *portabilis,* from *porto,* to carry or bear, allied to Lat. *fero.*] That may be carried or borne; that may be carried by the hand or about the person, on horseback, or in a travelling vehicle; not bulky or heavy: that may be easily conveyed from place to place with one's travelling baggage; as, a *portable* desk.—Sufferable; supportable; endurable. (R.)

Portachue'lo de Tueto, a lofty pass of the Andes in Peru, between Tarma and Lima; *height,* 15,760 feet.

Portadown', a town of Ireland, in Ulster, abt. 10 m. E.N.E. of Armagh; *pop.* 3,000.

Portafer'ry, a seaport-town of Ireland, in Uleter, abt. 7 m. E.N.E. of Downpatrick; *pop.* 2,000.

Port'age, *n.* [Fr.] Act of carrying.—Carriage; price of conveyance.

(*Naut.*) A port-hole.—A narrow neck of land over which goods, &c., are carried betweeu two navigable bodies of water.—A sailor's wages while iu port.—The amount of a sailor's wages for a voyage.

Por'tage, In *Indiana,* a township of Porter county.—A village and township of St. Joseph county, about 150 m. N. of Indianapolis.

Portage, in *Michigan,* a township of Houghton county.—A post-township of Kalamazoo county.

Portage, in *New York,* a township of Livingstou county.

Portage, in *Ohio,* a north-east county; *area,* about 480 square miles. *Rivers.* Cuyahoga and Mahoning rivers. *Surface,* nearly level; *soil,* fertile. *Min.* Bituminous coal. *Cap.* Ravenna. *Pop.* (1897) 28,870.

—A post-village and township of Wood co., about 20 m. south of Perrysburg.

Portage, in *Wisconsin,* a north central county; *area,* about 800 sq. m. *Rivers.* Wisconsin and Plover rivers. *Surface,* mostly level; *soil,* fertile. *Cap.* Stevens Poiut. *Pop.* (1895) 28,531.

—A thriving city, cap. of Columbia co., about 35 m. N. of Madison. This city, built on the site of Fort du Quesne, ie a place of much business activity, and contains some fine edifices. Steamboats ply regularly between here and Green Bay. It is also on the ship-canal connectiug Wisconsin and Fox rivers. *Pop.* (1895) 5,419.

Por'tage Lake, in *Michigan,* an irregular body of water in Houghton co., extending from Keweenaw Bay nearly acroee the peninenla.

Por'tage River, in *Michigan,* risee in Livingeton co., and flowe S.E. through Portage Lake into Hnron River.

Por'tal, *n.* [It. *portella;* Fr. *portail.*] A little door; a gate or gateway.

(*Arch.*) The lesser of two gates, when they are of two dimensions, at the entrance to a building; the arch over a door or gateway; the frame-work of a gate.

—*a.* [From Lat. *porta,* gate.] (*Anat.*) Pertaining, or having reference to the *porta* or gateway of the liver; as, the *portal* vein, the *portal* hlood.

Port Alleghe'ny, in *Pennsylvania,* a post-borough of McKean co. *Pop.* (1900) 1,853.

Port Arthur, a naval stronghold at the southern extremity of Liao-tnng peninsula, in the extreme south of Manchuria. Used by Chiua as a fortress and naval arseual, it was captured by Japan in the war of 1894, but given up under threats from Russia, and other powers. Russia leased it from China in 1898, strongly fortified it, and built a few miles northward the commercial town, and Port of Daluy. The siege of Port Arthur by a strong Japanese army and fleet, in the Russo-Japanese war, led to its surrender to Japan on January 2, 1905.

Port au Prince, or PORT REPUBLICAN, (*port-o-prinss,*) a seaport-city, cap. of Hayti, W. Indiee, on the Bay of Gonaïvee; Lat. 18° 35′ N., Lou. 72° 18′ W. It is irregularly built, in the midst of a low marshy tract; but the harbor is excellent, however, and commerce is extensive. In Sep., 1883, a fire destroyed a great part of the town, duriug the fire the mob pillaged the place, the loss sustained was computed to have been several millione worth of property, with the loss of many lives. *Pop.* (1897) 22,750.

Port Austin, in *Mich.,* a p. v. of Huron co.

Port'-bar, *n.* (*Naut.*) A bar to secure the ports of a ship in a gale of wind.—A harbor-boom.—A bar, or shelf of sand or rock, at the entrance of a port or harbor.

Port Bar'nett, in *Penn.,* a village of Jefferson co.

Port By'ron, in *Ill.,* a p. v. of Rock Island co.—In *New York,* a p. v. of Cayuga co.

Port Car'bon, in *Pennsylvania,* a post-borongh of Schuylkill co., abt. 65 m. N.E. of Harrisburg.

Port Chester, in *New York,* a post-village of Westchester co., abt. 29 m. N.E. of New York city.

Port Clin'ton, in *Ohio,* a post-village, cap. of Ottawa co., abt. 120 m. N. of Columbus.

Port Clinton, in *Pennsylvania,* a post-borongh of Schuylkill co., abt. 12 m. S.E. of Pottsville.

Port Con'way, in *Virginia,* a post-village of Kling George co., abt. 60 m. N. by E. of Richmond.

Port'-cray'on, *n.* [Fr. *porte-crayon,* from *porter,* to carry, and *crayon,* a crayon.] An implement of brase or steel for holding the chalk or crayon in sketching, to give ease and firmness to the touch, as well as to protect the fingers from the soil of black chalks. It poesessee a eingle, or generally a double clip, wide enough to ndmit the crayon, a looee ring being drawn up tightly over it to secnre it firmly.

Port-cul'lis, *n.* [Fr. *porte,* and *coulisse,* groove, from *couler,* to trickle, to slip or slide down, from Lat. *colare,* to etrain, filter.] (*Fort.*) A sliding or falling gate, consisting of a strong grating of timber or iron, resembling a harrow, hung over the gateway of a fortified town or of a castle, to be let down in case of eurprise, to prevent the entrance of an enemy.

Fig. 2144. — PORT-CULLIS.

—An ancient English coin, which had the figure of a *port-cullis* on one eide.

Port Depos'it, in *Maryland,* a post-village of Cecil co., abt. 37 m. N.E. of Baltimore.

Port Desire', a river of Patagonia, flowing E. into Port Desire Bay, an arm of the Atlantic Ocean; Lat. 47° 45′ S., Lon. 65° 55′ 30″ E. *Length.* abt. 200 m

Port Dover, a village and port of entry of Norfolk co., prov. of Ontario, abt. 37 m. S.W. of Hamilton.

Porte, *n.* [Fr., a gate; Lat. *porta.*] The government of the Turkish empire, officially and politically called the *Ottoman Porte,* from the gate (*port*) of the Sultan's palace, where justice was, in former times, administered.

Port Elizabeth, in *New Jersey,* a post-village of Cumberland co., abt. 36 m. E.S.E. of Salem.

Porte-monnaie, (*pōrt'mun-nā,*) *n.* [Fr., from *porter,* to carry, and *monnaie,* money.] A small wallet or pocket-book for carrying money.

Portend', *v. a.* [Lat. *portendo*—*pro,* and *tendo, tensum,* or *tentum,* to stretch.] To point out; to indicate, as something future by previous signe; to foreshow; to foretoken; to forebode; to presage; to threaten.

"A moist and cool summer *portendeth* a hard winter."—*Bacon.*

Portent', *n.* [Lat. *portentum.*] An omen of ill; any previous sign or prodigy indicating the approach of evil or calamity.

Porten'tive, *a.* Foreshadowing; presaging.

Porten'tous, *a.* [Lat. *portentosus.*] Full of portents; ominous; foreshowing ill.—Hence, strange; monstrous; prodigious; wonderful; as, an animal of *portentous* size.

Porten'tously, *adv.* Ominously; threateningly; in a portentous manner.

Por'ter, *n.* [Fr. *portier,* from Lat. *porta,* a gate.] A door- or gate-keeper; one who waite at the door to receive messages.

Por'ter, *n.* [Fr. *porteur,* from *porter,* to carry.] A carrier; a person who carries or conveye burdens for hire.

Por'ter, *n.* [Originally *porter's beer.*] A liquor brewed from malt, part of which has been more highly dried than that which ie used for ale. It is hopped in the same way as ale; and its deep-brown color ie finally given to it by roasted or parched malt. Porter was first brewed in 1722.

Por'ter, DAVID D., an American admiral, b. in Pennsylvania, about 1812, is the youngest son of the late Commodore David Porter, who commanded the frigate *Essex* in the war with Great Britain in 1812–14, and sailed with him while quite a child in hie expedition against the W. Indian pirates. After a couree of instruction at the Naval School, he entered the eervice as a midshipman, in Feb., 1829, and served for eome time under Commodore Biddle, in the Mediterranean. After passing his examination in July, 1835, he was employed for eeveral years in the coast eurvey and river explorations, until his promotion, in 1841, to the rank of lieutenant. At the close of 1845 he was placed on epecial duty at the Observatory at Washington, which position he resigned in 1846 in order to take part in the Mexican war, in the course of which he served with distinction under Commodore Tatnall, especially before Vera Cruz. At the cloee of the war he was appointed to the command of the surveying schooner *Petrel,* and at the outbreak of the Civil War, in 1861, he was promoted to the rank of commander, and at the beginning of 1862 the mortar-fleet wee placed under his orders. During the naval operatione on the Mississippi he distinguished himself, especially by his dashing exploit in reducing the forte below New Orleans. After the capture of that city, he proceeded up the greet river with his fleet, and was engaged in several affairs, including the unsuccessful siege of Vickeburg, which was raised July 22, 1862. He was appointed in Oct. of that year to the command of the Upper Mississippi squadron, with the rank of Acting Rear-Admiral, and after superintendiug the constructiou of that fleet, he eailed down the river, and assisted materially in reopening that great highway to the Gulf. In the eummer of 1863, during the eecond siege of Vicksburg, Admiral Porter bombarded the works from the river side, and Gen. Grant, who commanded the besieging army, was enabled to report the successful occupation of that stronghold, July 4. Admiral Porter was actively employed in several important expeditions, especially in the two combined nttacks on Fort Fisher, which commands the approaches to Wilmington, the port so much resorted to by blockade-runuers. The first of these attacks, at the close of 1864, miscarried, owing, it was alleged, to the inefficient coöperation of Gen. Butler, who commanded the military forces, but in part to the failure of the scheme to destroy the fort by the explosion of a vast quantity of gunpowder deposited in a vessel towed close to it for that purpoee. The second expedition, which comprised a powerful fleet of monitors and other war-ships, aided by a strong military force uuder Gen. Terry, was completely successful, although the capture of the fort wae not effected without con eiderable loss to the Nationale. On July 25, 1866, *P.* was promoted to the rank of Vice-Admiral; and Aug., 1870, eucceeded Admiral Farragut as admiral of the U. S. navy. Died Feb. 13, 1891.

Por'ter, in *Indiana,* a N.N.W. co., bordering on Lake Michigan; *area,* abt. 400 sq. m. *Rivers.* Kankakee and Calumick rivers, besides several small unimportant streams. *Surface,* undulating or level; *soil,* generally fertile. *Cap.* Valparaiso.—A township of the above co.

Porter, in *Maine,* a twp. of Oxford co.

Porter, in *Michigan,* a township of Cass county.—A township of Van Buren county.

Porter, in *New York,* a township of Niagara county.

Porter, in *Ohio,* a township of Delaware county.—A village of Gallia county, about 10 miles N.W. of Gallipolis.—A towuehip of Sciota county.

Porter, in *Pennsylvania,* a townehip of Clarion county.—A township of Clinton county.—A township of Huntingdon county.—A post-township of Jefferson county.—A township of Lycoming county.—A p. o. of Jefferson county.

Porter, in *Wisconsin,* a township of Rock county.

Por'terage, *n.* Money charged or paid for the carriage of burdens by a porter.—Business or vocation of a porter or door-keeper.

Por'teress, *n.* See PORTRESS.

Por'terly, *adv.* In the manner of a porter;—hence, rough; coarse; vulgar.

Porters'ville, in *Connecticut,* a village of New London co., abt. 8 m. N. of New London.

Portersville, in *Indiana,* a post-village of Dubois co., abt. 37 m. E.S.E. of Vincennes.

Portersville, in *Pennsylvania,* a post-borough of Butler co., abt. 220 m. W.N.W. of Harrieburg.

Portersville, in *Tennessee,* a poet-village of Tipton co., abt 25 m. N.E. of Memphis.

Port-Es'sington, a hay of N. Australia, on the E. side of Coburg Peuinsula; Lat. 11° 22′ 3″ S., Lon. 132° 10′ 7″ E.

Port Etch'es, in *Alaska,* a maritime village or settlement in Prince William's Sound; Lat. 60° 21′ 12″ N., Lon. 146° 32′ W.

Porte-feuille, (*pōrt-ful'ye,*) *n.* See PORTFOLIO.

Port'-fire, *n.* (*Mil.*) In artillery practice, the *common port-fire* consists of a paper-case about 16 inches long, driven with a composition which burne at the rate of rather more than one inch a minnte. The *slow port-fire* consists merely of paper impregnated with saltpetre,

Hammond's 8 x 11 Map of Porto Rico.

PORTO RICO.

Area sq. m....3,600
Pop. 1901....953,243

DEPTS.

Pop.	Thousands.		
203	Ponce.....	B	2
162	Arecibo...	B	2
160	Bayamon .	C	2
127	Mayaguez	A	2
111	Guayama..	C	2
99	Aguadilla..	A	2
88	Huamacoa.	D	2

CITIES-TOWNS

Pop.	Thousands.		
32	San Juan...	C	2
27	Ponce	B	2
15	Mayaguez..	A	2
8	Arecibo	B	2
6	Aguadilla....	A	2
6	Yauco	B	2
5	Guayania...	C	2
5	Caguas.....	C	2

and rolled into a solid cylinder about 16 inches long, which will burn from two to three hours; — both these compositions are now generally superseded by the *friction primer*.

Portfo'lio, *n.* [Fr. *port-feuille*, from *port*, to carry; Lat. *portare*, and *feuille*, a leaf, from Lat. *folium*.] A portable case of the size of a large book, to carry or keep loose papers, engravings, &c., in.

—Hence, a collection of prints, engravings, maps, &c.

—Also, the office or functions of a minister of state; as, to accept the *portfolio* of foreign affairs.

Port Gib'son, in *Mississippi*, a post-town, cap. of Claiborne co., about 65 m. S. W. of Jackson.

Port Gibson, in *New York*, a post-village of Ontario co., about 54 m. W. of Syracuse.

Port Hen'ry, an excellent harbor on the W. coast of Patagonia; Lat. 50° S., Lon. 75° 15′ W.

Port Henry, in *New York*, a post-village of Essex co., abt. 110 m. N. by E. of Albany.

Port-hole, *n.* (*Naut.*) An embrasure in a ship-of-war. See PORT.

Port Hood, or JES'TICO, a seaport-town of Inverness co., Nova Scotia, on a bay of its own name, at the W. extremity of Cape Breton.

Port'-hook, *n.* A hook driven through a ship's side and clinched, for the purpose of hooking one of the hinges that are fastened to the port-lids.

Port Hope, a town of prov. of Ontario, on Lake Ontario, abt. 63 m. E. by N. of Toronto.

Port Hope, in *Michigan*, a post-village of Huron co., abt. 8 m. N.N.W. of Sand Beach.

Port Howe, on the E. coast of the island of San Salvador, W. Indies. This is supposed to be Columbus' first landing-place in the New World.

Port Hud'son, in *Louisiana*, a post-village of East Baton Rouge parish, 25 m. N. by W. of Baton Rouge. In May, 1863, this place, strongly covered by advanced works, and defended by the Confederate Gen. Frank K. Gardner, was invested by Gen. Banks. Three assaults made on May 27, June 11 and 14, having been vigorously repulsed, with a loss of about 3,000 men on the National side, Gen. Banks resolved to continue the siege in the ordinary way, without further attempt at storming the place. On July 7, Gen. Gardner learning the surrender of Vicksburg, entered into a capitulation. Gen. Banks entered the town two days after, taking possession of 2 steamers, 51 pieces of artillery, and a quantity of small arms. The garrison of 6,408 men became prisoners of war.

Port Hu'ron, in *Michigan*, an important city, cap. of St. Clair co., on St. Clair river and Lake Huron, 62 m. N. E. of Detroit. *Pop.* (1897) 19,800.

Portici, (*por-te'che,*) a town of S. Italy, prov. of Terra di Lavoro, at the foot of Mount Vesuvius, near Herculaneum, 4 m. S.E. of Naples. Its environs are delightful, and are dotted with country houses. *Pop.* 6,500.

Por'tico, *n.* [Lat. *porticus.*] (*Arch.*) A covered space with a roof supported by columns. It is usually attached to an important building (Fig. 2145), but sometimes detached, as a shady walk. A portico is called *tetrastyle*, *hexastyle*, *octostyle*, and *decastyle*, according as it has four, six, eight, or ten columns in front.

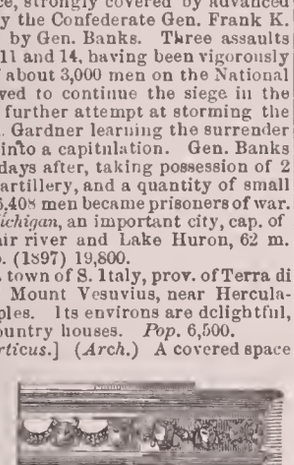


Fig. 2145.
TEMPLE OF VESTA, TIVOLI.

Por'ticoed, *a.* Having a portico or porticoes.

Por'tillo, a mountain pass of the Chilian Andes, abt. Lat. 33° 40′ S.; *height*, 14,365 feet.

Portion, (*pōr'shun,*) *n.* [Lat. *portio*, akin to *pars*, a part, and *partior*, to divide.] A part; a parcel; a part of anything separated from it. — A part, though not actually divided, but considered by itself.—A part assigned; an allotment; a dividend.—A dower; a wife's fortune.—The part of an estate given to a child or heir, or descending to him by law.

v. a. To distribute in parts; to parcel; to divide.

"The gods who *portion* out the lots of princes as of private men." —*Rowe.*

—To endow with a fortune, as to *portion* a daughter.

Por'tioner, *n.* One who portions; one who divides or assigns in shares.

Por'tionist, *n.* A student at Oxford University, England, who has a certain academical allowance.

(*Eccl.*) The incumbent of a benefice which has more rectors or vicars than one.

Por'tionless, *a.* Having no portion; dowerless.

Port Jack'son, a bay and English settlement on the E. coast of New South Wales, Australia. The entrance is between two headlands, 1¾ m. wide; Lat. 33° 51′ 45″ S., Lon. 151° 11′ 49″ E. Sidney is on the E. side of this bay.

Port Jack'son, in *New York*, a post-village of Montgomery co., abt. 15 m. W.N.W. of Schenectady.

Port Jefferson, in *New York*, a post-village of Suffolk co., abt. 200 m. S.S.E. of Albany.

Port Jefferson, in *Ohio*, a village of Shelby co., abt. 70 m. W. by N. of Columbus.

Port Jer'vis, in *New York*, a post-village of Orange co., abt. 97 m. N.W. of New York city.

Port Ken'nedy, in *Pennsylvania*, a post-village of Montgomery co., abt. 4 m. W. of Norristown.

Port Kent, in *New York*, a post-village of Essex co., abt. 150 m. N. of Albany.

Portland, in *Alabama*, a village of Dallas co., abt. 60 m. W.S.W. of Montgomery.

Portland, in *Connecticut*, a post-village and township of Middlesex county, abt. 15 m. S.E. by S. of Hartford.

Portland, in *Illinois*, a post-village of Whitesides co., abt. 140 m. N. by W. of Springfield.

Portland, in *Indiana*, a village of Fountain co., about 7 m. N. E. of Covington.—A city, cap. of Jay co., about 90 m. E. N. E. of Indianapolis. *Pop.* (1897) 4,015. —A village of Putnam co.

Portland, in *Iowa*, a township of Cerro Gordo co.; *pop.* 168.—A village of Van Buren co., abt. 72 m. S.S.W. of Iowa City.

Portland, in *Kentucky*, a post-village of Jefferson co., abt. 3 m. W. of Louisville.

Portland, in *Maine*, a city, port of entry, cap. of Cumberland co., and the commercial metropolis of the State, on Casco Bay, abt. 60 m. S.S.W. of Augusta; Lat. 43° 39′ 52″ N.. Lon. 70° 13′ 34″ W. *P.* is finely situated on one of the best harbors on the Atlantic coast, the entrance to which is defended by Forts Preble, Scammel, and Gorges. It is generally well built, and contains many fine edifices, among which the City Hall, Custom-House, Athenæum, and Mechanics' Hall, are worthy of mention. There are also many elegant churches. The industry of the inhabitants is chiefly directed to commerce, which is extensive. On July 4, 1866, a fire-cracker thrown by a boy during the celebration of Independence Day, kindled a fire which consumed nearly all the business portion of the city, including 8 churches, the banks, hotels, and newspaper-offices; destroyed property to the value of $10,000,000; and rendered 2,000 families houseless. *Pop.* (1897) 38,150.

Portland, in *Michigan*, a post-village and township of Ionia co., abt. 21 m. W.N.W. of Lansing.

Portland, in *Minnesota*, a village of Houston co., abt. 40 m. S. of Winona.—A village of St. Louis co., abt. 7 m. N. of Superior City.

Portland, in *Missouri*, a post-village of Callaway co., abt. 3 m. N.E. of Jefferson City.

Portland, in *New York*, a post-township of Chautauqua co.

Portland, in *Ohio*, a township of Erie county.—A village of Jackson county, about 30 miles north-east of Portsmouth.—A post-village of Meigs county, about 16 miles east of Pomeroy.

Portland, in *Oregon*, a city, cap. of Multnomah co., about 50 m. N. by E. of Salem; Lat. 45° 30′ N., Lon. 122° 27′ 30″ W. *P.* is the most populous and enterprising town in the State. It is connected with San Francisco by steamboats; has excellent railroad facilities; contains several extensive manufactories, and does a very large trade. *Pop.* (1897) 81,000.

Portland, in *Wisconsin*, a township of Dodge co. *Pop.* about 1,200.—A post-township of Monroe co.

Portland Channel, an inlet of the Pacific Ocean, on the W. coast of N. America, abt. Lat. 55° N., Lon. 130° W.

Portland Head, in *Maine*, a small promontory and lighthouse, on the W. side of the entrance to Portland Harbor. It exhibits a fixed light 85 feet high; Lat. 43° 36′ N., Lon. 70° 12′ W.

Portland Islands, in the P. Ocean. The N.E. point of the most E. island is in Lat. 2° 26′ S., Lon. 147° 18′ 45″ E.— An island near the E. coast of New Zealand. — An island of the Queen Charlotte group, in the S. Pacific Ocean.

Portland Isle, a small island, or peninsula, of England, co. of Dorset, in the English Channel, opposite Weymouth; Lat. 50° 31′ N., Lon. 2° 26′ W. It has two lighthouses. *Pop.* 5,500.

Portland Point, a promontory forming the S. extremity of the island of Jamaica; Lat. 17° 43′ N., Lon. 77° 10′ W. It is the termination of Portland Ridge, and a few m. to the E. lie Portland Keys.

Portland Stone, *n.* (*Min.*) An alkaline sandstone of a dull, whitish color, heavy and moderately hard, and somewhat flat texture, and composed of large rounded grit, cemented together by an earthy spar, and intermixed with numerous glittering particles of pure spar. It comes from the island of Portland, co. of Dorset, England.—A reddish-brown sandstone quarried at Portland, Conn., U. S. See also PORTLAND CEMENT.

Portland Vase, or **Barberini Vase,** one of the most valuable antique relics. Was found in the 16th cent. in a sarcophagus in Rome, and was placed in the Barberini Palace. It was purchased in 1770 by Sir W. Hamilton, and placed in the British Museum, in 1810, by the Duke of Portland; it was maliciously broken in 1845, but the pieces were skilfully united. It dates from the 3d cent. and once held the ashes of some of the family of the Emperor Alexander Severus. See Fig. 1165.

Port'landville, in *New York*, a post-village of Otsego co.

Port Lavac'ca, in *Texas*, a post-town, capital of Calhoun co. *Pop* (1897) 760.

Port Ley'den, in *N. Y.*, a P.-V. of Lewis co.

Port'-lid, *n.* (*Naut.*) A door for closing a ship's ports.

Port'liness, *n.* State or quality of being portly; dignity of mien or of personal appearance, consisting in size and symmetry of body, with dignified manners and demeanor; also, corpulence; bulkiness of frame.

Port Louis, (*loo'is,*) a fortified seaport-town of France, dept. of Morbihan, at the mouth of the Blavet, 3 m. S. of Lorient; *pop.* 3,500.

Port Louis, a seaport-town, cap. of the Island of Mauritius, Lat. 20° 10′ S., Lon. 57° 32′ E. The harbor is difficult of access. *Pop.* 35,000.

Port Louis, a seaport-town of the island of Guadeloupe, W. Indies, abt. 12 m. N. of Point à Pitre.

Port Louisa, in *Iowa*, a post-village and township of Louisa co., abt. 6 m. N.E. of Wapello.

Port Lud'low, in *Washington*, a prosperous town of Jefferson co., on Admiralty Inlet, about 16 m. S. of Port Townsend.

Port'ly, *a.* [From *port*, carriage, mien, demeanor.] Of a noble port, carriage, or appearance; grand and dignified in mien; stately; of good size or stature.

"A goodly, *portly* man, of a noble carriage."—*Shaks.*

—Hence, by implication, bulky; corpulent; as, a *portly* habit of body.

Port Mad'ison, in *Washington*, a post-village, the former cap. of Kitsap co., on Admiralty Inlet, about 77 m. N. N. E. of Olympia.

Port Mahon', a fortified seaport town, cap. of the island of Minorca; Lat. 39° 52′ N., Lon. 4° 21′ E. It has an excellent harbor. *Pop.* 13,000.

Port'man, *n.; pl.* PORTMEN. A burgess of the Cinque Ports, England. See CINQUE PORTS.

Portmanteau, (*-măn'tō,*) *n.; pl.* Eng. PORTMANTEAUS; *pl.* Fr. PORTEMANTEAUX, (*-tōz.*) [Fr., *porte-manteau*, from *porter*, to carry, and *manteau*, a cloak.] A portable cloak-bag; a bag, usually made of leather, for carrying clothes or other things necessary in travelling.

Port Mer'cer, in *New Jersey*, a village of Mercer co., abt. 4 m. S.W. of Princeton.

Port Met'way, or MILL VILLAGE, a seaport-town of Queen's co., Nova Scotia, abt. 65 m. S.W. of Halifax.

Port Mitch'ell, in *Indiana*, a village of Noble co., abt. 125 m. N.N.E. of Indianapolis.

Port Mon'mouth, in *New Jersey*, a post-village of Monmouth co., abt. 21 m. S. of New York city.

Port Mul'grave, in *Alaska*, a harbor on the E. side of Admiralty Bay; Lat. 59° 33′ N., Lon. 149° 43′ W.

Port Natal', an inlet of Natal, in E. Africa; Lat. 29° 53′ S., Lon. 31° 2′ E.

Portneuf, (*-nuf,*) a central co. of prov. of Quebec, bordering on the St. Lawrence River; *area*, abt. 10,440 sq. m. It contains several considerable lakes. *Cap.* Portneuf, on the St. Lawrence River, abt. 30 m. W. by S. of Quebec.

Port Nor'ris, in *New Jersey*, a village of Cumberland co., abt. 80 m. S. by W. of Trenton.

Por'to, a city of Portugal. See OPORTO.

Porto Alegre, in Brazil, a city on the Lake of Patos, about 160 m. N. N. E. of Rio Grande. *Pop.* (1897) 31,250. largely Germans.—A maritime town, situated about 120 m. S.S.W. of Porto Seguro.—A town situated at about 190 m. W. of Natal.

Por'to Atacames, a harbor of Ecuador, abt. 100 m. N.W. of Quito.

Por'to Bel'lo, a seaport-town of Scotland, co. of Edinburgh, on the Frith of Forth, 3 m. E. of Edinburgh; *pop.* 4,000.

Porto Bello, a town of Brazil, on a bay of its own name, abt. 25 m. S. of Desterro; Lat. 27° 8′ S., Lon. 53° 24′ E.

Por'to-das-Pe'dras, a town of Brazil, abt. 47 m. N.E. of Alagoas; *pop.* 4,000.

Por'to-de-Moz, a maritime town of Brazil, abt. 40 m. S.W. of Gurupa.

Porto Feliz, (*fa-leez,*) a town of Brazil, abt. 50 m. W.N.W. of São Paulo.

Porto Ferrajo, (*fer-ra'yo,*) the cap., town of the island of Elba, on a lofty point of land extending into the bay. It was the residence of Napoleon I. after his first abdication in 1814. *Pop.* 4,500.

Port-of-Spain, a town, cap. of the island of Trinidad, W. Indies, on the W. coast, near the mouth of Carony River; Lat. 10° 38′ 7″ N., Lon. 61° 32′ W. It is well built, has a good harbor, defended by Fort St. David, and carries on an active trade. *Pop.* 12,000.

Por'to Impe'rial, or PORTO REAL, a town of Brazil, on the Tocantins River, abt. 40 m. N.N.E. of Goyaz.

Portoise, (*pōr'tiz,*) *n.* (Also written PORTLAST.) (*Naut.*) An old term for a ship's gunwale.

To lower the yards a-portoise. (*Naut.*) To lower the yards to the gunwale.—*To ride a-portoise*, to strike the lower yards and topmasts, when at anchor, in a gale of wind; — said of a ship.

Porto Maurizio, a town of Italy, in Piedmont, 2 m. W.S.W. of Oneglia; *pop.* 6,500.

Port Onta'rio, in *New York*, a post-village of Oswego co., abt. 170 m. W.N.W. of Albany.

Port Or'chard, in *Washington*, a post-village, cap. of Kitsap co., on Admiralty Inlet, about 65 m. N. E. of Olympia. Here is a great government dry dock.

Por'to Ri'co, [Sp. *Puerto Rico*, rich port,] an island of the W. Indies, the fourth in point of size of the Greater Antilles, belonging to the U. S. It lies abt. 60 m. E. of Cape Engano Hayti, between Lat. 17° 56′ and 18° 30′ N., and Lon. 65° 30′ and 67° W., being 90 miles in length from E. to W., with a nearly uniform breadth of 36 m. *Area*, abt. 3,606 sq. m. *Surface*, much diversified, a range of mountains traversing the centre of the island from E. to W. averaging 1,500 ft. high, and culminating in a peak 3,678 ft. high. Extensive savannahs succeed

the mountainous region, and are bordered by large and fertile tracts, which, besides the usual tropical vegetation, produce large quantities of sugar-cane. *Exprt.* Sugar, ginger, hides, rum, molasses, coffee, cotton, tobacco of excellsnt quality, dye-woods, lignum-vitæ, &c. *Chief towns.* San Juan de Porto Rico (the capital), Mayagues. Ponea, Guayama. *P. R.* was discovered by Columbus in 1493, and in 1509 it was invaded by a party of Spaniards from Hayti, who soon exterminated the natives. In 1898 it was ceded by Spain to the United States. *Pop.* (1899) 32,043.

Porto San'to, one of ths Madelra islands, in the Atlantic Ocean, 26 m. N.E. of Madeira; Lat. 33° 5′ N., Lon. 16° 19′ W.; *pop.* 6,000.

Porto Seg'uro, a maritime town of Brazil, on the Atlantic Ocean, at the mouth of the river Buranhen; Lat. 15° 16′ 9″ S., Lon. 38° 58′ W.

Port Penn, in *Delaware*, a post-towu of Nsw Castle co., about 30 m. N. of Dover.

Port Penn, in *Pennsylvania*, a village of Lycoming co., abt. 13 m. E. of Williamsport.

Port Per'ry, in *Missouri*, a village of Perry co., abt. 60 m. S.S.E. of St. louis.

Port Perry, in *Pennsylvania*, a post-village of Allegnany co., abt. 11 m. S.E. of Pittsburg.

Port Phil'lip, a bay of the S. coast of Australia; Lat. of its entrance 38° 18′ S., Lon. 144° 47′ 7″ E. It receives the waters of the Yarra-Yarra.

Port Plate, (*pla'ta,*) a town of Hayti, W. Indies, on the N. coast, abt. 12 m. N.W. of Santiago.

Por'trait, *n.* [Fr.] A picture or representation of a person, and especially of a face, drawn from the life.—Figuratively, a description or delineation in words.

Portrait bust, or *statue,* a bust or statue representing the actual features or person of an individual.

Por'traiture, *n.* [O. Fr.] A portrait; a painted resemblance.—Hence, that which is copied from some example, specimen, or model.

"He gives us the *portraiture* of a perfect orator."—*Baker.*

—The drawing of portraits.

Portray', *v. a.* [Fr. *portraire*, from Lat. *pro*, and *trahere*, to draw.] To draw; to delineate; to paint or draw ths likeness of anything in colors.—To dsscribe in words.—To adorn with pictures.

Portray'al, *n.* Ths act of portraylng.

Portray'er, *n.* One who portrays; one who describes or draws another to the life.

Port Repub'lic, formsrly GRAV'ELLY LANDING, in *New Jersey*, a post-village of Atlantic co., abt. 15 m. E.N.E. of May's Landing.

Port Republic, in *Virginia*, a post-village of Rockingham co., abt. 100 m. W.N.W. of Richmond.

Por'tress, Por'tcess, *n.* A femals porter; a janitrix.

Port Rich'mond, or **Rich'moud,** in *Iowa*, a post-villags of Wapello co., ou the Des Moiues River, nearly opposite Ottumwa.

Port'-rope, *n.* A rope or lashing to draw up a port-lid.

Port Royal. (*Eccl. Hist.*) A celebrated convent of Cistercian nuns, situated near Chevreuse, about five leagues from Paris. It was founded in 1204, and the nuns were of the order of St. Bernard de Citeaux. In 1626 they removed to Paris, where, in the Fanbourg St. Jacques, they had a house, known as the Port Royal de Paris, while the house which they left received the name of Port Royal des Champs, and became occupied by a nnmber of pious and learned men, who wished to lead a pious and secluded life, and were knowu as Les Solitaires de Port Royal. The most distinguished of this company were Claude Lancelot, the grammarian; Antoine Le Maistre, an advocate and one of the most distinguished orators of his time; Simon Léricourt, a distinguished officer; De Sacy, the eminent translator of the Bible; ths two Arnaulds; Pierre Nicole, Blaise Pascal, and Nicolas Fontaine. The fame that they acquired for their learning and sanctity aroused the jealousy of the Jesuits, and was the cause of a long contest that prevailed between the two parties, which at length led to the suppression of thc Port Royal des Champs, by a bull of Pope Clement XI. in 1708. The special subject of the controversy was the Jansenistic opinions held by the Port Royalists. See JANSENISTS.

Port Royal, a fortified town of Jamaica, W. Indies, abt. 3 m. S.W. of Kingston; Lat. 17° 56′ N., Lon. 76° 51′ W. It has a naval dockyard, hospital, barracks, &c.

Port Royal, in *Indiana*, a village of Morgan co., abt. 15 m. S.S.W. of Indianapolis.

Port Royal, in *Kentucky*, a post-village of Henry co., abt. 50 m. E.N.E. of Louisville.

Port Royal, in *Pennsylvania*, a post-borongh of Juniata co., about 3 m. S. of Mifflintown.

Port Roy'al, in *S. Carolina*, a channel connecting Broad River with the Atlantic Ocean, botween the islands of Hilton Head and St. Helena, forming an excellent harbor.—Also, the name of an island in the Beaufort dist., containing the town of Beaufort, abt. 10 m. N.N.W. of Port Royal Chanuel.

Port Royal, in *Virginia*, a post-village of Caroline co., abt. 22 m. S.E. of Fredericksburg.

Port Sau'ilac, in *Michigan*, a post-village of Sanilac co., abt. 24 m. N. of Lexington.

Port Santa Bar'bara, an inlet of the Pacific Ocean, on the W. coast of Patagonia; Lat. 48° S., Lon. 75° 30′ W.

Portsea Island, (*port'see,*) lies off the coast of Hampton co., England, between Portsmouth and Langston harbors. It is 4 m. long, by 3 m. broad. It is level and fertile, and coutains the towns of Portsmouth and Portsea.

Port Shel'don, in *Michigan*, a post-village of Ottawa co., abt. 12 m. S. of Grand Haven.

Ports'mouth, a fortified seaport-town and principal naval station of England, co. of Hants, In the Island of Portsea, 95 m. S.W. of London; Lat. 50° 48′ N., Lon. 1° 6′ W. It consists of the old town of Portsmouth and the town of Portsea, which has outgrown its limits. The principal public buildings are the church of St. Thomas, the Town Hall, and Custom-House. The harbor is very capacious, deep, and secure, and is defended by several batteries of great strength. Ths dock-yard, the great naval arsenal of England, extends along the W. shore of the harbor, and includes an area of 293 acres. There are also numerous shipbnilding yards. *P.* dates from a very early period, but became of importance in the reign of Edward IV., by whom it was fortified. *Pop.* (1897) 164,040.

Ports'mouth, in *Illinois*, a village of Carroll co., abt. 180 m. N. by W. of Springfield.

Portsmouth, in *Michigan*, a village of Allegan co., at the mouth of ths Black River.

—A post-village of Bay co., abt. 110 m. N.N.W. of Detroit.

Portsmouth, in *N. Carolina*, a post-village of Carteret co., abt. 65 m. E. of Newbern.

Ports'mouth, in *New Hampshire*, a city, port of entry, and semi-cap. of Rockingham co., at the month of the Piscataqua Rivsr, abt. 54 m. N. by E. of Boston; Lat. 43° 4′ 35″ N., Lon. 70° 45′ 50″ W. *P.* is defended by Fort McClary and Fort Constitution. It is the only sea-port of the State, and commands an extensive commerce. Tbe U. S. Portsmouth navy yard is on the E. side of the river, on Continental Island, Me. *P.* was tho sceno of the peace negotiations between Russia and Japan after the war of 1904-05. The treaty of peace was signed Sept. 5, 1905, by the plenipotentiaries of the two Powers, in one of the navy-yard buildings. *Pop.* (1900) 10,637.

Portsmouth, in *Ohio*, a clty, cap. of Scioto co., abont 90 m. S. of Columbus. It is generally well built and coutains some fine edifices. *Manuf.* Iron, machinery, &c. *Pop.* (1897) 14,900.

Portsmouth, in *Virginia*, a city of Norfolk co., finely situated on Elizabeth river, opposite Norfolk, and about 160 m. S.E. of Richmond; Lat. 36° 50′ N., Lon. 76° 19′ W. The river is about one-half mile wide hsre, and forms a safe and commodious harbor for the largest ships. Gosport, at the S. extremity of the city, is the site of a U. S. navy yard, dry dock, and naval hospital. *Pop.* (1900) 17,427.

Port'soken, *n.* [Eng. *port*, gate, and A. S. *soke*, privilsgs.] Having the liberties of ths gate, that is, being within ths city gates in point of privilege, though without it in point of fact. The name is still preserved in *Portsoken* Ward, London.

Port'soy, a sea-port town of Scotland, co. of Banff, on a point of land projecting into tho Moray Frith, 7 m. W. of Banff; Lat. 57° 38′ N., Lon. 2° 36′ W.; *pop.* 2,300.

Port Stephens, (*stee'vens,*) a harbor of New South Wales, co. of Gloucester, 18 m. N.E. of Port Hunter; Lat. of Baroines Point 32° 40′ 7″ S., Lon. 152° 4′ 2″ E. It runs inland 15 m., and has a breadth of 5 m.

Port Tobac'co, in *Maryland*, a post-village, former cap. of Charles co., about 30 m. S. of Washington, D. C.

Port-toll, *n.* (*Law.*) A payment demanded for the privilege of bringing goods into port.

Port Town'send, in *Washington*, a city, cap. of Jefferson co. *Pop.* (1897) 5,350.

Port Tre'vorton, in *Pennsylvania*, a post-village of Snyder co., about 42 m. N. of Harrisburg.

Por'tugal, the most western kingdom of Europe, forming the W. portion of tho Iberian peninsula, is bounded by Spain and the Atlantic; Lat. between 36° 57′ and 42° 8′ N., Lon. between 6° 15′ and 9° 32′ W. *Political Divisions.* Six provinces, viz.:—Entro Douro e Minbo, Tras-os-Montes, Beira, Estremadura, Alemtejo, and Algarve.—*Desc.* The country generally inclines from N.E. to S.W. Several of the great mountain-chains of Spain intersect it from east to west, and terminate in large promontories in the Atlantic. The most remarkable of these chains is the Serra de Estrella, nearly in the centre of Portugal. This chain is a continuation of the Serra de Gata, and culminates in an elevation of 7,524 fcet above the lcvel of tho sea. Another chain is tho Serra de Monchique, the extremity of which, Cape St. Vincent, is the south-west point, not only of Portugal, but of Europs.—*Rivers.* The principal are the Tagus, the Donro, the Minho, and the Guadiana. These all enter the country from Spain, and with the Mondego and the Sadao, which have their sources in Portugal, flow W. to the Atlantic Ocean.—*Lakes.* None.—*Climate.* Healthy, except in the vicinity of salt-marshes and on parts of the banks of the Tagus and Mondego.—*Prod.* Wheat, barley, oats, flax, hemp, vines, and maize in the elevated tracts; rice in the low grounds, with olives, oranges, lemous, citrous, figs, and almonds. Silk is made of very good quality. There are extensive forests of oak in the N., chestnut in the centre, and the sea-pine and cork in the S. Oxen aro employed as beasts of draught, and mules and asses as those of burden. Cattle, sheep, goats, and swine are numerous, and fish abound in the rivers and on the coasts.—*Minerals.* Ironmines are worked, and the mountains abonnd in fine marble, aud contaiu traces of gold and silver. Of salt, large quantities are formed in bays along the coast, by natural evaporation. Thers are numerous salt-marshes, and upwards of 200 mlneral springs.—*Manuf.* Limitcd; principally consisting of woollens, silk, and earthenware. Cotton-spinning is followed, and paper, glass, and gunpowder, are made in a few places. For a long time past the import and export trade has been managed chiefly by foreign merchants, particularly British, settled at Lisbon and Oporto.—*Exp.* These consist almost entirely of wine, salt, and wool.—*Imp.* Various; such as corn, flour, fish, woollens, linen, cotton, lace, hardware, hats, shoes, stockings, &c. The higher classes are divided into the Titulados, or higher nobility, and the Hidalgos, or gentry. The women in the capital are loose and dissolute; in the country the people are indolent and listless. They are temperats in eating and drinking; and among the national amusements, the predilection for bull-fights is strong. A want of cleanliness is equally complained of in tho capital and in ths provincial towns.—*Rel.* Roman Catholic; but all others are tolerated.—*Govt.* A limited monarchy. Ths national assembly is called the Cortes, and consists of a houss of Deputies and a house of Peers.—*Army and Navy.* The regular army consists of about 18,000 men. The navy is composed of 3 armored ships, 7 unarmored ships, carrying in all 186 guns, with 23 torpedo boats of the 1st class and 27 of ths 2d.—*Hist. P.* forms the greater part of the ancient Lusitania. It was subjugated by the Romans, in the time of Augustus, and was constituted into a province. In the fifth century, on the overthrow of tho Roman supremacy, Portugal was invaded by the Alans and Visigoths, and suffered with Spain, of which it was then a part, all the troubles and vicissitudes endured by the inhabitants of the psninsula till the eighth century, at which time the Arabs, called indifferently Saracens or Moors, possessed themselves of the whole of Portugal, and kept absolute dominion for nearly 400 years. In the 12th century, Don Alonzo Henriquez, a Spanish prince of Leon and Castile, gained a great victory over the Moors of Portugal, aud carried out his military operations with such success that his troops hailsd him with one voice as king, a dignity which the people confirmed with the liveliest demonstrations of joy. Don Alonzo had no sooner received the crown, than he set himself to consolidats his power and attend to the administration of law and justics; first, however, he renounced all dependences on Spain, politically separated bis new kingdom from all connection or authority with the Spanish crown, and establishsd a free and sovereign state. Undsr the descendants of Don Alonzo I., especially Dsnnis I. aud Alonzo IV., Portugal, during the next two centuries, ross in political importance and commercial prosperity, the kingdom being respected abroad, and ths psople rendered happy and prosperous at home. In 1385, the king of Castile having laid claim to the crown of Portugsl on the death of Ferdinand, was opposed and defeated by Don John, Ferdinand's brother, and ascending the vacant throne, ruled his subjects with justice and prudence. Under this wiss and enlightened sovereign ths Portuguese first directed their attention to those maritims adventnres which snbsequently placed Portugal at the head of all European nations. Under John I. the Portnguese first projected those Atlantic discoveries on the African coast, fraught with such territorial and commercial advantages to the nation; and, under John II. and Emannel, between 1481 and 1521, Vasques de Gama explored the Indian Ocean; the riches of ths east began to pour into Europe; Goa hscame a prosperous possession, and Brazil was added to the possessions of the crown of Portugal. The latter monarch, Emannel, has been regarded as the greatest and best man that ever sat on a throne. Under his wise, just, and benevolent reign, distress was ba. ished from the kingdom, and his subjects rendered rich and happy. Sebastian III., fired with a holy zeal to exterminate the infidels from his country, commenced a sanguinary crusade against the Moors, which he carried on through such repeated defeats, that ho eventually lost both his crown and bis life in the etruggle. Henry the Cardinal, his uncle, an old man of 70, ascended the throne, but died without heirs, after a reign of only two years, in 1580. With Henry terminated the male line, after endnring for 460 years. Spain once more laid claim to the vacant throne, and Portugal again became a dependency of the Spanish crown, the nation suffering all the lujustice, exactions, and tyranny usually inflicted on a conquered country hy lts haughty masters. Aftcr enduring sixty years of intolerable hardships and exactions, a Portuguese nobleman, named John, Duke of Braganza, pitying bis unfortunate countrymen, excited a revolution, which again broke the Spanish fetters, while the people hailed their deliverer as their king, who, being crowned as John IV., 1640, commenced the dynasty of the House of Braganza, a family whose descendants still sway the dcstinies of Portugal. When Napoleon, in 1807, entered the country, aud declared the family of Braganza had ceased to reign, the royal family of *P.*, consisting of Pedro, ths old king, and his imbecile wife, Maria Frances Isabella, queen-regent, the prince-regent, and all the court, set sail from the Tagus to Brazil. After the downfall of Napoleon, the history of *P.* is composed of a long succession of political disturbances, briefly analvzed in this work under the names of PEDRO I. of Brazil; MIGUEL DON, and MARIA DA GLORIA. At the death of this last queen, her eldest son ascended the throne, in 1853, as Pedro V., who died prematurely in 1861, leaving the throne to Louis I., second sou of Dona Maria. B 1838, D. 1889, suc by his son, Carlos I. *Pop.* (1901) 5,423,132. The colonies of *P.* in Asia are reduced to Goa, Salcete, Damao, and Diu; Macao, and settlements in the Indian Archipelago. In Africa *P.* retains the governments of Angola on the W. coast, Mozambique on the E. coast, and some establishments in Senegambia, with various islands.—*Pop.* W. African provinces, 2,800,000; E. African, 1,500,000; Cape Verde, Princess, and St. Thomas Islands, 131,926; cols. in Asia and E. Indies, 939,320. *Area,* 761,204 sq. miles.

Portuguese (*pōr'tu-gēēz'*), *n.* (*Geog.*) A native or inhabitant of Portugal.—*a.* (*Geog.*) Belonging or having reference to Portugal, or to its people.

Portula'ceæ, *n. pl.* [Lat. *portula*, a little gate. Its leaves resemble little doors.] (*Bot.*) The Purslane family, an order of plants, alliance *Silenales.*—DIAG. Calyx and corolla unsymmetrical,—the latter usually

conspicuous; amphitryal ovules; and alternate succulent leaves without stipules. — They are succulent herbs or shrubs, found in waste dry places in various parte of the world, but especially at the Cape of Good Hope and in S. America. There are 12 genera, which comprise 184 species. *Portulaca oleracea* (Purslane) hae been used from the earliest times as a pot-herb and in salads. It has cooling and antiscorbutic properties. The fleshy root of *Claytonia tuberosa*, another plant of this order, is edible. Many *P.* have large showy flowers.

Port'ville, in *New York*, a post-township of Cattaraugus co.

Port Walt'hall, in *Virginia*, a village of Chesterfield co., abt. 7 m. N.E. of Petersburg.

Port'-warden, *n.* A harbor-master; the officer having charge of a port.

Port Wash'ington, in *Ohio*, a post-village of Tuscarawas co., abt. 90 m. N.E. of Columbus.

Port Wil'liam, in *Missouri*, a village of Franklin co., abt. 45 m. W. by S. of St. Louis.

Port William, in *Ohio*, a post-village of Clinton co., abt. 9 m. N. of Wilmington.

Port'-wine, *n.* See PORT.

Por'y, *a.* Full of pores. (R.)

Pose, (*pōz,*) *n.* The attitude in which a person stands, particularly an attitude formally assumed for the sake of effect; artificial attitude or position; as, *poses* plastiques.

—*v. a.* [Fr. *poser*, to set; Lat. *pono, positum*, to put, place, set.] To set, place, or put; to bring to a stand; to put a stop to.

"Learning was *posed*, philosophy was set."—*Herbert.*

—To puzzle; to gravel; to perplex by asking difficult questions; to interrogate closely, or with a view to scrutiny.

Posè, (*pō-zā',*) *a.* (*Her.*) Standing passively, with all his feet on the ground; — said of the attitude of a lion or other beast.

Po'sen, (Grand-duchy of,) a prov. of Prussia, bet. Lat. 51° 30′ and 53° 30′ N., Lon. 15° 30′ and 19° E., having N. Pomerania and E. Prussia, E. Poland, S. Silesia, and W. Brandenburg and Pomerania; *area*, 11,500 sq. m. The surface is level, and in parts marshy, and the soil generally fertile. *Rivers.* Netze, Wartha, Vistula, and Prosna. *Prod.* Hemp, flax, tobacco, and hops. *Manuf.* Woollens, linen, lace, leather, and brandy. *Cap.* Posen.

POSEN, cap. of the above prov., on the Wartha, 126 m. S.E. of Stettin. *Manuf.* Linen, leather, watches, and firearms. It has a considerable trade, mostly carried on by Jews.

Poser, (*pōz'r*) *n.* One who poses or puzzles by asking difficult questions; a close examiner; a scrutiner.— Something, as a question, argument, &c., that puzzles or pute to silence; as, his remark was a *poser.*

Posey, (*po'zee*) in *Indiana*, an extreme S.W. co., adjoining Kentucky and Illinois; *area*, about 398 sq. m. *Rivers.* Ohio and Wabash rivers. *Surface*, level or gently undulating, a great part being subject to annual inundation; *soil*, extremely fertile. *Minerals.* Coal in abundance. *Capital*, Mt. Vernon. *Pop.* (1897) 23,120.—A twp. of Clay co.—A twp. of Clinton co.—A twp. of Fayette co.—A twp. of Franklin co.—A twp. of Harrison co.—A twp. of Rush co.—A twp. of Switzerland co.

Po'seyville, in *Indiana*, a post-town of Posey co.

Posido'nius, a Greek Stoic philosopher, probably B. abt. 135, B. C., D. abt. 51. He studied at Athens, and removed to Rhodes, where he became the head of the Stoic school; was elected prytanes, and in 86, sent to Rome as ambassador. He was an instructor to Cicero.

Po'sing, a town of Hungary, 11 m. from Presburg.

Pos'ingly, *adv.* In a manner to pose, perplex, or puzzle.

Pos'it, *v. a.* To assume as real or conceded; to place taxedly.

Position, (*-zĭsh'un,*) *n.* [Fr.; Lat. *positio*] A putting, placing, or setting; state of being posited or placed; manner of standing or being placed; attitude; posture; as, an inclined or upright *position.* — Situation; station; spot where a person or thing is placed; as, the *position* of an army. — Principle laid down; proposition; proposition advanced or affirmed as a fixed principle, or stated as the ground of reasoning, or to be proved; as, to be in a false *position.* — Thesis; state; condition.

"Let not the proof of any *position* depend on the *positions* that follow."—*Watts.*

— Social rank; relative place or standing in society; as, a person of good *position.*

(*Gram.*) The state of a vowel placed before two consonante, as the first *o* in *pompous;* or before a double consonant, as the *a* in *axle.*

(*Arith.*) A rule, called also the *rule of supposition*, or *rule of false.* It consists in assuming a number, and performing upon it the operation described in the question, and then comparing the result with that given in the question, in order to discover the error of the assumption.

(*Mil.*) A space of ground.

Angle of position. (*Astron.*) The angle made by one or more components of a double or multiple star with the primary, referred to the direction of the diurnal motion. — *Double position.* (*Arith.*) The method of solving problems by proceeding with each of two assumed numbers, according to the conditions of the problem, and by comparing the difference of the results with those of the numbers, deducing the correction to be applied to one of them to obtain the true result. — *Position micrometer.* A micrometer for measuring angles of position, having a single thread or wire, which is carried round the common focus of the object-glass and eye-glass, and in a plane perpendicular to the axis of the telescope the angle being indicated on the graduated tin of the instrument. — *Single position.* (*Arith.*) The method of solving problems, in which the result obtained by operating with an assumed number is to the true result as the number assumed is to the number required. — *Strategic position.* (*Mil.*) A position taken up by an army, or a large detachment of troops, for the purpose of checking or observing an opposing force. — *Tactical position.* A field of battle.

Pos'itive, *a.* [Lat. *positivus;* Fr. *positif.*] Actual; real; existing in fact; — opposed to *negative;* as, a *positive* good. — Direct; explicit; expressed; — in contradistinction to *implied;* as, a *positive* declaration. — Absolute; not dependent upon changing circumstances or relations; — opposed to *relative.*

P. printing. (*Photog.*) The process by which impressions from a *negative* (q. v.) are produced upon suitably prepared paper, or on glass. — See PHOTOGRAPHY.

—*n.* That which is capable of being affirmed; reality. — That which settles by absolute appointment.

(*Gram.*) A word that affirms or asserts existence.

(*Photog.*) A picture corresponding in its lights and shadee with the original, instead of being reversed, as a *negative.*

Pos'itively, *adv.* Absolutely; by itself; independent of anything else; not comparatively. — Not negatively; really; in its own nature; directly; inherently. — Certainly; indubitably. — Explicitly; expressly; peremptorily; in strong terms. — With full confidence or assurance.

Pos'itiveness, *n.* Reality of existence; actualness; not mere negation. — Undoubting assurance; full confidence; peremptoriness.

Pos'itivism, or POSITIVE PHILOSOPHY, *n.* The name given to the system of philosophy inaugurated by the late Auguste Comte, (*q. v.*) Humanity, according to him, has three stages of development, — the *theological*, the *metaphysical*, and the *positive.* In the *theological* stage, man is disposed to regard all effects as supernatural, as signs of the pleasure or displeasure of some superior being or beings. In the *metaphysical* stage, the supernatural agents give place to abstract forces supposed to be inherent in the substances themselves, and capable of producing the phenomena. In the *positive* stage, the mind, convinced of the folly of inquiring into causes and essences, applies itself to the discovery of those laws which regulate effects, or those invariable relations of succession and similitude which exist throughout nature. The mission of positivism is said to be "to generalize science and to systematize sociality." "It is a doctrine capable of embracing all that can regulate humanity; not a treatise on physical science, not a treatise on social science, but a system which absorbs all intellectual activity." All sciences, of whatever kind, physical or social, are but branches of one science, to be investigated on one and the same method. The system is not without merits, as well as defects: and it is wrought out with a considerable degree of skill and ingenuity.

Pos'net, *n.* [W. *posned*, a round body, a porringer] A little basin; a porringer; a skillet.

Posol'ogy, *n.* [Gr. *posos*, how much, and *logos*, a discourse.] (*Med.*) Indication of the dosee in which the different articles of the materia medica ought to be exhibited.

Pos'se, *n.* [Lat., to be able.] Possibility.

Posse Comita'tus, *n.* [Lat. *posse*, and *comitatus*, a county.] (*Law.*) The power of a county which the sheriff is empowered to raise in case of invasion, rebellion, riot, &c., and comprising all able-bodied males within the county between the ages of 15 and 70. All such persons are bound to attend, on being charged by him to do so, under penalty of fine and imprisonment.

Possess', *v. a.* [Fr. *posséder;* Lat. *possideo*, from *pot*, root of *potis*, able, and *sedere*, to be seated.] To occupy; to be master of; to own. — To have the just and legal title, ownership, or property of; to hold the title of, as the rightful proprietor, or to hold both the title and the thing. — To seize; to obtain the occupation of. — To have power over, as an invisible agent or spirit. — To give possession or command of anything; — it has *of* or *with* before the thing possessed.

Possession, (*-sesh'un,*) *n.* [Fr.; Lat. *possessio.*] Act or state of possessing or owning.

(*Law.*) The having, holding, or detention of property in one's power or command; actual seizing or occupancy; ownership. — The thing possessed; estate, land, or goods owned. — The state of being under the power of demons or invisible beings; madness; lunacy.

(*International Law.*) A country held by no other title than mere conquest.

Posses'sion, a bold promontory of S. America, on the W. shore of the Strait of Magellan; Lat. 52° 17′ S., Lon. 68° 56′ 30″ W. *Height*, 360 feet. It forms the S. boundary of an excellent harbor called Possession Bay.

Possessionary, (*pos-sesh'un-a-ry,*) *a.* Relating to possession.

Possessive, (*pos-ses'siv,*) *a.* [Fr. *possessif;* Lat. *possessivus.*] Pertaining to possession; having possession.

Possessive case. (*Grammar.*) A case of nouns and pronouns which express possession, answering to the *genitive* in Latin.

Posses'sively, *adv.* So as to denote possession.

Posses'sor, *n.* [Lat.] One who has, holds, or enjoys any good or other thing; the owner; proprietor.

Posses'sory, *a.* [Fr. *possessoire;* Lat. *possessorius.*] Relating to, or having possession.

P. action or suit. (*Law.*) In Louisiana, an action by which one claims to be maintained in the possession of an immovable property, or of a right upon or growing out of it, when he has been disturbed.

Pos'set, *n.* [Fr *posque*, from Lat. *posca*, from *po*, root of *poto*, to drink.] Milk curdled with wine or other liquor.

—*v. a.* To turn; to curdle; as, milk with acids.

Possibil'ity, *n.* [Fr. *possibilité;* L Lat. *possibilitas.*] The power of being or existing; the state or quality of being possible. — That which is possible.

(*Law.*) An uncertain thing that may happen. — A contingent interest in real or personal estate.

Pos'sible, *a.* [Fr.; Lat. *possibilis.*] That may be or exist; that may be now, or may happen or come to pass; that may be done; practicable; not contrary to the nature of things. — Not impossible though improbable.

Pos'sibly, *adv.* By any power, moral or physical, really existing.

—Without involving impossibility or absurdity; perhaps; peradventure; perchance.

Possneck, (*poss-nek',*) a town of Germany, in Saxe-Meiningen, 11 m. E.N.E. of Saalfeld. *Manuf.* Leather, cloth, and porcelain. *Pop.* 4,000.

Post, *n.* [Fr. *poste*, from Lat. *postis*, a post, from *positus*, from *pono*, to place.] A piece of timber set upright, and intended to support something else. — A military station; the place where a single soldier or a body of troops are stationed. — A public office or employment; that is, a fixed place, or station, or situation. — A sort of writing-paper; letter-paper. — A messenger; one who carries letters regularly. — Any means employed by government for the public conveyance of letters, &c.; the mail. — See POST-OFFICE.

—*v. n.* To travel with post-horses. — To travel with speed.

"And with all speed *post* with him." — *Shake.*

—*adv.* Hastily; or as a post.

—*v. a.* To expose to public reproach, by fixing the name to a post; to expose to opprobrium by some public action. — To advertise on a post or in a public place. — To place in the post-office, as letters. — To inform, or make acquainted with; — frequently used with *up.*

(*Book-keeping.*) To carry accounts from the books of original entry, or journal, to the ledger.

Post. [Lat.] After; a Latin prefix much used in composition.

Post, in *Iowa*, a township of Allamakee co.

Post'-act, *n.* An after act.

Post'age, *n.* Official money charged for conveying letters by post.

Post'al, *a.* Relating to the mails or post-office.

Post'-bag, *n.* A bag used in the postal service for carrying letters, &c; a mail-bag.

Post'-bill, *n.* A post-office way-bill placed in the mail-bag, or given in charge of the guard or driver.

Post'-boy, *n.* A boy who rides post; a courier.

Post'-chaise, Post'-coach, *n.* A carriage for the conveyance of travellers who travel with post-horses.

Post'-date, *v. a.* [Lat. *post*, after, and Eng. *date.*] To date after the real time.

—*n.* A date put to a bill of exchange later than the time at which it is drawn.

Post'-day, *n.* The day appointed for the arrival or departure of the mails.

Post-dilu'vial, Post-dilu'vian, *a.* Posterior to the flood.

Post-dilu'vian, *n.* One who lived since the flood.

Post'ea, *n.* [Lat., afterwards.] (*Law.*) The endorsement of the *nisi prius* record purporting to be the return of the judge before whom a cause is tried, or what has been done in respect to such record.

Post'-entry, *n.* (*Law.*) An entry made by a merchant upon the importation of goods, after the goods have been weighed, measured, or gauged to make up the deficiency of the original or prime entry.

(*Book-keeping.*) An additional or subsequent entry.

Post'er, *n* One who posts; a courier; one who travels expeditiously. — A bill posted for advertising or other purpose.

Pos'terior, *a.* [Lat., from *posterus*, coming after.] Later, or subsequent in time. — Later in the order of proceeding or moving; coming after.

Posterior'ity, *n.* [Fr. *postériorité.*] State of being posterior, or of being later or subsequent.

Poste'riorly, *adv.* Subsequently; afterwards.

Poste'riors. *n. pl.* The hinder parts of an animal's body.

Poster'ity, *n.* [Fr. *posterite*; Lat. *posteritas*, from *posterus.*] The race that proceeds from a progenitor; succeeding generations; descendants; — opposed to *ancestry.*

Pos'tern, *n.* [Fr. *pôterne;* Lat. *posterula.*] A private or concealed entrance behind or outside of a castle, tower, or monastery.

—*a.* Back; behind; private.

Post-exist'ence, *n.* Subsequent or future existence; as, the soul's *post-existence.*

Post-exist'ent, *a.* Living or existing after. (R.)

Post-fact, *a.* Relating to a fact that takes place subsequent to another.

—*n.* A fact which occurs subsequent to another.

Post-fix, *n.* [Lat. *post*, and Eng *fix.*] (*Gram.*) A letter, syllable, or word annexed or added to the end of another word; a suffix.

—*v. a.* (*Gram.*) To add or annex, as a letter, syllable, or word to the end of another or principal word.

Post'-hack'ney, *n.* A hired post-horse.

Post-haste', *n.* Haste or speed in travelling, like that of a post or courier.

—*adv.* With speed or expedition.

Posthet'omy, *n.* [Gr. *posthē, prepuce*, and *tomē*, to cut.] (*Med.*) Circumcision.

Post'-horn, *n.* A trumpet or horn used by a mail-carrier, or driver of a mail-coach, or stage.

Post'-horse, *n.* One of a set of horses stationed at certain distances on a road for the rapid conveyance of couriers, passengers, &c.

Post'-house, *n.; pl.* POST-HOUSES. Post-office; a house where letters are received and despatched.—A house for the convenience of the post, or for obtaining relays of horses.

Post'humous, *a.* [From Lat. *postumus*, superl. of *posterus*, coming after.] Born after the death of the father, or taken from the dead body of the mother, as a child.—Published after the death of the author, as works.—Being after one's decease, as fame.

Post'humously, *adv.* After one's decease.

Post'humus, MARCUS CASSIUS LATIENUS, a Roman general, who was elected emperor in Gaul on the death of Valerian, in 260. He defeated the Germans in several actions, and displayed talents and virtues worthy of his dignity; but, having refused to allow his soldiers to plunder Mayence, they rose against and slew him and his son, in 267.

Postiglione, (*pôs-teel'ye-o-nai,*) a town of S. Italy, prov. of Principato Citeriore, 26 m. S.E. of Salermo; *pop.* 4,000.

Postil'lion, *n.* (Written also *postillion.*) One who rides or guides the first pair of horses in a coach or other carriage: also, one who rides one of the horses.

Post'ing-house, *n.* A post-house.

Postique, (*-tēk',*) *n.* [Fr. *postiche.*] (*Arch.*) An ornament of sculpture when it is superadded after the work itself is done.

Post'-man, *n.; pl.* POST-MEN. A post or courier; a letter-carrier.

Post'mark, *n.* The mark or stamp of a post-office on a letter.

—*v. a.* To affix the stamp or mark of the post-office, as to letters, &c.

Post'master, *n.* The officer who has the superintendence and direction of a post-office.

Post'master-General, *n.* The chief officer of the Post-office Department of the executive branch of the government of the United States. His duties, in brief, are, among other things, to establish post-offices and appoint postmasters, at convenient places upon the post-roads established by law; to give instructions for conducting the business of the department; to provide for the carriage of the mails; to obtain from the postmasters balances due, with accounts and vouchers of expenses; to pay the expenses of the departments; to prosecute offences, and, generally, to superintend the business of the department in all the duties assigned to it. He is assisted by three assistants and a large corps of clerks,—the three assistants being appointed by the President. He must make five several reports annually to Congress, relating chiefly to the financial management of the department for the ensuing year. He is a member of the Cabinet.

Post-mor'tem. [Lat., after death.] After death; appearing or made after death.

Post-mortem examination. (*Med.*) An examination made upon the body of a deceased person.

Post'-note, *n.* (*Com.*) A kind of bank-note intended to be transmitted at a distance by post, payable to order at a fixed date.

Post-nuptial, (*-nup'shal,*) *a.* Being, or happening after marriage.

Post Oak, in *Missouri*, a village and township of Johnson co., abt. 55 m. S.E. of Independence; *pop.* abt. 2,000.

Post'-obit, *n.* [From Lat. *post*, after, and *obitus*, death.] (*Law.*) A bond, or agreement, by which the obligor borrows a certain sum of money, and promises to repay it with more than the lawful interest upon the death of a person from whom he has expectations, if the obligor is then living.

(*Med.*) Same as POST-MORTEM, *q. v.*

Post'-office, *n.* The forwarding of messages from post to post, or by special riders, has been carried on for more than 2,000 years, but the first approach toward a complete postal system appears to have been that established in the 13th century by the University of Paris. In the 15th century, Louis XI. established, for his own use, mounted messengers, and instituted post-stations at intervals of four French miles on the principal roads of France. During the next century, Charles VIII. extended this institution for the use of the court. The first post was established in Germany by Roger I., in the latter part of the 15th century. A regular postal system was not established in England till the 17th century. In 1635 Charles I. erected a letter-office for England and Scotland; but this proved to be tentative, and it was only in 1649 that a regular post-office for the weekly conveyance of letters to all parts of the kingdom was instituted. In the English colonies of North America a postal-system was established in 1710; and in 1753 Benjamin Franklin was appointed Postmaster-General. In 1760 he arranged a stage-wagon to carry the mail from Philadelphia to Boston, once a week, starting from each city on Monday morning, and reaching its destination by Saturday night. In 1789 the Constitution of the United States conferred upon Congress the exclusive control of postal matters for all the States. In 1790 there were but 75 post-offices in the country, and the whole amount of postage received was $37,935. At the close of the war, in 1865, there were 20,000 post-offices, 140,000 miles of post routes, and $14,500,000 of income. In 1895 the number of offices passed the 70,000 mark, and the post routes covered nearly half a million miles, and the revenue was $77,000,000, while the number of pieces of mail matter handled was about 11,000,000,000, and the salaries received by postmasters over $16,000,000. In 1839 the mail of Great Britain comprised 76,000,000 pieces, and in 1895 about 3,000,000,000. The United States postal system yielded the government a slight profit up to 1882, since which time there has been an increasing loss each year, and the department now requires an annual appropriation of about $10,000,000. The British post-office has always paid the government a profit, of late years £2,500,000 to £3,000,000.

The early post-rates were based more upon the distance carried than the weight of letter. Between 1757 and 1837 the English Parliament several times raised the rates of postage, so that the prices were almost prohibitive. In the latter year an agitation for penny postage was begun, and culminated successfully in 1840. A high-priced system was also maintained in the United States. Until 1816 the rates of postage were: for a single letter (*i. e.* composed of a single piece), under 40 miles, 8 cents; under 90, 10 cents; under 150, 12½ cents; under 300, 17 cents; under 500, 20 cents; over 500, 25 cents. Some modifications were made in 1816, but by Act of Congress, March 3, 1845, the rates fixed were: for a letter not exceeding a half ounce in weight, under 300 miles, 5 cents; over 300, 10 cents; and an additional rate for every additional half ounce or fraction of a half ounce. By a law passed March 3, 1853, the rates on single inland letters were reduced to 3 cents for all distances under 3,000 miles, and 10 cents for all over that distance. In 1863 a level rate of 3 cents was made for all domestic letters of not more than a half ounce weight. The 1-cent postal-card was adopted in 1873, and the 2-cent letter-rate came into effect in 1883, since which time a further reduction has been made by increasing the weight allowed from a half ounce to "one ounce or each fraction thereof." Drop letters, not subject to house delivery, are taken care of for 1 cent. All written or type-written matter is rated as first class, and subject to these rates. Newspapers and periodicals published at least four times a year are rated as second class, and are forwarded at 1 cent a pound, payable in bulk; transient newspapers pay in the same way 1 cent for each 4 ounces. General printed matter goes in the third class, at a rate of 1 cent for each 2 ounces. Merchandise and miscellaneous mailable articles are carried fourth class for 1 cent an ounce, except seeds, roots, etc., which go at half that rate. See POSTAL SERVICE, in SECTION II.

Post'-office Order, *n.* A money-order given by a postmaster on any post-office.

Pos'ton, in *Indiana*, a post-village of Ripley co., abt. 56 m. W. of Cincinnati.

Post'-paid, *a.* Having the postage paid, as a letter.

Postpone', *v. a.* [Lat. *postpono*, from *post*, and *pono, ponere*, to put, to place.] To put off to a future or later time; to adjourn; to defer; to delay.—To set below something else in value or importance.

Postpone'ment, *n.* Act of postponing or deferring to a future time; temporary delay of business.

Postpon'er, *n.* A person who postpones.

Post-position, (*-zish'un,*) *n.* The state of being put out of the regular order.

(*Mus.*) A retardation of the harmony, effected by placing discords upon the accented parts of a bar not prepared and resolved according to the rule for discords.

Post-pos'itive, *a.* That is placed after.

Post-pran'dial, *a.* [Lat. *post*, and *prandium*, dinner.] Taking place after dinner.

Post-scen'ium, *n.* [Lat., from *post*, after, and *scena*, a scene.] (*Arch.*) The after-part of the stage, furnished with conveniences for robing the actors and depositing the machinery.

Post'script, *n.* [Lat. *post*, after, and *scriptum*, from *scribo*, to write.] A paragraph added to a letter after it is concluded and signed by the writer, or any addition made to a book or composition after it had been supposed to be finished.

Post'-scripted, *a.* That has a postscript. (R.)

Post'-tertiary, *a.* (*Geol.*) The period following the tertiary; pleistocene; quaternary.

Post'-town, *n.* A town in which a post-office is established, or post-horses are kept.

Pos'tulant, *n.* [Fr., from Lat. *postulans*, from *postulare*, to ask.] A candidate; one who requests or demands.

Pos'tulate, *n.* [Lat. *postulatum*, from *postulo*, to ask.] (*Logic and Geom.*) A position or supposition required to be granted, or of which the truth is demanded or assumed, for the purpose of future reasoning. Kant's postulate is a proposition whose certainty is incorporated with that of another, so that you must reject that other or admit at the same time what it necessarily supposes. His three postulates of practical reason are *freedom, immortality*, and *God*. Euclid has constructed his *Elements* on the three following postulates: 1. That a straight line may be drawn from any one point to any other point. 2. That a terminated straight line may be produced to any length in a straight line. 3. That a circle may be described from any centre, at any distance from that centre.

—*v. a.* To assume; to take without positive consent.—To beg or assume without proof.—To entreat; to request.

Postula'tion, *n.* The act of supposing without proof; gratuitous assumption.—Solicitation; supplication.

Pos'tulatory, *a.* Assuming or assumed without proof.

Pos'tumous, *a.* Posthumous. (R.)

Postural, (*post'yur-al,*) *a.* Relating to posture.

Post'ure, *n.* [Fr.; Lat. *positura*, from *pono, ponere*, to place.] (*Fine Arts.*) The situation of a figure with regard to the eye, and of the several principal members with regard to each other by which action is expressed.—The situation or disposition of the several parts of the body with respect to each other, or with respect to a particular purpose.—Condition; particular state with regard to something else; disposition: as, "the several *postures* of his devout soul."—*Atterbury.*

—*v. a.* To put in any particular place or disposition; to dispose the parts of a body for a particular purpose.

Post'ure-master, *n.* One who teaches or practises artificial postures of the body.

Post'ville, in *Illinois*, a village of Logan co., abt. 30 m. N.E. of Springfield.

Postville, in *Iowa*, a post-town of Allamakee co., about 105 m. N. of Iowa City.

Postville, in *New York*, a village of Herkimer co., abt. 20 m. N.N.E. of Utica.

Po'sy, *n.* [Contracted from *poesy*, q. v.] A poetical sentence or expression; a verse or a motto inscribed in a ring, &c.

—A bunch of flowers.

Pot, *n.* [Fr., Du., Sw., Goth., and W. *pot*, from Lat. *poto*, to drink.] A drinking-cup or mug.

—A vessel more deep than broad, made of earth, iron, or other metal, used for several domestic purposes; a jar.—The curious *P.* represented in Fig. 2146, was found at Cassino, in Etruria, and is in the British Museum. The painting upon it represents the story of Medea boiling an old ram with a view to persuade the daughters of Pelias to put him to death. The pot has a round bottom, and is supported by a tripod, under which is a large fire. The ram, restored to youth, is just in the act of leaping out of the pot.

Fig. 2146.—ETRURIAN POT.

—The quantity contained in a pot: as, a *pot* of ale.—A sort of paper in small-sized sheets. (Written also POTT.)

To go to pot, to be destroyed or devoured. (Colloq.)

—*v. a.* To put or place in a pot.—To preserve seasoned in pots; as, "*potted* fowl and fish." (*Dryden.*)—To inclose or cover in pots of earth; as, "*potted* seeds."

—To put in casks for draining, as sugar.

Po'table, *a.* [Fr.; L. Lat. *potabilis*, from Lat. *poto*, to drink.] Drinkable; suitable for drinking.

—*n.* Something that may be drunk.

Po'tableness, *n.* Drinkableness; quality of being drinkable.

Pot'age, *n.* Same as POTTAGE, *q. v.*

Potag'ro, or **Potar'go,** *n.* A West Indian pickle.

Potamoge'ton, *n.* [Gr. *potamos*, river, and *geiton*, near.] (*Bot.*) The Pond-weeds, a genus of plants, order *Naiadaceæ*. They are aquatic and submersed herbs, only the flowers arising above the surface of the water; spadix (or spike) pedunculate, 3–10 flowered; leaves stipulate, parallel-veined; flowers small, greenish. Many species are American.

Potamog'raphy, Potamol'ogy, *n.* [Gr. *potamos*, a river, and *graphein*, to describe, or *logos*, a discourse.] A description of rivers.

Po'tance, *n.* (*Watch-making.*) The stand in which the lower pivot of the verge of a watch is placed.

Pot'ash, Potas'sa. *n.* [Eng. *pot*, and *ash*, pl. *ashes*; Fr. *potasse*; Lat. *potassa.*] (*Chem.*) Anhydrous *P.* can only be obtained by heating the hydrate, with an equivalent weight of potassium, in an atmosphere free from oxygen. It is a hard, gray solid, fusible at a red heat, and convertible into vapor at a high temperature. When thrown into water, it seizes an equivalent of that substance with such violence as to become red-hot during the process. It has received an important application. Its hydrate, ordinary caustic potash, $K_2OH_2O_2$, is a compound of very great importance. It is generally prepared by dissolving one part of the carbonate in ten of water, and adding, from time to time, to the heated solution, small quantities of milk of lime, until the clear liquid ceases to effervesce on the addition of an acid. The mixture is boiled for a quarter of an hour, after which it is allowed to stand until all the solid particles have settled. The clear liquid is then drawn off by decantation, and evaporated to a syrupy consistence in a silver basin, when it is poured on a clean iron plate and allowed to solidify. Hydrate of *P.*, when perfectly pure, is a hard, white solid, generally met with in commerce in the form of cast-sticks. It fuses at a red heat, and rises in vapor if the temperature be raised. The water it contains cannot be separated by heat alone. Thrown into water, it dissolves with disengagement of heat, accompanied by a hissing sound. Exposed to the air, it deliquesces into a syrupy liquid, which gradually absorbs carbonic acid. It is the most powerful alkali known. It forms well-defined salts with all the acids, all of which are soluble in water. Its uses in the laboratory and manufactory are manifold, both in the solid and liquid conditions. The solid hydrate, from having a great affinity for water, is used by the chemists for drying gases, for decomposing silicious compounds, and

various organic substances. It is used in surgery as a caustic, and in manufactures for the production of soft-soaps. Its solution is used in medicine as an antacid, and in analysis as an absorbent of carbonic acid. The solution should be preserved in green glass bottles, glass containing lead being dissolved by it. It should be kept from contact with the air, as it greedily absorbs carbonic acid, passing into the form of carbonate. *Form.* K_2O.—*Bitartrate of P.* This substance consists in considerable quantities in the juice of the grape, and is less as a deposit in wine-casks, forming a crystalline incrustation called *argol*, or *crude tartar*. It is purified by solution and crystallization, which renders it perfectly white. When in fine powder, it is called *cream of tartar*.

Carbonates of P. There are two carbonates of *P.*—the ordinary carbonate and the bicarbonate. The carbonate, K_2CO_3, exists in the ashes of inland plants, from which it is extracted by lixiviation. The lye thus obtained is evaporated to dryness, and calcined till all the volatile organic matter is burnt off. The mass left is known in commerce as *crude potashes*; and contains about 60 per cent. of alkaline carbonate. Crude *P.* is partially purified by solution in a small quantity of water, filtering and evaporating, the sulphate of *P.* being allowed to crystallize out. Further evaporation produces a crystalline impure carbonate of *P.*, known commercially as *pearlash*. Still further purified, it forms *salt of tartar*. It is employed largely in the manufacture of soap and glass. It is also used as a detergent, and as the source of most salts of potash. In rectifying spirits of wine, it is employed in a fused state to abstract the water. The *bicarbonate of S.*, $KHCO_3$, is prepared by passing carbonic acid through a saturated solution of the monocarbonate, when, being less soluble, it is precipitated. It is occasionally used in medicine. The carbonates of *P.* are both alkaline to test-paper.

Chlorate of P. There are various ways of forming this salt, the best of which is by passing chlorine through a mixture or solution of caustic *P.* and hydrate of lime. If the proportions be properly observed, the whole of the *P.* is converted into chlorate, and the lime into chloride of calcium,—the former salt being easily separated by crystallization. Chlorate of *P.* crystallizes in colorless rhomboidal tables, containing no water of crystallization, and unalterable by exposure to the air. Heated, they decrepitate, fuse, and give off oxygen. They are soluble in 17 parts of cold and 1½ parts of boiling water. This salt possesses powerful oxidizing properties, and is thence used in the manufacture of lucifer-matches, for certain detonating powders in pyrotechny, and in calico-printing. It is occasionally used in medicine as a sudorific and diuretic.

Nitrate of P., or *Nitre, Saltpetre*. This useful salt occurs as an incrustation on the surface of the earth in hot climates, more especially in India, Arabia, and S. America. In more temperate countries, especially in those not favorably situated for the importation of this salt, it is obtained by artificial processes. Refuse animal matters, mixed with lime-rubbish, are exposed to the air in heaps, and watered from time to time with stale urine and stable-runnings. At certain intervals, the impure salt is extracted from the top layer of the heap by lixiviation. Various modifications of this process are in use in Prussia and Sweden, in which latter country every landed proprietor is compelled to pay a tax to the government in saltpetre. Full details of the various methods employed will be found in Regnault's *Cours élémentaire de Chimie*, vol. II. Besides the natural and artificial sources of nitre above mentioned, it also occurs in the juices of certain plants. The theory of natural nitrification is but little understood, although it has been the subject of much investigation and discussion among chemists. The principal use of nitre is in the manufacture of gunpowder. For this purpose, it is necessary that the smallest portion of other salts, with which it is liable to be contaminated, should be removed. The process of ultre-refining is therefore a very important one. The reader will find it fully described in Abel and Bloxam's *Hand-book of Chemistry*. It is also used in salting meat, and in medicine. The fused salt is known in pharmacy as *sal prunelle*. Nitre is a dimorphous salt, crystallizing in colorless hexagonal prisms with dihedral summits, and in flattened rhombohedra, both of which are anhydrous. Water is, however, generally contained in the interstices of the crystals, causing them to decrepitate when heated. If the temperature be raised above 660° Fahr., the salt fuses and gives off oxygen, becoming converted into the nitrite. If the heat be continued, nitrogen and oxygen are both evolved. Nitrate of *P.* has a cool, saline taste; it dissolves in five parts of cold water with considerable depression of temperature, and in less than its own weight of boiling-water. It is but very slightly soluble in alcohol. At high temperatures, it acts as a very powerful oxidizing agent, and is greatly used for this purpose, both in the manufactory and the laboratory. Even silver, gold, and platinum become oxidized under its influence. A mixture of 3 parts of nitre, 2 of dry carbonate of *P.*, and 1 of sulphur, intimately mixed and heated on an iron shovel until fusion takes place, explodes suddenly with a loud report. Nitrate of *P.* was formerly much used in the manufacture of nitric acid; but nitrate of soda, being a much cheaper salt, is gradually superseding it.

Prussiate of P. A term applied in ordinary language to the ferrocyanido of potassium. It is prepared by gently igniting carbonate of *P.* with animal matter, such as horns, hoofs, or dried blood, in iron vessels, by which means cyanide of potassium and some cyanide of iron are formed. The soluble parts are then washed out with water, and sulphate of iron added until the Prussian blue which is formed ceases to be decomposed by the free *P.* contained in the solution. The ferrocyanide of potassium is then set to crystallize, and separated from sulphate of potash by repeated crystallization. It is then obtained in truncated octohedral crystals, of a semi-transparent yellow color. Prussiate of *P.* obtained in this way is much used in chemistry as a test for the presence of metals, especially of iron, the peroxide of which is precipitated from its solutions in the form of *Prussian blue*. The animal substances used in this manufacture are those which condense the most azotized matter in the smallest bulk; and among all the substances used for the preparation of the lixivium, blood deserves the preference, when it can be got cheap enough. It ought to be evaporated to perfect dryness, reduced to powder and sifted. The substance called *red prussiate of P.* is ferridcyanide of potassium, prepared by passing chlorine gas through a solution of the ferrocyanide of potassium till it ceases to give a precipitate of Prussian blue with a per-salt of iron.

Sulphates of P. There are two sulphates of *P.*—the ordinary sulphate and the acid bisulphate. Sulphate of potash, $KHSO_4$, is an anhydrous salt, crystallizing in six-sided prisms, with pyramidal heads, or in four-sided oblique rhombic prisms. It requires 16 parts of cold water for solution. It forms double salts with the protoxides, which are isomorphous with magnesia, and another series with the sulphates of the sesquioxides, isomorphous with alumine. The latter are the different varieties of alum. Bisulphate of potash, $KOSO_3 + HOSO_3$, is formed on a large scale during the manufacture of nitric acid from saltpetre, and is the *sal enixum* of the older writers. It is sometimes used as a flux in soldering metals. It crystallizes in rhomboidal tables, which deliquesce in the air, and are very soluble in water.

Potas'sium, *n.* (*Chem.*) This remarkable metal, which is the base of the alkali potash, was discovered in 1807, by Sir Humphrey Davy, and its isolation marks an important æra in the progress of philosophical chemistry. Up to this time the alkalies and earths had long been suspected to be compound bodies, but had resisted every endeavor to decompose them. Davy, however, having succeeded in decomposing potash by the voltaic current, the decomposition of the other alkaline bodies followed, as a matter of course. Not only this, but *P.* itself, from its powerful affinity for oxygens, formed a valuable decomposing agent. *P.* is a silver-white metal, with a slight bluish tint; at 32° Fahr. it is brittle, and has a crystalline fracture; at temperatures above freezing-point, it gradually becomes malleable, until it reaches 60°, when it is pasty. Exposed to the air, it becomes covered with a film of oxide almost immediately, and when thrown into water, its affinity for oxygen is

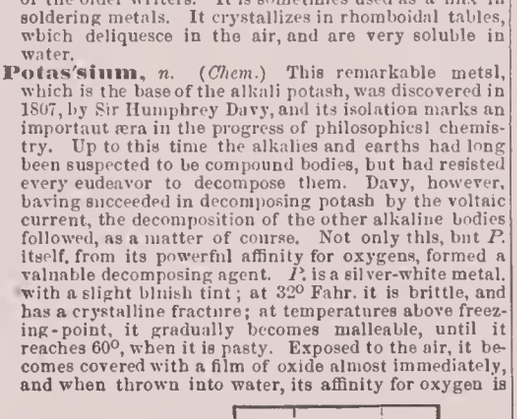


Fig. 2147.— PREPARATION OF POTASSIUM.

so great that sufficient heat is produced to volatilize and fire the metal, which burns with a beautiful rose-colored flame, until the whole is oxidized. *P.* decomposes nearly all the gases which contain oxygen, if heated in contact with them; and at a high temperature it will remove oxygen from all bodies containing it. Hence its use in preparing the metals of the alkaline earths. From its affinity for oxygen, it is necessary to preserve the metal either in hermetically sealed exhausted-tubes, or beneath the surface of some liquid containing only carbon and hydrogen, such as naphtha. The method of procuring the metal by the voltaic current is troublesome and expensive; it is now prepared by decomposing carbonate of potash by charcoal. Acid tartrate of potash is fused in a capacious iron crucible, until it ceases to emit inflammable vapors; a porous mass of carbonate of potash, mixed with finely-divided charcoal, is thus obtained. The mass is broken into lumps, and introduced into an iron retort, connected with a receiver of a peculiar shape. The retort is heated nearly to a white heat, when vapors of potassium rise, and are condensed in the receiver. Fig. 2147 represents the iron retort connected with its copper receiver, surrounded with cold water, and containing petroleum to protect the distilled potassium from oxidation. The lateral tube of the receiver permits the tube of the retort to be cleared, if necessary, during the distillation, by the passage of an iron rod. The *P.* thus obtained is not pure, and requires re-distillation to render it available for chemical purposes. In commercial operations, such as the manufacture of aluminium, metallic sodium is used, being more easily prepared, and having a smaller atomic weight; 23 parts doing as much work as 39 parts of *P.* Potassium forms two compounds with oxygen; the oxide, K_2O, which has been fully described under the head of *potash*, and the teroxide, K_2O_3, which is formed when the metal is burned in a silver spoon. It is a yellowish-brown mass, fusible at a red heat, and showing a crystalline structure as it cools. The combinations of *P.* with the elements are most important. The uses of hydrate, nitrate, chlorate, and carbonate of potash have already been described. Potash is present in all fertile soils; the great sources of the alkali being in the various clays, which contain 2 or 3 per cent. of it, derived from the disintegration of the felspar. Hence its presence in the ashes of plants. A process has been lately invented for the extraction of potash from felspar, which, if it can be carried out on a large scale, promises to be as important, with regard to potash, as the process of Leblanc for extracting soda from a mineral source. *Equiv.* 39; *sp. gr.* 0·865; *melting-point*, 130°; *symbol* K.

Bromide of P. This salt is prepared by adding bromine to a solution of caustic potash, until it assumes a slight yellow tinge. Bromide of *P.* and bromate of potash are formed, and the latter salt is decomposed by a current of sulphuretted hydrogen. It crystallizes in cubes, and is very soluble. It is used in photography and pharmacy. *Form.* KBr.

Chloride of P. This salt is largely extracted from kelp, and is used principally as a source of potash in the manufacture of potash-alum. It is remarkable for forming definite compounds with sulphuric acid and chromic acid, which may be represented by the following formulæ: $KCl.2SO_3$ and $KCl.2CrO_2$. They are both decomposed by water.

Iodide of P. This important salt is obtained in two ways. By adding iodine to a solution of potash until the solution begins to assume a brown tint, iodide of *P.* and iodide of potash are formed, the latter salt being converted into the former by gently igniting the residue obtained by evaporation. A better plan is to digest 2 parts of iodine and 1 of pure iron-filings in 10 parts of water in a stoppered vessel. Protiodide of iron is formed, and carbonate of potash added until carbonate of iron ceases to be thrown down. The filtered liquid by evaporation yields cubical crystals of iodide of potassium. The salt is much used in photography as an iodizing agent, and in medicine as an alterative. For both these purposes it is necessary that it should be free from carbonate and iodate of potash. The former salt may be detected by the solution effervescing on the addition of an acid; the latter, by its turning brown under same treatment. *Form.* KI. See PAINTERS' COLIC.

Sulphides of P. Potassium combines with sulphur in 5 different proportions.—K_2S_1, K_2S_2, K_2S_3, K_2S_4, and K_2S_5. The proto-sulphide is formed when hydrogen is passed over sulphate of potash at a red heat, or by heating to bright redness three parts of sulphate of potash and one of finely-divided charcoal intimately mixed. Proto-sulphide of *P.*, when heated in the air, absorbs oxygen, and becomes coated with a film of sulphate of potash. Exposed to the air, at ordinary temperatures, it deliquesces. It dissolves readily in water, forming a colorless caustic solution. Saturated with hydrosulphuric acid, its solution yields a peculiar compound of sulphide of potassium and hydrosulphuric acid, or the hydrosulphate of the sulphide of *P.* This is a definite compound, and may be obtained in deliquescent colorless prisms by evaporating the solution in an atmosphere of sulphurated hydrogen. The higher sulphides of *P.* may be obtained by fusing the sulphide with the proper proportions of sulphur. *Hepar sulphurs*, or liver of sulphur, was formerly used in medicine, and is now employed as a source of milk of sulphur. It is prepared by fusing equal weights of carbonate of potash and sulphur at a temperature of 500° Fahr. This resulting compound contains protosulphide of potassium and hyposulphite of potash, from which milk of sulphur is precipitated on the addition of an acid.

Pota'tion, *n.* [Lat. *potatio*, from *poto, potatus*, to drink.] A drinking or drinking-bout.—A draught; a species of drink.

Pota'to, *n.*; *pl.* POTATOES. [Sp. *patata*; Pg. *batata*, from *papa*, the native name.] See SECTION II.

Potato'-fly, *n.* (*Zoöl.*) The striped Cantharis (*Cantharis vittata*), an insect of the family *Cantharidæ*, found in the U. States. It is of a dull, tawny yellow, or light yellowish-red color above, with two black spots on the head and two black stripes on the thorax, and on each side of the wing-covers. The under side of the body, together with the legs and antennæ, are black, and covered with a grayish down. Its length is somewhat more than half an inch. Great depredations are committed by this insect in potato-fields and gardens, where it not only eats up the leaves of the potato, but also those of many other vegetables.

Po'tatory, *a.* [Lat. *potatorius*.] Pertaining to drinking.

Pot'-bellied, *a.* Having a prominent paunch.

Pot'-belly, *n.* A prominent belly.

Pot'-boy, *n.* A waiting boy in a tavern; one who carries pots of ale.

Pot'-companion, *n.* A fellow-drinker; a companion at carousals.

Poteau River, (*po-to'*) in *Arkansas*, rises in Scott co., and flowing a general N.N.W. course, enters the Arkansas River at Fort Smith, in Sebastian co

Poteen', Potteen', *n.* [From Ir. *potaim*, I drink.] A kind of Irish whisky.

Potem'kin, GRIGORI ALEXANDROVITCH, a distinguished Russian general, who was born near Smolensk, in 1736. He entered the cavalry of the Russian guard at an early age, and having attracted the notice of the empress Catherine by his tall and handsome person, she made him minister of war, in which capacity he suggested the idea of taking the Crimea from the Turks. In 1787 he renewed the war against Turkey, and assumed the command of the army. He amassed immense wealth, was appointed field-marshal of Russia, grand-hetman of the Cossacks, and possessed almost uncontrollable power. He was a man of licentious principles, and an inordinate epicure, which produced the disorder of which he died, 1792. His remains were interred with great splendor at Cherson.

Po'tence, *n.* [Fr.] (*Her.*) Same as POTENT CROSS, *q. v.*

Po'tency, *n.* [It. *potenza*, from Lat. *potens*, from *possum*, to be able.] Physical power, energy, or efficacy; strength; moral power; influence; authority.

"By what name shall we call such a one, as exceedeth God in *potency*?"—*Raleigh.*

Poten'gi, or POTINGI, sometimes called RIO GRANDE, a river of Brazil, rises in the Serra dos Cairiris Novos, and flowing N.E. enters the Atlantic Ocean, abt. 20 m S. of Cape St Roque.

Po'tent, *a.* [It. *potente*, from Lat. *potens*, from *possum*, to be able.] Having physical power, energy, or efficacy; as, a *potent* drug. — Having power or efficacy in a moral sense; having great influence. — Having great authority, control, or dominion; as, *potent* monarchs.

P. or *P. cross.* (*Her.*) A cross crotch-shaped at each extremity, (Fig. 2148.) It is also called a Jerusalem cross, from its occurrence in the insignia of the Christian kingdom of Jerusalem, which are argent, a cross potent between four crosslets or. This coat is remarkable as being a departure from the usual heraldic rule which prohibits the placing of metal upon metal.

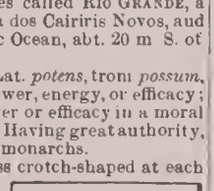


Fig. 2148. — POTENT.

Po'tentate, *n.* [Fr. *potentat*; It. *potentato*, from Lat. *potens*.] One who possesses great power or sway; a prince; a sovereign; an emperor, king, or monarch.

Poten'tial, *a* Existing in possibility, not in act.

P. cautery. (*Surg.*) A remedy, such as a caustic alkali, which, although energetic, does not act till some time after its application; so called in contradistinction to the hot iron, which is termed *actual cautery.*

P. mode. (*Gram.*) That form of the verb which is used to express the power, possibility, liberty, or necessity of an action or of being.

—*n.* Anything that may be possible.

Potentiality, (*-shi-al'ity,*) *n.* State or quality of being potential; possibility; not actuality.

Poten'tially, *adv.* In possibility; not in act; not positively; in efficacy; not in actuality.

Potentiate, (*-shi'at,*) *v. a.* To give power to. (R.)

Potentil'la, *n.* [Lat *potens*, powerful.] (*Bot.*) A genus of plants, of the *Rosaceæ*, differing from *Fragaria* (Strawberry) in the fruit having a dry instead of a succulent receptacle The species are very numerous, natives chiefly of northern temperate regions, and some of them of the coldest north; most of them perennial herbaceous plants, with yellow, white, red, or purple flowers, and pinnate, digitate, or ternate leaves. They are often called *Cinquefoil* (Fr., five-leaved); and some of the species are favorite garden-flowers.

Po'tently, *adv.* Powerful, with great force or energy; forcibly.

Po'tentness, *n.* Powerfulness: might; power.

Potenza, (*po-ten'dza,*) a town of S. Italy, cap. of the prov. of Potenza, 58 m. E.S.E. of Salerno. *Manuf.* Woollens, serges, cottons, &c. *Pop.* 12,789.

Po'terium, *n.* (*Bot.*) A genus of plants, order *Rosaceæ*. The Burnet, *P. sanguisorba*, said to be native about Lake Huron, is a herbaceous plant with unequally pinnate leaves. It is occasionally cultivated as a salad

Pot'-hanger, *n.* Hook or branch on which the pot is hung over the fire.

Poth'er, Pot'ter, Pud'der, *n.* Bustle; confusion; tumult; flutter.

—*v. n.* To make a stir; to make a blustering ineffectual effort.

—*v. a.* To harass and perplex; to puzzle.

Pot'-herb, (*-erb,*) *n.* An herb used in cooking.

Po'thier, ROBERT JOSEPH, an eminent French lawyer, b. at Orleans, 1669. He became professor of law in the university of his native city, and D. there in 1772, as much beloved for his virtue as admired for his extensive learning. His treatises on various legal subjects form 17 octavo vols., but his great work is a *Digest of the Pandects of Justinian*, in 3 vols. fol.

Pot'-hook, *n.* A hook on which pots and kettles are hung over the fire.

—A letter or character like a pot-hook; a scrawled letter.

Pot-house, *n.* A low drinking-house.

Poti, POTY, PUTI, or CARATUEZ, a river of Brazil, flowing into the Parnahiba in the prov. of Piauhi. *Length*, abt. 200 m. At its mouth is a town of the same name, abt. 120 m. N. of Oeiras.

Potichomanï'a, *n.* [Fr. *potichomanié*, from *potiche*, a porcelain vase, and *manie*; Gr. *mania*, mania] The art or process of coating the inside of glass vessels with engravings or paintings, so as to give them the appearance of painted ware.

Pot'iphar, (*Script.*) A high officer of Pharaoh, who purchased Joseph of the Midianites, and made him master of his house, but afterwards imprisoned him on a false charge.

Po'tion, *n.* [Lat. *potio*, from *potare*, to drink.] A draught; usually, a liquid medicine; a dose.

Pot'-lid, *n.* The cover of a pot

Pot'-luck, *n* Whatever may happen to be provided for a meal.

Pot'-man, *n.*; *pl.* POT-MEN. A pot-companion.

Pot'-metal, *n.* An alloy of copper and lead.

Potomac, a river of the United States, formed by two branches, which rise in the Alleghany Mountains, and unite 20 m. S.E of Cumberland, Maryland, from which point the river flows in a generally S.E. course, 400 m., and falls into Chesapeake Bay, where it is from 6 to 8 m. broad, and 75 m. from the ocean. Line-of-battle ships ascend to Washington, 120 m. from its mouth, and the tide reaches Georgetown. Between Westport and Washington, 220 m., it falls 1,160 feet. The scenery in this portion of its course is wild and beautiful, especially where it breaks through the Blue Ridge at Harper's Ferry. Its principal affluents are the Shenandoah, Savage, Monocacy, and Aquia Creek. The *P.* forms the greater part of the boundary between Virginia and Maryland. During the Civil War, both the National and Confederate armies crossed the fords of the Upper Potomac several times, and severe actions were fought upon its banks.

Potomac Creek, in *Virginia*, enters Potomac River from Stafford co.

Potosí', a city of Bolivia, cap. of a dept. of same name, stands in Lat. 19° 35′ S., Lon 65° 25′ W., in a narrow glen on the river of the same name, on the mountain which contains the richest silver-mines of S. America, 70 miles from Chuquisaca, in a cold climate, owing to the height of the ground, which is 13,330 feet above sea-level, and in a barren country, the sides of the hills being covered only with moss, and their summits capped with eternal snows. — In 1547 this town was founded, and is entirely supported by the mines. A royal mint was established in 1562; and so rapidly did its population increase, that, in 1611, the town is said to have contained 160,000 inhabitants. Since then, however, the population has continually decreased. It has a mint, convents, nunneries, a college, and an hospital. *Pop.* abt. 20,000.

Poto'si, in *Kansas*, a post-townsip of Linn co.

Potosi, in *Missouri*, a post-village, cap. of Washington co., abt. 70 m. S.S.W. of St. Louis. Mines of Galena are worked near here.

Potosi, in *Wisconsin*, a post-village and township, former cap. of Grant county, about 15 miles N. W. of Dubuque, Iowa.

Pot'-pie, *n.* A dish composed of meat, potatoes, and dough, baked as a pie, or boiled together.

Pot-pourri, (*po-poor-ee'.*) [Fr., from *pot*, pot, and *pourrir*, to boil very much.] (*Cooking.*] A dish of different sorts of viands, and corresponds, in this sense, to the *hotch-potch* of Scotland, and the *olla podrida* of Spain.

(*Mus.*) A selection of favorite pieces strung together without much arrangement, so as to form a sort of medley.

Potsdam', a city, and the second royal residence of Prussia, standing on the Havel, 17 m. from Berlin. *P.* is to Berlin what Versailles is to Paris. It is indebted for its chief improvements to Frederick II. The streets are regular and spacious, and, on the whole, may vie in beauty with any town in Germany. It is surrounded by a wall and ditch, and has 9 gates The form of the town, exclusive of the suburbs, is compact, and approaches to a square. The palace, situate on the bank of the Havel, is a magnificent structure: connected with it, also, are a theatre, a menagerie, and spacious stables. The town-house was built in 1754, on the plan of that of Amsterdam; and there are extensive barracks, a great hall for exercising the troops in bad weather, and the garrison church, with a tower 400 feet high, contains the statues of Mars and Bellona; also, in this church, is the tomb of Frederick II. The market-place is ornamented by an obelisk, and by statues of the kings of Prussia. There are a gymnasium, various schools, charitable institutions, and an orphan-house on a large scale, for the children of soldiers. The palace of Sans-Souci, the favorite retreat of Frederick II., is in the neighborhood of Potsdam.

Potsdam, in *New York*, a post-village and township of St. Lawrence co., abt. 11 m. E.N.E. of Canton. The village is well laid out and handsomely built. *Manuf.* Cabinet-ware, machinery, lumber, &c.

Pot'sherd, *n.* [Eng. *pot*, and A. S. *sceard*, a fragment.] A piece or fragment of a broken pot.

Pot'stone, *n.* (*Min.*) A coarsely granular variety of steatite or soapstone, which, on account of its tenacity, infusibility, and the ease with which it may be turned in the lathe, is frequently made into culinary vessels.

Pot'tage, *n.* [Fr. *potage.*] A species of food made of meat boiled to softness in water, usually with some vegetables; broth with vegetables in it.

Pottawat'tamie [from an Indian tribe of that name, formerly occupying this region], in *Iowa*, a W. S.W. co., adjoining Nebraska; *area*, about 900 sq. m. *Rivers.* Missouri, West Branch of the Nishnabatona, and Boyer rivers. *Surface*, agreeably diversified; *soil*, fertile, and well adapted to the production of cereals. *Cap.* Council Bluffs. *Pop.* (1895) 46,042.

Pottawat'omie, in *Kansas*, a N E. co.; *area*, about 848 sq. m. *Rivers.* Kansas river, and Vermilion and Rock creeks. *Surface*, diversified; *soil*, generally very fertile. *Cap.* Westmoreland. *Pop.* (1895) 16,352.

—A post-township of Coffey county.

—A township of Franklin county.

Pot'ter, *n.* One whose occupation is to make pots or earthen vessels. See POTTERY.

—*v. n.* To busy or perplex one's self about trifles; to trifle; to puddle (colloq.)

—*v. a.* To disturb; to perplex; to pother. (Local Eng.)

Potter, PAUL, a celebrated Dutch painter, b. at Enkhuysen, 1625; settled at the Hague, and painted cattle and landscapes, but was particularly successful in the former. His coloring is uncommonly brilliant, and for fidelity to nature he is unexcelled; his pictures are consequently held in the highest estimation. One of his most celebrated pictures is the *Bull*, at the Hague. D 1654.

Potter, in *New York* state, a post-township of Yates county

Potter, in *Pennsylvania*, a N. co., adjoining New York; *area*, abt. 1,100 sq. m. *Rivers.* Genesee and Allegheny rivers, and Pine, Oswayo and Kettle creeks. *Surface*, uneven and hilly; *soil*, moderately fertile, and excellently adapted to grazing. *Min.* Iron and coal. *Cap.* Coudersport. *Pop.* (1897) 23,654.

—A township of Center county.

Potter, in *Wisconsin*, a post-village of Calumet co., abt. 24 m. W. of Manitowoc.

Pot'tern-Ore, *n.* An ore which, for its aptness to vitrify and serve the potters to glaze their earthen vessels, the miners call by this name.

Potter's Hollow, in *New York*, a post-village of Albany co., abt. 32 m. W. by S. of Albany.

Potter's Mills, in *Pennsylvania*, a post-village of Centre co., abt 73 m N.W. of Harrisburg.

Potters'ville, in *New Jersey*, a post-village of Hunterdon co., abt. 33 m. N. of Trenton.

Pottersville, in *New York*, a post-village of Warren co., abt. 25 m N. by W. of Caldwell.

Pot'tery, *n.* [Fr. *potterie*, from *pot.*] The vessels or wares made by potters; earthenware. — The place where earthen vessels are manufactured.

(*Arts and Manuf.*) The art of forming vessels or utensils of any sort of clay, kneaded with water and hardened with fire, is extremely ancient, mention being made of it in the Mosaic writings, and it being known that the ancient Greeks possessed it at a very early period. It is, indeed, one of the arts first cultivated by every nation of the world, and its productions have proved of the highest value as an aid to historical research. Not only may the domestic manners of nations long since passed away be learnt from them, but also the extent of ancient Greece and its colonies, and the limits of the Roman empire. The extent of the Mohammedan empire in the Old World, and the Aztec dominion in this continent, would alike be clearly pointed out by their *P.* if no other record had been transmitted to us. Pottery may be conveniently divided into two classes of baked stoneware: — First, *Porcelain* (q. v.), consisting of a fusible earthy mixture, along with an infusible, which, when combined, are susceptible of becoming semi-vitrified and translucent in the kiln; and *pottery*, properly so called, which consists of an infusible mixture of earth, which is refractory in the kiln and continues opaque. — Though the various kinds of pottery and porcelain differ from each other in the details of their manufacture, yet there are certain general principles and processes which are common to them all. The first belongs to the washing of the clay, and consists in dividing and washing it till it acquires the necessary fineness. It is necessary that the clay should be mixed with a certain quantity of silicious earth, the effect of which is to increase its firmness, and render it less liable to shrink and crack on exposure to heat In common clay there is naturally a sufficient quantity of silica, but in the finer kinds an artificial admixture of silica is necessary. The clay having been reduced to a smooth pulp, and the silica (pounded flints) to a creamy mixture, the two are mixed in proportions varying according to the kind of ware to be made. This mixture is then passed through several sieves of hard-spun silk, and having been thus thoroughly strained and purified is boiled for the purpose of evaporating the superfluous moisture, and reducing it into a doughy consistence for the use of the potter The clay being thus brought into the requisite state, is next shaped into articles of earthenware by one of three processes, named *throwing*, *pressing*, and *casting* Of these, throwing is the most

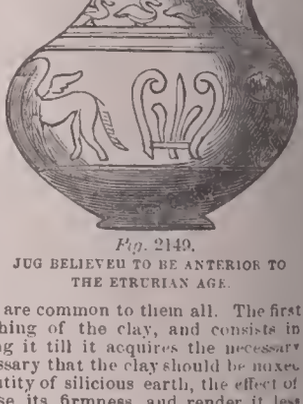


Fig. 2149.
JUG BELIEVED TO BE ANTERIOR TO THE ETRURIAN AGE.

POTTERY AND HOUSEHOLD GOODS OF ANCIENT ROME. 1. Writing-utensils a
8, 9. Cosmetic recepta
amphora. 18. Ladle. 19. Ornamental mixing-bowl. 20. Branding-iron. 21. Kitchen utensils. 22. Wine-sampler.
bucket. 35. Lantern. 36. Sickle. 37. Marble table and drinking-cups. 38, 39. Bronze lamps. 40. Candelabra
49. Torch.

parchment rolls. 2. Toilet-accessories. 3. Mirrors from Pompeii. 4. Pins with decorated heads. 5-7. Rings.
es. 10. Comb. 11. Bathing articles. 12, 13. Keys. 14. Dice. 15, 16. Ornamented earthen bowls. 17. Small
. Spoon. 24-30. Household utensils. 31. Marble vase. 32. Weighing-balance. 33. Scale-weight. 34. Wine-
. 41. Tripod. 42, 43. Roman seats. 44. Fire-hearth. 45. Fire-pan. 46. Stove. 47. Funnel. 48. Earthen tile.

ancient, and is performed at the potter's wheel or lathe, which consists of an upright shaft, about the height of a common table, on the top of which is fixed a disk of wood, of sufficient diameter to support the largest vessel which is made. The thrower, seated with one foot on each side of the wheel-head, — with his elbows supported on his knees, when his hands require to be kept steady,—takes a lump of clay, dashes it down upon the centre of the revolving disk, and with both hands kept wet by occasional dipping in water, squeezes up the clay into a high conical lump, and again forces it down into a mass, to get rid of any superfluous air-bubbles. With one hand, or finger and thumb, in the mass, he then gives the first rude form to the vessel, and with a piece of horn, shell, or porcelain, which has the profile of the shape of the vessel, he smooths the inner surface, giving it the proper shape, and removing the inequalities left by the fingers. The vessel is now lifted off the wheel, placed on a board, and carried into the open air, or a warm room, where it parts with its moisture sufficiently to allow of the operation of *turning*, which, in the case of earthenware, does not much differ from the turning of wood, ivory, or metal. When the vessel has been wrought to the required thickness by this process, its handle (if it requires one), which has been moulded in a metal tube of the required shape, is affixed to it by a little clay and silicate paste. The processes of pressing and casting are simply processes of moulding. We now come to the process of firing, by which articles of pottery are made to lose their pliability, and acquire solidity and density. The temperature at which they are fired has a great influence on their texture and character, and as the novel effect of the first firing is to convert the article into a hard, sonorous substance, having the appearance of biscuit, by which name it is known, and which is more or less porous, a second firing is necessary to remove the porosity, and to give a durable smooth surface, not very liable to tarnish. When the article has been withdrawn from the kiln, it is either simply glazed, or printed, painted, or ornamented in some way, and then glazed, the glaze, in either case, consisting of the ingredients of some kind of glass, fritted or melted together in a furnace, reduced to a powder, and stirred up in water. When the article in biscuit has been dipped into this, it is passed through the glaze or glass-oven; the powder melts into a glass, and reveals the pattern, which, being a white opaque

Fig. 2150.
SPECIMEN OF ITALIAN MAJOLICA-WARE (17th century),
(Upon which is painted the scene in the life of Jesus Christ where he is betrayed to the soldiers of Pilate.)

powder, it had temporarily concealed. The glaze we have mentioned is the one most commonly used; but there are many kinds of glazes, which may be distinguished as transparent, opaque, and colored, and which are severally used, according to the kind of ware to be glazed, and the ingredients of which are very various. The felspars and certain volcanic scoriæ are used where the point of fusion is required to be high. A second class of non-metallic glazes includes common salt, potash, boracic acid, phosphate of lime, and sulphate of baryta. A third class of glazes consists of earthy and metallic substances simply mixed together, &c. All articles of pottery which have a variety of colors are ornamented either by the pencil or by impressions taken from copper-plates, both processes taking place while the article is in its biscuit state, and prior to its being glazed. Painting on earthenware and porcelain is performed with a camel's-hair pencil, and with colors such as are used in enamel-painting, being all metallic oxides, and ground up with substances which vitrify by heat; such as glass, nitre, and borax, in certain proportions. Oil of turpentine is the usual vehicle for the color and flux; and while painting, the appearance of the colors is often dingy and unpleasing, but when the oil and other matters have been driven off by the heat of the furnace, the colors are revealed in their natural brilliancy. When an article of pottery is to be printed, the printer, having first melted the oily coloring substance by laying it on a hot iron-plate, transfers it with a leathern muller to a copper-plate engraved with the required pattern, also made hot. The superfluous color is carefully cleaned off; the plate is covered with a piece of sized paper, which has been first brushed over with a little of soft-soap, and then the whole is passed through a press, the heat of the plate drying the paper, and enabling it the more readily to take up the color. The

Fig. 2151. — GERMAN DRINKING-JUG,
(Beginning of the 17th century.)

impression thus taken is received by a girl, called the "cutter," who cuts it into the required form, and hands it to the "transferrer," who puts it on the biscuit, and rubs the surface till it is completely attached to the clay. The article is then left for a short time to imbibe the coloring matter, after which the paper is washed off with clean water, and the process completed. Of the subsequent operation of glazing, we have already spoken. The most celebrated wares of different times and countries are distinguished by distinctive names; as, Majolica-ware, Sèvres, Chelsea, Palissy, &c.; and of these, the latter — the work of Bernard de Palissy (*q. v.*), who lived in the 16th century — deserves some special attention. Palissy, having resolved to discover a method of enamelling stone-ware, succeeded, after sixteen years' efforts, and proceeded to manufacture *P.* characterized by a peculiar style and many singular qualities. It is not decorated with flat painting, but with figures and ornaments, which are generally pure in form, and are all executed in relief and colored. The most remarkable of the works of Palissy are his "Pieces rustiques," a designation given by him to dishes ornamented with fishes, snakes, frogs, cray-fish, lizards, shells, and plants, admirably true to nature in form and color. Palissy-ware may be distinguished from imitations by the fact that Palissy moulded only the fossil shells, reptiles, and plants of Paris, while his imitators introduced recent shells and other objects of natural history. In 1882, nearly 1000 potteries in the United States produced more than half of the wares annually consumed. The chief centres of this industry are at Trenton, New Jersey, and East Liverpool, Ohio. Near the former are found the coal, kaolin, spar and quartz mines of Penna., Del. and Md., and the fine and white clays of N. J. East Liverpool obtains clays from O., Mo. and Md. The U. S. posesses inexhaustible beds of the richest kaolins, endless stores of pipe, potter's, ball and fire clays, and mines of massive quartz and felspar, mines of lithomarge in Tennessee, and pools or reservoirs of moist brown, black, and almost all colored clays, in Wyoming and other places. The importation of *P.* of all kinds, chiefly from England and France, for the year ending June 30, 1897, amounted, in round numbers, to $10,000,000. See also CERAMICS; POTTERY INDUSTRY.

Pot'ting, *n.* A drinking; a tippling. — A placing or preserving in a pot. — The placing of sugar in casks for the purpose of draining

Pot'tle, *n.* A liquid measure of four pints. — A pot or tankard. — A vessel or small basket for holding fruit.

Pot'tle-draught, (*-draft,*) *n.* The drinking a pottle of liquor at a draught.

Pot'to, *n.* (*Zoöl.*) See KINKAJOU.

Pott's Creek, in *Virginia*, rises in Monroe co., and enters Jackson's River from Alleghany co.

Pott's Grove, in *Pennsylvania*, a post-village and township of Northumberland co., abt. 66 m. N. of Harrisburg.

Potts'town, in *Pennsylvania*, a post-borough of Montgomery co., abt. 37 m. W.N.W. of Philadelphia. It is a place of much business activity, and contains several extensive manufactories.

Potts'ville, in *Pennsylvania*, a post-borough, cap. of Schuylkill co., about 93 m. N.W. of Philadelphia. The site is very uneven, but the town is generally well built, and contains some very fine edifices. *P.* is a place of rapid growth, which is chiefly due to the rich iron and coal mines in the vicinity. *Manuf.* Machinery, iron, carpets, woollen goods, &c. *Pop.* (1897) 15,950.

Pot'ulent, *a.* [Lat. *potulentus*, from *potare*, to drink.] Pretty much in liquor; nearly drunk.
—Fit to drink; drinkable.

Pot'-vallant (*-val'yant*), *a.* Heated to courage by strong drink; courageous over the cup.

Pouch, *n.* [Fr. *poche*, a pocket.] A small bag; usually, a leathern bag to be carried in the pocket.
—A prominent belly or paunch; — used in ridicule or contempt.
(*Med.*) A cyst or sac containing watery fluid.
(*Bot.*) A silicle or short pod.
(*Zoöl.*) The sac attached to the bill of the pelican and of some other birds. — Also, a marsupium, or sac for the food of the young.
(*Mil.*) A leather case, lined with tin, to carry a soldier's ammunition.
—*v. a.* To pocket; to save. — To swallow; — said of fowls.

Pou'chatoula, or **Pon'chatoula,** in *Louisiana*, a post-village of Tangipahoa parish, on the New Orleans, Jackson & E. Northern R.R. *Pop.* about 150.
—A river which takes its rise in a dense swamp of Tangipahoa parish, and after a S.W. course of about 30 m., empties into Natallany river. It is navigable for large vessels up to Wadesboro, about 18 m. from its mouth.

Pouch'-mouth, *n.* A mouth with swollen lips.

Pouchong (*poo-shong'*), *n.* A black and superior species of tea; it being a variety of the Souchong class of Chinese tea.

Poudrette, (*poo-dret',*) *n.* (*Agric.*) A manure composed of night-soil mixed up with clay, dried.

Poughkeepsie, or POKEEPSIE, (*po-kip'see,*) in *New York*, a city, cap. of Dutchess co., on the Hudson River, abt. 70 m. S. of Albany; Lat. 40° 41′ N., Lon. 73° 55′ W. It is regularly laid out, contains many handsome public and private edifices, and is one of the leading cities of the State. *Manuf.* Cotton goods, machinery, carriages, guns, flour, leather, carpets, &c. *Pop.* (1897) 23,450.

Fig. 2152.
POULAINES OR CRACOWS.

Pouillet, CLAUDE-SERVAIS MATHIAS, a French physicist, member of the Institute, and professor of the Faculty of Sciences of Paris, b. at Cuzance, Doubs, 1791. He has contributed many valuable additions to physical science. D. 1868.

Poulaines, *n. pl.* [Fr.] Long, pointed shoes, with upturned toes (Fig. 2152), generally worn in Europe during the 14th century. They were so long as to be secured to the knee by chains. They were also called *cracows*.

Poule, (*pool,*) *n.* See POOL.

Poulp, *n.* Same as PULP, *q.v.*

Poult, *n.* [From Fr. *poulet*, dimin. of *poule*, hen.] A young chicken. (R.)

Poul'terer, *n.* A dealer in poultry.

Poul'tice, *n.* [Lat. *puls, pultis*; Gr. *poltos.*] (*Med.*) A cataplasm; a soft composition to be applied to sores.
—*v. a.* To cover with a poultice; to apply a poultice to.

Poult'ney, in *Iowa*, a village of Delaware co., abt. 33 m. N.W. of Dubuque.

Poultney, in *Vermont*, a post-vill. and township of Rutland co., abt. 65 m. S.W. of Montpelier.

Poulton, (*pole'ton,*) a town and parish of England, co. of Lancaster, at the mouth of the river Wyre, 17 m. S.S.W. of Lancaster; *pop.* 8,000.

Poul'try, *n.* [O. Fr. *poulter*; Fr. *poulet*, a chicken; Lat. *pullus.*] Different kinds of birds reared for the production of eggs and feathers, and for the use of their bodies as animal food. The domestic poultry in common use in this country are the common domestic fowls, or cock and hen, the turkey, the duck, and the goose; to which may be added, as occasionally reared, the guinea-fowl and the peacock.

Poul'try-yard, *n.* A yard or place where poultry are kept.

Pounce, *n.* [Fr. *ponce*; Sp. *ponez*; It. *pomice*, from Lat. *pumex, pumicis*, a pumice-stone.] A powder to prevent ink from spreading on paper after erasures. — Colored powder sprinkled over pricked papers in drawing patterns, &c.
—*v. a.* To sprinkle or rub with pounce.

Pounce, *n.* —[Sp. *punchar, punzar*, from Lat. *pungo, punctus*, to pierce.] The claw or talon of a bird of prey.
—*v. a.* To pierce; to penetrate; to perforate.
—*v. n.* To fall on and seize with the pounces or talons; to fall on suddenly.

Pounce'-box, *n.* A small box with holes in the lid, used for sprinkling pounce on paper.

Pounced, (*pounst,*) *a.* Furnished with claws or talons. — Ornamented with a continuous series of dots over the entire surface.

Poun'cet-box, *n.* (Written also *pouchet-box.*) A small box perforated, and containing perfume.

Pounc'ing, *n.* A hole stamped or worked in cloth by way of ornament.

Pound, *n.* [A. S., Dan., Sw., and Goth. *pund*; Ger. *pfund*; Lat. *pondo*, a pound.] A standard weight, consisting of twelve ounces troy or sixteen ounces avoirdupois. The pound avoirdupoie weighs 7,000 grains troy, and the pound troy 5,760 grains. — An English denomination of money of account, consisting of 20 shillings, and of the value, as declared by act of Congress of 1873, of $4.86.6½ m.

Pound, *n.* [A. S. *pund*, a fold.] An inclosure, in which cattle or other beasts are shut in or confined when taken in trespassing, or going at large in violation of law.

Pound, *v. a.* [A. S. *punian.*] To shut in or confine in a public pound.

—*v. a.* [A. S. *pyndan,* to shut up.] To strike with some heavy instrument.—To commiuute and pulverize hy beating.

Pound'age, *n* A sum deducted from a ponnd, or a certain suin paid for each pound.

(*Law.*) The amouut allowed to the sheriff, or other officer, for commission on the money made by virtue of an execution. This alloweuce varies in differeut States and to different officers.

Pound'-breach, *n.* The act or the offence of breaking a pound, for the purpose of taking out the cattle impounded.

Pound'-cake, *n.* A rich sweet-cake, in which the principal ingredients—flour, butter, sugar, &c.—are used *pound* for *pound.*

Pound'er, *n.* A person or thing that pounds.—A pestle; an instrument used for pounding.—A person or thing denominated from a certain number of pounds; as, a six-*pounder,* that is, a cannon which carries a ball of six pounds; a person receiving an iucome of a certain number of pounds.—A large, heavy pear.

Pound'-keeper, *n.* Oue who has the charge of a public pouud.

Pound'-rate, *n.* (*Law.*) A rate or payment by the pound.

Pound'ridge, in *New York,* a post-village and township of Westchester county, about 120 miles south of Albany.

Pou'part's Ligament, *n.* (*Anat.*) A broad, thin ligameut, covering the anterlor opening in the pelvis, stretching from the *ilium* to the *pubis,* and so named from the anatomist who first showed its importance and uses.

Pou'pics, *n. pl.* [From Fr. *poupiettes.*] (*Cookery.*) A mess of victuals made of veal-steaks and slices of bacon.

Pour, *v. a.* To let, as a fluid in a stream, either out of a vessel or into it.—To emit; to send forth in a stream or continued succession.—To send forth; to give vent to.

"The devotion of the heart *pours* itself forth."—*Duppa.*

—To throw in profusion or with overwhelming force.

—*v. n.* To issue forth in a stream, or continued succession of parts; to move or rush, as a current; to rush in a crowd or continued procession.

Pour'er, *n.* One who pours.

Pour'point, *n.* The quilted douhlet worn by soldiers and civilians in the 14th and 15th centuries.

Pour'suivant, *n.* Same as PURSUIVANT, *q. v.*

Pous'sin, NICOLAS, one of the most eminent of the Freuch painters, B. 1594, at Andelys, in Normandy. Having practised the art under different masters at Paris, he went to Rome, and studied the works of Raphael, Domenichino, and Titiau, with great attention; hnt his taste for tbe antique prevailed, and is observable in all his works. Louis XIII. invited him to France in 1640, and gave him a pension, with apartments in the Louvre; hut Poussin was so annoyed by the envy and intrigue of contemporary artists, tbat he returned to Rome, and remained there duriug the rest of his life. Died 1665.

Pous'sin, GASPAR, an eminent painter, whose proper name was DUCHET, B. at Rome, 1615. His sister married Nicolas Poussin, which circumstance led him to study paiuting under that great master, whose name he adopted. He particularly excelled in landscapes. His works are composed in general from studies in the campagna of Rome and surrounding country, worked out with the feeling of a mind deeply imhued with classical associations, and tending towards melancholy reflection, by contrasting the glory of the past with the decadence of the present—Ideas entirely the opposite of those of Claude, who, trusting to the never-fading beauty of nature, endeavored, from the scenery and architectural remains in Italy, to realize the classic age in all its glory.

Pout, (*poot,*) *n.* A sullen look made by thrusting out the lips; a fit of sullenness.

—*v. n.* [O. Fr. *bouter,* to thrust or push forward.] To thrust out the lips, as in sullenness, contempt, or displeasure,—hence, to look sullen.—To shoot out; to be prominent: as, "To *pout* out with great lips." *Wiseman.*

Pout, *n.* [Fr. *poulet.*] A pullet; a young fowl.

Pout'er, *n.* One who pouts.—A kind of pigeon.

Pout'ing, *n.* Childish sullenness.

Pout'ingly, *adv.* With pouting; in a pouting or sullen manner.

Ponza, (*poo'dza,*) the principal of a group of small islands in the Mediterranean, 30 m. from Terracina; Lat. 40° 53′ N., Lon. 12° 57′ 5″ E. *Ext.* 4 m. long, and 1 m. broad

Pov'erty, *n.* [Fr. *pauvreté;* Lat. *paupertas,* from *pauper,* poor.] Destitution of property, or of convenient means of subsistence; penury; indigence; necessity; want.—Berreuess of sentiment or ornament; defect; insufficiency or defect of words.

Pov'erty Bar, in *California,* a village of Calaveras co., abt. 32 m. N.E. of Stockton.

Pow'der, *n.* [Fr. *poudre;* It. *polvere;* Lat. *pulvis,* dust, powder.] Any substance composed of minute particles.—A composition of saltpetre, sulphnr, and charcoal, mixed and granulated; gunpowder.—Hair-powder; pulverized starch.

—*v. a.* To reduce to powder or fine particles; to comminnte; to pulverize; to pound, grind, or rub into fine particies.—To sprinkle with powder; to sprinkle, as with powder.—To sprinkle with salt; to corn, as meat.

—*v. n.* To fall to dust; to become like powder.

Pow'der-box, *n.* A box in which powder for the hair is kept.

Pow'der-cart, *n.* A cart used for conveying powder.

Pow'der-chest, *n.* On board a ship, a wooden triangular chest, filled with gunpowder, stones, &c., to be ignited and discharged at an enemy attempting to board.—On board a ship, the chest where gunpowder is kept.

Pow'dered, *a.* (*Her.*) Applied to a shield when covered all over with the same bearing or charge.

Pow'dering-tub, *n.* The vessel in which meat is salted.—The place in which an infected leecher is cured.

Pow'der-mag'azine, *n.* A magazine for holdiug powder iu fortified places, &c.

Pow'der-mill, *n.* The mill in which the iugredients for gunpowder are ground and mingled.

Pow'der-mine, *n.* A cave or hollow in whicb powder is placed to be fired at a proper time.

Pow'der-monkey, (*munk'y,*) *n.* A boy employed on war-vessels to carry cartridges from the magazine to tbe guns.

Pow'der River, in *Oregon,* rises on the E. slope of the Blue Mountains, and flows E. into Lewis Fork of Columbia River.

Powder River, rises near the center of Wyomlng, and flowing north by east into Montana, enters the Yellowstone river near Blatchford, and about 45 m. below the old site of Fort Alexander.

Pow'der Springs, in *Georgia,* a post-village of Cobb co., abt. 12 m. S.W. of Marietta.

Pow'dery, *a.* Easily crumbled to pieces; friable.—Sprinkled with powder; dusty.—Resembling powder

Pow'ell, in *Kentucky,* an E. central co.; *area,* 144 sq. m. *River.* Red river. *Surface,* uueven and hilly; *soil,* in some parts fertile. *Cap.* Stanton. *Pop.* (1897) 5,120.

Pow'ell's Creek, in *Ohio,* enters the Auglaize River from Defiaunce co.

Powell's Creek, in *Pennsylvania,* enters the Susquehanna River from Dauphin co.

Pow'ell's Riv'er, rises ou the S.E. slope of the Cumberland Mountains, in Wise co., Virginia, and flowing S.W. into Tennessee, joins the Clinch River between Campbell and Union cos.

Pow'er, *n.* [O. Fr. *povaire;* Fr. *pouvoir;* It *podere, potere,* from Lat. *possum, posse,* to be able.] Command; authority; domiuiou.—Influence; prevalence upon; that which may move the mind.

"This man had *power* with him to draw him forth to his death." *Bacon.*

—Ability; force; might; strength.—The faculty of doing or performing anything; the faculty of moving or producing a chauge iu something; capacity or capability.—Animal or natural streugth.—Faculty of the mind, as manifested by a particular mode of operations.—An army or navy; a host; a military force.

(*Math.*) The product arising from the multiplication of a number into itself; as, a cube is the third *power.*

(*Metaph.*) Power is usually regarded as of two kinds,—an *active power,* or the principle of acting or making any change; and *passive power,* or the principle of bearing or receiving any change. According to Hume, we have no proper notion of power, but merely of the relation which the mind conceives to exist between a thing going before and a thing coming after; all that we observe being merely antecedent and consequent.

(*Mech.*) Power denotes any force, whether of a man, a horse, wind, water, steam, &c., which, being applied to a machine, tends to produce motion. By the term *mechanical power* is signified one of the six simple machines, viz., the lever, the inclined plane, the screw, the wheel and axle, the wedge, and the pulley. In optics, power generally expresses the effect produced hy any optical instrument, as *magnifying power, illuminating power,* &c.

(*Law.*) An authority which one man gives to another to act for him, and is commonly applied to a reservation made in a conveyance for persons to do certain acts, as to make leases or the like. Powers deriving their effect from the statute of uses are either given to a person who has an estate limited to him by the deed creating the power, or who had an estate in the land at the time of the execution of the deed, or to a stranger to whom no estate is given, and the power is for the benefit of otbers.

P., Horse. See HORSE-POWER.

P. of Attorney. See ATTORNEY.

Pow'erable, *n.* Capable of performing anything; possible.

Pow'erful, *a.* Having great power; strong; forcible; efficacious.

Pow'erfully, *adv.* With great power, force, or energy: potently; mightily; with great effect; forcibly.

Pow'erfulness, *n.* The quality of haviug or effecting great power; force; power; might.

Pow'erless, *a.* Destitute of power; weak; impotent.

Pow'erlessness, *n.* Destitution of power.

Pow'er-loom, *n.* A loom worked by mechanical power, as steam or water.

Pow'er-press, *n.* A printing or other press worked hy mechanical power.

Pow'ers, HIRAM, an eminent modern American sculptor, B. at Woodstock, Vt., 1805, was the son of a small farmer. On the death of his father, being left in poor circumstances, he was compelled to maintain himself by his own resonrces. After finding employment in a hotel, a provision-store, and a clockmaker's shop, he made the acquaintance of a foreign artist; and having from his youth heen an adept at drawing, he quickly learned the art of modelling in plaster from his tutor. He then obtained employment in the Cinciunati Museum as a modeller in wax. While thus engaged, he assiduously cultivated his artistic powers, and with so much success that in 1835 he was enabled to set himself up at Washingtou as a modeller of busts. Two years later, he proceeded to Italy, which for a long period had been a cherished idea. In tbat land of art, his progress was very rapid. The first work by which he acquired fame as a sculptor was an *Eve* in marble. In 1851, his *Greek Slave* was placed in the Great Exhibition of London, where it became an object of popularity to a most remarkable degree. From that period his fame became Europeau; and he was everywhere admitted to be a highly gifted represeutative of American art. His other works were a *Fisher-boy,* the *United States* (for the Crystal Palace at Sydenham), *Washington, California, La Penserosa,* and a number of portrait-busts of our most distinguished statesmen. One of his latest and best productions, is the bronze statue of Webster erected in the State-house grounds at Boston. D. July 1873.

Power'ville, in *New Jersey,* a village of Morris co., abt. 12 m. N.E. by N. of Morristown.

Póweshiek, (*pow'e-sheek,*) in *Iowa,* a S.E. central co.; *area,* abt. 576 sq. m. *Rivers.* English River, and Beaver and Prairie creeks. *Surface,* nearly level, chiefly prairie; *soil,* fertile; has large dairyiug interests. *Min.* Stone-coal. *Cap.* Montezuma. *Pop.* (1895) 18,524.

Powhatan', in *Arkansas,* a post-town, cap. of Lawrence co., about 9 m. N. by E. of Smithville.

Powhatan, in *Iowa,* a township of Pocahontas co.

Powhatan, in *Ohio,* a village of Champaign co., about 38 m. N.E. of Dayton.

Powhatan [after the Indian chief, father of Pocahontas], in *Virginia,* a S.E. central co.; *area,* about 255 sq. m. *Rivers.* James and Appomattox rivers. *Surface,* generally level; *soil,* in general, not very fertile. *Cap.* Powhatan, or Powhatan Court House. *Pop.* (1897) 7,250.

Pow'nal, in *Maine,* a p.-twp. of Cumberland co

Pow'nal, in *Vt.,* a p.-twp of Bennington co

Pownal Centre, in *Vt.,* a p. o. of Bennington co.

Fig. 2156. — POWTER.

Pow'ter, POUTER, CROPPER, *n.* (*Zoöl.*) A variety of domestic pigeon, which possess the power of inflating the crop.

Pow'wow, *n.* Among the American Indians, a kind of conjurer, sorcerer, or diviner.—An incantation preliminary to a grand hunt, a council, a warlike expedition, &c., accompanied with dancing and great noise and confusion.—A noisy meeting (Vulgar, U. S.)

—*v. n.* To practise sorcery; to conjure.

Pox, (*poks,*) *n.* [Contracted from *pocks.*] (*Med.*) Pustules or eruptions of any kind; a disease characterized by pocks or pustules; an eruptive distemper.—Syphilis.

—*v. a.* To communicate the venereal disease to.

Poxim, (*po-sheeng',*) a town of Brazil, on a river of its own name, abt. 25 m. S.S.W. of Alagoas; *pop.* 4,000.

Poy, *n.* [Fr. *appui,* a support, from *appuyer,* to support.] A rope-dancer's pole; a support; a steering, or pushing pole.

Poy'al, *n.* A kind of striped cloth for covering seats.

Po-Yang, a large lake of China, prov. of Kiang-se, between Lat. 28° 50′ aud 30° N., Lon. 116° E. *Ext.* 80 m. long, and 40 hroad.

Poy'gan, or POYGAM, in *Wisconsin,* a post-township of Winnebago co.

Poy'ner, in *Iowa,* a twp. of Black Hawk co.

Poynette', in *Wisconsin,* a post-village of Columbia co., abt. 21 m. N. of Madison.

Poy'ou, *n.* (*Zoöl.*) The yellow-footed armadillo, *Dasypus encoubert,* common in Paraguay. See ARMADILLO.

Poysip'pi, in *Wisconsin,* a post-village and township of Waushara co., abt. 12 m. N. of Berlin.

Poze, *v. a.* To puzzle. See POSE.

Pozzo-di-Borgo, CHARLES ANDREAS, COUNT, (*pot-so-de-bor'go,*) a native of Corsica, distinguished as a atateaman in the interest of the "Holy Alliance." B. 1764, first became conspicuous as a partisan of the English in the time of Paoli. When Corsica was incorporated with France, *P.* became a political employé of other govts., and contributed his services—especially as a general and ambassador in the Russian service—to the overthrow of Napoleon. He was a man of great political ability and foresight. After the fell of Napoleon, from 1814 to 1830, he acted as Russian ambassador at Paris, and since then he was living about two years as ambassador in London. D. in Paris, 1842.

Pozzolana, Pozzuolana. (*pot-soo-la'na,*) *n.* Fine volcanic ashes, mixed with about one fifth part of oxide of iron and a little lime, form a natural hydraulic cement, which hardens under water and answers the purpose of Roman cement. It has received its name from the fact of its being shipped from Pozzuoli.

Poz'zuoli, a town of Italy, on a gulf of the same name, 7 m. S.W. of Naples; *pop.* 8,500.

Practicabil'ity, *n.* State or quality of being practicable; feasihility.

Prac'ticable, *a.* [Fr., from Lat. *practicus*, active.] That may be done, effected, or performed by human means, or by powers that can be applied; feasible.—That admits of use, or that may be passed or travelled, as a road.

Prac'ticableness, *n.* The quality of being practicable; possibility to be performed.

Prac'ticably, *adv.* In a practicable manner; in such a manner as may be performed.

Prac'tical, *a.* [O. Fr. *pràctique;* Lat. *practicus;* Gr. *praktikos*, fit for performing.] Pertaining to practice, action, or use.—That may be used in practice; that may be applied to use.—That reduces his knowledge or theories to actual use.—Derived from practice or experience.

Practical'ity, *n.* The quality of being practical; practicalness.

Prac'tically, *adv.* In relation to practice.—By means of practice or use; by experiment.—In practice or use.

Prac'ticalness, *n.* The quality of being practical.

Prac'tice, *n.* [Fr. *pratique;* O. Fr. *practique;* Gr. *praktike.*] Frequent or customary actions; a succession of acts of a similar kind, or in a like employment.—Custom; habit; use; usage.—Dexterity or skill acquired by habit.—Actual performance, distinguished from theory.—Method or art of doing anything.—The exercise of any profession.—Medical treatment of diseases.—Skilful or artful management; dexterity in contrivance or the use of means; stratagem; artifice.

(*Law.*) The form, manner, and order of conducting and carrying on suits or prosecutions in the courts through their various stages, according to the principles of law and the rules laid down by the respective courts. In a popular sense, the business which an attorney or counsellor does; as A B has a good practice.

(*Arith.*) A rule for expeditiously solving questions in proportion; or, rather, for abridging the operation of multiplying quantities expressed in different denominations, as yards, feet, inches, &c.

—*v. a.* (Written also *practise.*) To do or perform frequently, customarily, or habitually.—To use or exercise, as any profession or art.—To do repeatedly, with the view of acquiring skill or dexterity in.—To commit; to perpetrate.

—*v. n.* To perform certain actions frequently, or customarily, either for instruction, profit, or amusement.—To form a habit of acting in any manner.—To try artifices; to use evil arts or stratagems.—To exercise any employment or profession.

Prac'ticer, *n.* One who practices; one who customarily performs certain acts.—One who exercises a profession; one who prescribes medical treatment.

Practician, (*-tish'an,*) *n.* One who, from practice, is skilled in anything.

Practitioner, (*prak-tish'un-er,*) *n.* One who does anything customarily or habitually.—One who is engaged in the actual use or exercise of any art or profession, particularly in law or medicine.—One who uses any sly or dangerous art.

Pra'dier, Jacques, a distinguished French sculptor, was a native of Geneva, and was b. in 1792. He gained the grand prize of the Academy in 1813, and was sent to Rome, where he studied and worked five years, and spent the rest of his life at Paris. The grace and tenderness of Canova were the qualities he chiefly aimed at in his work, but he allowed them frequently to pass in his hands into the voluptuous. He executed numerous Venuses, Bacchantes, Hebes, and other female figures, some portraits, statues, and religious pieces; was admitted to the Institute and the Legion of Honor, and d. 1852.

Pra'do, a town of Portugal, prov. of Minho, on the Cavado, 3 m. N.W. of Braga; *pop.* 6,000.

Prado, in Brazil, a town in the prov. of Espirito Santo, abt. 70 m. S. of Porto Seguro.—A town in the prov. of Bahia, abt. 120 m. S. of Porto Seguro.—A town in the prov. of Para, abt. 55 m. W. of Montalegra.

Præ'cipe, *n.* [Lat. *imp.* of *præcipere*, to give rules, or precepts.] (*Law.*) A slip of paper upon which the particulars of a writ are written. It is lodged in the office out of which the required writ is to issue.—An original writ, of which *præcipe* is the first word, commanding the person to whom it is directed to do a thing, or to show cause why he has not done it. It is as well applied to a writ of right as to other writs of entry and possession.

Præcog'nita, *n. pl.* [Lat. *præcognitus*, from *præ*, before, and *cognoscere*, to know.] Things previously known in order to understand something else.

Præcor'dia, *n. pl.* [Lat., from *præ*, before, and *cor, cordis*, the heart.] (*Anat.*) The diaphragm; also, the thoracic viscera and the epigastrium.

Præcor'dial, *a.* (*Anat.*) Pertaining to the region of the heart.

Præ'fect, *n.* (*Roman Hist.*) A common name applicable to various functionaries. The most important was the *Præfectus urbi*, or warden of the city, whose office existed at an early period of Roman history, but was revived under Augustus, with new and greatly altered and extended authority, including the whole powers necessary for the maintenance of peace and order in the city, and an extensive jurisdiction civil and criminal. The *Præfectus prætori* was the commander of the troops that guarded the emperor's person.

Præ'nomen, *n.* See Cognomen.

Præ'texta, *n.* [Lat.] (*Roman Antiq.*) A long white robe, bordered with purple, worn by the Roman priests and magistrates, and also by boys of the patrician class until the age of seventeen. It was likewise worn by matrons on occasions of religious ceremony, and by girls until they were married.

Præ'tor, *n.* (*Roman Hist.*) According to Livy, the office specially distinguished by this name was instituted B.C. 366, when, after the Licinian Rogations, L. Sextius had been elected the first plebian consul. The patres refused to ratify his election, unless a prætor and two curule ædiles were elected out of their own body. Part of the functions of the prætor was to administer justice between Roman citizens; in B.C. 246 another prætor, called *peregrinus*, was appointed to judge in suits between Roman citizens and foreigners; after which time the former prætor received the epithet *urbanus*. The two prætors determined their offices by lot.

Præ'torian Guards. (*Roman Hist.*) A body of troops distinguished from the rest of the army by double pay and superior privileges, and so named because when first instituted they kept watch and ward round the *prætorium*, or general's tent, were formed into nine or ten cohorts, and made body-guards by Augustus (B.C. 27–A.D. 14). Claudius I. having been raised by them to the throne in 41, gave to each a donation of $600. Their expectations or demands in that respect rose so high, that Hadrian, in 117, complained that the promotion of a Cæsar had cost him twelve millions and a half dollars. The emperor Pertinax was murdered by them March 28, 193, after which they openly put the empire up to auction, proclaiming from the ramparts that the Roman world was to be disposed of to the highest bidder, and it was "knocked down" to Didius Julianus. Septimius Severus banished them, on pain of death, 100 miles from the capital, and remodelled the force, establishing the office of prætorian præfect, in 197. During a popular tumult, they were besieged by the citizens in their camp in 238. Diocletian abolished their privileges, and reduced their numbers in 303. Constantine I. suppressed them in 313.

Præ'torium, *n.* (*Roman Antiq.*) The place in a camp where the Roman general (*Prætor*) had his tent pitched.

Pra'ga, a town of Russian Poland, govt. of Warsaw, on the Vistula, opposite to Warsaw, with which it communicates by a bridge of boats; *pop.* 4,000.

Pragmat'ic, Pragmat'ical, *a.* [Fr. *pragmatique;* Lat. *pragmaticus, pragmatikos*, from *pragma*, that which is done, from *prasso*, to do, to act.] Forward to intermeddle; meddling; impertinently busy or officious in the concerns of others without leave or invitation.

P. sanction. (*Hist.*) A solemn decree or ordinance of a monarch or legislature on some matter of importance. The phrase seems to have originated with the Byzantine monarchs, but was early introduced into France, and is now more particularly applied to several of the more important state decrees. The principal of these are—1. The ordinance of Louis IX. in 1269, by which the liberties of the Gallican Church were established.—2. That of Charles VII. of France, in 1438, occasioned by the schism in the Church between the Council of Basle and Pope Eugenius IV. It confirmed the decrees of the Council of Basle, and declared its supremacy over the Pope.—3. The ordinance confirming the decrees of the same Council, adopted in Germany in 1439 by the Diet of Mentz.—4. The instrument by which Charles VI., emperor of Germany, in 1722, endeavored to secure his dominions, failing male issue, to his daughter, the archduchess Maria Theresa.—5. The instrument by which Charles III. of Spain, in 1759, settled the right of succession to the throne of the Two Sicilies upon his third son and his descendants.

Pragmat'ically, *adv.* In a meddling manner; impertinently.—In a manner that displays the connection and causes of occurrences.

Pragmat'icalness, *n.* The quality of being pragmatic.

Prag'matism, *n.* State of being pragmatic.

Prag'matist, *n.* One who intermeddles.—One who practices pragmatism.

Pra'guerie, *n.* (*Fr. Hist.*) The French nobles, instigated by the Dukes of Bourbon and Alençon, and the Counts of Vendôme and Dunois, rebelled against Charles VII. in 1440. They quitted the court and retired to Blois, taking with them the Dauphin Louis, then a minor; and the movement received the name of Praguerie from the Hussite war. The people declared for Charles VII., and the refractory nobles speedily made submission.

Prague, (*praig,*) a city of Austria, in Bohemia, on the Moldau, 160 m. N.N.W. of Vienna, and 75 m. S.S.E. of Dresden, Lat. 50° 5′ 19″ N., Lon. 14° 25′ 22″ E. It is situated on the Moldau, over which is a bridge of sixteen arches, 160 m. from Vienna. The town may be said to be divided into three parts, the whole surrounded by a moat and earthen mound. Prague, long the capital of Bohemia, contains the ruins of what was once the residence of the sovereign. The university is the oldest in Germany, having been founded by Charles IV., in 1348; the other principal buildings are a palace (but less ancient than the university), containing 150 rooms; the cathedral, a fine old Gothic structure; the Themkirche, containing the tomb of Tycho Brahe; and the church of St. Gallus, standing on the spot where Huss preached. Of public buildings generally, such as churches, convents, schools, and family mansions, Prague contains more than most towns of the same size. The theatre is large; it has a fine hospital, orphan-houses, and a lying-in hospital. The manufactures are linen, cotton, silk goods, hats, paper, brass-ware, jewelry, plated goods, glass, tobacco, mathematical and musical instruments. Prague has several times been exposed to the calamities of war, and was taken by storm in November, 1741, for the Elector of Bavaria, then Emperor. In 1744, the king of Russia bombarded and took it, making the garrison, consisting of 16,000 men, prisoners of war, but he was obliged to abandon it in the same year. In 1757 he again besieged it, but ineffectually; and again in 1848 it was once more bombarded, and more cruelties of war perpetrated. It is the birthplace of Jerome of Prague.

Pra'hau, a town of Australia, near Melbourne; *pop.* 10,000.

Prairial, (*pra-re'al,*) *n.* See Calendar, § 6.

Prai'rie, *n.* [Fr., an extensive meadow.] A large tract of level or rolling land, destitute of trees, and covered with grass, the soil of which is usually very fertile. The term is applied in the U. S. to designate the vast natural meadows or plains which are found principally in the valley of the Mississippi. These prairies or savannahs, as they are also called in the South, are divided by Flint into three classes:—1. The *heathy* or *bushy* prairies, which have springs, and are covered with small shrubs, bushes, grape-vines, &c.; very common in Indiana, Illinois, and Missouri.—2. *Dry* or *rolling prairies*, which are destitute of almost all vegetation, except grass. They are the most common and extensive; the traveller may wander for days in these vast and nearly level plains without wood or water, and see no object rise above the horizon. Great herds of buffaloes formerly frequented these prairies.—3. The *alluvial* or *wet* prairies, which form the third and smallest division. They are covered with a rich vegetation of tall rank grass. The soil is deep, black, friable, and fertile, and abounding with pools left by the floodings of the rainy season (Fig. 2154). Numerous animals are found here, including formerly the buffalo and grizzly bear, and at present the wolf, fox, badger, raccoon, porcupine, beaver, squirrel, otter, &c. The prairie region of the West occupies a vast extent of territory, spreading over much of Ohio, nearly the whole of Indiana, Illinois, and Iowa, southern Michigan, Wisconsin, and Minnesota, northern Missouri, and extending across Kansas, Nebraska, and the Dakotas into the arid region at the base of the Rocky Mountains, with a gradual rise from about 300 to 1,500 feet elevation. It also includes a large area in Canada. The treeless condition of the dry prairies is usually ascribed to the periodical huruings formerly practiced by the Indians, which prevented the growth of shrubs or trees. Since civilization has spread over them great numbers of trees have been planted.

Fig. 2154.—PRAIRIE.

Prairie, in *Arkansas*, an E. central co.; *area*, about 658 sq. m. *Rivers.* White and Cypress rivers, and Des Arc Bayou. *Surface*, nearly level; *soil*, fertile. *Caps.* Des Arc and Devall's Bluff. *Pop.* (1897) 12,473.

Prairie, in *Illinois*, a township of Edgar county.—A township of Hancock county.—A township of Shelby county.

Prairie, in *Indiana*, a township of Henry county.—A township of Kosciusko county.—A post-township of Tipton county.—A township of Warren county.—A township of White county.

Prairie, in *Iowa*, a township of Davis county.—A township of Delaware county.—A township of Keokuk county.—A township of Mahaska county.

Prairie, in *Missouri*, a township of Randolph county.

Prairie, in *Ohio*, a thriving township of Franklin county.—A flourishing township of Holmes county.

Prai'rie City, in *Illinois*, a village of Cumberland county, about 16 miles S.S.E. of Mattoon.—A post-village and township of McDonough county, about 23 miles S.W. of Galesburg.

Prairie City, in *Iowa*, a post-town of Jasper co. *Pop.* (1897) 810.

Prairie City, or **Prairie,** in *Kansas*, a village of Douglas co., about 15 m. S. of Lawrence.

Prairie City, in *Missouri*, a post-village of Bates co., abt. 15 m. S.S.E. of Butler.

PrairieCreek, in *Indiana*, enters West Fork of White River from Daviess county.—A post-township of Vigo county.

PrairieCreek, in *Iowa*, enters Red Cedar River from Linn county.—A township of Dubuque county.

Prairie-dog, *n.* (*Zoöl.*) A small rodent animal, the *Cynomis ludovicianus*, allied to the Marmot, and found on the

Fig. 2155.—PRAIRIE-DOG,
(Copied from Tenney's Manual of Zoölogy.)

prairies west of the Mississippi It is about 16 inches in length, the tail being abt. 2¾ inches. The color of the upper parts of the body is a light, dirty reddish-brown, mingled with gray, and with a few black hairs above, the under parts being a dirty white, the whiskers moderately long and black. It has been named *P.-D.* from the supposed resemblance of its warning cry to that of a small dog; but the resemblance is by no means close. The *P.-D.* does not inhabit the rich grass-covered prairies, but those which, being largely arid from insufficient rain, exhibit a comparatively scanty vegetation; and in these it is to be found in vast numbers, being gregarious in its habits, burrowing in the ground, and throwing up mounds of earth, on the summit of which the little creature often sits as if on watch. The whole extent of a great level prairie is often covered with these hillocks.

Prairie du Chien (*pra'ree du sheen'*), in *Wisconsin*, a city, cap. of Crawford co., about 100 m. W. of Madison. It is well located, handsomely built, and is a place of much business activity. *Pop.* (1895) 3,286.

Prairie du Ro'cher, in *Illinois*, a post-village of Randolph co., abt. 14 m. N.W. of Kaskaskia.

Prairie du Sac, in *Wisconsin*, a post-village and township of Sauk county, about 25 miles W.N.W. of Madison.

Prairie Grove, in *Arkansas*, a locality of Washington, near Boston Mountain, memorable as the scene of a desperate and sanguinary battle during the late Civil War. In Dec., 1862, Gen. Blunt, at the head of abt. 15,000 Union troops, encountered about the same number of Confederates under Gen. Hindman. The conflict waged with obstinate courage upon both sides until night, when the Confederates, under cover of the darkness, withdrew. The National loss was 1,148, of whom 167 were killed and 798 wounded; that of the Confederates was reported to be 1,317, but is estimated much more, as the number of killed alone was over 1,000.

Prairie Ronde, in *Michigan*, a township of Kalamazoo co.

Prairie Springs, in *Iowa*, a township of Jackson county.

Prairie'ton, in *Indiana*, a post-village of Vigo co., abt. 7 m. S.S.W. of Terre Haute.

Prairie'ville, in *Indiana*, a village of Clinton co., abt. 12 m. S.W. of Frankfort.

Prairieville, in *Michigan*, a post-village of Barry co., abt. 58 m. W.S.W. of Lansing.

Prairieville, in *Missouri*, a post-village of Pike co., abt. 66 m. N.W. of St. Louis

Praise, *n.* [Ger. *preis*, praise; Fr. *prix*; It. *prezzo, pregio*, from Lat. *pretium*, value, price.] Commendation bestowed upon a person; approbation or admiration expressed; encomium.

—A glorifying or extolling; as, *praise* to God.

—The ground, object, or reason of praise.

—*v. a.* To extol; to applaud; to commend; to eulogize.

—To glorify in worship; to magnify.

Praise'less, *a.* Without praise.

Prais'er, *n.* One who praises, commends, or extols; an applauder; a commender.

Praiseworthily, (*praz'wur-thi-ly,*) *adv.* In a praiseworthy manner.

Praiseworthiness, (*-wur-,*) *n.* Quality of being praiseworthy, or of deserving commendation.

Praise'worthy, *n.* Deserving of praise or applause; commendable; laudable.

Ralls'ville, in *New Jersey*, a village of Hunterdon co., abt. 5 m. N. of Lambertville.

Pram, Prame, Praam, *n.* See PRAAM and PERMA. (*Naut.*) A flat-bottomed boat used in the Baltic.

Prance', *v. n.* To spring or bound, as a horse in high mettle. — To ride with bounding movements; to ride ostentatiously. — To walk or strut about in a showy manner, or with warlike parade.

Pran'cer, *n.* A horse that prances.

Pran'dial, *a.* [Lat. *prandium*, a repast.] Pertaining to a repast.

Prank', *v. a.* [Ger. *prangen*, to show off; Dn. *pronken.*] To adorn in a showy manner; to dress or decorate to ostentation.

—*n.* A ludicrous or merry trick, or a mischievous act, rather for sport than injury; a freak: a frolic.

Prank'er, *n.* One who dresses in a showy manner.

Prank'ish, *a.* Full of pranks.

Prase, *n.* [Gr. *prason*, a green leek.] (*Min.*) A dark leek-green variety of quartz, the color of which is caused by an admixture of hornblende.

Pras'colite, *n.* [Gr. *prason*, and *lithos*, stone.] (*Min.*) A green, prismatic variety of iolite.

Pras'inous, *a.* [From Gr. *prason*, a leek.] Having the color of a leek; grass-green.

Prasi'tes, *n.* [Gr. *prasitês*, from *prasion*, hoarhound.] (*Med.*) Wine in which the leaves of hoarhound have been infused. —*Dunglison.*

Pra'soid, *a.* [Gr. *prason*, and *eidos*, form.] Resembling prase.

Pra'son, *n.* [Gr.] A leek; also, a sea-weed as green as a leek.

Prate', *v. n.* [Dn. *praaten*, from *praat*, talk.] To talk much and without weight, or to little purpose; to be loquacious.

—*v. a.* To utter foolishly.

—*n.* Continued talk to little purpose; trifling talk, unmeaning loquacity.

Pra'ter, *n.* One who talks much to little purpose, or on trifling subjects.

Pra'tic, *n.* (*Com.*) Same as PRATIQUE, *q. v.*

Pra'tincole, *n.* (*Zoöl.*) A European species of plover.

Pra'tingly, *adv.* With much idle talk; with loquacity.

Pratique, (*prat'eek*) *n* [Fr.; It. *pratica.*] (*Com.*) A license for the master of a ship to trade in a certain port, or ports, or upon a certificate that the place from whence he came is not annoyed with an infectious disease; — a term used in the south of Europe.

Pra'to, a town of Italy, prov. of Florence, 9 m. N.W. of Florence. *Manuf.* Silks, woollens, hats, and soap. *Pop* 12,500.

Prat'tle, *v. n.* [Ger *prateln.*] To talk much and idly, like a child; — to be loquacious on trifling subjects.

—*n.* Trifling talk; loquacity on trivial subjects; prate.

Prat'tlement, *n.* Prattle; prate.

Prat'tler, *n.* One who prattles; an idle talker.

Pratts'burg, in *Georgia*, a post-village of Talbot co., abt. 6 m. N.E. of Columbus.

Prattsburg, in *New York*, a post-village and township of Steuben county, about fifty miles S.S.E. of Rochester.

Pratt's Landing, in *Missouri*, a village of Perry co., abt. 6 m. S. by E. of St. Louis.

Pratts'ville, or **Pratt'ville,** in *Alabama*, a post-village, cap. of Antauga co., about 14 m. N. W. of Montgomery. It contains several extensive manufactories.

Prattsville, in *Georgia*, a village of Monroe co., abt. 16 m. N.W. of Macon.

Prattsville, in *Maryland*, a village of Alleghany co., abt. 13 m. E. of Cumberland.

Prattsville, in *New York*, a post-village and township of Greene county, about fifty miles W.N.W. of Albany.

Prav'ity, *n.* [Lat. *pravitas*, from *pravus*, perverse.] Corruption; malignity; depravity; want of rectitude.

Prawn', *n.* (*Zoöl.*) The *Palæmon serratus*, a crustaceous animal; a species of *Macroura*, or Long-tailed Decapod, well known and esteemed as an agreeable article of food. It is generally about three inches long, and of a pale-red color, which is brightest in the antennæ, and especially in the swimmeret of the tail. Its frontal spine extends beyond the peduncle of the middle antennæ; it is curved upward at the tip, with seven or eight spines above, and five beneath.

Prax'is, *n.* [Gr., from *prassein*, to do.] Use; practice. — An example or form to teach or practice.

Praxiteles, (*prăx-it'-e-lees,*) a celebrated Greek sculptor, b. about 360 B.C., who executed several fine statues, in bronze and marble, of Bacchus, a satyr, Venus, and Apollo. An ancient copy of one of his works, the *Apollo Sauroctonos*, is the only example extant. He excelled by the grace, tenderness, and finish of his works. He was esteemed as second to Phidias only. He executed a series called *The Labor of Hercules*, for the temple erected to that hero at Thebes. Phryne, the celebrated Thespian courtezan, was his mistress, and served as the model for his statues of Venus. Two of his sons acquired fame as sculptors. D. about 280 B. C.

Pray', *v. n.* [Fr. *prier*; It. *pregare*; Lat. *precari*, from *precis*, a prayer.] To implore or to supplicate; to ask with earnestness, or zeal, as for a favor, or for something desirable. — To address the Supreme Being with solemnity and reverence, with adoration, confession of sins; supplication for mercy, and thanksgiving for blessings received.

—*v. a.* To supplicate; to implore; to entreat; to urge. — To ask as a supplicant; to implore; to petition. — To ask or entreat in ceremony or form; to effect or move by prayer; — generally followed by an adverb or preposition.

Pray'er, *n.* A supplicant; a person who prays.

Prayer, (*prār,*) *n.* Act of asking for a favor, and particularly with earnestness. — A solemn address to the Supreme Being; the practice of supplication. — A formula of church-service, or of worship, public or private.

Passive prayer. A state of mystic contemplation, in which the soul and intellectual faculties, concentrated in the adoration of God, yield only to the impulses of grace

Prayer-book, (*prār-book,*) *n.* A book containing prayers, or the forms of devotion, public or private.

Prayer'ful, *a* Given to prayer; devotional; using much prayer.

Prayer'fully, *adv.* With much prayer.

Prayer'fulness, *n* The use of much prayer.

Prayer'less, *a.* Not using prayer; habitually neglecting the duty of prayer to God.

Prayer'lessly, *adv.* In a prayerless manner.

Prayerless'ness, *n.* Total or habitual neglect of prayer.

Prayer'-meeting, *n.* An assemblage or gathering for the purpose of prayer.

Pray'ing, *n.* A form of prayer; a prayer made.

Pray'ingly, *adv.* With supplication or prayer to God.

Pre. [Lat. *præ.*] A particle which, prefixed to words derived from the Latin, marks priority of time, place, or rank.

Preaccusa'tion, *n.* A former or previous accusation.

Preach, (*preech,*) *v. n.* [Fr. *prêcher*; Sp. *predicar*; Lat. *prædicare*, from *præ*, and *dico*, to cry out, to proclaim.] To pronounce a public discourse on a religious subject, or from a text of Scripture. — To discourse on the gospel way of salvation and exhort to repentance.

—*v. a.* To proclaim; to publish in religious discourses. —To inculcate in public discourse. — To deliver in public, as a discourse. — To inculcate publicly; to teach with earnestness

Preach'er, *n.* One who preaches or discourses publicly on religious subjects.

—One who inculcates anything with earnestness.

Preach'ership, *n.* The office or position of a preacher. (R.)

Preach'ing, *n.* The act of preaching; a public religious discourse.

(*Eccl. Hist.*) The modern system of preaching was unknown in the early Church. The general mode then was for the priest to read portions of the Old or New Testament, and explain or enforce the precepts which they contained. Generally, sermons were delivered whenever the Scriptures were read, and sometimes several, by different persons at the same meeting. Some of Chrysostom's sermons occupied two hours in the delivery, though this was the time generally allotted to the whole service. About the 13th century, the scholastic divines directed their chief attention to the study of the sacred Scriptures, and were hence called Bible divines, and honored with the pompous titles of profound, sublime, wonderful, seraphic, angelic doctors. They introduced a new and artificial mode of preaching, called *declaring*. Before this time, the clergy generally adopted postulating, or expounding a large portion of Scripture, sentence by sentence. By the new method, the preacher read a text out of some book and chapter of the Old or New Testament, dividing it into several parts and expounding them; and, generally, the more numerous the divisions and sub-divisions, the better and more highly was he esteemed. The opposition to this textual mode of preaching continued for upwards of a century, but at length it came generally to prevail. The divisions or parts of a modern sermon are usually the introduction, the proposition, the illustration, and the application.

Preach'-man, *n.* One who preaches; — used in contempt.

Preach'ment, *n.* A sermon mentioned in contempt; a discourse affectedly solemn.

Preacquaint', *v. a.* To acquaint beforehand.

Preacquaint'ance, *n.* A previous acquaintance.

Preact', *v. a.* To perform beforehand.

Preac'tion, *n.* A previous action.

Preadam'ic, Preadamit'ic, *a.* Existing before Adam.

Pread'amites, *n. pl.* People supposed to have lived before Adam; or those who advocate the existence of such people. — The legendary traditions of the East speak of nations and empires subsisting before the creation of Adam, and of a line of kings who ruled over them. The subject has been taken up, in modern times, by Isaac Lapeyrère, in his work *Præadamitæ*, 1655, wherein he endeavors to show that Adam was the ancestor of the Jews only, the Gentiles being descended from a long anterior creation.

Preadministra'tion, *n.* A previous administration.

Preadmon'ish, *v. a.* To admonish beforehand.

Preadmonition, (*-mo-nish'un,*) *n.* Previous admonition or warning.

Pread'vertise, *v. a.* To announce publicly, to advertise beforehand.

Pre'amble, *n.* [Fr. *préambule*, from *præ*, and *ambulo, ambulare*, to go about.] An introduction to a discourse or writing; the introductory part of a statute, which states the reasons and intent of the law.

—*v. a.* To preface; to introduce with previous remarks.

—*v. n.* To serve as a preface.

Pream'bulary, *a.* [Lat. *præambulus.*] Relating to a preamble; introductory.

Preangel, (*pai-ang'el,*) *a.* A Dutch residency of Java, in the S.W. part of the island.

Pre'announce, *v. a.* To announce previously.

Preantepenul'timate, *a.* Applied to the fourth syllable from the end of a word.

Preappoint', *v. a.* To appoint beforehand.

Preappoint'ment, *n.* A prior appointment.

Preapprehen'sion, *n.* An opinion formed before examination.

Preassur'ance, *n.* A previous assurance.

Prean'dience, *n.* (*Law.*) Precedence or rank at the bar among lawyers; right of previous audience.

Preb'end, *n.* [Fr. *prébende*; L. Lat. *præbenda*, from Lat. *præbeo*, to give.] (*Eccl.*) Income or other provision assigned for the maintenance of a so-called prebendary, out of the revenue of a cathedral or collegiate church. After the definite constitution of chapters for the maintenance of the daily religious services in the bishop's church, or in other churches similarly established, endowments were assigned to them, which were to be distributed (*præbendæ*) in fixed proportions among the members. These portions were called *portiones canonicæ* or *præbendæ*. To the prebend was commonly attached a residence. The person enjoying a prebend is called a *prebendary*.—The name *prebend* is also given to an endowment assigned to a cathedral church for the maintenance of a secular priest.

Preb'endary, *n.* He who enjoys the ecclesiastical income known as a prebend (*q. v.*).

Preb'ic, in *Indiana*, a post-township of Adams co. *Pop.* (1897) 1,080.

Preble, in *Minnesota*, a post-township of Fillmore co. *Pop.* (1897) 1,150.

Preble, in *New York*, a post-village and township of Cortland county, about 130 miles W. of Albany.

Preble, in *Ohio*, a W.S.W. co., adjoining Indiana; *area*, abt. 430 sq. m. *Rivers* Franklin, St. Clair's, and Four Mile creeks. *Surface*, nearly level; *soil*, very fertile. Excellent quarries of limestone exist here, and the co. is well intersected by railroads. *Cap.* Eaton.

Preble, in *Wisconsin*, a township of Brown county.

Pre'cant, *n.* [Lat. *precans, precantis.*] A person who prays.

Precar'ious, *a.* [Lat. *precarius*, from *precor*, to pray.] Depending on the will or pleasure of another; held by courtesy; liable to be changed or lost at the pleasure of another. — Held by no certain tenure; depending on

unknown or unforeseen causes or events; uncertain; doubtful; dubious.

Preca'riously, *adv.* At the will or pleasure of others; dependently; by an uncertain tenure.

Preca'riousness, *n.* State or quality of being precarious; uncertainty; dependence on the will or pleasure of others, or on unknown events.

Prec'ative, Prec'atory, *a.* [Lat. *precativus, precatorius,* from *precari,* to pray.] Beseeching; supplicating.

Precatory words. (*Law.*) Expressions in a will, praying or requesting that a thing shall be done.

Precau'tion, *n.* [Fr.; L. Lat. *præcautio,* from *præ,* and *caveo, cautus,* to guard against.] Previous caution or care. — Caution previously employed to prevent mischief or secure good.

—*v. a.* To caution, or warn, or advise beforehand, for preventing mischief or securing good.

Precau'tional, *a.* Precautionary.

Precau'tionary, *a.* Proceeding from, or containing, previous caution; adapted to prevent mischief or secure good.

Precautious, (*-shus,*) *a.* Taking precautions.

Precau'tiously, *adv.* With precaution.

Precede', *v. a.* [Fr. *précéder;* Lat. *præcedo,* from *præ,* and *cedo,* to go.] To go before in the order of time; to cause to take place in prior time. — To go before in rank or importance.

Prece'dence, or **Prece'dency,** *n.* Act or state of going before, with respect to time; antecedence; priority. — State of going or being before in rank or dignity, or the place of honor; the right to a more honorable place; the foremost in ceremony.

Prece'dent, *a.* Going before in time; anterior; antecedent; previous.

—*n.* Something done or said that may serve to be adduced as an example to authorize a subsequent act of the like kind.

(*Law.*) A judicial decision, interlocutory or final, which serves as a rule or authority for future determination in similar or analogous cases.

Pre'cedented, *a.* Having a precedent; authorized by an example of a like kind.

Preceden'tial, *a.* Having the nature of a precedent.

Prece'dently, *adv.* Beforehand; antecedently.

Precen'tor, *n.* [Fr. *précenteur,* from Lat. *præ,* and *cantor,* a singer.] (*Eccl.*) The leader of a choir. In almost all the old cathedrals of Europe, he was the first dignitary of the chapter, ranking next to the dean, and superintended the choral service and choristers.

Precen'torship, *n.* The employment or office of a precentor.

Pre'cept, *n.* [Fr. *précepte;* Lat. *præceptum,* from *præcipio;* from *præ,* and *capio,* to take.] Anything commanded or enjoined as an authoritative rule of action, but applied particularly to commands respecting moral conduct.

(*Law.*) A command in writing.

Precep'tive, *a.* [Lat. *præceptivus.*] Giving precepts or commands for the regulation of moral conduct; containing precepts. — Directing in moral conduct; giving rules or directions; didactic.

Precep'tor, *n.* A teacher; an instructor; the teacher of a school; sometimes the principal teacher of an academy or seminary.

Precepto'rial, *a.* Pertaining to a preceptor.

Precep'tory, *a.* Giving precepts.

Precep'tress, *n.* A female teacher.

Precession, (*-sesh'un,*) *n.* [Fr., from Lat. *præcedo, præcessus.*] Act of going before.

P. of the Equinoxes. (*Astron.*) A slow retrograde motion of the equinoctial points from E. to W., or contrary to the order of the signs. The poles, the solstices, the equinoxes, and all the other points of the ecliptic have a retrograde motion, and are constantly moving from E. to W., or from the Aries to the Pisces, &c., by means of which the equinoctial points are carried farther and farther back at the rate of about 50¼″ each year; consequently, as the stars are immovable, and the equinoxes go backward, the stars appear to have an eastward motion with respect to them; for this reason, the longitude and right ascensions of all the stars, which are reckoned from the first point of Aries, or the vernal equinox, are constantly increasing. It is in consequence of this *precession of the equinoxes* that the constellations seem to have changed the positions assigned to them by the ancient astronomers. The equinoctial points, during the time of Aristarchus and the oldest astronomers, were fixed to the first stars of Aries and Libra; but the signs do not answer now to the same points. The stars, also, which were then in conjunction with the sun when he was in the equinox, are now a whole sign, or 30°, to the eastward of it. In consequence of this, the first point of Aries is now in the portion of the ecliptic called Pisces. The constellations are 12 unequal and the signs are 12 equal divisions of the zodiac. Precession causes, as it were, the signs to slide over the constellations from east to west during a period of 25,700 years. The stars, moreover, which rose or set at any particular season of the year in the time of Eudoxus, Hesiod, Virgil, Pliny, &c., do not answer their descriptions at the present day. This apparent motion of the stars was first observed by Hipparchus of Rhodes, about 120 B. C. He noticed that the longitudes of the stars were greater than had been observed by Timochares, and than they were in the sphere of Eudoxus, who wrote 380 years before Christ.

If the earth were a sphere instead of a spheroid, precession would not exist; the sun would always "cross the line" at the same place. Now, however, it crosses it every year at a new place, about 50·24″ west of the last place of crossing, and will continue to do so forever, completing a revolution around the sky each 25,700 years. It must be remembered that the north celestial pole of the earth's *orbit* and the north celestial pole of the earth are two different things. Their distance apart in the year 1900 will be 23° 27′ 8″, the former being in Draco, the latter in Ursæ Minor, in which constellation it will continue to be for some 1,000 years yet. At the present time it happens to be about 1½° from Polaris, which it will pass in about 200 years within 27′. The earth, by its rotation when in a liquid and plastic condition, accumulated a padding of matter 13¼ miles in thickness at the equator, diminishing to nothing at each pole. The earth's equator being inclined to the plane of its orbit (ecliptic) nearly 23½°, the sun and moon seize hold of it by attraction, tending to bring the equator to coincidence with the plane of its orbit, and would have done so ages ago had the earth not rotated. The attractive force to produce precession is for the moon five-sevenths and for the sun two-sevenths. The following familiar illustration will make the subject plain: If a spinning-top be stood on its point upright, it will immediately fall; but if a rapid rotation be given it, the upper end will wabble. The earth wabbles likewise, but it takes nearly 26,000 years to make one wabble. It is the same with the south pole, which the spinning-top does not correctly illustrate, but which it would if the toy could be suspended in the air. The earth's south pole revolves also around the south pole of the ecliptic. The north pole is slowly approaching the pole-star, which remains immovable. In some 1,500 years the pole will pass into Cepheus, when Alderamin (Alpha Cephei) will be the pole-star, Polaris being too far distant to answer the purpose of a pole-star. There will be no pole-star when the pole is about midway between the two stars. The next pole-star after Alderamin will be Delta Cygni, then Alpha Lyra (12,000 years hence), Alpha Draconis, and lastly Polaris again. There is no bright south pole-star; very faint ones fill the role of successive pole-stars. When Alpha Lyra is the pole-star, dog-days will occur in winter instead of summer, as is the case in our age.

Precession in Declination. Precession of the equinoxes also affects the declination and Polar distances of objects. The following rules will guide the reader in computing the place of a star or nebula to any desired epoch in declination. Its annual amount depends on the right ascension of the object only, both as to extent and direction. At VI h. to XVIII h. it is zero. At XII h. it reaches its northern maximum of 20″, and at XXIV h. its southern limit of 20″. From XVIII h. to XXIV h., and from XXIV h. to VI h., the precession is north; consequently, additive to stars north of the equator, but *subtractive* from those south of the equator. From VI h. to XVIII h., the precession being south, it is additive to southern, and subtractive from northern stars. Of course for precession backward, these signs must be reversed.

Preces'sional, *a.* Relating to precession.

Pre'cinct, *n.* [O. Fr. *precincte;* Lat. *præcinctus,* a girding, from *præ,* and *cingo, cinctus,* to gird.] A territorial district or division; the limit, bound, or exterior line encompassing a place.—Bounds of jurisdiction, or the whole territory comprehended within the limits of authority.

Pre'cinct, in *Illinois,* a village of Boone co., about 80 m. W.N.W. of Chicago.

Precious (*presh'us*), *a.* [Fr. *précieux;* Lat. *pretiosus,* from *pretium,* price.] Of great price or value; costly; as, a *precious* stone.—Of great value or worth; very valuable; highly valued; much esteemed.—Worthless; contemptible;—used ironically.

Pre'ciously, *adv.* Valuably; to a great price.—Contemptibly;—in irony.

Pre'cious Met'als. Gold and silver have been standards of value since the historical era began, and perhaps since long before. Their rarity, hardness, and resistance to oxidation were qualities which appealed even to barbarians, while their peculiar colors and luster made it difficult to imitate and easy to distinguish them. They are fusible and malleable, so that they can be easily moulded and stamped, while their hardness gives them the power of long retaining any impression. They are found in their metallic state, so that they were known before the more plentiful metals, such as iron and lead, which required to be separated from their ores. Their rarity is such that a small quantity sufficed to measure a large quantity of other substances, and enabled a considerable value in gold and silver to be concealed or easily transported from one country to another. These characteristics have from a remote date brought those metals into use as mediums of exchange, and still keep them in use for the same purpose, while the idea of their preciousness is added to from their suitability for articles of ornament, due to their luster, attractive colors, and the value given by their rarity. The quantity of precious metals in use was small in the early days of Athenian enlightenment, but much was produced during the Roman period. In 40 A.D. the total stock in the Roman empire is estimated by Jacobs at $1,750,000,000. After the fall of the empire it decreased, and the gold in use in Christendom in 1492 is estimated by Jacobs at only $170,000,000. The wealth found and mined in America augmented the sum again, the amount, in round figures, mined during the 16th century being valued at, gold, $600,000,000; silver, $950,000,000; 17th century, gold, $330,000,000; silver, $1,550,000,000; 18th century, gold, $1,260,000,000; silver, $2,460,000,000; 19th century, gold, $7,000,000,000; silver, $6,000,000,000. This greatly enhanced production in the 19th century is due to the discoveries of rich gold deposits in the United States, Australia, and Africa, and equally rich silver deposits in the Western States of the American Union. Much of the gold and silver here enumerated, however, has been used in the arts, much has disappeared through abrasion, shipwreck, and other sources of loss, and the total stock now in the world and used as coin is estimated at approximately $4,000,000,000 each of gold and silver.

Pre'ciousness, *n.* Quality of being precious; valuableness; great value; high price.

Pre'cious Stones. Minerals which are used in jewelry and for other ornamental purposes on account of their rarity and beauty. No very definite and complete list of these can be made on account of their fluctuation in public estimation, some substances being at one time held as precious and at others losing their fictitious value. The same name is also at times applied to quite different substances, on account of some superficial similarity. It may further be said that it is impossible to fix a dividing line between precious and common stones, they merging together at their junction, the beauty and rarity of the one gradually sinking into the plainness and abundance of the other. Yet this hardly applies to certain special substances, which stand notably alone, and during all times have been highly prized as ornaments or gems. Chief among these are the diamond, the ruby, the sapphire, the emerald, and the Oriental amethyst, among minerals, and the pearl among substances of organic origin. The striking beauty of these gems—their luster, brilliancy of color, play of light, and other esteemed properties, together with their great rarity—have always kept them in high esteem, which shows no signs of abating. Below these in value, though occasionally of high esteem, comes a much wider class of substances, of which may be named the balas ruby, or spinel, the Brazilian topaz, the turquoise, the tourmaline, the aquamarine, or pale emerald, the chrysoberyl, or cat's eye, the zircon or jargon, the opal, and such varieties of quartz as rock crystal, agats (especially the moss agate), amethyst, Scotch topaz, or cairngorm, chalcedony, jasper, onyx, sardonyx, and various others. Below this may be given a third list of minerals appreciated for their beauty, though more common in occurrence than the above, and not usually classed as precious stones. These include malachite, lapis lazuli, labradorite, crocidolite, moonstone, aventurin, &c. To the admired substances of organic origin should be added red coral and amber, a fossil resin of some rarity. The most admired of the precious stones usually occur in a condition of superficial dullness, due to long friction with other substances. They are also commonly irregular in form. These defects render necessary the operations of cutting and polishing, the former to reduce them to a regular and attractive shape and get rid of defects, the latter to bring out to the fullest extent their luster, sparkle, and glow of color. This is usually a difficult process, on account of the great hardness of many of these minerals, and the labor necessary to bring out their attraction adds measurably to their value. In the case of the diamond luster and play of light are the chief qualities to enhance, to effect which the surface is cut into numerous plane facets, the two principal forms produced being what are known as the rose and the brilliant. The original form of the stone largely controls the final form of the gem, as it is important to keep it of the largest size compatible with perfection of finish, so that the celebrated large diamonds differ strikingly in shape, each having a well-marked form of its own. In stones whose most admired quality is their depth and richness of color, a different method of cutting is employed. If plane surfaces are desired, the step or table cut may be used—a broad flat top, with receding edges. But such stones—as also translucent and opaque stones—may be cut with curved or rounded surfaces, *en cabochon,* as it is termed. This mode of cutting presents several varieties, single cabochon (resembling a plano-convex lens), high plano-convex double cabochon, and double convex and hollow cabochon, the latter method being often used for large garnets, which when thus cut are called carbuncles. The quality of hardness is one of the most constant and valuable of those of precious stones, its importance lying in its resistance to wear and consequent preservation of the surface polish. Among such substances the diamond is the hardest. The following scale of hardness of the more important precious stones has been made, and is of considerable value as a ready means of determining the character of a stone about which doubt is felt: Diamond, 10·0; sapphire, 9·0; ruby, 8·8; chrysoberyl, 8·5; spinel, 8·0; topaz, 8·0; aquamarine, 8·0; emerald, 7·8; zircon, 7·8; tourmaline, 7·5; amethyst, 7·0; moonstone, 6·3; turquoise, 6·0; opal, 6·0. No detailed description of the various precious stones is here necessary, as they will be found separately dealt with under their proper names.

Artificial Precious Stones. The production of several of the more admired precious stones by chemical or other means has been frequently attempted, but so far with no encouraging success. Intense heat, pressure, and electrical action have been the most important agencies employed. Small crystals of ruby, sapphire, corundum, &c., were produced by Deville and Caran, in 1858. In the production of corundum the vapors of boracic acid and fluoride of aluminum were made to act upon each other, the result being small crystals with the requisite properties. By adding a little fluoride of chromium the crystals were made to assume the hue of violet-red rubies. A slight increase in the quantity of fluoride yielded the blue color of the sap-

phire, while with a further increase greou corundum was produced. Muriate crystals of chrysoberyl appsared when boracic acid was made to act on tbs fluorides of aluminum and glucinum, and the actlou of silica on these fluorides yisided very hard crystals which bore some resemblance to the emerald. Opals and other silica crystals havs been produced by Becquerel from solutions of silicates acted upon by intense slectric currents, whils Feil, who succeeded in crystallizing alumina, produced, by the addition of coloring matters, sapphires and rubies, with the hardness, hut not the brilliance, of the natural stones. Ils also produced crystals of spinel. Ths small size of the crystals thus obtained rendered them valuetess except from a scientific point of visw, and the same may be said of the artificial diamonds which have been produced by the crystallization of carbon. For the processes employed, see DIAMOND.—*Imitations.* It is possible to imitate precious stones with a close degree of resemblancs. In this operation the substance employed is a soft but heavy flint glass known as strass or paste, and colored to the requisite hue. These imitations may be distinguished by their softness and some other peculiarities, but their resemblance to the stone imitated is at times very close. Thin plates of precious minerals have also been cemented over, and sometimes also nnder, a glass basis, the veneered product passing as a genuine stone of large size and much value, its exposed surface safely bearing the usual tests employed by jewellers. Pearls are imitated by blowing very thin bulbs of glass, and pouring into them a mixture of liquid ammonia and the white matter from the scales of the bleak, which settles on the evaporation of the ammonia io a pearly film on the inside of the glass. In this way what seem the finest Oriental pearls may be produced.

Pre'cipe, *n.* (*Law.*) See PRÆCIPE, and PRECEPT.

Precipice, (*pre'si-pis,*) *n.* [Fr.; Lat. *præcipitium*, from *præceps.*] A steep descent of land; a fall or descent of land perpendicular, or nsarly so; a steep descent in general

Precip'ient, *a.* Directing or commanding

Precipitabil'ity, *n.* The state or quality of being precipitable

Precip'itable, *a* That may bs precipitated or cast to the bottom, as a substance in solution.

Precip'itance, Precip'itancy, *n.* The quality of being precipitate; haste in resolving; forming an opinion or executing a purpose without due deliberation; headlong hurry; rash hasts.

Precip'itant, *a.* [Fr.; Lat. *præcipitans.*] Falling or rushing headlong; rushing down with velocity.

> "Downright into the world s first region throws
> His flight *precipitant.*' —*Milton.*

—Hasty; urged with violent haste. — Rashly hurried or hasty; as, a *precipitant* rebellion. — Unexpectedly brought on or hastened.

Precip'itantly, *adv.* With great hasts; with rash, unadvised haste; with tumultuous hurry.

Precip'itantness, *n.* Prsciplitation; the quality of being precipitant

Precip'itate, *v. a.* [Fr. *précipiter;* Lat. *præcipito*, from *præ*, and *caput*, ahead.] To throw beadlong. — To urge or press with eagerness or violence; to basten; to hurry blindly or rashly.

> "It may *precipitate* their designs, and prove dangerous."—*Bacon.*

—To throw to the oottom of a vssscl, as a substance in solution

—*v. n.* To fall headiong. — To hasten without preparation. —To fall to the bottom of a vessel, as a sediment, or any substance in solution.

—*a.* Falling, flowing, or rushing with stssp descent. — Headlong; over-hasty; rashly hasty. — Adopted with haste, or without due deliberation. — Terminating speedily in dsath; hasty; violent.

—*n.* (*Chem.*) Any substances which, having been dissolved in a fluid, is *thrown down* in a solid form, on the addition of some other substance capable of decomposiog the compound. Precipitates are generally in a finely-divided or flocculent state.

Precip'itately, *adv.* Headlong; with steep descent. — Hastily; with rash haste; without due caution.

Precip'itation, *n.* [Fr.; Lat. *præcipitatio.*] Act of prccipitating or throwing headlong.—A falling, flowing, or rushing down with violence and rapidity. — Great hurry; rasb, tumultuous haste; rapid movement.—Act or operation of throwing to the bottom of a vessel any substance held in solution.

Precip'itator, *n.* A person who urges on rashly, or with vehemence.

Precip'itous, *a.* Very steep. — Headlong; directly or rapidly descending. — Hasty; rash.

Precip'itously, *adv.* With steep descent; in violent haste.

Precip'itousness, *n.* State or quality of being precipitous; steepness of descent. — Rash hasto.

Precis, (*pra-se',*) *n.* [Fr.] A precise or abridged statement or view; — hence, an abstract; summary.

Precise', *a.* [Fr. *precis;* Lat. *præcisus*, from *præcido*, from *præ*, and *cado*, to cut.] Having detsrminate limitations; not loose, vague, uncertain, or equivocal; exact; definite; accurate. — Characterized by superstitious exactness or excessive nicety in conduct or ceremouy; punctilious; formal.

Precise'ly, *adv.* Exactly; nicely; accurately; in exact conformity to truth or to a model. — With excess of formiality; with scrupulous sxactness or punctiliousness in behavior or ceremony.

Precise'ness, *n.* Quality of being precise; exactness; rigid nicety.— Excessive regard to forms or rules; rigid formality.

Precisian, (*-sizh'an,*) *n.* Ons who is precise or rigidly exact in the observance of rules.

Precisianism, (*-sizh'an-izm,*) *n.* Excsssive exactness; superstitious rigor.

Precis'ianist, *n.* Ous who is very precise.

Precis'ion, *n.* [Fr.; Lat. *præcisio.*] The stats or quality of being precise; exact limitation; exactness; accuracy; corrsctness; definiteness.

Preclude', *v. a.* [It. *precludere;* Lat. *præcludo*, from *præ*, and *claudo*, to shut.] To shut to; to close; tostop. (R.) — To prevent from eutering by previously shutting ths passage, or by any previous measures; — bence, to hinder from access, possession, or enjoyment; to debar; to shut off.

Preclusion, (*-klu'zhun,*) *n.* [Lat. *præclusio.*] Act of precluding; act of shutting out or prsventing from access or possession; the stats of bsing prevented from eotering, possession, or enjoyment.

Preclu'sive, *a.* Shutting out.— Tending to preclnde; hindering by previous obstacles.

Preclu'sively, *adv.* In s preclusive manner.

Precocious, (*pre-ko'shus,*) *a.* [Fr. *précoce;* Lat. *præcox*, *præcocis*, from *præ*, and *coquo*, to cook, to ripen.] Ripe before the proper or natural time; early ripe; prematurs; early. (R.)

—Ripe in understanding at an early age; having the mental powers early developed.

Precociously, *adv.* With premature ripeness or forwardness.

Precoc'ity, Precoc'iousness, *n.* [Fr. *précocité.*] The atate or quality of being precocious; rapid growth and ripeness before the nsual time; prematureness.

(*Physiol.*) A forced or unnatural maturity either of tho body or the mind. The annals of science are full of rsmarkable instances of male and female precocity: it is, however, bclieved that the premature development of the mind and iutcllectual faculties forms but a small proportion of the iostances of early maturity compared with the development of the corporeal and animal faculties. It bas becn found that precocity of the mind is generally attained at the sacrifice of the body, and like an over-forced flower, the clever and intellectual boy, if he grows to adult age, becomes a dull and commonplace man, even should he not lapse into idiocy; while ths unnatural development of animal passions is still more likely to end in fatuity. Parents, in natural pride of their offspring, too often act most injudiciously, and whcre a child shows early talent, wit, or shrewdness, not only foster, but force and encourago it hy displaying their child's abilities on all occasions, and feeding the already too active frame, instead of checking, or keeping, by prudent restriction, the precocious tendency subdued and under control, by a suspension of tho mantal, and a development of the physical education of the child; in other words, by keeping back all books and study, and encouraging play, exercise, and opsn-air recreations.

Precog'itate, *v. a.* [Lat. *præcogitare*, from *præ*, and *cogitare*, to think.] To consider or contrive bcforehand.

Precog'itation, *n.* Forethought; previous consideration.

Precognition, (*-kog-nish'un,*) *n.* [Lat. *præcognitio*, from *præcognocere*, to foreknow.] Previous knowledge; antecedent examination.

Precollec'tion, *n.* A previous collection.

Precom'pose, *v. a.* To compose previonsly.

Preconceit', *n.* An opinion previously formed.

Preconceive', *v. a.* To form a concoption of beforehand; to form a previous notion of.

Preconcep'tion, *n.* Conception or opinion previously formed.

Preconcert', *v a.* To concert beforehand; to scttle by previous agreement.

Precon'cert, Preconcer'tion, *n.* An agreement previously made.

Preconcert'edly, *adv.* By previons agreement.

Preconcert'edness, *n.* The state or quality of being preconcerted, or previonsly arranged.

Precondemn, (*-kon-demn',*) *v. a.* To condemn beforehand.

Precondemna'tion, *n.* Condemnation determined or pronounced beforehand.

Precondi'tion, *n.* A previons condition.

Preconformed', *a* Conformed previously, or in *anticipation.*

Preconform'ity, *n.* Previous conformity.

Precon'quer, *v. a.* To conquer prsviously, or beforehand.

Preconsent', *n.* Consent previously given.

Preconsign, (*-sin',*) *v. a.* To make a consignment beforehand.

Preconsol'idate, *a.* Previonsly consolidated.

Precon'stitute, *v. a.* To establish beforehand.

Precon'tract, *n.* A contract previons to another.

—*v. a.* To contract or bargain beforehand.

—*v. n.* To form a previous agreement or contract.

Precontrive', *v. a.* To contrive beforehand.

Precor'dial, *a.* [Fr.; from Lat. *præcordia*, from *præ*, before, and *cordis*, the heart.] (*Med.*) Pertaining to the region of the heart.

Precur'sive, *a.* Indicating something to follow; precursory.

Precur'sor, *n.* [Fr. *précurseur;* Lat. *præcursor*, from *præ*, and *curro*, to run.] A forernnner; he or that which precedes an event and inflicates its approach; a harbinger.

Precur'sory, *a.* Preceding as the harbinger; indicating something to follow.

Preda'ceous, *n.* A carnivorous animal.

Preda'ceous, *a.* [From Lat. *præda*, prey, booty.] Living by prey.

Pre'dal, *a.* [Lat. *præda.*] Pertaining to prey, booty, or plunder; practicing plunder.

Predate', *v. a.* To date earlier than ths actual time.

Pred'atorily, *adv.* In a predatory manner.

Pred'atory, *a.* [Lat. *prædatorius*, from *præda.*] Characterized by pluudering; practicing rapine.— Hungry; rapacious; ravenous.

Pre'decay, *n.* Premature decay.

Predecease', *v a.* To die before soms other person or event.

—*n.* Thc decease of one person befors another.

Predeces'sive, *a.* Preceding.

Predeces'sor, *n.* [Fr. *predecesseur*, from Lat. *præ*, and *decedo*, *decessus*, to depart.] A person who has gone away before, or preceded another in the sams office.

Predeclare', *v. a.* To announce beforehand.

Prededica'tion, *n.* A dedication performed beforehand.

Predefine', *v. a.* To define previously.

Predelibera'tion, *n.* A deliberation previously made.

Predelinea'tion, *n.* Previous delineation, or representation.

Predesign, (*-sin.*) *v. a.* To design or purpoae before hand; to predctermine.

Predestina'rian, *n.* One who believes in the doctrins of predestiuation.

—*a.* Pertaining to predestination.

Predes'tinate, *v. a.* [Fr. *prédestiner;* It. *predestinare*, from Lat. *prædestino, prædestinatus*, from *præ*, before, and *destino*, to fix, to determine.] To determine, appoint, or ordain beforehand, by an unchangeable purpose; to predetcrmine; to preordain.

—*a.* Predetermined; foreordalned; decreed.

Predestina'tion, *n.* Act of predestinating, or of decreeing, or foreordaining events.

(*Theol.*) A term applied to ths supposed decrees of God, by which hs hath, from all eternity, unchaugeably appointed whatsosver comes to pass; mors sspecially foreordaining certain individuals of ths human race to everlasting happiness, and foreordaining the rest to everlasting misery. Accordlng to Article XVII. of the English Church, "Predestination to life is the everlasting purpose of God, whereby (before ths foundations of the world were laid) he hath constantly decreed hy his couosel, secret to ns, to deliver from curse and damnation those whom he hath chosen in Christ out of mankiud, and to bring them, by Christ, to everlasting salvation, as vessels made to honor," &c. The Westminster Confession further declares, that "although God knows whatsoever may or can come to pass, npon all snpposed conditions, yet hath he not decreed anything becauss he foresaw it as future, as that which would come to pass upon such conditions." Yet, "neither is God the author of sin, nor is violence offered to the will of the creatures, nor is liberty, or contingency of second causes, taken away, but rather established." This doctrino is not peculiar to Christianity, but is to be found among the Stoics and other ancient sects, and is one of the chief points of Mohammsdanism. The controversy concerning it first made its appearance in the Christian Church about ths beginning of the 5th ceutury. Pelagius and others, about this time, denied the doctrine of predestination, and were strcuuously opposed by Augustine, who was ths first to expound and work this doctrine into a system. After the time of Augustine, his opinions were very generally adopted, and were maintained by the whole of the earlier Reformers. The Lutherans, however, afterwards abandoned them; and they are now generally known as Calvioistic doctrines, from John Calvin, of Gensva, who maintained them with great vigor and clearness. The opponents of ths doctrine of predestination among the Protestants came subsequently to receive the name of Remonstrants, or Arminians, from James Arminius, professor of theology at Leyden, in 1602. There are two kinds of predestinarians, — the *supralapsarians*, who maintain that God did originally and expressly decree the fall of Adam, in order to display his justice and mercy; and the *sublapsarians*, who maintain that God only permitted the fall of Adam; but the distinction is now little observed. In the Roman Catholic Church, the Janscnists were the great maintainers of the Augustinian doctrine. This is one of the doctrines of Christianity which is beyond the sphere of our finito faculties.

Predes'tinative, *a.* Predestinating; determiuing previously.

Predes'tinator, *n.* One who predestinates or foreordains. — One who holds to predestination.

Predes'tine, *v. a.* To predestinate; to decree beforehand; to foreordain.

Predeter'minable, *a.* That may be predetermined.

Predeter'minate, *a.* Determined beforehand.

Predeter'mination, *n.* Previous determination; purposs formed bsforehand.

(*Theol.*) That concurrence of God which determines men in the performance of their actions, good or evil; called physical determination, or premotion.

Predeter'mine, *v. a.* To determins beforehand; to settle in purpose or counsel.

—To doom by previous decree.

—*v. n.* To determine beforchand.

Pre'dial, *a.* [Sp.; from Lat. *prædium*, a farm.] Consisting of lands or farms; as, *predial* estates.—Attached to land or farms.— Growing or issuing from land.

Predicabil'ity, *n.* The quality of being predicable, or capable of being affirmed of something.

Predi'cable, *a.* [Fr.; Lat. *prædicabilis.*] That may bs affirmed of something; capable of being attributed to.

—*n.* (*Log.*) A term which can be affirmatively predicated of several others. The notions expressed by such terms

are said to be formed by the faculty termed *abstraction*, after the particular circumstances characterizing each individual have been withdrawn from it. The predicables are commonly said to be five: *genus*, *species*, *difference*, *property*, and *accident* (which are either separable or inseparable).

Predic'ament, *n.* [Fr.; Lat. *prædicamentum*, from *prædico*.] Class or kind described by any definite marks; particular situation or state; — particularly, an unfortunate or trying position.

—*pl.* (*Log.*) Same as CATEGORIES, *q. v.*

Predicamen'tal, *a.* Pertaining to a predicament.

Pred'icant, *n.* A preaching friar; a dominican.

Pre'dicate, *v. a.* [Lat. *prædico*, *prædicatus*, from *præ*, and *dico*, to publish.] To affirm one thing of another.

—*v. n.* To comprise an affirmation.

—*n.* (*Logic.*) *P.* is, of the two terms of a proposition, that which is affirmed or denied of the other.

Predica'tion, *n.* [Fr.; Lat. *prædicatio.*] Affirmation of something, or the act of affirming one thing of another. — The act of preaching, or delivering a sermon.

Pre'dicative, *a.* Expressive of affirmation.

Pre'dicatory, *a.* Positive; expressing affirmation.

Predict', *v. a.* [Lat. *prædictas*, from *præ*, and *dico*, to say, to tell.] To tell beforehand, as something that is to happen; to foretell; to prognosticate.

Predic'tion, *n.* [Fr.; Lat. *prædictio.*] A previous declaration of future events; prophecy; prognostication.

Predic'tive, *a.* [Lat. *prædictivus.*] Foretelling; prophetic.

Predict'ively, *adv.* In the manner of a prediction.

Predict'or, *n.* A foreteller; one who prophesies.

Predigestion, (*-di-jest'yun,*) *n.* Digestion too soon performed.

Predilect', *v. a.* To choose or elect previously.

Predilec'tion, *n.* [Fr.; Lat. *præ*, and *dilectio*, from *diligo*, *dilectus*, to choose apart.] A prepossession of mind in favor of some person or thing.

Prediscov'er, *v. a.* To discover previously.

Prediscov'ery, *n.* A discovery made beforehand.

Predispo'nent, Predis'posing, *a.* That predisposes.

Predisponent causes, (*Med.*,) are those which render the body liable to disease.

—*n.* That which predisposes.

Predispose', *v. a.* To dispose or incline beforehand; to give a previous disposition to. — To fit or adapt previously.

Predisposi'tion, *n.* The state of being predisposed; previous inclination or propensity to anything. — Previous fitness or adaptation to any change, impression, or purpose.

Predom'inance, Predom'inancy, *n.* State of being predominant; prevaleuce over others; superiority in strength, power, influence, or authority; ascendency.

Predom'inant, *a.* Having superiority in strength, influence, or authority; prevalent; superior.

Predom'inantly, *adv.* With superior strength, power, or influence.

Predom'inate, *v. n.* [Lat. *præ*, before, and *dominari*, *dominatus*, to rule.] To surpass in strength, influence, or authority; to be superior; to have controlling influence.

—*v. a.* To rule over; to govern.

Predomina'tion, *n.* [Fr.; Sp. *predominacion*; Lt. *predominio.*] Predominance.

Predoom', *v. a.* To doom beforehand.

Predor'sal, *a.* [Lat. *præ*, before, and *dorsum*, the back.] (*Anat.*) In front of the back.

Pre'dy, *a.* (*Naut.*) Said of a ship, when cleared and ready for an engagement.

Preëlect', *v. a.* To choose by previous decision.

Preëlec'tion, *n.* Previous choice or election.

Preëm'inence, *n.* [Fr. *prééminence.*] State of being preëminent; superiority of excelleuce; precedence; priority of place; superiority of power or influence.

Preëm'inent, *a.* [Fr.; Lat. *præeminens*, from *præ*, before, and *emineo*, to stand out.] Excellent above others; distinguished for something commendable or honorable. — Surpassing others in evil or bad qualities.

Preëm'inently, *adv.* In a preëminent degree; with superiority or distinctiou above others.

Preëmploy', *v. a.* To employ previously, or beforehand.

Preëmption, (*-em'shun*), *n.* (*International Law.*) The right of a nation to detain the merchandise of strangers passing through her territories or seas, in order to afford to her subjects the preference of purchase.

(*Amer. Law.*) The right given to settlers upon the public lands of the U. S. to purchase them at a limited price in preference to others.

Preëmp'tion, in *Illinois*, a post-village of Mercer co., abt. 155 m. N.N.W. of Springfield.

Preëmp'tive, *a.* Implying preëmption.

Preëmpt'or, *n.* A person who practices preëmption.

Preen, *n.* [A. S. *preon*, a clasp: Ger. *pren.*] A forked tool with which clothiers dress cloth.

—*v. a.* To clean, as do the birds which use their beak as a *preen* for dressing and oiling their feathers.

Preëngage', *v. a.* To engage by previous contract; to engage or attach by previous influence.

Preëngage'ment, *n.* Prior engagement, as by stipulation or promise; any previous attachment binding the will or affections.

Preërect', *v. a.* To erect beforehand.

Preëstab'lish, *v. a.* To establish beforehand.

Preëstab'lishment, *n.* Settlement beforehand.

Preëxamina'tion, *n.* Previous examination.

Preëxam'ine *v. a.* To examine previously.

Preëxist', *v. a.* To exist beforehand, or before something else.

Preëxist'ence, *n.* Existence previous to something else.

(*Phil.*) The existence of the human soul, in some former condition, before it became connected with the body. See TRANSMIGRATION OF SOULS.

Preëxist'ent, *a.* Existing beforehand; preceding in existence.

Preëxpecta'tion, *n.* Previous expectation.

Preez, (*preēds,*) a town of Prussia, prov. of Schleswig-Holstein, 8 m. S.S.E. of Kiel; *pop.* 5,000.

Pref'ace, *n.* [Fr.; Lat. *præfatio*, from *præ*, before, and *fari*, *fatus*, to speak.] (*Lit.*) An introduction, or series of preliminary remarks, prefixed to a work or treatise, intended to inform the reader of the manner, design, or, in general, of whatever is necessary to the understanding of its plan and peculiarities.

—*v. a.* To introduce by preface or preliminary remarks. — To face; to cover; — used humorously.

—*v. n.* To say something introductory.

Pre'facer, *n.* One who writes a preface.

Pre'fatory, *a.* Pertaining to a preface; introductory of a book, essay, or discourse.

Pre'fect, *n.* [Fr. *préfet*; Lat. *præfectus.*] (*Antiq.*) See PRÆFECTUS.

(*French Administration.*) An important political functionary who superintends a department of the kingdom, and has the actual direction of the police establishment within that department, together with extensive powers of municipal regulation. The arrondissements, or districts into which the departments are subdivided, are under *sous-préfets* appointed by them. The power of the prefect is considerably controlled by the council of the prefecture, which acts in some measure as a court of appeal from the decisions of the prefect.

Prefecture, (*prē'fek-tūr,*) *n.* The jurisdiction of a prefect.

Prefer', *v. a.* [Fr. *préférer*; Lat. *præfero*, from *præ*, and *fero*, to bear.] To regard more than another; to honor or esteem above another. — To advance or promote, as to an office or dignity; to raise; to exalt. — To offer; to present; — said especially of a prayer or request.

Pref'erable, *a.* [Fr.] Worthy to be preferred or chosen before something else; more eligible; more desirable.

Pref'erableness, *n.* Quality or state of being preferable.

Pref'erably, *adv.* In preference; in such a manner as to prefer one to another.

Pref'erence, *n.* [Fr.] Act of preferring one thing before another; estimation of one thing above another; choice. — State of being preferred. — The person or thing preferred.

Preferen'tial, *a.* Implying preference.

Prefer'ment, *n.* Advancement to a higher office, dignity, or station; superior place or office. — Preference; act of preferring. (R.)

Prefer'rer, *n.* One who prefers.

Prefigura'tion, *n.* Act of prefiguring, or the state of being prefigured; antecedent representation by similitude.

Prefig'urative, *a.* Prefiguring.

Prefig'ure, *v. a.* [From Lat. *præ*, before, and *figuro*, *figuratus*, from *figura*, shape, figure.] To exhibit by antecedent representation, or by types and similitude.

Prefig'urement, *n.* Act of prefiguring; prefiguration.

Prefix', *v. a.* [Lat. *præfigo*, *præfixus*, from *præ*, and *figo*, to fix.] To fix or put before, or at the beginning of another thing.

—*n.* A letter, syllable, or word, put to the beginning of a word, usually to vary its signification.

Prefix'ion, (*-yun,*) *n.* Act of prefixing.

Prefulgency, *n.* [Lat. *præfulgens*, from *præ*, before, and *fulgere*, to shine.] Superior effulgency or brightness.

Pre'gel, a river of E. Prussia, formed by the junction of the Angerap and Pissa, and after a W. course of 120 m., it joins the Frische Haff, below Kouigsberg. It is navigable 45 m.

Preg'nable, *a.* [Fr. *prenable*, from *prendre*, to take; Lat. *prendere*, *prehendere.*] Capable of being taken by force. (R.)

Preg'nancy, *n.* State of being pregnant or with child. — Fertility; fruitfulness; inventive power.

Preg'nant, *a.* [Lat. *prægnans.*] Being with young, as a female. — Fruitful; fertile; full of consequence.

Preg'nantly, *adv.* Fruitfully; in a pregnant manner.

Pregus'tant, *a.* [Lat. *prægustan.*] Tasting beforehand. (R.)

Pregusta'tion, *n.* Foretaste; act of tasting before another.

Prehen'sible, *a.* [From Lat. *prehendere*, to take.] Capable of being seized.

Prehen'sile, *a.* [Lat. *prehendo*, *prehensus*, to lay hold of.] Fitted for seizing or laying hold; as, the *prehensile* tails of some monkeys.

Prehen'sion, *n.* [Fr.; Lat. *prehensio.*] A taking hold of; a seizing, as with the hand or other limb.

Prehen'sory, *a.* Adapted to take hold or seize.

Prehistor'ic, *a.* Preceding history; anterior to historical times.

Prehnite, (*pren'ite,*) *n.* (*Min.*) A hydrous silicate of alumina.

Preindispose', *v. a.* To render indisposed previously.

Preinstruct', *v. a.* To instruct beforehand.

Preintima'tion, *n.* Previous suggestion or intimation.

Prejudge', *v. a.* [Fr. *préjuger*; Lat. *præ*, and *judico*, to judge.] To judge in a cause before it is heard, or before the arguments and facts in the case are fully known; — hence, sometimes, to condemn beforehand or unheard.

Prejudg'ment, *n.* Judgment in a case without a hearing or full examination.

"The committee of council hath *prejudged* the whole case by calling the united sense of both houses of Parliament 'a universal clamor.'" — *Swift.*

Preju'dicate, *v. a.* [Lat. *præ*, and *judico*, *judicatus.*] To determine beforehand to disadvantage.

—*v. n.* To form a judgment without due examination of the facts and arguments in the case.

—*a.* Formed before examination. — Prejudiced; prepossessed by opinions.

Preju'dicately, *adv.* In a prejudiced manner.

Prejudica'tion, *n.* Act of prejudging, or of judging without due examination of facts and evidence.

Prejudica'tive, *a.* Prejudging; forming a judgment without due examination.

Preju'dice, *n.* [Fr.; Lat. *præjudicium*, from *præ*, before, and *judicium*, judgment.] An opinion or decision of mind formed without due examination of the facts or arguments which are necessary to a just and impartial determination; prepossession; bias. — Injury or wrong of any kind.

—*v. a.* To prepossess with unexamined opinions; to bias the mind of by hasty or incorrect notions, and give it an unreasonable vent to one side or the other of a cause. — To obstruct or injure by prejudices, or by undue previous bias of the mind; to hurt; to damage; to diminish; to impair.

Prejudicial, (*-dish'al,*) *a.* [Lat. *præjudicialis.*] Hurtful; mischievous; injurious; tending to obstruct or impair; detrimental; disadvantageous.

Prejudi'cially, *adv.* Hurtfully; injuriously.

Prejudi'cialness, *n.* The state of being prejudicial; mischievousness.

Preknowledge, (*-nol'ej,*) *n.* Previous knowledge.

Prel'acy, *n.* The dignity or office of a prelate. — The order of bishops; bishops taken collectively.

Prel'ate, *n.* [Fr. *prélat*, from Lat. *præfero*, *prælatus*, from *præ*, before, and *fero*, *ferre*, to bear, to conduct.] A clergyman of superior order having authority over the lower clergy, as an archbishop, bishop, &c.; a dignitary of the church.

Prel'ateship, *n.* The office of a prelate.

Prel'atess, *n.* A female prelate.

Prelat'ic, Prelat'ical, *a.* Relating to prelates, or prelacy.

Prelat'ically, *adv.* With reference to prelates.

Prel'atist, *n.* An advocate for prelacy, or the government of the church by bishops; a high-churchman.

Prel'atize, *v. a.* To bring under the influence of prelacy.

—*v. n.* To encourage prelacy; to perform the functions of a prelate.

Prel'ature, Prel'atureship, *n.* The state or dignity of a prelate.

Prelect', *v. a.* [Lat. *prælegere*, from *præ*, and *legere*, to read.] To read publicly, as a public discourse or lecture. (R.)

Prelec'tion, *n.* [Lat. *prælectio.*] A lecture or discourse read in public, or to a select company.

Prelec'tor, *n.* A reader of discourses; a lecturer.

Preliba'tion, *n.* [Lat. *prælibatio*, from *præ*, and *libare*, to taste.] A tasting beforehand. — Effusion previous to tasting.

Prelim'inarily, *adv.* Introductorily; previously.

Prelim'inary, *a.* [Fr. *preliminaire*; Lat. *præ*, and *limen*, *liminis*, a threshold.] That precedes the main discourse or business; introductory; preparatory; previous.

—*n.* That which precedes the main discourse, work, design, or business; something previous or preparatory; introduction; preface; prelude.

Prelim'it, *v. a.* To limit beforehand.

Prelude', *v. a.* [Fr. *préluder*, from Lat. *præ*, and *ludo*, to play.] To introduce with a previous performance. — To precede, as an introductory piece.

—*v. n.* To serve as an introduction to.

—*n.* A short strain of music, or irregular air, played by a musician before he begins the piece to be played, or before a full concert; something introductory; a preface; introduction. — Something which indicates a future event; a forerunner; harbinger.

Prelud'er, *n.* One who plays a prelude, or introduces by a previous irregular piece of music.

Prelud'ial, *a.* Relating to a prelude; introductory.

Prelum'bar, *a.* [From Lat. *præ*, before, and *lumbus*, the loin.] (*Anat.*) Placed before the loins.

Prelu'sive, *a.* Previous; introductory; indicating that something of a like kind is to follow.

Prelu'sively, Prelu'sorily, *adv.* Previously; introductorily.

Prelu'sory, *a.* Preludsive; introductory.

Premature', *a.* [Fr.; Lat. *præmaturus*, from *præ*, and *maturus*, ripe.] Mature or ripe before the natural or proper time. — Happening, arriving, performed, or adopted before the proper time. — Arriving or received without due authenticatiou or evidence, as a report or account.

Prematurely, *adv.* Too soon; too early; before the proper time. — Without due evidence or authentication.

Premature'ness, Prematur'ity, *n.* State of being premature; ripeness before the natural or proper time. — Too great haste; unseasonable earliness.

Premed'itate, *v. a.* [Fr. *préméditer*; Lat. *præmeditor*, from *præ*, and *meditor*, to meditate.] To think on, and revolve in the mind beforehand; to contrive and design previously.

Premed'itate, *v. n.* To think, consider, or revolve in the mind beforehand; to deliberate.

Premed'itately, *adv.* With previous meditation or deliberation.

Premedita'tion, *n.* Act of meditating beforehand; previous deliberation. — Previous contrivance or design formed.

Pre'mier, *a.* [Fr., from Lat. *primus.*] First; chief; principal.

(*Her.*) The most ancient, when applied to any peer of any degree by creating.

—*n.* The first minister of state; the prime-minister.

Premise', *v. a.* [Lat. *præmitto*, from *præ*, and *mitto*, to send.] To speak or write before, or as introductory to the main subject; to offer previously, as something to explain or aid in understanding what follows; to lay down, as *premises*, or first propositions, on which rest the subsequent reasonings. — To use or apply previously.

—*v. n.* To state antecedent propositions.

Prem'ise, *n.; pl.* PREMISES. [Lat. *præmissum*, from *præ*, and *mitto*, to send.] A proposition antecedently supposed or proved.

(*Logic.*) The first two propositions in a syllogism, from which the inference or conclusion is drawn.

—*pl.* (*Law.*) In equity pleading, the stating part of a bill, containing a narrative of the facts and circumstances of the facts of the plaintiff's case, and the wrongs of which he complains, and the names of the persons by whom done and against whom he seeks redress.

Pre'mium, *n.* [Lat. *præmium*, from *præ*, and *emo*, to take.] A reward or recompense; a prize to be won by competition; the recompense or prize offered for a specific discovery, or for success in an enterprise. — Something offered or given to invite a loan or bargain.

(*Insurance.*) The consideration for a contract of insurance. A policy of insurance always expresses the consideration, called the *premium*, which is a certain amount or a certain rate upon the value at risk, paid wholly in cash, or partly so and partly by promissory note or otherwise. — In life-insurance, the premium is usually payable periodically; and the continuance of the risk is usually made to depend upon the due payment of the premium.

Premon'ish, *v. a.* [Lat., from *præ*, and *moneo*, to admonish.] To warn or admonish beforehand; to forewarn.

Premon'ishment, *n.* Previous information.

Premonition, (*pre-mo-nish'un,*) *n.* Previous warning, notice, or information.

Premon'itor, *n.* A person or thing that gives premonition.

Premonito'rily, *adv.* By way of premonition.

Premon'itory, *a.* Giving previous warning or notice.

Premon'strate, *v. a.* [Lat. *premonstrare*, from *præ*, from, and *monstrare*, to show.] To show beforehand. (R.)

Premonstraten'sians, *n. pl.* [Fr. *Prémontrés.*] (*Eccl. Hist.*) A religious order of regular canons instituted in 1120 by St. Norbert (whence they are also called *Norbertines*), at Prémontré (*Premonstratum*), in Picardy, which is said to have derived its name from being *pointed out* by the Virgin. The canons of this order followed the rule of St. Austin, and were sometimes called White Canons, from the color of their habits.

Premorse', *a.* [From Lat. *præ*, and *mordere*, to bite.] (*Bot. and Zoöl.*) Terminating in an irregular truncate apex, as if bitten off.

Premosa'ic, *a.* Previous to the time of Moses.

Premo'tion, *n.* [Fr. *prémotion.*] Previous motion.

Premuni're, *n.* (*Eng. Law.*) The offence of introducing foreign authority into the kingdom.

Premunition, *n.* An anticipation of objection.

Premu'nitory, *a.* Relating to a premunire.

Pren'der, *n.* [Fr. *prendre*, from Lat. *prehendere*, to take.] (*Law.*) The right of taking a thing before it is offered; — hence the phrase of law, "it lies in *render*, but not in *prender*."

Prenomina'tion, *n.* The privilege of being named first.

Prenote', *v. a.* To designate or mark beforehand.

Preno'tion, *n.* [Lat. *prænotio*, from *præ*, before, and *noscere*, to know.] Foreknowledge; prescience.

Pren'tice, in *Illinois*, a post-village of Morgan co., abt. 12 m. N.E of Jacksonville.

Pren'tiss, in *Maine*, a post-township of Penobscot co. *Pop.* (1897) 420.

Prenzlau, (*prens'lou,*) a town of Prussia, province of Brandenberg, on the Ucker, 70 m. N.N.E. of Potsdam. *Manuf.* Linens, woollens, and tobacco. *Pop.* 13,000.

Preobtain', *v. a.* To obtain previously.

Preoc'cupancy, *n.* Act or right of taking possession before others.

Preoc'cupate, *v. a.* [From Lat. *præ*, before, and *occupare*, to occupy.] To anticipate. — To prepossess; to fill with prejudices.

Preoccupa'tion, *n.* Act of preoccupying, or of taking possession before another; prior occupation; anticipation; prepossession. — Anticipation of objections.

Preoc'cupy, *v. a.* [Fr. *préoccuper*; Lat. *præ*, and *occupo*, to occupy.] To take possession before another. — To prepossess; to occupy by anticipation or prejudices.

Preom'inate, *v. a.* [Lat. *præ*, and *ominare*, to forebode.] To prognosticate; to show by omens any future event.

Preoper'culum, *n.* [Lat. *præ*, and *operculum*, cover.] (*Bot.*) The forelid or operculum of a moss.

Preopin'ion, *n.* Opinion formed beforehand; prepossession. (R.)

Preop'tion, *n.* Previous choice.

Preordain', *v. a.* To ordain or appoint beforehand; to predetermine.

Preor'dinance, *n.* Antecedent decree; first decree.

Preordina'tion, *n.* Act of preordaining.

Prepar'able, *a.* That may be prepared.

Prepara'tion, *n.* [Fr.; Lat. *preparatio.*] Act or operation of preparing or fitting for a particular purpose, use, service, or condition; previous measures of adaptation. — That which is prepared, made, or compounded for a particular purpose. — State of being prepared or in readiness.

(*Anat.*) Any part of a body preserved for the use of the anatomist.

(*Med.*) Any medical substance that has to be employed for any purpose.

(*Mus.*) The previous adjustment of two notes by whose introduction a note which is to become a discord is heard in the preceding harmony.

Prepar'ative, *a.* Tending to prepare or make ready; having the power of preparing, qualifying, or fitting for anything; preparatory.

—*n.* That which has the power of preparing or previously fitting for a purpose; that which prepares. — That which is done to prevent evil or secure some good; preparation, as for a journey.

Prepar'atively, *adv.* By way of preparation.

Prepar'ator, *n.* One who prepares. (R.)

Prepar'atory, *a.* Preparing the way for anything by previous measures of adaptation; antecedent and adapted to what follows; introductory.

Prepare', *v. a.* [Fr. *préparer*; Lat. *præparare*, from *præ*, before, and *paro*, to set in order.] To cause to be fit or apt for any particular purpose; to render suitable for any particular purpose, end, use, service, or state, by any means whatever. — To procure as suitable; to equip; to provide.

—*v. n.* To make all things ready; to put things in suitable order. — To make one's self ready; to take the necessary previous measures.

Prepar'edly, *adv.* With suitable previous measures.

Prepar'edness, *n.* State of being prepared, or in readiness.

Prepar'er, *n.* One who, or that which fits, makes ready, or suitable.

Prepay', *v. a.* To pay in advance or beforehand, as the postage of a letter.

Prepay'ment, *n.* Payment in advance, as of postage.

Prepense', *a.* [Lat. *præpensus*, from *præ*, and *pendo*, to weigh.] Preconceived; premeditated; aforethought.

Prepense'ly, *adv.* Premeditatedly; in a preconceived manner.

Prepol'lence, Prepol'lency, *n.* State or quality of being prepollent.

Prepol'lent, *a.* [Lat. *præpollens*, from *præ*, before, and *pollere*, to be strong.] Very powerful; having superior gravity or power; prevailing.

Prepon'derance, Prepon'derancy, *n.* The state or quality of being prepouderant; superiority, force, or power.

(*Gun.*) The excess of weight of the portion of a gun in rear of the trunnions over the part in front.

Prepon'derant, *a.* Outweighing.

Prepon'derantly, *adv.* In a preponderant manner.

Prepon'derate, *v. n.* [Lat. *præpondero.*] To exceed in weight. — To exceed in influence or power analogous to weight; to incline to one side.

—*v. a.* To outweigh; to overpower by weight. — To overpower by stronger influence.

Prepon'deratingly, *adv.* Preponderantly.

Prepondera'tion, *n.* The act or state of outweighing anything.

Preposi'tion, *n.* [Fr.; Lat. *præ*, before, and *pono*, to place.] (*Gram.*) A word usually put before another to express some relation or quality, action or motion, to or from the thing specified. "The river runs *to* the sea. The glass stands *on* the table. The dog lies *under* the table. He runs *round* me. She runs *from* me. The house *by* the wood. The house *in* the wood." In all the instances just given, the relation is of one kind — that of place or direction. And this was the original signification of all prepositions. They gradually, however, came to express other relations. Thus: "That depends *on* you. Subjects are *under* the sovereign. She got *round* her father. Vice springs *from* idleness. Wood is consumed *by* fire. Your enemy is *in* your power." The transition from the palpable, physical relation to the more abstruse, mental relation, is, in most cases, obvious. A preposition is distinguished from an adverb by its always requiring an object (a noun or pronoun) after it. In the sentence, "He runs *about*," *about* is an adverb describing the mode of running: in "He runs *about* the house," it is a preposition referring to the direction of the running to a particular object.

Preposi'tional, *a.* Pertaining to a preposition, or to preceding position.

Prepos'itive, *a.* Put before, or prefixed.

—*n.* A word or particle put before another word.

Prepos'itor, *n.* A scholar appointed by the master to overlook the rest.

Prepos'iture, *n.* [Lat. *præpositura.*] A provostship.

Prepossess', *v. a.* To preoccupy, as land or ground; to take previous possession of. — To preoccupy the mind or heart of, so as to preclude other things; — hence, to bias or prejudice.

Prepossess'ing, *a.* Tending to invite favor; having power to secure the possession of favor, esteem, or love.

Prepossess'ingly, *adv.* In a prepossessing manner.

Prepossession, (*-pos-sesh'un,*) *n.* Preoccupation; previous possession. — The effect of previous impressions on the mind or heart, in favor of or against any person or thing.

Prepossess'or, *n.* One that prepossesses.

Prepos'terous, *a.* [Lat. *præposterus*, from *præ*, and *posterus*, coming after.] Reversed; inverted in order, distorted; having that first which ought to be last. —Contrary to nature or reason; wrong; absurd.

Prepos'terously, *adv.* In a wrong or inverted order; absurdly; foolishly.

Prepos'terousness, *n.* State or quality of being preposterous; wrong order or method; absurdity; inconsistency with nature or reason.

Preprovide', *v. a.* To provide beforehand.

Pre'puce, *n.* [Lat. *præputium.*] (*Anat.*) The loose integument in males known as the foreskin.

Preputial, (*-pu'shal,*) *a.* Relating to the prepuce or foreskin.

Pre-Raphaelism, *n.* An English school of painting, which has in recent years sprung into existence, and has been thus named, in accordance with an erroneous idea, that its earliest members were mainly anxious to imitate the mannerisms of the artists who painted before the time of Raphael. The fact was, that they imitated no pictures, and painted from nature only, but accepted the title of *Pre-Raphaelites* because it was their object to oppose that system in art which had grown up since the time of Raphael; one of the main characteristics of which was the pursuit of beauty at the expense of truth; while another was a servile obedience to traditional conventionalism.

Prereg'nant, *n.* The reigning predecessor.

Preremote', *a.* Remote with respect to the antecedent order of time.

Prerequire', *v. a.* To demand previously.

Prerequisite, (*-rek'wi-zit,*) *a.* Something previously necessary.

—*n.* A thing previously required, or necessary.

Pres'byter, *n.* [Gr. *presbuteros*, elder.] (*Eccles. Hist.*) In the New Testament, one of a body of officers having superintendence of a church. A clergyman in charge of a congregation. — In episcopal churches, a member of the second order of ministers, between the bishop and the deacons. — An elder; a member of presbytery.

Presbyt'eral, *a.* Relating to a presbyter or presbytery; presbyterial.

Presbyt'erate, *n.* [Lat. *presbyteratus.*] The office or station of a presbyter; a presbytery.

Presbyt'erated, *a.* Organized presbyterially.

Pres'byteress, *n.* A female presbyter.

Presbyte'rial, *a.* Pertaining to presbyters or to government by presbyters.

Presbyte'rian, *a.* Pertaining to ecclesiastical government by presbyters; consisting of presbyters.

—*n.* A member of a church governed by presbyters; one who holds to the system represented by Presbyterian Churches.

Presbyterian Church. The name assumed by those associations of Protestant Christians which are organized on the basis of government by presbyters, in distinction, on the one hand, from those organized on the basis of episcopacy, and, on the other, from independent (Congregational) churches which recognize no higher ecclesiastical authority. In a fully organized Presbyterian system, each congregation is governed by a body of presbyters or elders (the *session* or *consistory*) composed of *ruling elders*, who are elected by the people from their own number, and one or more *teaching elders* (clergymen) who are installed over the congregation by the presbytery and who alone administer the sacraments. The *presbytery* (also called *classis*), which constitutes the distinctive feature of this polity, consists of all the teaching elders, together with one ruling elder from each congregation within an assigned territory, and is the governing power over all the elders and churches belonging to it. In it all presbyters are of equal rank, except that teaching presbyters alone have the right to actually ordain others by imposition of hands. "The presbytery has power to receive and issue appeals from church sessions and references brought before them in an orderly manner; to examine and license candidates for the holy ministry; to ordain, install, remove, and judge ministers; to examine and approve or censure the records of church sessions; to resolve questions of doctrine or discipline . . . ; to condemn erroneous opinions which injure the purity or peace of the church; to visit particular churches for the purpose of inquiring into their state and redressing the evils that may have arisen in them; to unite or divide congregations, at the request of the people, or to form or receive new congregations, and in general to order whatever pertains to the spiritual welfare of the churches under their care." (*Form of Gov.*, Ch. x.) While the presbytery is thus the unit of the church, it may unite with other presbyteries, occupying other fields, to form a still larger association. If so, higher courts (*synods* or *assemblies*) are established, which possess more or less of the powers of presbytery and which direct the affairs of the whole body. Sometimes the higher courts or judicatories are composed like the presbyteries; sometimes they are composed of representatives elected by the presbyteries from their teaching and ruling elders. Appeals, complaints and references pass from the lower to the higher courts, so that each member of the Church may have his case judged by the whole Church. The system thus unites the entire body under the government of presbyters chosen by the people. It corresponds neither to a monarchy nor to a pure democracy, but to popular self-government through chosen representatives. Presbyterians believe their polity to be Scriptural. They hold that the Apostolic churches were organized on the model of the Jewish synagogues, which were governed by a body of elders, and that each Apostolic "church" consisted of all the Christians of a locality who were under one body of elders, though often forming several congregations. They believe that their polity preserved

the original equality and supremacy of the presbyters, as well as the principle of popular self-government, which they consider involved in the universal priesthood of all believers. But while their name describes their polity, Presbyterian Churches have been also distinguished for their adherence to the type of doctrine which is known as Augustinian or Calvinistic or Reformed, and which is embodied in their historic creeds (1st Helvetic Confession, 1536; Scotch Confessions, 1560, 1580; Belgic Confession, 1561; Heidelberg Catechism, 1563; 2d Helvetic Confession, 1566; Canons of the Synod of Dort, 1619; Westminster Confession and Catechisms, 1647). Though the Presbyterian Churches originally preserved modified liturgies, the Scotch, Irish, and American branches have generally rejected them. Presbyterians have also been honorably distinguished for devotion to free civil government, to education, and, during the last century, to missionary enterprises at home and abroad.

History. Presbyterian polity took shape in modern times in Geneva under Calvin's influence, though united with the civic government and without provision for synodical assemblies. It was developed in Friesland under John à Lasco; was adopted by the Huguenots and by the Reformed churches of the Netherlands, and became, with modifications, the polity of the Protestants of the Rhine provinces, Poland, Bohemia, and Hungary. These continental churches, however, preferred to call themselves "Reformed," indicating their doctrine rather than their polity. It was in Great Britain that the name Presbyterian was adopted, since there the polity and worship of the Church formed, during the religious conflicts of the 16th and 17th centuries, a principal subject of contention. In Scotland, under the leadership of John Knox, the first "book of discipline," by which the Protestants were organized along Presbyterian lines, was adopted in 1561. The system was gradually perfected; and the efforts of the nobility to restore an episcopate, which would be more subservient to their wishes, only increased the devotion of the people to Presbyterianism, so that in 1578, under the lead of Andrew Melville, the second "book of discipline" was adopted, by which the system was completely formulated. In 1584 episcopacy was re-enacted by Parliament; but again, in 1592, Presbyterianism was restored. Strife arose, however, between the Church and the royal authority. The assembly met irregularly and its action was fluctuating. Under Charles I. the quarrel became still more bitter by reason of his renewed attempt to enforce episcopacy. In 1636 the people were required to use Archbishop Laud's book of worship. This extreme measure, however, provoked a popular uprising, and the "National Covenant," which pledged its supporters to uphold the Presbyterian order, was signed by nobles and people. Meanwhile, in England also, Presbyterian principles had been introduced, chiefly by French refugees. They were ably defended (1570) by Thomas Cartwright, professor of Divinity at Cambridge, though they never obtained the same hold in England as in Scotland. Under Elizabeth, English Presbyterianism was vigorously repressed. In many parts of the country, however, it began to be put in operation. But under the strong episcopalian policy of James I., and the yet more stringent rule of Charles I., the Presbyterians were so oppressed that many fled to the Continent. The Long Parliament, however, abolished episcopacy in 1642, and in 1643 the celebrated Westminster Assembly was convened by the Parliament to provide for the reorganization in doctrine and polity of the English Church. In the same year the Parliament also entered into the Solemn League and Covenant with the Scotch Presbyterians to unite in faith and order the churches of the two countries. The Westminster Assembly was composed of several religious parties and represented various shades of opinion; but finally it prepared a Form of Government strictly Presbyterian. The system was adopted by Parliament in 1647, but the triumph of the Independents under Cromwell soon overturned it. The Presbyterians then became advocates of the Restoration. Charles II., however, bitterly disappointed them. They were compelled to conform to episcopacy or suffer outlawry, and, after the Revolution of 1688, passed into the number of tolerated, dissenting sects. The influence of Presbyterianism declined in England. It lapsed during the 18th century into Unitarianism. The present Presbyterian Church of England is a new organization established through Scotch influence in 1836. But, in Scotland, Presbyterianism continued to flourish during the first Stuarts and the Commonwealth. The Westminster Confession, Catechisms, Form of Government, and Directory of Worship were adopted in 1645-8. Under Charles II. the Scotch Presbyterians were fiercely persecuted and episcopacy re-established; but, with the accession of William III., relief came. The "National Covenant," indeed, was not re-enacted; but, in 1689, all acts in favor of episcopacy were repealed; in 1690 the first assembly since 1653 met; and in 1707 Presbyterianism was legally established in Scotland, as Episcopacy was in England. The Westminster symbols were also made the constitution of the Scotch Church. Scotch Presbyterianism, however, has been marked by many internal divisions, sometimes theological, but oftener caused by the relations of the Church to the state and the consequent difference of opinion as to what line of conduct duty required. Thus arose the Cameronians (Covenanters), who abjured fealty to the later Stuarts, and, after the Revolution, still refused to admit the authority of the crown over the Church. In 1733 the "Associate Presbytery" was formed in opposition both to lay patronage and to latitudinarianism. This body again divided into the Burgher and Anti-burgher parties on the question of the oath required of the burgesses of Edinburgh and elsewhere in support of the established religion. In 1761 the "Relief Presbytery" was formed for reasons similar to those which led to the "Associate Presbytery." Other smaller divisions also have taken place, but in the 19th century the tendency has been toward reunion of these parties. In 1847 the United Secession Church, already formed from the more liberal elements of the Burgher and Anti-burgher bodies, united with the Relief Church to form the present United Presbyterian Church of Scotland. On the contrary, however, in 1843, the old question of lay patronage led to the separation from the established church of a large number of ministers and churches, who formed the Free Church of Scotland. In Ireland Presbyterianism arose among the Scotch settlers in Ulster. It shared the changing political fortunes of its sister churches and perpetuated some of the Scotch divisions; but in 1840 most of the older bodies were formed into the General Assembly of the Presbyterian Church in Ireland.

The Presbyterian churches in the U. S. arose chiefly among the immigrants from Scotland and Ireland, though both England and France contributed to them, and the Reformed Dutch Church was permanently established in 1628. Presbyterian churches indeed were planted during the 16th and 17th centuries at various places from New England to Florida, but the first organization of an American presbytery grew out of the Scotch and Scotch-Irish settlements in the Middle colonies, with which, however, other elements combined. Francis Dougherty, who preached in New York in 1643, and afterward in Maryland and Virginia, and Matt. Hill, who, in 1669, located in Charles co., Md., represented English Presbyterianism. But in 1684 Francis Makemie, from the Presbytery of Laggan, Ireland, organized a church on the eastern shore of Maryland, at Snow Hill, and became mainly instrumental in the establishment of the first presbytery. This was organized in Philadelphia in 1705, and consisted of 7 ministers, who represented several types of training and tradition. The large and rapid immigration into the Middle and North-Southern colonies soon planted other churches, so that in 1716 a synod with 4 presbyteries was erected. With it other congregations, which had been previously Independent, also united. In 1729 the synod passed the Adopting Act, whereby the Westminster Symbols were made the constitution of the Church, "as being, in all the essential and necessary articles, good forms of sound words and systems of Christian doctrine," and subscription to them was required of all presbyters. Serious differences of opinion, however, arose in the synod, partly with reference to the attitude which should be taken toward the "revival" movement then passing over the country; partly with reference to the requirements to be exacted of candidates for the ministry; and partly as to the strictness with which subscription to the Confession should be required; so that in 1741 the original synod divided into the Synod of New York (New Side) and the Synod of Philadelphia (Old Side). The "New Side" rapidly increased in numbers, while the "Old Side" diminished. Both, however, prosecuted their work, especially in the matter of providing education for candidates for the ministry. In 1746 the Log College on the Neshaminy, founded by the Tennents, was merged into Nassau Hall, at Elizabethtown, N. J. The new college was removed in 1755 to Princeton. The "Old Side's" academy was at New London, Pa., and was founded in 1741 by Francis Allison. But in 1758 the two synods were happily reunited, on the basis of the original Adopting Act, as the Synod of New York and Philadelphia. Meanwhile other Presbyterian churches had been transplanted from Holland, Germany, Ireland, and Scotland. The Dutch, centering in New York, separated (1747–55) from the church of the mother country, and in 1772 formed a synod, which has continued its independent existence. The German Reformed settled mainly in Pennsylvania, and have also maintained a separate ecclesiastical existence. Irish Presbyterian churches were formed in New England, and in 1775 became a synod, but afterward merged into other bodies. The chief representatives of the dissenting churches of Scotland will be mentioned below. But the main stream of American Presbyterianism flowed from the Synod of New York and Philadelphia. That body, embracing 16 presbyteries, prepared in 1785 to reorganize itself in accordance with the needs of the new nation. A general assembly was formed, with 4 synods. The sections of the Form of Government pertaining to the relations of church and state were revised, and the Westminster Symbols were then readopted, and subscription to the Confession "as containing the system of doctrine taught in the Holy Scriptures" required of presbyters and deacons. The first assembly met in 1789. The church, thus nationalized, made steady progress, but was soon distracted again by controversy. The "plan of union" with the Congregationalists led to the formation of churches irregularly constituted, and to the intrusion of New England theology into the pulpits, both of which effects were resented by the stricter Presbyterians. The acquittal of Lyman Beecher, George Duffield, and Albert Barnes, who had been charged with heresy, combined with other causes to increase the friction. Bitter feeling culminated in the excision by the assembly of 1837 of the synods of Western Reserve, Utica, Geneva, and Genesee, and the dissolution of the Third Presbytery of Philadelphia. The excinded synods and their sympathizers formed the "New School" Presbyterian Church, while the remainder were known as "Old School." Both churches prospered, and by the end of 30 years the reasons for division were felt to have largely disappeared. The Congregational influences had diminished in the "New School" body. The center of doctrinal discussions had changed. Above all, the political agitations before and during the Civil War had drawn the Northern Presbyterians of both schools together. In 1858 the Southern members of the "New School" Church had separated themselves, and in 1861 the Southern wing of the "Old School" did the same. In 1865 the two Southern wings united, and still continue a separate body, with the title "The Presbyterian Church in the United States." Hence, after some debate, the two Northern churches also united in 1869, and bear the title of "The Presbyterian Church in the United States of America." Their reunion was effected on the basis of the Westminster standards "pure and simple." For twenty years after the reunion the church remained in peace, and, sharing the general prosperity of the country, grew rapidly. In 1888 a proposition was submitted to the presbyteries to revise the Confession of Faith. This gave rise to an animated discussion, which revealed the existence of various theological opinions. On its heels came the trial for heresy of Dr. C. A. Briggs, professor of Biblical Theology in Union Seminary, N. Y., which caused no little bitterness of feeling. It resulted, however, in 1894, in his suspension from the ministry, and, amid the excitement and fears created by his teaching and trial, the proposal to revise the Confession was rejected. The Presbyterian Church of the United States of America, as it now exists, includes a large membership, and is prominent in all forms of Christian activity. It has a system of 8 boards of trustees, responsible to the assembly, for the prosecution of its work both at home and abroad; 12 foreign missionary fields; and many institutions of learning of all grades are supported or fostered by it. Theological seminaries have been established at Princeton, in 1812; Auburn, in 1820; Allegheny (Western), in 1826; Cincinnati (Lane), in 1829; Danville, Ky., in 1852; Chicago (McCormick, originally at New Albany), in 1856; San Francisco, in 1870; Omaha, in 1890, as well as Lincoln and Biddle Universities for colored youth, and theological schools for Germans at Dubuque, Ia., and Newark, N. J. Union Seminary, in New York, was founded in 1836, and, though now separated from the assembly in consequence of the Briggs trial, still continues nominally a Presbyterian institution. Many attempts have been made to further unite the different Presbyterian bodies in the U. S., but as yet with small success. An "Alliance of the Reformed Churches holding the Presbyterian System" has, however, been formed, which meets every four years and includes all the Presbyterian churches of the world. It has no judicial or legislative authority. Its first meeting was held in Edinburgh in 1877. The statistics collected at the last meeting of the Alliance in Glasgow, in 1896, exhibited the strength of this portion of Protestant Christendom. They are as follows: Presbyteries, 1,305; congregations, 29,364; ministers, 25,447; ruling elders, 119,465; communicants, 4,627,149; Sunday-school teachers and pupils, 3,519,940. The statistics given for the Presbyterian churches in the United States and Canada are: Presbyteries, 687; congregations, 17,553; ministers, 13,836; ruling elders, 58,100; communicants, 2,004,845; Sunday-school teachers and pupils, 1,875,170. The latest statistics for the Presbyterian Church in the United States of America (Northern) are: Presbyteries, 224; congregations, 7,573; ministers, 6,942; ruling elders, 27,025; communicants, 943,716; Sundsy-school teachers and pupils, 1,006,391. The latest statistics for the Presbyterian Church in the United States (Southern) are: Presbyteries, 76; congregations, 2,788; ministers, 1,349; ruling elders, 8,656; communicants, 210,539; Sunday-school teachers and pupils, 157,958.

Cumberland Presbyterians. — An extraordinary revival, which in the early years of the 19th century visited S. W. Kentucky and the neighboring part of Tennessee (the "Cumberland country"), led to the licensing by presbyteries of that region of men who had not received regular theological training, in order to supply the need of preachers. The warmth of religious feeling, incident to the revival, also led the candidates and their sympathizers to take exception to certain clauses in the Confession of Faith which seemed to them to limit the universal applicability of the Gospel. Objection was specially taken to the doctrine of unconditional election with its correlative, the reprobation of the non-elect; to the doctrine of "limited atonement"; to that of efficacious grace provided only for the elect; and to the alleged teaching of the Confession that some infants, dying in infancy, are lost. Opposition to the new movement arose, and in 1806 the Synod of Kentucky dissolved the Presbytery of Cumberland. In 1810, three of the dissenting ministers organized the independent Cumberland Presbytery. This grew so rapidly that in 1813 a synod, with four presbyteries, was formed. A brief doctrinal platform was adopted, and in 1814 its positions were embodied in a revised Confession. In 1829 the first assembly of the Cumberland Presbyterian Church, with four subordinate synods, was organized. The Cumberland Church has grown steadily and rapidly, its strength being in the Southwestern States. It has maintained the evangelistic spirit out of which it was born. It has foreign missions in Japan and Mexico; a university at Lebanon, Tenn. (originally at Princeton, Ky.); five other colleges, and many schools. It was not divided by the Civil War, though situated on the border; but in 1869 a separate Colored Cumberland

Presbyterian Church was formed. In 1883 the Confession and Catechism were again revised to conform to the theology of the Church, which seeks middle ground between Calvinism and Arminianism. The Cumberland Church reported in 1902 to the "Alliance": Presbyteries, 126; congregations, 2,884; ministers, 1,580; communicants, 193,393; Sunday school membership, 114,147.

UNITED PRESBYTERIANS.—The United Presbyterians Church of the United States is a union of several Independent churches which sprang from the dissenting churches of Scotland. In 1774 the "Reformed Presbytery of America" was constituted near Harrisburg, Pa., by descendants of the Scotch Covenanters (Cameronians) who had refused to accept the "indulgence" of the later Stuarts or to recognize, even after the Revolution of 1688, the supremacy of the crown over the Church. This presbytery united in 1782 with the "Associate Church," which represented in America the Anti-burgher wing of the Scotch seceders who had protested against the latitudinarianism and state patronage of the Scotch Church, and had, in 1736, formed the Associate Presbytery, which in turn had divided into the Burgher and Anti-burgher wings (see above). The title of the new body was the Associate Reformed Church. A number of both bodies, however, refused to accept the union, and a new Associate Church was formed, which became, in 1801, the Associate Synod of North America. The united body—*i. e.*, the Associate Reformed Church—also became a General Synod in 1804, but in 1822 this was dissolved, and the three independent synods, of New York, of the West, and of the South, remained. In 1858, however, the Northern and Western Synods of both the Associate and Associate Reformed Churches came together and constituted the United Presbyterian Church of North America. It represents a strict type of Presbyterian doctrine and polity; uses only the Psalms in public praise; is very active in educational and missionary work, and in temperance and other social reforms. It has theological seminaries at Allegheny, Pa., and Xenia, O. There were reported in 1902; 65 presbyteries; 905 congregations; 933 ministers; and 116,302 communicants. For the United Presbyterian Church of Scotland, see above.

REFORMED PRESBYTERIANS.—This title, with various adjuncts, is adopted by several communions who have not merged into the large Presbyterian denominations. They originally represented phases of Scottish dissent from the established church, but maintain their tenets in America. To the Westminster Symbols they add "Declarations and Testimonies," setting forth the reasons for their separate existence. There is the Associate Reformed Presbyterian Church of North America and the Associate Reformed Presbyterian Church of the South (the latter of which separated from the former in 1831 because of its strong anti-slavery declarations), which represent those of the earlier Associate Church which did not unite in the formation of the United Presbyterian Church. They have together a membership of about 12,000, the Southern church being much larger than the Northern. There is also the Reformed Presbyterian Church of the United States, which represents those of the Reformed Presbytery (Covenanters) who did not unite in 1782 to form the Associate Reformed Church and subsequently the United Presbyterian Church. In 1809 they formed a synod. In 1833 they divided on the question of the rightfulness of voting in a country which does not formally acknowledge the kingship of Christ. There thus resulted the Reformed Presbyterian General Synod ("New Light"), who permit voting, and the Reformed Presbyterian Synod ("Old Light"), who forbid it. Both represent the strictest type of Calvinism, use only the Psalms in public praise, and contend particularly for the recognition by the state of Christ as the Ruler of nations, and civil obedience to His laws. They number less than 20,000. Like other Presbyterians, they are active in education and in missionary work.

GEORGE T. PURVES.

Presbyte'rianism, *n.* The principles and discipline of the Presbyterian Church.

Presbyte'rianly, *adv.* In the manner or according to the principles of the Presbyterians.

Presbyte'rium, *n.* (*Arch.*) The part of a church in which the high altar is placed; so called because it is occupied exclusively by those who minister in the services of the altar. The name is often used in a more extended sense to include the whole of the choir.

Pres'bytership, *n.* The office or station of a presbyter.

Pres'bytery, *n.* [Gr. *presbuterion*, a council of elders.] A body of elders in the Presbyterian Church. — The Presbyterian religion.

(*Arch.*) Same as PRESBYTERIUM, *q. v.*

Presbyt'ia, *n.* (*Med.*) Presbyopia.

Presbyt'ic, *a.* Presbyopic; affected by presbytia.

Prescience, (*pre-shi-ens,*) *n.* [Lat. *præscientia*, from *præscio* — *præ*, and *scio*, to know.] Knowledge of events before they take place.

Pre'scient, *a.* [Lat. *præsciens.*] Having knowledge of events before they take place; foreknowing.

Prescind', *v. a.* [Lat. *præscindere.*] To cut off; to abstract; to sever. (R.)

Prescind'ent, *a.* Abstracting; cutting off. (R.)

Presci'ous, (*pre'shus,*) *a.* Having foreknowledge. (R.)

Pres'cot, a town and parish of England, co. of Lancaster, 8 m. E.N.E. of Liverpool. *Manuf.* Cotton, sail-cloth, watches, and earthenware. *Pop.* of town 7,500.

Pres'cott, WILLIAM HICKLING, an eminent American historian, b. at Salem, Mass., 1796, was the son of a distinguished lawyer and statesman, and grandson of Col. William Prescott, an officer of the Independence War. He entered Harvard College in 1811, and graduated in 1814. While at college he had the misfortune to lose, by an accident, the sight of one of his eyes, while the other became so weakened as to deter him from any profession or pursuit in which strong eyesight was indispensable. Enabled by the possession of an independent fortune to follow the bent of his inclinations, he spent two years in wandering in England, France, and Italy, and then returned to his native country, where he married and settled down to a life of literary labor, which was rarely interrupted. Having made himself master of the literature of France, Italy, and Spain, he contributed as the first fruits of his careful and various readings some critical papers to the *North American Review*; and at last, in 1827, selected the *Reign of Ferdinand and Isabella* as the subject of a more extensive work. Unable from the weakness of his eyesight to pursue an historical work requiring reference to various Spanish authorities, he had recourse to a reader, whom he taught to pronounce Castilian with accuracy sufficient for his own ear, and with this inadequate assist-

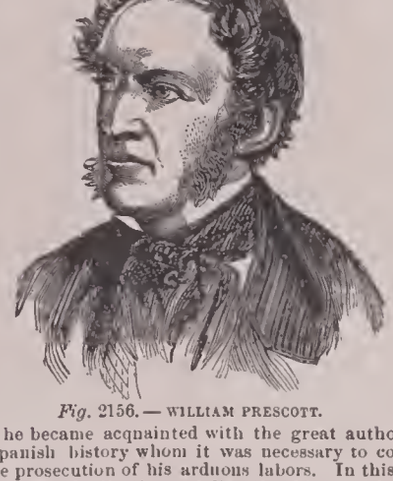


Fig. 2156. — WILLIAM PRESCOTT.

ance he became acquainted with the great authorities on Spanish history whom it was necessary to consult in the prosecution of his arduous labors. In this tedious process of collecting and digesting his materials ten years rolled on, but at length, in 1838, his great work was published, and was received with the utmost enthusiasm both in England and America; while Germany, France, and Spain acknowledged the new historian by transplanting his work into their respective languages; and the Spanish capital elected him a member of her Royal Academy of History. Stimulated by success, and with his skill considerably increased by practice and experience, *P.* set about the composition of *The Conquest of Mexico*, which he published in 1843, and four years later he gave to the world *The Conquest of Peru*. These elaborate and charmingly written works, like their predecessor, were received in both hemispheres with immense applause. They have frequently been reprinted, and they bid fair to remain the standard histories of some of the most interesting and eventful periods of human action and enterprise. *P.* was chosen corresponding member of the French Institute; and in 1850 he paid a short visit to Europe, where he was received with the highest distinction. On his return to America he began the composition of what he intended to be the greatest achievement of his latter years, *The History of Philip II.* Of this work two volumes appeared in 1855, and a third in 1859; these volumes bear ample testimony to the undiminished genius of the author, and the world was looking forward to the completion of this work, and many others from the same brilliant pen, when he was suddenly attacked by paralysis, and d. at Preston, 1859. — *P.* was an elegant scholar and writer, a man of cheerful humor and affectionate character, methodical in his habits, and persevering in his pursuits. He walked five miles regularly every day, composing as he walked. He gave one-tenth of his ample income in charity, and divided his time between his winter mansion in Boston, a summer residence at Nahant, and a farmhouse, where he spent the autumn. In his large library, with the light carefully regulated for his imperfect vision, he wrote with a stylus each day what he had composed, which was then copied, read over, and carefully corrected. His life, by George Ticknor, was published in 1864.

Pres'cott, an extreme N.E. co. of prov. of Ontario; *area*, abt. 475 sq. m. *Rivers.* Ottawa and Nation rivers. *Cap.* L'Original.

Pres'cott, cap. of co. Grenville, Ontario.

Pres'cott, in *Arizona*, a city, cap. of Yavapai co., and formerly the seat of the territorial government, about 500 m. S. of Salt Lake City, Utah; Lat. 34° 7′ N., Lon. 112° 20′ W. Rich gold and silver mines are worked in the vicinity. *Pop.* (1897) 2,450.

Prescott, in *Indiana*, a post-village of Shelby co., abt. 5 m. S.S.W. of Shelbyville.

Prescott, in *Massachusetts*, a post-township of Hampshire co.

Prescott, in *Minnesota*, a township of Faribault co.

Prescott, in *Wisconsin*, a city of Pierce co., on Mississippi river and the Chicago, Burl. & Quincy R.R., 16 m. S. of Hudson. *Pop.* (1895) 966.

Prescribe', *v. a.* To set or lay down authoritatively for direction; to direct.

(*Med.*) To direct, as a remedy.

—*v. n.* To give law; to influence arbitrarily; to dictate.

(*Med.*) To write or give medical directions; to direct what remedies are to be used.

(*Law.*) To claim a title to a thing on the ground of long or immemorial usage. See PRESCRIPTION.

Prescrib'er, *n.* One who prescribes.

Pre'script, *a.* [Lat. *præscriptus.*] Directed; accurately laid down in a precept.

—*n.* [Lat. *præscriptum.*] Direction; precept; model prescribed. — A medical order; a prescription.

Prescriptibil'ity, *n.* Quality of being prescriptible.

Prescrip'tible, *a.* That may be prescribed for.

Prescrip'tion, *n.* [Lat. *præscriptio.*] The act of prescribing, or that which is prescribed;—particularly, a medical direction of remedies for a disease, and the manner of using them; a recipe.

(*Law.*) A title acquired by use and time to incorporeal hereditaments, such as a right of way or of common, and the like. All prescription is either personal, as when it is in a man and his ancestors, or it is in right of a particular estate; which last being in a man, and those whose estate he hath, is called prescription in a *que* estate. It presupposes a lost grant, and can therefore give a title to those things only which can pass by grant. In almost all the States there are express statute provisions regulating the doctrine of prescription. Generally an uninterrupted possession of 20 years is required for the acquisition of real rights. In Massachusetts, Maine, Indiana, and other States, a notification by the owner of the land to the occupant, that his intention is to contest the title, may defeat prescriptive acquisition.

Prescrip'tive, *a.* Consisting in, or acquired by prescription; immemorial use and enjoyment; pleading the continuance and authority of custom.

Pres'ence, *n.* [Fr. *présence*; Lat. *præsentia.*] State of being present; the existence of a person or thing in a certain place. — A being in company near or before the face of another. — Approach face to face, or nearness of a great personage; state of being in view of a superior; a number assembled before a great person; port; mien; air; personal appearance; demeanor; the apartment in which a prince shows himself to his court. — The person of a superior.

"To her the sov'reign *presence* thus reply'd." —*Milton.*

—Readiness at need; quickness at expedient.

"Nothing comparable to... ready *presence* of mind." —*L'Estrange.*

Pres'ence-cham'ber, PRES'ENCE-ROOM, *n.* The room in which a great person receives company.

Presensa'tion, *n.* A precedent or previous thought or feeling.

Pres'ent, *a.* [Fr. *présent*; Lat. *præsens.*] Being close at hand or in view; being in a certain place; — opposed to *absent.* — Being before the face or near; being in company. — Being now in view or under consideration. — Non-existing, or being at this time; not past or future. — Ready at hand; quick in emergency. — Favorably attentive; not heedless; propitious. — Not absent of mind; not abstracted; attentive. — A term used in an inscription on a letter, when the letter is written in the place where the person to whom it is addressed resides. (United States.)

At present. At the present time.

Present tense. (*Gram.*) A tense denoting an action or event as passing at the time in which it is mentioned. It likewise expresses a character, quality, general truth, or customary action, &c.; as, "He is an able man;" "Vice produces misery." Preceded by the words *when, before, after*, &c., it is sometimes used to point out the relative time of a future action; as, "*When* he arrives he will hear the news." In animated historical narrations, it is sometimes substituted for the imperfect tense.

Worcester.

Pres'ent, *n.* An offering: that which is presented or given; something given or offered to another gratuitously; a donation; a gift; a benefaction. — The *present* time.

Present', *v. a.* [Fr. *présenter*; L. Lat. *præsento*, to offer.] To set, place, or introduce into the presence or before the face of a superior. — To exhibit to view or notice. — To offer; to exhibit; to give; to offer gratuitously for reception; to put into the hands of another in ceremony; to favor with a gift. — To nominate to an ecclesiastical benefice. — To offer openly; to proffer; to lay before a public body for consideration. — To point or direct, as a weapon, particularly some species of firearms.

Presentable, (*pre-zent'a-bl.*) *a.* [Fr. *présentable.*] That may be presented; that may be exhibited or represented; that may be offered to a church-living.

Presentation, (*prĕz-ĕn-ta'shŭn,*) *n.* [Fr. *présentation.*] Act of presenting; exhibition; representation: display.

(*Eccl. Law.*) Act of offering a clergyman to the bishop or ordinary for institution in a benefice; the right of presenting a clergyman.

P. at court. When English subjects, or inhabitants of other countries, entitled to the privilege by rank and honor, pay a visit to Her Majesty on one of the stated public occasions, they are said to be *presented at court.* At a *levée* the gentlemen alone appear; but at the *drawing-room*, both ladies and gentlemen are presented. At the levées, no persons are allowed to remain in the throne-room after having passed Her Majesty, except the ministers, and the great officers of the household upon duty. At the drawing-rooms, those who are allowed to remain are the ladies of the ministers, of the great officers of the household, and of the foreign ministers.

P., Feast of. (*Eccl.*) A Roman Catholic feast; otherwise called the Purification of the Blessed Virgin. See PURIFICATION.

Present'ative, *a.* That of which presentations may be made.

Presentee', *n.* (*Eccl. Law.*) One presented to a benefice.

Presen'ter, *n.* One who presents.

Presentient, (*pre-sen'she-ent,*) *a.* Which has a previous sensatiou, or perceives beforehaud.

Presen'timent, *n.* [Fr., from Lat. *præ,* and *sentio.*] Previous apprehension of something future.

Presentiment'al, *a.* That relates to, or has presentiment.

Presently, (*prez'ent-li,*) *adv.* Immediately; directly; speedily; shortly; soon; iu a short time after; soon after.

Presentment, (*pre-zent'ment,*) *n.* Act of presenting. —Appearance to the view; presentation.

(*Law.*) The notice taken by a grand-jury of any offeuce from their own knowledge or observation, without any bill of indictment laid before them at the suit of the government; as, the *presentment* of a nuisance or the like.—Also, the writing which contains the accusation so presented by a grand-jury.

(*Com.*) The production of a bill of exchange or promissory note to the party on whom the former is drawn, for his acceptance, or to the person bouud to pay either, for payment.

Presentoir, (*prez'ong-twor'.*) *n.* [Fr.] An ornamental cup, very shallow, and haviug a tall, euriched stem; it

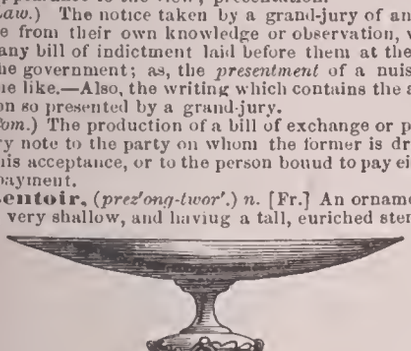


Fig. 2157. — PRESENTOIR.

was a decorative article of luxury, serving no particular use; but was much fabricated in the 16th century, at which period the one engraved (Fig. 2157) was executed.

Preserv'able, *a.* That may ho preserved.

Preservation, (*pre-zer-va'shun,*) *n.* [It. *preservazione;* Sp. *preservacion.*] Act of preserving or keeping safe; the act of keepiug from injury, destruction, or decay.

Preserv'ative, *a.* [Fr. *préservatif.*] Having the power or quality of preserving, or of keeping safe from injury, destruction, or decay; tending to preserve.

—*n.* That which prcserves, or has the power of preserving; a preventive of injury or decay.

Preserv'atory, *n.* That which preservcs; preservative.

—Having power to preserve; preservative.

Preserve', *v. a.* [Fr. *préserver,* from Lat. *præ,* and *servo,* to save, to deliver.] To rescue; to save or keep from iujury or destruction. — To keep in safety or security; to protect; to shield; to guard; to defend; to spare. — To keep from decay; to keep in a sonnd state. — To season with sugar or other snbstances for prescrvation. — To keep from corruption. — To maintain or keep throughout, as appearances.

—*n.* Something that is preserved; fruit or vegetables seasoned and kept in sugar or syrup; a place for the shelter and preservation of auimals iutended for sport or food, as game, fish, &c.

Preserv'er, *n.* The person or thing that prcserves; one who saves or defeuds from destruction or evil.

Preshow', *v. a.* To show beforehand; to foreshow.

Preside', *v. n.* [Fr. *présider;* Lat. *præsideo — præ,* and *sedeo,* to sit.] To be set over for the exercise of authority; to direct, control, and govern, as the chief officer; —(usually with *over,*) to exercise superintendence over; to watch over as inspector.

Pres'ideney, *n.* [Fr. *présidence.*] Act of presiding; superinteudence; inspection and care; the office of president; the term during which a president holds his office; the jurisdiction of a president.

Pres'ident, *n.* [Fr.; Lat. *præsidens.*] One who presides; a presiding officer. — An officer elected or appointed to preside over a corporation, company, or assembly of uen.—An officer appointed or elected to govern a province or territory, or to administer the government of a nation.—The supreme executive officer of the United States of America is styled *president.* The qualifications required of a person raised to this dignity are, to bo a natural-born citizen of the age of 35 years, and to have resided 14 years within the States. The election is by electoral colleges in every State. These colleges contain, in each State, a nnmber of electors equal to all the senators and representatives of that State in Congress. The colleges in each State vote by ballot for a *P.* (and at the same time for a vice-*P.*); and the votes of all the electors, taken in this manner, are counted by the *P.* of the Senate; if in this numeration any person is found to have an absolnto majority of votes, he is duly elected; if not, the election is made by the House of Representatives between the three persons having the highest nnmber; in which case the votes are taken by States, and a majority of all the States is necessary to constitute a choico. On two occasions, of which the last was in 1824, no candidate having had a majority of the whole nnmber of votes, the House of Representatives has proceeded to make the election; and, on the last of these occasions, a majority of States chose a candidate (Adams) who had a smaller number of electoral votes than one of his opponents (Jacksou). On one occasion, in 1800, the States balloted 36 times before any candidate could obtain an absolute majority. Should the *P.* die during his term of office, he is succeeded by the vice-*P.* In this manner the ex-*P.*, Andrew Johnson, succeeded to the office on the assassination of Abraham Liucolu. Iu his legislative capacity, tho *P.* has the power of approving bills sent to him after passing both houses of Congress, or of returning them to the house in which they originated with his objections annexed. In the latter case, tho bill must be reconsidered by that house; and if, on reconsideration, it obtain a majority of two-thirds iu both houses, it passes into a law. In his executive capacity, he is commander-and-chief of the army and navy of the Union, and of the State militias when called into the service of the Union; he has the power of reprieving and pardoning except in cases of impeachment; he has power to make treaties, with the consent of the Senate (by a majority of two-thirds); he nominates ambassadors, consuls, jndges of the supreme court, and all other officers of the United States, whose appointments are not vested elsewhere by the Constitution, but all nominations are subjected to the approval of the Senate. Tho *P.* holds his office for the term of four years, and is eligible for successive terms; hut no one has ventured, contrary to public opinion, to be a candidate for a third term. See ELECTORAL SYSTEM OF THE U. S., by McKnight, N. Y., 1878.

Pres'ident, in *Penn.*, a v. and twp. of Venango co.

Presiden'tial, *a.* Presiding over. — Pertaiuing to a president.

Pres'identship, *n.* The office or place of president. —The term for which the president holds his office.

Presid'er, *n.* One who presides.

Presid'ial, Presid'iary, *a.* [Lat. *præsidialis,* from *præsidium,* a defeuce.] That has a garrison, or relates to it.

Presidio de São João Baptista, a town of Brazil, abt. 110 m. E.S.E. of Ouro Preto.

Presignifica'tion, *n.* [Lat. *præsignificatio.*] Previous intimation; act of signifying beforehand.

Presig'nify, *v. a.* To iutimate or signify beforehand; to show previously.

Presque Isle, (*presk'eel.*) in *Maine,* a post-village and township of Aroostook co., about 150 m. N.E. of Bangor.

Presque Isle, in *Michigan,* a N.E. co. of the lower peninsula bordering on Lake Hurou; *area,* about 715 sq. m. *Surface,* nearly level; *soil,* geuerally fertile. *Cap.* Rogers. *Pop.* (1894) 5,910.

Press, *v. a.* [Fr. *presser;* It. *pressare,* to urge, to hurry, from Lat. *pressare,* to press.] To urge with force or weight; to apply any power physical or moral to something that is to be moved or affected. — To squeeze; to crush. — To squeeze for makiug smooth, as cloth or paper. — To drive with violeuce; to hurry; to urge. — To embrace closely; to hug. — To force into service; to impress. — To urge by authority or uecessity; to impose by importunity; to solicit with earnestness or importunity.

—*v. n.* To bear on heavily, or with force; to urge or strain in motion. — To crowd; to throng; to encroach. — To urge by influence or moral force; to urge with vehemence or importuuity. — To approach unseasonably or importunately.

—*n.* An instrument or machine by which any body is crushed, squeezed, or forced into a more compact form. —A machine for printing; a priuting-press. See PRINTING. —The art or business of printing and publishing; — hence, the publications issued from the *press,* taken collectively.—A case or closet for the safe-keeping of clothes, &c. — Act of urging or pushing forward. — Urgency; urgent demands of affairs. — A crowd; a throng; a multitude of individuals crowded together. — A commission to force men into the military or uaval service; impressment.

Press'-bed, *n.* Bed so formed as to be shut up in a case.

Press'er, *n.* One who presses, or that works at a press.

Press'-gang, *n.* A term applied in England to a detachment of seamen, who, under the command of a naval officer, were formerly empowered, in time of war, to take auy seafaring men, and oblige them to serve on board the king's ships.

Press'ing, *a.* Urgent; importunate; distressing.

Press'ingly, *adv.* In a pressing manner; with force; closely.

Pression, (*presh'un,*) *n.* The act of pressing. (o.)

(*Cartesian Philos.*) An endeavor to move.

Pressirosters, *n. pl.* [Lat. *pressus,* flattened, *rostrum,* a beak.] (*Zoöl.*) A tribe of wading birds, including those which have a flattened or compressed beak, as the bustards, plovers, &c.

Press'man, *n.; pl.* PRESSMEN. (*Print.*) One who manages the press and impresses the sheets in printing. — One who forces another into service; ono who forces away.

Press'-money, *n.* Money given to a soldier when he is taken or forced into the service.

Press'-pack, *v. a.* To compress by a hydraulic or other press.

Press'-proof, *n.* (*Printing.*) A good impression of a sheet, by which it is read over carefully before being printed off.

Pressurage, (*presh'ur-aj,*) *n.* [Fr.] The juice of the grape extracted by the press. — A fee paid to the owner of a wine-press for its use.

Pressure, (*presh'ur,*) *n.* [Lat. *pressura,* from *premo, pressus,* to press.] Act of pressing or crushing; act of urgiug with force. — A constraining force or impulse; that which urges or compels the intellectual or moral faculties. — That which afflicts the body or depresses the spirits; any severe affliction, distress, calamity, or grievance. — Urgency, as the *pressure* of business. — Impression; stamp; character impressed.

(*Mech.*) A force counteracted by another force, so that no motion is produced. Thus, when a heavy body is supported on a table, or the ground, the force of terrestrial gravity, which, if the support were removed, would cause the body to descend towards the centre of the earth, being destroyed at every instant by the resistance of the support, produces pressnre. A pressure and a moving force differ from one another only in this respect, that the infinitely small velocities which the pressure tends to produce are incessantly destroyed by the resistance of the obstacle; whereas those that are actually produced at every instant by the moving forces are accumulated in the moving body, and produce a finite velocity after a finite time. The pressnres of two different bodies are, therefore, to each other as the masses multiplied by the infinitely small velocities which they tend to produce in the same instant of time, and which they would produce if the bodies were free to move.

Press'work, *n.* (*Printing.*) The operation of taking impressions from types, &c., by means of the press; — distinct from *composing,* which is arranging the types to prepare them for press.— By *fine presswork* is meant work priuted with the best paper and ink, aud with the utmost care.

Prest'able, *a.* Payable. (Scot.)

Pres'ter John, PRESBYTER, or PRIEST JOHN, a name given in the Middle Ages to a supposed Christian sovereign, said to hold his empire in some central part of Asia (Thibet), though, according to the Portuguese, he was king of Abyssinia. Oungh Khan, Khan of the Khrim Tartars, in the beginning of the 13th century, is, however, regarded as the actnal individual mentioned as *Prester John,* that person having taken priest's orders, thereto induced by the missionaries who had penetrated the country through Mesopotamia and Armenia, followers of the Nestorian creed.

Prestezza, (*tĕt-zah.*) [It.] (*Mus.*) Qnickness; rapidity.

Prestidigita'tion, *n.* Skill iu legerdemain; jugglery.

Prestidigita'tor, *n.* [Lat. *præsto,* qnickly, and *digitus,* a finger.] One skilled in legerdemaiu; a juggler.

Prestige, (*pres'tij.*) *n.* [Fr.; from Lat. *præstigium.*] Illusion; charm; fascination; imposture. — Influence of character or of conduct; moral influence arising from past successes or achievements, regarded as the pledge or promise of futuro successes.

Prestis'simo, *adv.* [It. superl. of *presto,* quick.] (*Mus.*) With great rapidity.

Pres'to, *adv.* [It. aud Sp.] Immediately; quickly; at once.

(*Mus.*) A direction that a piece should be performed in a rapid, lively manner.

Pres'ton, a town of England, co. of Lancaster, on a gentle elevation above the Ribble, about 15 m. from its confluence with the Irish Sea, 28 m. N.E. of Liverpool. The principal public buildings are the court-house, town-hall, exchange, assembly-rooms, aud custom-house. It is the seat of an institution for diffusing useful knowledge, with an extensive library, good museum, and an agricultural society. *Manuf.* Linen and cotton. *Pop.* (1897) 112,750.

Pres'ton, in *California,* a village of Marin co., abt. 30 m. N.W. of San Rafael.

Preston, in *Connecticut,* a post-village and township of New London county, about 3 miles E. of Norwich.

Preston, in *Georgia,* a village, cap. of Webster co., abt. 45 m. S.S.E. of Columbus.

Preston, in *Illinois,* a post-village of Randolph co., abt. 32 m. S.E. of Bellville.—A township of Richland co.

Preston, in *Kentucky,* a village of Carroll co., on the Kentucky River, opposite Carrollton.

Preston, in *Minnesota,* a post-village, township, and cap. of Fillmore county, abt. 33 m. S.E. of Rochester. *Manuf.* Woollens, flour, beer, aud wagons.

Preston, in *Mississippi,* a post-village of Yallobusha co., abt. 15 m. N.N.W. of Grenada.

Preston, in *Missouri,* a village of Jasper co., abt. 65 m. W. of Springfield.—A twp. of Platte co.

Preston, in *New York,* a post-township of Chenango co.

Preston, in *Ohio,* a village of Muskingum co., abt. 17 m. N.E. of Zanesville.

Preston, in *Pennsylvania,* a post-village and township of Wayne co., abt. 29 m. N. by W. of Honesdale. The twp. contains numerous small lakes and has manufactories of leather.

Preston, in *Texas,* a village of Grayson co., abt. 18 m. N. of Sherman. — A village of Wharton co., abt. 77 m. W. of Galveston.

Preston, in *West Virginia,* a N.E. co., adjoining Pennsylvania and Maryland; *area,* about 709 sq. m. *River.* Cheat river. *Surface,* diversified; *soil,* moderately fertile, and well adapted to grazing. *Min.* Limestone, slate, and sandstone. *Cap.* Kingwood. *Pop.* (1897) 21,250.

Preston, in *Wisconsin,* a township of Trempealeau county.

Pres'tonburg, in *Kentucky*, a post-village, capital of Floyd co., abt. 120 miles E.S.E. of Lexington; *pop.* abt. 250. This village gives its name to an engagement fought in the vicinity, Jan. 7, 1862, between Col. J. A. Garfield at the head of about 3,000 Nationals, and about 2,500 Confederates under Col. Marshall. The latter, after a desperate resistance, were completely routed.

Pres'ton Hollow, in *New York*, a post-village of Albany co., abt. 30 m. W.S.W. of Albany.

Prest'-sail, *n.* (*Naut.*) All the sails which a ship can carry.

Presum'able, *a.* [Fr.] That may be supposed to be true, or entitled to belief, without examination or direct evidence, or on probable evidence.

Presum'ably, *adv.* Without examination.

Presume', *v. a.* [Fr. *présumer*; Lat. *præsumo*, from *præ*, and *sumo*, *sumptus*, to take.] To assume or take beforehand.—To take, or suppose, to be true, or entitled to belief, without examination or positive proof, or on the strength of probability.

—*v. n.* To arrogate; to venture without positive permission.—To act with great confidence, with *on* or *upon* before the ground of confidence; as, he *presumed on* his ability.—To suppose; to affirm without immediate proof; to believe without previous examination.

Presum'er, *n.* One who presupposes; an arrogant person.

Presum'ingly, *adv.* With presumption; confidently.

Presumption, (*pre-zum'shun,*) *n.* [Lat. *præsumptio.*] Act of presuming; belief previously formed; supposition of the truth or real existence of something, without direct or positive proof of the fact.—Strong probability; evidence probable but not conclusive.—Blind or headstrong confidence; arrogance; presumptuousness.—A venturing to undertake something without reasonable prospect of success, or against the usual probabilities of safety.

(*Law.*) The assuming the truth of a certain state of facts by the ordinary custom of law. It is either *juris et de jure*, which is a presumption which no evidence to the contrary can be admitted to traverse, as the *presumption* of incapacity in a minor with guardians to act without their consent; or it is *juris* only, which may be traversed by evidence, as where the property of goods are presumed to be in the hands of the possessor until the contrary is shown.

Presump'tive, *a.* [Fr. *présomptif.*] Taken by previous supposition; grounded on probable evidence.—Unreasonably confident; adventuring without reasonable ground to expect success; presumptuous; arrogant.

P. evidence. (*Law.*) Any evidence which is not direct and positive. The proof of facts from which, with more or less certainty, according to the experience of mankind of their more or less universal connection, the existence of other facts can be deduced. The evidence afforded by circumstances, from which, if unexplained, the jury may or may not infer or presume other circumstances or facts.

P. heir. One who, if the ancestor should die immediately, would, under existing circumstances of things, be his heir, but whose right of inheritance may be defeated by the contingency of some nearer heir being born; as, a brother, who is the *presumptive* heir, may be defeated by the birth of a child to the ancestor.

Presump'tively, *adv.* By presumption, or supposition grounded on probability.

Presump'tuous, (*pre-zumt'yu-us,*) *a.* Bold and confident to excess; adventuring without reasonable ground of success.—Founded on presumption; proceeding from excess of confidence.—Done with bold design, rash confidence, or in the violation of known duty.

Presump'tuously, *adv.* With rash confidence; arrogantly; insolently; wilfully.—In bold defiance of conscience or violation of known duty.

Presump'tuousness, *n.* Quality of being presumptuous or rashly arrogant; groundless confidence; arrogance; irreverent boldness or forwardness.

Presuppos'al, *n.* Supposal previously formed.

Presuppose, (*pre-sup-oz',*) *v. a.* [Fr. *présupposer.*] To suppose as previous; to imply as antecedent.

Presupposition, (*-zish'un,*) *n.* Supposition previously formed.—Act of presupposing.

Presurmise', *n.* A surmise previously formed.

Pretence', *n.* Same as PRETENSE, *q. v.*

Pretend', *v. a.* [Fr. *prétendre*; Lat. *prætendo*, from *præ*, and *tendo*, to stretch.] To hold out, as a false appearance; to counterfeit.—To offer, as something feigned instead of that which is real; to assume or profess to feel; to show hypocritically.—To claim.

—*v. n.* To put in a claim truly or falsely; to hold out the appearance of being, possessing, or performing;—usually with *to*.

Pretend'ant, *n.* A pretender; one who lays claim to anything.

Pretend'edly, *adv.* By false appearance or representation.

Pretend'er, *n.* One who pretends or makes a show of something not real.

(*Eng. Hist.*) An epithet applied to the son and grandson of James II., who pretended to the throne of England.

Pretend'ingly, *adv.* Arrogantly; presumptuously.

Pretense', Pretence', *n.* [Lat. *prætensus*, *prætensa*, from *prætendere.*] A holding out or offering to others something false or feigned; a pretending to others a false or hypocritical appearance.—Show; appearance; pretext.—Claim to notice; claim, true or false; assumption.

(*Her.*) An *escutcheon of P.* is a small shield placed in the centre of the field of another shield. The husband of an heiress may bear the arms of his wife in an escutcheon of pretence, instead of impaling them. Feudal arms are also sometimes placed on an escutcheon of pretence, particularly in the insignia of elective sovereigns, who have been in the habit of bearing their own proper arms in surtout over those of the dominions to which they are entitled.

Pretense'less, *a.* Without pretences, or pretense.

Pretension, (*pre-ten'shan,*) *n.* A claim true or false; a holding out the appearance of right or possession of a thing, with a view to make others believe what is not real, or what, if true, is not yet known or admitted.—Claim to something to be obtained, or a desire to obtain something, manifested by words or actions.

Pretentious, (*pre-ten'shus,*) *a.* Presuming; claiming more than one's due.

Preten'tiously, *adv.* In a pretentious manner; with pretention.

Preten'tiousness, *n.* The state or quality of being pretentious.

Pre'ter, a particle, from Lat. *prætor*, which prefixed to words of Latin origin, signifies *beside.*

Preterhu'man, *a.* Superhuman; beyond anything human.

Prete'rient, *a.* Passed through; antecedent; previous.

Preterimper'fect, *a.* (*Gram.*) Denoting the tense not perfectly past; designating the tense of the verb which expresses action, or being not perfectly past, more usually called the *imperfect tense.*

Preter'it, *n.* One who has regard to the past.

Preter'it, *a.* (Written also *præterite*, and *preterite.*) [Lat. *præteritus*, from *præterire*, to go or pass by.] (*Gram.*) Past; applied to the tense of a verb which expresses an action or being perfectly past or finished; often that which is just past or completed, but without a specification of time, usually called the *perfect tense.*

—The past or perfect tense.

Preterition, (*pre-ter-ish'un,*) *n.* [Lat. *præteritio.*] The act of going past; the state of being past.

(*Rhet.*) A figure by which a speaker, in pretending to pass over anything, makes a summary mention of it; as, "I will not mention his prids."

(*Law.*) The omission by a testator of some one of his heirs who is entitled to a portion in the succession.

Preter'itive, *a.* (*Gram.*) Noting verbs chiefly or exclusively used in the past tense.

Preter'lapsed, *a.* [Lat. *præterlapsus*, from *præterlubi*, to flow by.] Past and gone;—as, *preterlapsed* ages.

Preterle'gal, *a.* Not agreeable to law; not legal. (R.)

Pretermission, (*-mish'an,*) *n.* (*Rhet.*) Same as PRETERITION, *q. v.*

Pretermit', *v. a.* [Lat. *prætermitto*, from *præter*, and *mitto*, to send.] To pass by; to omit.

Preternat'ural, *a.* Beyond or different from what is natural; irregular; abnormal; anomalous.

Preternat'urally, *adv.* In a manner beyond or aside from the common order of nature.

Preternat'uralness, Preternatural'ity, *n.* Manner different from the order of nature.

Preterper'fect, *a.* [Lat. *præter*, and *perfectus*, perfect.] (*Gram.*) Designating the tense of verbs which express action, or being absolutely past;—more usually called the *perfect tense.*

Preterplu'perfect, *a.* [Lat. *præter*, *plus*, more, and *perfectus.*] (*Gram.*) Designating the tense of verbs which express action, or being past at or before another past event or time;—usually called the *pluperfect tense.*

Pretervec'tion, *n.* A carrying past or round.

Pretext', *n.* [Fr. *prétexte*; Lat. *prætextum*, from *præ*, and *texto*, to weave.] Ostensible reason or motive assigned or assumed to conceal or disguise the real reason or motive.

Pre'tor, *n.* (*Roman Antiq.*) See PRÆTOR.

Preto'rian, *n.* and *a.* See PRÆTORIAN.

Preto'rium, *n.* See PRÆTORIUM.

Prettily, (*prit'ti-ly,*) *adv.* In a pretty manner; pleasingly; with neatness and taste.

Prettiness, (*prit'ti-ness,*) *n.* The state or quality of being pretty; diminutive beauty; a pleasing form, without stateliness or dignity.—Neatness and taste displayed on small objects; decency of manners; pleasing propriety without dignity or elevation.

Pretty, (*prit'ty,*) *a.* [A. S. *præte*, adorned; Dan. *pryde*, to adorn; Ir. *breadh*, fine; W. *prid*, beauty.] Having diminutive beauty; of a pleasing form, without the strong lines of beauty, or without gracefulness and dignity.—Neat and appropriate without magnificence or splendor.—Contemptible; mean; as, a *pretty* fellow, indeed.—Foppish; affectedly nice;—used in a bad sense.

—*adv.* In some degree; tolerably; moderately.

Pret'tyism, *n.* Affected prettiness. (R.)

Pret'ty-spoken, *a.* Prettily spoken.

Pretyp'ify, *v. a.* To prefigure; to exhibit previously in a type.

Prevail', *v. n.* [Fr. *prévaloir*; Lat. *prævaleo*, from *præ*, and *valeo*, to be strong.] To overcome; to gain the victory or superiority; to gain the advantage;—sometimes with *over* or *against.*—To be in force; to have effect, power, or influence; to be predominant;—frequently followed by *with.*—To persuade or induce;—used with *on*, *upon*, or *with.*

Prevail'ing, *a.* Having more influence; superior in power; having efficacy or effect, as prayer.—Most common or general; predominant.

Prevail'ingly, *adv.* So as to prevail or have success.

Prev'alence, *n.* [Lat. *prævalencia.*] Superiority; superior strength, influence, or efficacy; most efficacious force in producing an effect.—Most general reception or practice; predominance.—Most general existence or extension; as, the *prevalence* of disease.

Prev'alency, *n.* Same as PREVALENCE, *q. v.*

Prev'alent, *a.* Gaining advantage or superiority; efficacious.—Most generally received or current; as, a *prevalent* opinion.—Most general; extensively existing.

Prev'alently, *adv.* With predominance or superiority; powerfully; forcibly.

Prevar'icate, *v. n.* [Fr. *prévariquer*; Lat. *prævaricor*, from *præ*, and *varicus*, with feet spread apart.] To shift or turn from one side to the other, or from the direct course; to swerve from rectitude, uprightness, and truth.

(*Civil Law.*) To act with unfaithfulness and want of probity.

Prevarica'tion, *n.* [Lat. *prævaricatio.*] A shuffling or quibbling to evade the truth or the disclosure of truth.

(*Civil Law.*) The acting with unfaithfulness and want of probity.—The term is applied principally to the act of concealing a crime.

Prevarica'tor, *n.* One who prevaricates; a shuffler; a quibbler.

(*Civil Law.*) One who acts with unfaithfulness and want of probity.

Preve'nience, *n.* Act of going before or anticipating. (R.)

Preve'nient, *a.* Preceding; going before.—Preventive.

Prevent', *v. a.* [Lat. *prævenire*, from *præ*, before, and *venire*, to come.] To stop or intercept, as the approach, access, or the performance of a thing; to hinder; impede; to obstruct.

Preventabil'ity, *n.* State or quality of being preventable.

Prevent'able, *a.* That may be prevented or hindered.

Prevent'ative, *n.* A thing which prevents;—sometimes incorrectly used for *preventive*, q. v.

Prevent'er, *n.* One who hinders.—Anything that obstructs.

(*Naut.*) An additional rope or spar used as a support.

P. bolts. (*Naut.*) Those which are driven at the lower end of the preventer plates, to assist the strain of the chain-bolts.—*P. plates.* Plates of iron below the links of the chains.

Prevent'ingly, *adv.* In a way to hinder.

Preven'tion, *n.* Act of hindering; hindrance; obstruction of access or approach.—Prejudice; prepossession. (A Gallicism.)

Prevent'ive, *a.* Tending to prevent or hinder; hindering the access of.

—*n.* That which prevents; that which intercepts the access or approach of.

(*Med.*) An antidote previously taken to ward off disease.

Prevent'ively, *adv.* In such a manner as tends to prevent.

Preve'sa, a fortified seaport-town of European Turkey, in Albania, on the Gulf of Arta, 18 m. S.W. of Arta; Lat. 38° 56′ N., Lon. 20° 44′ E.; *pop.* 8,000.

Pre'vious, *a.* [Lat. *prævius*, from *præ*, and *via*, the way.] Going before in time; being or happening before something else; antecedent; prior; as, *prævious* intimation; *previous* to the storm.

Pre'viously, *adv.* In time preceding; beforehand; antecedently.

Pre'viousness, *n.* Antecedence.

Previse', *v. a.* To foresee. (R.)

Prevision, (*-vizh'un,*) *n.* [Fr., from Lat. *prævidere.*] Foresight; prescience.

Prévost d'Exiles, ANTOINE FRANÇOIS, commonly called L'ABBÉ PRÉVOST, one of the most fertile of French writers, B. at Hesdin, 1697. His works amount to 170 vols., of which the smallest one, *Histoire du Chevalier Desgrieux et de Muron Lescaut*, has immortalized the name of Prévost. D. 1763.

Pré'vost-Pa'radol, LUCIEN ANATOLE, a French political writer, B. at Paris, 1829. In 1851 he obtained from the Académie Française the prize for eloquence, for his *Eloge de Bernardin de Saint-Pierre.* In 1856 he became one of the editors of the *Journal Des Débats*, and was elected a member of the French Académie in 1865. His literary and political essays are among the soundest, the most acute, the most scholarly, and the most elegant that have proceeded from the French journalists of the empire. We may mention in particular his *Elisabeth et Henri IV.*; *Jonathan Swift* (in Latin); *Revue de l'Histoire Universelle* (1854); *Du Rôle de la Famille dans l'Education* (1857); *Nouveaux Essais de Politique et de Littérature* (1862); *Etude sur les Moralistes Français* (1864). In 1870 *P.-P.* came to this country to represent France as minister-plenipotentiary, and he was at Washington only a few days when he committed suicide.

Prewarn', *v. a.* To warn beforehand; to give previous notice of.

Prey, (*pra,*) *n.* [Fr. *proie*; It. *preda*; Lat. *præda*, property taken in war.] Any property taken by force in war; spoil; booty; plunder.—That which is seized, or may be seized, by violence, to be devoured; raven.—Ravage; depredation.

—*v. n.* To rob; to plunder; to pillage.—To feed by violence, or to seize and devour.—To corrode; to waste gradually; to cause to pine.—With *on* or *upon.*

Preyer, (*pra'er,*) *n.* A plunderer; a robber; a devourer.

Priam. (*Heroic Hist.*) A king of Phrygia, and the last sovereign of Troy. Soon after his accession, the discovery of a gold mine in his kingdom enabled him to enlarge and beautify his capital, strengthen its defences, and raise a powerful army. Under his reign Troy was regarded as the largest, richest, and most magnificent city, and himself as the most powerful monarch in Lesser Asia. By his first wife he had only one child; but by Hecuba, his second queen, he had a numerous family. The perfidy of his son Paris in eloping with Helen led to the long and fatal war, which, after endur-

ing for ten years, terminated in the entire overthrow of the state, the destruction of Ilium, the death of most of his sons, and his own murder by the ruthless Pyrrhus, the son of Achilles, as, enfeebled by age, he clung to the horns of his domestic altar. Priam's death occurred about 1184 B. C.

Priape'an, *n.* [Lat., prose.] A hexameter verse that may be divided into two portions of three feet each, having generally a trochee in the first, and four feet and an amphimacer in the third.

Pri'apism, *n.* [Fr. *priapisme*, from Gr. *priapos*, the god of procreation.] (*Med.*) Constant and distressing erection without any exciting cause.

Pri'apus. (*Myth.*) A type of fecundity, son of Bacchus and Venus, or of Bacchus and a Naiad, or of Adonis and Venus, &c. He was represented in the form of Hermæ, or a head placed on a quadrangular pillar, painted red. He was placed in gardens and vineyards, with the phallus for an emblem.

Price, *n.* [Fr. *prix;* It. *prezzo;* Lat. *pretium.*] The sum or amount of money at which a thing is valued, or a value which a seller sets on his goods in market; the sum or equivalent given for an article; the current value or rate paid for any species of goods. — Estimation; excellence or worth. — Reward; recompense.

Price-current or *price-list.* A list or enumeration of various articles of merchandise with their present market prices stated.

—*v. a.* To set a price on.

Price'less, *a.* Too valuable to admit of a price; invaluable; inestimable. — Without value; worthless or unsaleable.

Prick, *v. a.* [A. S. *priccian;* Du. *pricken.*] To pierce with a sharp-pointed instrument or substance. — To fix by the point; to hang on a point. — To nominate by a puncture or mark; to denote by pricking. — To spur; to goad; to impel; to incite. — To affect with sharp pain; to sting with remorse. — To form or erect with an acuminated point. — To write a musical composition with the proper notes on a scale; to mark a tune. — To make acid.

(*Naut.*) To run a middle seam through, as the cloth of a sail; to trace a ship's course on a chart.

—*v. n.* To come upon the spur; to shoot along. — To aim at a point, mark, or place. — To be pierced or punctured. — To turn acid or sour.

—*n.* [A. S. *prica, pricca.*] A slender-pointed instrument, or substance which is hard enough to pierce the skin; a goad; a spur. — Sharp, stinging pain; remorse. — A spot or mark at which archers aim; a point; a fixed place. — A puncture or place entered by a point. — The print of a hare on the ground.

(*Naut.*) A quantity of spun yarn or rope laid close up together; a roll.

—*v. n.* To dress one's self for show.

Prick'ard. James Cowles, an eminent English ethnologist, who was b. at Ross, 1785, and received his education for the medical profession at Edinburgh. His inaugural thesis, when taking his M. D. degree, was the physical history of mankind, and to that subject his attention continued to be developed till, in 1813, his *Physical History of Mankind* was produced. In that work, not only anatomy and physiology, but also philology, was introduced, to found a systematic history of the races of mankind. This work has been several times reprinted, has been translated into French and German, and is generally admitted to be one of the best works of its class. *P.* also devoted much attention to the study of nervous and mental diseases, and was appointed visiting physician to the Gloucestershire Lunatic Asylum, and, in 1845, became one of the commissioners of lunacy. He was fellow of the Royal, and president of the Ethnological Society, and, upon the installation of the late Duke of Wellington as chancellor of the University of Oxford, *P.* was nominated M. D. of that seat of learning. His principal works were, *On the Crania of the Laplanders and Finlanders; On the Eastern Origin of the Celtic Language; An Analysis of Egyptian Mythology; On the Different forms of Insanity in relation to Jurisprudence;* and a *Review of the Doctrines of the Vital Principle.* D. 1848.

Prick'er, *n.* A sharp-pointed instrument, as that used to make a hole for the fusee or watch to fire a blast; a prick; a prickle; a bodkin.

(*Naut.*) A small marline-spike having generally a wooden handle.

Prick'et, *n.* A buck in his second year.

Prick'ing, *n.* Act of piercing with a sharp point. — A sensation of sharp pain, or of being pricked.

(*Far.*) The driving a nail into a horse's foot so as to cause lameness.

(*Hunting.*) The tracing of a hare by its footing.

Prick'ing-up, *n.* (*Arch.*) The first coating of plaster in work of three coats; — so called because the surface is scratched up.

Prickle, (*prik'l.*) *n.* [A. S. *pricele;* Du. *prikkel;* Ger. *prickel.*] (*Bot.*) Strong and hard, elongated and pointed hair. The prickle is connected only with the bark, and not with the wood, in which it essentially differs from the spine or thorn. Prickles are sometimes straight, sometimes curved. They have often a pretty extended base, of some definite shape, by which they are attached to the bark; as, the *prickles* of the rose.

(*Zoöl.*) A sharp-pointed process on a fish or other animal.

—A sieve of filberts containing about half a hundredweight.

—*v. a.* To pierce with a needle, or with any other sharp thing.

Prick'liness, *n.* The state of having many prickles.

Prick'ly, *a.* Full of sharp points or prickles.

Prick'ly-ash, *n.* (*Bot.*) See Xanthoxylon.

Prick'ly-pear, *n.* (*Bot.*) See Opuntia.

Prick'ly Pear, in *Montana*, an unimportant village of Jefferson co., about 130 m. N. of Virginia City. Gold is found in the vicinity.

Prick'-madam, *n.* A species of house-leek.

Prick'-post, *n.* (*Arch.*) A post framed into the breast-summer.

Prick'-punch, *n.* A piece of tempered steel, with a round point at one end to prick a round mark in cold iron, or other metal.

Prick'y, *a.* Stiff and sharp; prickly.

Pride, *n.* [A. S. *pryta, pryt;* Dan. *pryde;* Sw. *pryda,* to adorn.] State or quality of being proud; inordinate self-esteem; an unreasonable high opinion of one's own superiority. — A noble self-esteem, springing from a consciousness of worth; generous elevation of heart. — — Insolence; rude treatment of others; insolent exultation. — That of which men are proud; that which excites boasting. — Show; ostentation. — Elevation; dignity. — Excitement of the sexual appetite in the female breast.

(*Zoöl.*) A small species of lamprey.

—*v. a.* To indulge pride; to take pride; to value one's self; to gratify self-esteem. — Used with the reciprocal pronoun.

Pride'ful, *a.* Full of pride; insolent; scornful.

Pride'fully, *adv.* Insolently; scornfully.

Pride'fulness, *n.* The state or quality of being prideful; insolence.

Pride of India, *n.* (*Bot.*) See Meliaceæ.

Prie-dieu, (*pre-de'u,*) *n.* A kind of bench or desk at which to kneel while praying.

Priego, (*pre-a'go,*) a town of Spain, prov. of Cordova, 35 m. S.E. of Cordova. *Manuf.* Woollens and silk. *Pop.* 13,500.

Pri'ene, (*Anc. Geog.*) a city of Caria, N. of the mouth of the Mæander, and at the foot of Mount Mycale. It is one of the twelve confederate towns of the Ionian League. The modern village of Samson-kalesi now occupies its site. Precious marble sculptures, results of the explorations of Mr. Chandler at Priene in 1869, were deposited in the British Museum in 1870.

Pri'er, *n.* One who inquires too narrowly.

Priess'nitz, Vincent, the founder of the hydropathic system, or system of curing diseases by water, b. in Austrian Silesia, 1799; d. 1851.

Priest, (*preest,*) *n.* [Fr. *prêtre,* or *prestre,* from Lat. *presbyter;* Gr. *presbuteros,* elder.] One set apart for the performance of religious offices and ceremonies, and, in particular, for the performance of sacrifices. The corresponding word in Latin is *sacerdos,* in Greek *hiereus.* The necessity of a priesthood, or a class of persons set apart for the performance of religious rites and ceremonies, and to stand, as it were, intermediate between the people and Deity, has been believed and acknowledged by almost every people, Pagan as well as Christian. The patriarch of the primitive world was priest as well as king in his own house; and when the state was developed from the family, the royal and priestly offices still continued, for a time, to be united in the same person. As states enlarged, and the duties of the kingly office increased, a separate order for the priesthood grew up, in some countries elective, in others hereditary, and, by the reputation of superior wisdom and secret communion with the gods, inspired the mind with awe, and acquired great honor and influence. The Mosaic law established a special priesthood, consisting of three orders,—the *high-priests,* the *priests,* and the *Levites;* all of them taken from one tribe — that of Levi. The priesthood was made hereditary in the family of Aaron; and the first-born of the oldest branch of that family, if he had no legal blemish, was always high-priest. Among the ancient Greeks there was no general priesthood, but only the priests of the several deities, who slaughtered the victims, and who often secured a powerful influence as interpreters of the will of the deity which they served. Among the Hindoos of India the priestly system is very fully developed—the Brahmins, who preside over sacrifices and divine services, being possessed of great power and influence. In the Christian system, Christ is represented as the one priest, who, for the redemption of the world, offered the one sacrifice, — that of himself. In the primitive church this doctrine was fully adhered to, and the duty of the priest was only to expound the divine word and exercise a paternal care over his people, without the performance of any pompous rites or ceremonies. As the distinctive features of Romanism came to spring up, the character of the priesthood changed, and the mass acquired the character of a propitiatory sacrifice. The Roman Catholic and the Eastern churches maintain that the sacrifice of the cross was to be continued and kept present in the Church, through appointed representatives and vice-gerents of Christ, who for that purpose continue and partake in the priestly character of Christ and his mediatorial office between God and man. The other Christian denominations deny that there is any other real priest but Christ, and only regard the clergy as the teachers and servants of the Church, who, being divinely called and properly appointed, possess certain ecclesiastical rights, and undertake certain duties, which they derive partly from divine and partly from human law.

Fig. 2158.
AN EGYPTIAN PRIEST OF HAMMON,
(Bearing the "leanen breeches or drawers," and the girdle of the Jewish priest.)

Priest'craft, *n.* The arts and management of priests and ecclesiastical persons to gain power; religious fraud or artifice.

Priest'ess, *n.* A female priest; a female among pagans who officiated in sacred things, and uttered oracular responses.

Priest'hood, *n.* The office or character of a priest. — The order of men set apart for sacred offices; the order composed of priests.

Priest'less, *a.* Without a priest.

Priest'liness, *n.* The appearance and manner of a priest.

Priest'ly, *a.* Pertaining to a priest, or to priests; resembling a priest; sacerdotal.

Priest'ley, Joseph, an English natural philosopher and theologian, was b. 1733, at Fieldhead, near Leeds. At the age of 22 he became assistant-minister to an Independent congregation at Needham Market, in Suffolk, whence he removed to Nantwich, in Cheshire, and next to Warrington, where the Independents had formed a seminary. While tutor in this institution, he published the *History and Present State of Electricity,* which procured his election into the Royal Society, and the degree of doctor of laws from Edinburgh. It was here also that his political opinions were first manifested, in an *Essay on Government.* Soon after this he left Warrington, and went to Leeds, where he made those important discoveries with regard to the properties of fixed air, for which he received the Copley medal of the Royal Society in 1772. In 1776 he communicated to the same learned body his observations on respiration, in which he first experimentally ascertained that the air parts with its oxygen to the blood as it passes through the lungs. He had already declared himself a believer in the doctrine of philosophical necessity, and expressed some doubts of the immateriality of the soul. The doctrine he supported in his *Disquisitions on Matter and Spirit,* and the obloquy which these works brought on him, producing a coolness in his patron, Lord Shelburne, to whom he was engaged as librarian, the connection was dissolved, the doctor retaining an annuity of £150 per annum, by original agreement. He next removed to Birmingham, where he became once more minister of an Independent congregation, and occupied himself in his *History of the Corruptions of Christianity,* writing, also, in support of the claims of the Dissenters for a repeal of the test acts. But it was the French revolution that afforded him the widest field, and he did not fail to display his warm sympathy with it. This excited the indignation of the High-church party; and in the riots which took place in July, 1791, his house, library, manuscripts, and apparatus were committed to the flames by the mob, and he was exposed to great personal danger. After this he removed to Hackney, where he succeeded Dr. Price; but, in 1794, compelled by incessant persecutions to fly his intolerant country, went to the United States of America, took up his abode at Northumberland, Pa., and d. there, in 1804. His works extend to between 70 and 80 volumes. Besides those before mentioned are: *Experiments and Observations on Air; Lectures on General History,* on the *Theory and History of Language,* and on the *Principles of Oratory and Criticism; Hartleian Theory of the Human Mind; Letters to a Philosophical Unbeliever; History of Early Opinions Concerning Jesus Christ; General History of the Christian Church; Institutes of Natural and Revealed Religion,* &c. As a natural philosopher, his fame principally rests on his pneumatic inquiries.

Priests of the Mission, or **Lazarists.** (*Eccl. Hist.*) A congregation of regular clerks, founded at Paris in 1625, by St. Vincent de Paul, for the purpose of ministering to the spiritual wants of the poor. Their first establishment in Rome was made in 1642. In 1643 they were introduced into the Barbary States, in 1646 into Ireland, and in 1648 into Madagascar. The congregation was established in the U. States in 1817. The priests of the mission devote themselves especially to the laboring classes. They receive no compensation for their ministerial offices. Auxiliary to their personal labors for the poor are their institutions for the education and improvement of the clergy. Very soon after their foundation the direction of a number of ecclesiastical seminaries in France was committed to them, and they have ever since been actively employed in teaching candidates for the priesthood wherever they have been established. They also have houses to which priests may retire from the world for religious exercises, called "spiritual retreats." The priests of the mission take the usual monastic vows of poverty, chastity, and obedience. In 1633 the Fathers, with their founder, established themselves in the so-called priory of St. Lazare, in Paris, where St. Vincent died in 1660. Their name of Lazarists is derived from this place. The order is at present, while not numerous, widely disseminated over the earth, having houses in various countries of Europe, Asia, and America; in Algeria, &c.

Priest'-ridden (*-rid'dn*), *a.* Managed or governed by priests.

Prig, *v. a.* and *n.* [A. S. *priccian*, to prick, to pick out.] To steal; to filch. (Vulgar.)

—*n.* A pert, conceited, saucy, pragmatical fellow.

Prig'gery, Prig'gism, *n.* The manners or ways of a prig.

Prig'gish, *a.* Saucy; conceited.

Prig'gishly, *adv.* In an affected or priggish manner.

Prig'gishness, *n.* The state or quality of being priggish.

Prill, *n.* (*Mining.*) A solid piece of pure ore or native metal; — the button of an assay.

Prill'ion, *n.* Tin extracted from the slag of the furnace.

Prim, *a.* Formal; precise; affectedly nice.

—*v. a.* To deck with great nicety; to form with affected preciseness.

—*n.* (*Bot.*) See LIOUSTRUM.

Prim, DON JUAN, Marquis de los Castellejos, Comte de Reus, a Spanish general and statesman, b. at Reus, Catalonia, 1814. His adventurous career began early, commencing when little more than 18 years of age with active service in the civil war which followed the accession of Isabella II. Throwing himself heartily into the arms of the Christina party, he rapidly made his way through the inferior grades, and at the age of 23 was already a full colonel. On the flight of Maria Christina, Prim became one of the leaders of the Progressistas, vehemently opposing Espartero, by whom he was at length expelled from the country in 1842. Escaping to France, he again renewed his allegiance to María Christina, and returning to Spain in the following year, on his election to the Cortes by the city of Barcelona, effected a coalition between the Christinos and the Progressistas, and after a struggle of varying fortune, in the course of which he more than once narrowly escaped capture, succeeded in upsetting his great rival Espartero, and was rewarded by Christina with the governorship of Madrid. His triumph, however, like most modern *cosas de España*, did not last long. Moved, partly by Prim's own injudicious action, and partly by the ceaseless machinations of the host of intriguers by whom what in Spain passes for politics is carried on, the Queen herself was soon turned against him, and for some years the name of Prim seemed almost to have dropped out of the history of Europe. The Crimean war, however, at length drew him from his retirement, and at Silistria

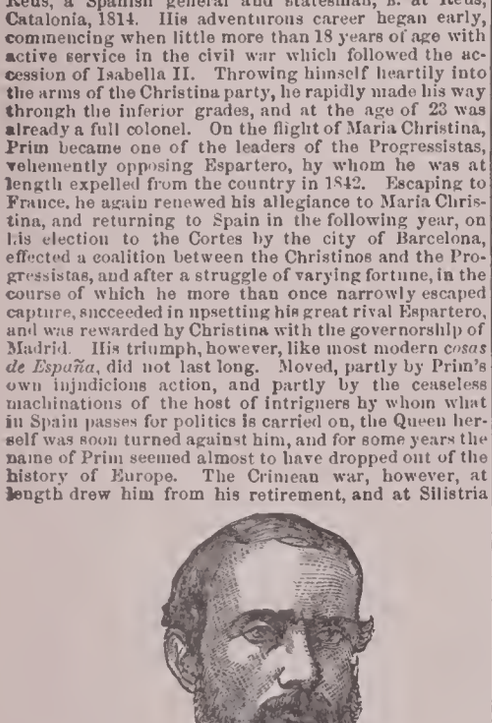


Fig. 2159.—GENERAL PRIM.

and elsewhere he gave good proof of the talent and courage which, six years later, reflected so much credit on the Spanish arms in the highly successful war with Morocco. His next command, though somewhat less glorious, can hardly be considered less successful. Entrusted with the leadership of the Spanish contingent associated with France and England in the ill-fated expedition to Mexico, Prim was the first to execute a wise, if not perhaps a very chivalrous, retreat. Of this the country no doubt reaped the benefit, but Prim's own star appeared for some time after to be somewhat under a cloud. Three years of incessant intrigue and agitation culminated in 1866 in an abortive insurrection, followed the year after by a failure, if possible, even more complete, and the conqueror of Morocco found himself once more an exile in London, damaged in credit and almost bankrupt in pocket. At the first outbreak of the revolution of Sept., 1868, Prim again appeared on the scene, and, with the other exiled generals, put himself at the head of the insurgents, and largely contributed to the popular victory. Naturally chosen a member of the provisional government, Prim immediately took a preponderant position in the direction of Spanish affairs, and would seem to be the arbiter of the future destiny of his country, from time to time offering the Spanish crown to some foreign prince; but, it is believed, without a very anxious desire of putting an end to the *provisory* by raising any other person above himself. In person he was about the middle height, grave and reserved. Assassinated 1871.

Pri'macy, *n.* [Fr. *primatie*; Lat. *primatus.*] The chief ecclesiastical station or dignity in a national church; the office or dignity of an archbishop.

Pri'ma-donna, *n.* [It. *primo, prima*, the first, and *donna*, lady, mistress.] The first or chief female singer in an opera.

Pri'mâ-facie, (*-fa'shi-e.*) [Lat.] (*Law.*) At first sight or appearance of a business; as, the holder of a bill of exchange, indorsed in blank, is *primâ-facie* its owner. *Primâ-facie evidence of a fact* is sufficient to establish the fact, unless rebutted.

Pri'mage, *n.* (*Com.*) A certain allowance paid by the shipper or consignor of goods to the master and sailors of a vessel for loading the same. It varies in different places according to their respective customs.

Pri'mal, *a.* [L. Lat. *primalis*, from *primus*, first.] First; as, the *primal* state.

Pri'marily, *adv.* In the first place; originally; in the first intention.

Pri'mariness, *n.* The state of being first in act or intention.

Pri'mary, *a.* [Lat. *primarius*, from *primus*, first.] First in order of time; original. — Elementary; radical or original. — First in dignity or importance; chief; principal.

(*Geol.*) A term formerly improperly applied to rocks underlying the ordinary and recognizable fossiliferous rocks of a district. The names assumed that such rocks were formed before those which contain fossils, an assumption not at all safe, since many rocks distinctly igneous and plutonic are comparatively modern. There is no proof whatever that we have any of the primary or primitive rocks of the earth brought to the surface for our examination. Some are certainly very ancient; but they may have been modified from formations yet more ancient. The terms *hypogene*, *crystalline*, and *metamorphic*, express simple facts of observation, and are far more convenient.

—*n.* That which stands first or highest in rank or importance; — opposed to a *secondary*.

(*Zoöl.*) One of the largest feathers of the wing of a bird, growing at its extremity.

Pri'mary Assem'blies. A name applied to those assemblies in which all the citizens have a right to be present and to speak, as distinguished from *representative parliaments*. Primary assemblies are of necessity practicable only in small states, such as ancient Athens, and seem to require the existence of a dependent class shut out from all political privileges, and perhaps deprived even of personal liberty. On the other hand, they supply to the members a higher political education than that which is available for the generality of citizens in large states governed by representative parliaments.

Pri'mary Colors. (*Optics.*) The principal colors into which a ray of white solar light may be decomposed or separated. Newton supposed them to be 7, — *red*, *orange*, *yellow*, *green*, *blue*, *indigo*, and *violet*. Mayer considered some of these to be secondary colors, and that there are only 3 primary colors in the solar spectrum, namely, *red*, *yellow*, and *blue*, certain proportions of which constitute white light and all the other colors. Dr. Young assumes *red*, *green*, and *violet* as the fundamental colors. (*Lectures on Nat. Phil.*, p. 439.) — It is now known that every portion of the spectrum is a primary or pure color, and cannot be resolved by further refraction; consequently, it seems erroneous to assume that some of the prismatic colors are produced by the superposition of others, as green by blue and yellow, orange by red and yellow, &c.

(*Painting.*) In the theory of painting, the primary colors are *blue*, *yellow*, and *red*; so called because they are those from which all other colors are supposed to be derived; and they cannot of themselves be resolved or decomposed into other colors. When two primary colors are mixed, they form secondaries; thus blue and yellow form *green*; red and yellow, *orange*; red and blue, *violet*. When all three of the primaries are mixed, in equal strength and proportion, they kill each other, and produce *black*; or, in a state of dilution, *gray*. If, however, one of the primaries is present in excess, the resulting mixture is a red-gray, or blue-gray, &c., according to which primary predominates. The *opposite*, or contrasting color of a primary, is composed of the other two primaries in combination; *e. g.* red is contrasted by green (blue and yellow), blue is contrasted by orange (red and yellow), and so on. The primaries and secondaries only appear in the type of colors — the prism or rainbow. They are the sources from which all other tints and hues are formed.

Pri'mate, *n.* [Fr. *primat*; It. *primato.*] A prelate of superior dignity and power; an archbishop.

Pri'mateship, *n.* The office or dignity of a primate or an archbishop.

Prima'tial, *a.* Relating to a primate.

Primat'ical, *a.* Primatial; pertaining to a primate.

Primatic'cio, FRANCESCO, an Italian painter, born at Bologna, in 1504, was a pupil of Innocenzo da Imola, and afterwards assistant to Giulio Romano. He was one of the artists employed by Francis I. and Henry II. to decorate the palace of Fontainebleau; was sent to Rome to form a collection of casts of ancient works of art; and was afterwards named superintendent of royal buildings. The numerous large frescoes which he painted at Fontainebleau were destroyed in 1738. *P.* was made abbot of St. Martien de Troyes in 1544, and died at Paris in 1570.

Prime, *a.* [Lat *primus*, superl. of *prior*, former.] First in order of time; original; as, *prime* cost. — First in rank, degree, dignity, excellence, value, or importance. — Early; blooming.

(*Arith.*) Two numbers are said to be *prime* to each other, or one number is said to be *prime* to the other, when the two have no common measure except unity. A *prime number*, frequently termed a *prime*, is one which is not exactly divisible by any other number except itself and unity. — We are not yet in possession of any general method for finding primes, although there are many ways of detecting whether an assigned number is or is not a prime.

—*n.* The first opening of day; the dawn; the morning; the beginning. — The early days; the spring of the year. — The spring of life; youth; — hence, full health, strength, or beauty. — The best part; the utmost perfection.

(*Rom. Cath. Church.*) The first canonical law, succeeding to lands.

(*Fencing.*) The point of the chief guards.

(*Chem.*) Combining proportion; equivalent.

Prime of the Moon. (*Astron.*) The new moon fo about three days after her change.

—*v. a.* To put powder in the pan of a musket or other firearm, or to lay a train of powder for communicating fire to a charge. — To lay on the first color in paintings.

—*v. n.* To serve for the charge of a gun.

Prime'ly, *adv.* At first; originally; primarily. — Most excellently.

Prime'ness, *n.* The state of being first. — Excellence.

Pri'mer, *n.* An instrument for priming.

Prim'er, *n.* [Fr. *primaire*; Lat. *primarius*, from *primus*, first.] Originally, a small prayer-book; also, a work of elementary religious instruction. — An elementary book to learn children and others to read; a reading or spelling-book for beginners.

(*Printing.*) A kind of type called *Long Primer*, larger than Bourgeois and smaller than Small Pica; also, a kind of type called *Great Primer*, intermediate in size betwcen English and Paragon.

Prime'ro, *n.* [Sp. *primera*, from *primero*, first.] A game at cards.

Prime'val, *a.* [Lat. *primevus*, from *primus*, first, and *ævum*, an age.] Being of the earliest ages or time; original; pristine; primitive; as, *primeval* day, *primeval* innocence.

Pri'mine, *n.* [Fr., from Lat. *primus*, first.] (*Bot.*) One of the sacs containing an ovule.

Prim'ing, *n.* The powder in the pan of a gun, or laid along the channel of a cannon for conveying fire to the charge.

(*Paint.*) The first color laid on a canvas or on a building, &c.

(*Steam-Eng.*) The effect engendered by having too little steam room in the boiler of a steam-engine. Minute particles of water being carried into the cylinder, collect in a body, which obstructs the passage of the piston, and causes a considerable loss of power.

Priming and lagging. The alternate acceleration and retardation of the times of high water, caused by the combined action of the sun and moon.

Prim'ing-tube, *n.* A tube used for the purpose of priming artillery.

Prim'ing-wire, *n.* A pointed wire for penetrating the vent of a gun.

Primi'tiæ, *n. pl.* [Lat.] The first fruits of any production of the earth, which were uniformly consecrated to the Deity by all the nations of antiquity.

(*Med.*) The waters discharged before the extrusion of the fœtus.

Prim'itive, *a.* [Fr. *primitif*; Lat. *primitivus*, from *primus*, first.] Pertaining to the beginning or origin, or to early times; original. — Formal; affectedly solemn; imitating the supposed gravity of old times; antiquated; old-fashioned. — Primary; radical; not derived; denoting that from which others are derived; as, in grammar, a *primitive* verb.

Primitive Rocks. (*Geol.*) See PRIMARY.

—*n.* An original word; a word not derived from another.

Prim'itively, *adv.* Originally; at first. — Primarily; not derivatively. — According to the original rule or ancient practice.

Prim'itiveness, *n.* The state of being primitive or original; antiquity; conformity to antiquity.

Prim'ly, *adv.* With primness; precisely.

Prim'ness, *n.* Affected formality or niceness; stiffness; preciseness.

Pri'mo, *n.* [It.] (*Mus.*) The first.

Primoge'nial, *a.* [Lat. *primogenius*, from *primus*, first, and *geno, gigno*, to beget, to bring forth.] First-born; made or generated; original; primary; constituent; elemental.

Primogen'itive, *a.* Relating to primogeniture. (R.)

Primogen'itor, *n.* [Lat. *primus*, first, and *genitor*, from *geno, gigno*, to beget.] The first father or forefather.

Primogen'iture, *n.* [Lat. *primus*, and *genitura*, a begetting.] State of being born first of the same parents; seniority by birth among children.

Primo'genitureship, *n.* The state or privilege of one who is the first-born.

Primor'dial, *a.* [Lat. *primordialis*, from *primordium*, from *primus*, first, and *ordiri*, to begin a web.] First in order; original; existing from the beginning.

(*Bot.*) Earliest formed, as the leaves which appear first after the cotyledons.

—*n.* Origin; first principle or element.

Primor'dially, *adv.* In the beginning; under the first order.

Primor'diate, *a.* [Lat. *primordium.*] Original; existing from the first.

Primp, *v. n.* To be affected or conceited. (Prov. Eng.)

Prim'rose, *n.* [Lat. *prima rosa*, the first rose.] (*Bot.*) See PRIMULACEÆ.

—*a.* Relating to the primrose; flowery.

Prim'rose, in *Iowa*, a post-village of Lee co., abt. 80 m. S. by W. of Iowa City.

Primrose, in *Missouri*, former name of a post-village of Lewis co., 27 m. W.N.W. of Quincy, Illinois.

Primrose, in *Wisconsin*, a post-township of Dane co. *Pop.* (1897) 910.

Prim'ula, *n.* [Lat. *primus*. See PRIMROSE.] (*Bot.*)

The Primrose, the typical genus of the order *Primulaceæ*. Calyx tubular, 5-cleft; corolla salver-shaped, tube

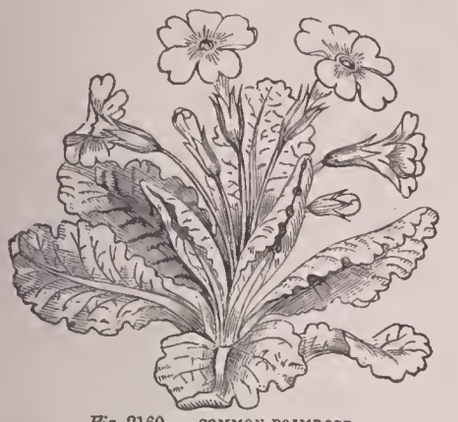


Fig. 2160. — COMMON PRIMROSE, (*Primula vulgaris.*)

cylindrical up to the insertion of the stamens; stamens 5, inserted and included in the tube of the corolla; capsules many-seeded, 5-valved, with 10 teeth. Five species of this genus grow wild in Britain: — *P. vulgaris*, the Primrose found in woods and hedges, its rich green leaves and delicate brimstone-yellow flowers being often seen long before nature has lost her wintry aspect. *P. vera*, the Cowslip, found in pastures and meadows; a fragrant and pretty plant, easily distinguished from the primrose by the smallness of its flowers, and by their forming an umbel. *P. elatior*, the Ox-lip, found in clayey woods and meadows in the eastern countries. *P. farinosa*, the Bird's-eye Primrose, a rare plant, found in the north of England and south of Scotland, with flowers usually pale lilac, with yellow centre. *P. scotica*, the Scottish Primrose, a still rarer plant, with blnish-purple flowers, found on the sandy heaths of the extreme north of Scotland. The beautiful garden-flowers called *Polyanthuses* and *Auriculas* have been produced by the cultivation of species of this genus. The flowers of the Cowslip are a sedative and diaphoretic, and are sometimes employed in the manufacture of a soporific wine. See AURICULA, and PRIMULACEÆ.

Primula'ceæ, *n.* (*Bot.*) The Primrose family, an order of plants, alliance *Cortusales*. — DIAG. Stamens opposite the petals, a capsular many-seeded fruit, 1-style, and a herbaceous stem. They are annual or perennial herbs, with simple exstipulate leaves and regular perfect flowers, calyx 4-5-cleft, persistent, inferior or partly superior; corolla 4-5-cleft, very rarely absent; stamens equal in number to the segments of the corolla; ovary 1-celled; placenta free, central. Seeds numerous, with fleshy albumen; embryo placed transversely to the hilum. The plants of this order principally inhabit the cold and temperate regions of the N. hemisphere. They are very rare in the tropics, being found only on the sea-shore or in mountainous districts. These plants are of little economic value, but many are cultivated for the modest beauty of their flowers. (See PAIMULA.) The order contains 29 genera, and 215 species.

Prince, *n.* [Fr.; Lat. *princeps*, from *primus*, and *capio*, to take.] The first in rank or authority; a chief or supreme ruler; a sovereign.

—One who has the government of a particular state or territory, but holds of a superior to whom he owes certain services.

—The son of a king or emperor, or the issue of a royal family.

—*v. n.* To play the prince; to take state. (a.)

Prince'dom, *n.* The jurisdiction, sovereignty, rank, or estate of a prince.

Prince Edward, a S.E. co. of prov. of Ontario, bordering on Lake Ontario; *area*, abt. 334 sq. m. *Cap.* Picton.

Prince Edward, in *Georgia*, a village of Gilmer co., abt. 160 m. N.W. of Milledgeville.

Prince Edward, in *Virginia*, a S. central co.; *area*, about 348 sq. m. *Rivers.* Appomattox river, and Harris, Briery, Bush, and Sandy creeks. *Surface*, diversified; *soil*, originally very fertile, but now much exhausted. *Min.* Copper and coal. *Pop.* (1897) 15,330. *Cap.* Farmville (formerly called Prince Edward Court House), a post-village about 75 m. W.S.W. of Richmond.

Prince Edward Island, a province of the Dominion of Canada, in the Gulf of St. Lawrence, separated from Nova Scotia and New Brunswick on its S. and W. sides by Northumberland Strait; Lat. between 46° and 47° N., Lon between 62° and 64° 30′ W. *Area*, 2,134 sq. m. *Desc.* Generally level or undulating, and well watered. Its shores are indented with numerous inlets, and the soil is fertile. *Prod.* The cerealia and vegetables common to England. Timber is abundant, and the pastures are excellent. *Min.* Coal and sandstone. The trade is mostly with England, and shipbuilding is carried on to a large extent. The fisheries are important. *Cap.* Charlotte Town. Admitted to the Dom. of Canada, July 1, 1873.

Prince Fred'ericktown, in *Maryland*, a p. v., cap. of Calvert co., about 35 m. S. by W. of Annapolis.

Prince George, in *Maryland*, a S. co., adjoining Virginia and the District of Columbia; *area*, about 600 sq. m. *Rivers.* Potomac, Pawtuxent, and the West Branch of the Pawtuxent rivers. *Surface*, pleasantly diversified; *soil*, generally fertile, producing great quantities of corn and tobacco. *Min.* Iron in large deposits. *Cap.* Upper Marlborough.

Prince George, in *Virginia*, a S.E. co.; *area*, abt. 300 sq. m. *Rivers.* James, Appomattox, and Blackwater rivers. *Surface*, somewhat hilly; *soil*, fertile. *Cap.* Prince George Court-House, abt. 24 m. S.E. of Richmond.

Prince Le'opold, an island of British N. America, at the W. end of Barrow Strait; Lat. 74° 5′ N., Lon. 90° W.

Prince'liness, *n.* The state, manner, or dignity of a prince.

Prince'ling, *n.* A small or inferior prince.

Prince'ly, *a.* Resembling a prince; having the appearance of one high-born; stately; dignified.

—Having the rank of princes; becoming a prince; royal; munificent.

—*adv.* In a prince-like manner.

Prince of Wales Archipel'ago, in *Alaska*, a group of islands, abt. 40 miles N. of Queen Charlotte Island, lying between Lat. 54° 25′ and 56° 30′ N., and Lon. 132° and 134° W.

Prince of Wales' Island. See PENANG.

Prince of Wales' Islands, a group in Torres Strait, at the N.E. extremity of the Gulf of Carpentaria, on the N.E. coast of Australia; Lat. 10° 20′ S., Lon. 144° E.

Prince Re'gent Bay, an inlet of Baffin Bay, on the W. coast of Greenland; Lat. 76° N., Lon. 66° W.

Prince Regent Inlet, connects Barrow Strait with Boothia Gulf, British N. America, between Lat. 72° and 74° N., and Lon. 88° and 95° W.

Prince Rupert's Bay, on the N.W. coast of the Island of Dominica, W. Indies.

Prin'ce's, a north-west county, of Prince Edward Island. *Capital.* Summerside. *Area*, 737 square miles.

Prince's Island, belonging to Portugal, in the Bight of Biafra, Gulf of Guinea, 140 m. S.S.W. of Fernando Po; Lat. 1° 39′ N., Lon. 7° 26′ E. Length 10 m. from N. to S.; breadth 5 m. *Chief town*, St. Antonio.

Prince's Metal, *n.* (*Metal.*) An alloy of copper, in imitation of silver, in which the proportion of zinc is greater than in brass.

Prin'cess, *n.* A female sovereign, as an empress or queen.—The daughter of a king.—The consort of a prince.

Prin'cess Anne, in *Maryland*, a post-village, cap. of Somerset co., about 100 m. S.E. of Annapolis.

Princess Anne, in *Virginia*, an extreme S.E. co., bordering on Chesapeake Bay on the N., the Atlantic Ocean on the E., and N. Carolina on the S.; *area*, abt. 270 sq. m. *River.* North river. *Surface*, level and low; *soil*, not fertile. *Cap.* Princess Anne Court House, about 137 m. S.E. of Richmond. *Pop.* (1897) 10,265.

Prin'cessly, *a.* In the manner of a princess. (R.)

Prince'ton, in *Arkansas*, a post-village and township, cap. of Dallas county, about 65 m. S. by W. of Little Rock.

Princeton, in *California*, a post-village of Colusa co., about 15 m. N. of Colusa.

Princeton, in *Illinois*, a city, cap. of Bureau co., 109 m. W.S.W. of Chicago. *Pop.* (1897) 4,150.—A village of Cass co., about 30 m. W. by N. of Springfield.

Princeton, in *Indiana*, a city, cap. of Gibson co., about 25 m. S. of Vincennes. It is finely located, and has excellent business facilities. *Pop.* (1897) 3,450.

—A township of White co.

Princeton, in *Iowa*, a post-village and township of Scott co., abt. 21 m. N.E. of Davenport.

Princeton, in *Kansas*, a village of Johnson co., abt. 32 m. S. of Leavenworth.

Princeton, in *Kentucky*, a post-village, cap. of Caldwell co., abt. 230 m. W.S.W. of Frankfort.

Princeton, in *Maine*, a post-township of Washington co.

Princeton, in *Massachusetts*, a post-township of Worcester co.

Princeton, in *Minnesota*, a post-village, cap. of Mille Lacs co., abt. 50 m. N.W. of St. Paul. — A village of Winona co., abt. 10 m. W.N.W. of Winona.

Princeton, in *Mississippi*, a borough of Washington co., abt. 90 m. N.W. of Jackson.

Princeton, in *Missouri*, a post-town, cap. of Mercer co., abt. 160 m. N.N.W. of Jefferson City. *Pop.* (1897) 1,550.

Princeton, in *New Jersey*, a post-borough and township of Mercer co., about 10 m. N.E. of Trenton. It is the seat of Princeton University, one of the most eminent educational institutions in the country. In this vicinity, Jan. 3, 1777, a battle was fought between the American army under General Washington, and the British under Col. Mawhood, in which the Americans were victorious. *Pop.* (1895) 3,488.

Princeton, in *Ohio*, a post-village of Butler co., abt 21 m. N. by E. of Cincinnati.—A village of Coshocton co., abt. 34 m. N. W. of Zanesville.

Princeton, in *Pennsylvania*, a post-village of Lawrence co., abt. 8 m. E.S.E. of New Castle.

Princeton, in *West Virginia*, a post-village, cap. of Mercer co., abt. 80 m. S.S.E. of Charleston.

Princeton, in *Wisconsin*, a post-village and township of Green Lake county, about 13 miles south-west of Berlin.

Prince'town, a town of Prince Edward Island. See PAINCES.

Princetown, in *New York*, a post-township of Schenectady co.

Princetown, in *Pennsylvania*, a post-village of Berks co., abt. 10 m. N.E. of Reading.

Princet'tas, *n.* A worsted fabric, sometimes made with a cotton warp.

Prince'ville, in *Illinois*, a post-village and township of Peoria co., abt. 20 m. N.N.W. of Peoria.

Prince Wil'liam, in *Virginia*, a N.E. co., adjoining Maryland; *area*, about 357 sq. m. *Rivers.* Potomac and Occoquan rivers, and Cedar Run, Broad Run, and Quantico creek. *Surface*, hilly; *soil*, not very fertile. *Cap.* Manassas. *Pop.* (1897) 10,360.

Prince William-Henry's Island, in the Pacific Ocean, Lat. 1° 32′ S., Lon. 149° 30′ E. *Ext.* 70 m. in circumference.

Prince William Sound, in *Alaska*, an inlet of the Pacific Ocean between Lat. 60° and 61° 20′ N., and Lon. 146° and 148° W. It contains Montague and other smaller islands.

Prin'cipal, *a.* [Fr.: Lat. *principalis*, from *princeps*, the first.] Highest in rank, character, or respectability; most important or considerable.

—*n.* A chief or head; one who takes the lead; a leader. — The president, governor, or chief in authority. — The proprietor, chief, or head of an academy or seminary of learning. — A capital sum lent on interest, due as a debt, or used as a fund.

(*Law.*) The actor or absolute perpetrator of a crime, or an abettor.

(*Arch.*) A name given to the semblage of timbers that form the support of a roof; — these are commonly known and spoken of as *a pair of principals*.

(*Mus.*) A metallic stop in an organ: — so called because it forms the standard for tuning the other stops.

Principal'ity, *n.* [Fr. *principauté*; L. Lat. *principalitas.*] Sovereignty; supreme power. — The territory of a prince, or the country which gives title to a prince. — One invested with sovereignty.

Prin'cipally, *adv.* Chiefly; mainly; in the most important respect; above all; particularly.

Prin'cipalness, *n.* The state of being principal; superiority.

Principa'to Citerio're, or Salerno, prov. of Italy, bordering on the Mediterranean, and the provinces of Terra-di-Lavoro, Principato Ulteriore, and Potenza. *Area*, 2,400 sq. m. The surface is mostly mountainous, and the soil fertile. *Rivers.* Silaro, Sarno Calore, and Negro. *Cap.* Salerno. *Pop.* 528,256.

Principa'to Ulterio're, or Avellino, a prov. of Italy, bordering on Capitanata, Molise, Principato, Citeriore and Terra di Lavoro. *Area*, 1,800 square m. The surface is mountainous. *Rivers* Calore, Biferno, Tamero, Sabbato and Otanto. *Cap.* Avellino. *Pop.* 355,621.

Principle, (*prin'se-pl,*) *n.* [Fr. *principe*; Lat. *principium*, from *princeps, principis.*] The cause, source, or origin of anything; that from which a thing proceeds; element; constituent part; primordial substance; operative cause. — A fundamental truth; a truth admitted either without proof, or considered as having been before proved; ground; foundation. — That which supports an assertion, an action, or a series of actions or of reasoning. — A general truth; a law comprehending many subordinate truths; tenet or doctrine; that which is believed; a settled law or rule of action or conduct in human beings.

—*v. a.* To establish or fix in any tenet; to impress with any tenet, good or ill.—To establish firmly in the mind.

Prink, (*pringk.*) *v. n.* To dress for show; to prank.—To assume stately airs.

—*v. a.* To dress ostentatiously, or in a foppish manner.

Pri'nos, *n.* [Gr. *prio*, to saw; alluding to the serated leaves.] (*Bot.*) A genus of plants, order *Aquifoliaceæ*. *P. glaba*, a beautiful shrub, 3–4 ft. high, found in swamps in the N.E. States, are dried and used as a substitute for tea, under the name of *Appalachian tea*. The bark of *P. verticillatus*, called Black Alder-bark, or Winter Berry, is used in this country, in the form of a decoction, as a tonic and astringent.

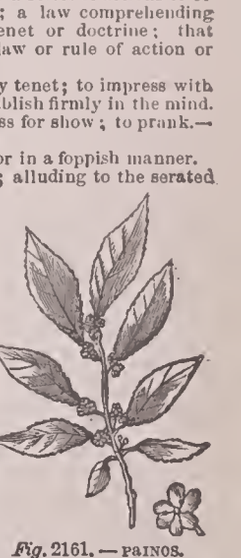


Fig. 2161. — PAINOS.

Print, *v. a.* [Fr. *empreinte*, impression, stamp, *imprimer*, to print; It. *imprenta*, impression, *imprentare*, to print, imprint, from Lat. *premo, pressum*, to press, *q. v.*] To press upon; to imprint.—To form by impression; to mark by pressure; to stamp. — To impress words or make books, not by the pen, but by the press.

—*v. n.* To use or practice the art of typography, or to take impressions of letters, figures, and the like. — To publish a book.

—*n.* A mark made by impression or pressure; any line, character, figure, or indentation of any form made by the pressure of one body or thing on another. — The impressions of types in general, as to form, size, &c. — That which impresses its form on anything; a stamp. — The representation or figure of anything made by impression. — An engraving or picture taken from an engraved plate. — State of being printed and published. — A single sheet printed for sale; a newspaper.

(*Arch.*) A flat ornament of paper.

In print. Printed and published.

Out of print. No longer published.

Print'er, *n.* One who prints books, pamphlets, or papers; one who stains or prints cloths with figures, as calico; one who impresses letters or figures with copperplates.—A telegraphic machine that records messages on a roll of paper.

Print'er's Dev'il. A colloquial term to designate an apprentice in a printing-office.

Printer's Ink. See INK.—In a figurative sense, publicity; advertising.

Print'ing, *n.* The art or practice of making impressions of letters, characters, or other figures, with ink, upon paper, or other substance. In a more restricted sense, the art by which any piece of literary composition is converted into a book. The history of the origin of printing is lost in antiquity. It would appear to be certain that the Chinese did the first printing from blocks, in the middle of the 10th century, the art being claimed as the invention of a minister of state, Foong-taon. Block-printing with wood can be traced back in Europe as far as the 13th century. It was first applied to manuals of devotion, consisting of a single page, but in some cases taking the form of a little book of several pages. Printing made little advance until the great discovery of the utility and practicability of employing *movable types* gave to the art a power beyond all previous conceptions. Who was the discoverer of this vast improvement, is a matter of dispute. The claims of 4 men have figured principally in the controversy, namely: John Gutenberg (paternally Gänsfleisch), of Strasburg; John Faust, of Mainz; Peter Schoeffer, of Gernsheim, and Lourens Jauszoon Coster, of Haarlem. According to the opinion of the most numerous judges, the credit belongs to Gutenberg of having first employed movable metal types in the production of books. (See GUTENBERG.) After some first experiments of his invention, 1434–1439, he went to Mainz, where, with the aid of Peter Schoeffer, he first brought the art into practical use. About 1450, Gutenberg allied himself with John Faust, a rich citizen of Mainz, who advanced the capital necessary to prosecute the business of printing. To Schoeffer belongs the merit of inventing *matrices* for *casting* types, each individual letter having been hitherto *cut* in wood or metal. In the earliest printed books the character of type employed was the old *Gothic* or *German*. Sweynheim and Pannartz first introduced the *Roman* type, at Rome; and Aldus introduced the *Italic*. William Caxton (*q. v.*) first introduced the art of printing into England, between 1471 and 1474.

In making metal type, the first step is the cutting of a punch in steel, which determines the face of the letter. After this original has been formed by the means of cutting, punching, and filing, it is hardened, and its face being struck into a piece of copper, a *matrix* is formed. This matrix is fitted with the greatest nicety into a carefully-adjusted piece of mechanism, called a *mold*. An alloy, consisting of lead, tin, antimony, and sometimes a little copper or nickel, is used to form the metal from which the letters are cast. Hand-machines have been generally used for casting type, but within a few years automatic machines have been introduced which perform the entire operation of casting and removing the burr, so that the type comes out finished, and may be set up in rows, tied up and stored in packages in proper assortments for sale. The several letters of the alphabet are required in very different proportions. In printing English works they are about as follows: a 8,500, b 1,600, c 3,000, d 4,400, e 12,000, f 2,500, g 1,700, h 6,400, i 8,000, j 400, k 800, l 4,000, m 3,000, n 8,000, o 8,000, p 1,700, q 500, r 6,200, s 8,000, t 9,000, u 3,400, v 1,200, w 2,000, x 400, y 2,000, z 200, fi 400, fi 500, fl 200, ffi 150, ffl 100, æ 100, œ 60 (these last 7 are called logotypes, or types containing 2 or more letters on 1 body), , 4,500, ; 800, : 600, . 2,000. In addition to these there are dotted and accented letters, in quantities from 100 to 250; numerals 0 and 1 to 9, ranging from 1,000 to 1,300 each; brackets, parentheses, marks of reference, &c. The number of capitals in a fount range, for the several letters, from 80 to 800; small capitals, somewhat fewer. *Spaces* are formed like the bodies of letters, but are shorter, and are used for separating the words. They are cast of different thicknesses, three, four, five, and six to the em. This em is the printer's standard for measuring a quantity of type. It is not necessarily equivalent in space to the letter m, from which it originated, but represents the square of the type's body. When typesetting is paid for by the piece, the price is so much per 1,000 ems (about 2,000 to 2,600 letters), which price includes distribution of the type. This distribution is effected by the compositor as follows: Having wet a quantity of type which has been already printed from, he takes up a number of the lines of types; these he rests upon the middle finger of his left hand, and steadies with his thumb; keeping the faces of the letters toward him, he takes up one or two words between the forefinger and thumb of his right hand, and drops the letters each into its proper box. A good compositor will in this way distribute or return to their proper places 2,500 ems per hour, which is three times the speed of hand composition. The types are distributed into a receptacle termed a *case*. Cases are usually in pairs; the one called the upper-case is divided into 98 boxes, of equal size, in which are contained the capitals, small capitals, accented letters, &c. The lower-case is divided into 53 compartments, of unequal size, in which are deposited the small letters, figures, spaces, &c., the types most in use having the largest boxes assigned to them. The compositor holds in his hand a little metal box called a *composing-stick*, which, having one side movable, is capable of being adjusted to the required width of the page or column. With the copy placed before him, the workman begins to gather his types, letter by letter, until he has formed a word. This word he separates from the next by a space, and so he goes on until he has composed a line. Arrived at the end of his line, he proceeds to *justify* it; that is, he increases or lessens the space between the words until the line is tolerably tight in his composing-stick. In doing this he has to equalize the spacing as much as possible. When he has set up as many lines as his stick will hold, he dexterously takes up the lines as if they were a piece of solid metal, and places them upon a ledged board, termed a *galley*. When in this manner he has composed a whole page, he secures the types by tying a cord round them. A sufficient number of pages having been composed to form a sheet, an impression from them, called a *first proof*, is taken, and submitted to the inspection of a proof-reader. (See PROOF-READING.) When a sufficient number of pages are entirely corrected they are secured, or locked up, in a rectangular frame of iron, called a chase. The pages thus wedged up constitute what is called a *form*. Each side of a sheet has its own form, which may be carried about with as much ease as if it were composed of solid plates instead of being made up of forty, fifty, or even a hundred thousand separate and movable pieces. About 1885 typesetting machines began to be used, after a number of years of experimental work, and they are now fast superseding hand-composition. (See TYPESETTING MACHINES.)

Sizes of type were formerly (and are still to some extent) known by a set of names, as nonpareil, minion, brevier, bourgeois, long primer, small pica, pica, &c., pica being the standard by which very large sizes were indicated, as 5-line pica, 10-line pica, &c. As these sizes were not absolutely fixed, but differed slightly with each type-founder's make, much confusion followed, and about 1890 the *point system* of sizes was generally adopted and the old sizes discarded. The point system is based on metric measurement, 996 points being made equal to 35 centimeters, or one point to .0138 of an inch, so that 12-point now takes the place of pica, and is uniform in size in all foundries, and all the sizes below and above are made in even points.

Type for general reading-matter is known as body type. The various display and ornamental types are each individually named according to the fancy of the makers. Certain styles have become standard, as

Gothic. Rubens (condensed)
Antique Old Style.
Title. De Vinne.
German Text. *Script.*
Extended.

An immense variety of styles are manufactured, the larger sizes being made of wood, with the end of the grain up, for a printing surface. These are carved out from dies by automatic pantagraphic engraving-machines, the faces being finished by pressure. The business of job printing calls for considerable taste in the selection and arrangement of type for effective display. In this class of work the typesetting machines do not compete, being unsuited to the varying demand for faces required.

The actual printing in the trade is termed *presswork*, as distinguished from the strictly typographic part of printing, which is styled *composition*. Presswork has become a distinct branch of the business, and many pressmen do not know how to set type. For fine presswork, as on a cylinder printing-press, considerable *making ready* is required. The form of type, cuts, &c., being properly secured on the press, the inking-rollers in place, and a sheet fed in, the pressman proceeds to take a trial impression. He finds that the form is not absolutely level on the surface, some of the plates forming the illustrations, perhaps, being low. He remedies this by pasting pieces of paper under or back of the form, at the low spots, until he brings it to a reasonably level surface. If it be a cheap job of printing, he may let it go at this, using a somewhat soft *packing*, as the material is called on the surface of the cylinder on which the impression is taken. But if it is a fine piece of work, the pressman's labor has only just begun. He covers his cylinder with the very hardest millboard and paper that he can get, and proceeds to develop the weak parts of the form by means of overlays, or bits of paper pasted on a sheet to be inserted in the cylinder packing. He takes a number of trial impressions, and uses varying thicknesses of paper to secure the exact amount of pressure for each spot, until the whole form comes up evenly and sharply, but without indenting the paper. In the case of fine illustrations, he cuts out overlays in tissue paper and shapes them to fit over the dark parts and shadows with the greatest nicety. A large illustration, with considerable light and shade, will often have five more thicknesses on the darkest parts than on the lightest. This work requires considerable experience and an appreciation of artistic effect. In addition to thus securing the proper impression, the pressman has to adjust all his guides so that the form prints exactly in the center of the sheet, or wherever it is desired; and if it is a book form he must see that it backs exactly; that is, prints

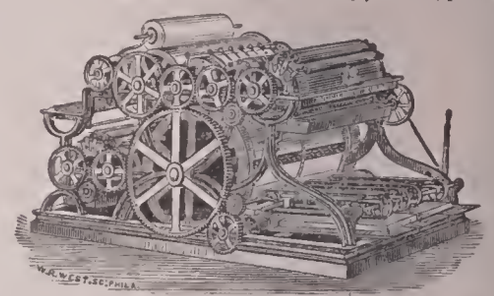


Fig. 2163.—BULLOCK'S WEB PRESS OF 1870.—THE FIRST SUCCESSFUL MACHINE OF THIS CLASS.

in such manner that each page is squarely on the back of another, the folios or numbers of the pages serving as guides by which to secure such adjustment. The ink has also to be regulated, so that enough flows to all parts of the form to print plainly with full color, but not enough to rub off easily and cause smut. The inking-rollers must be adjusted so as to press but lightly on the type, being liable to lose their surface if set down too hard. These rollers resemble rubber in consistency, but are made of a composition, of which glue, molasses, and glycerine are the principal ingredients. This composition being mounted on a metal core, forms an inking-roller whose disposition is to take up only a thin coating of ink and to deposit it wherever it touches. Where printing is required in several colors, the common method is to divide the form; all those parts to be printed in one color being run singly, and then the press washed up for another color of ink, and the sheets run through again on the form that is in that color, and so on as many times as there are colors. This is slow, expensive and tedious, and a great many color-printing devices and presses have been patented, but their use is confined to long runs and special work, as it does not pay to employ them for small work.

The printing-press of Gutenberg was a form of screw press. This was gradually improved upon until about 1800, when the prevailing type of press was that known as the hand-press, in which the type was placed on a flat *bed*, and run under a flat *platen*, the printing pressure being applied by hand-levers. This form of press admitted of the printing of about 250 sheets an hour, when operated by two men. It was largely supplanted by the Adams press, which worked on

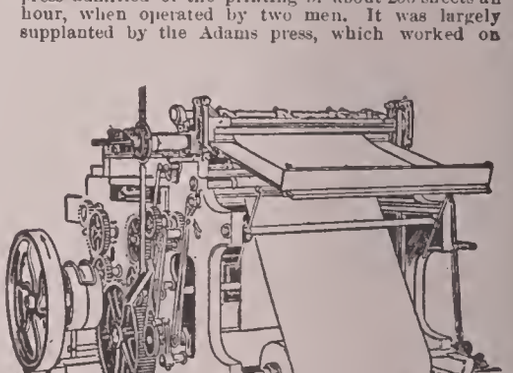


Fig. 3038.—KIDDER FLAT-BED WEB PRESS.

similar principles, but was adapted to rotary power, and could be run by steam. The sheets were fed in by one man and removed by a boy, but later a device called a *fly* removed the sheets, and the press could be run by one man, with power, and turn out some 700 sheets an hour. The cylinder press came next, substituting a metal cylinder for a flat platen, on which to place the paper and take the impression. This was speedier than the Adams press, and various forms soon came into the market, among the earliest being the Hoe, Campbell, Potter, Cottrell & Babcock, &c. The improved and modernized forms of these constitute the standard presses of to-day for general book and job printing. Many of them attain a speed of 2,500 an hour. For fast newspaper work the single cylinder soon proved insufficient, and Hoe brought out a double cylinder, with two feeders, which nearly

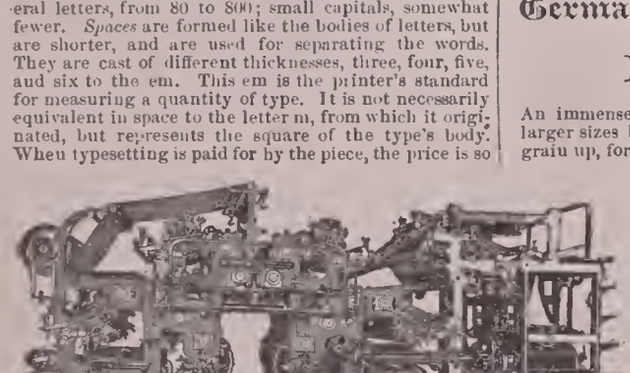
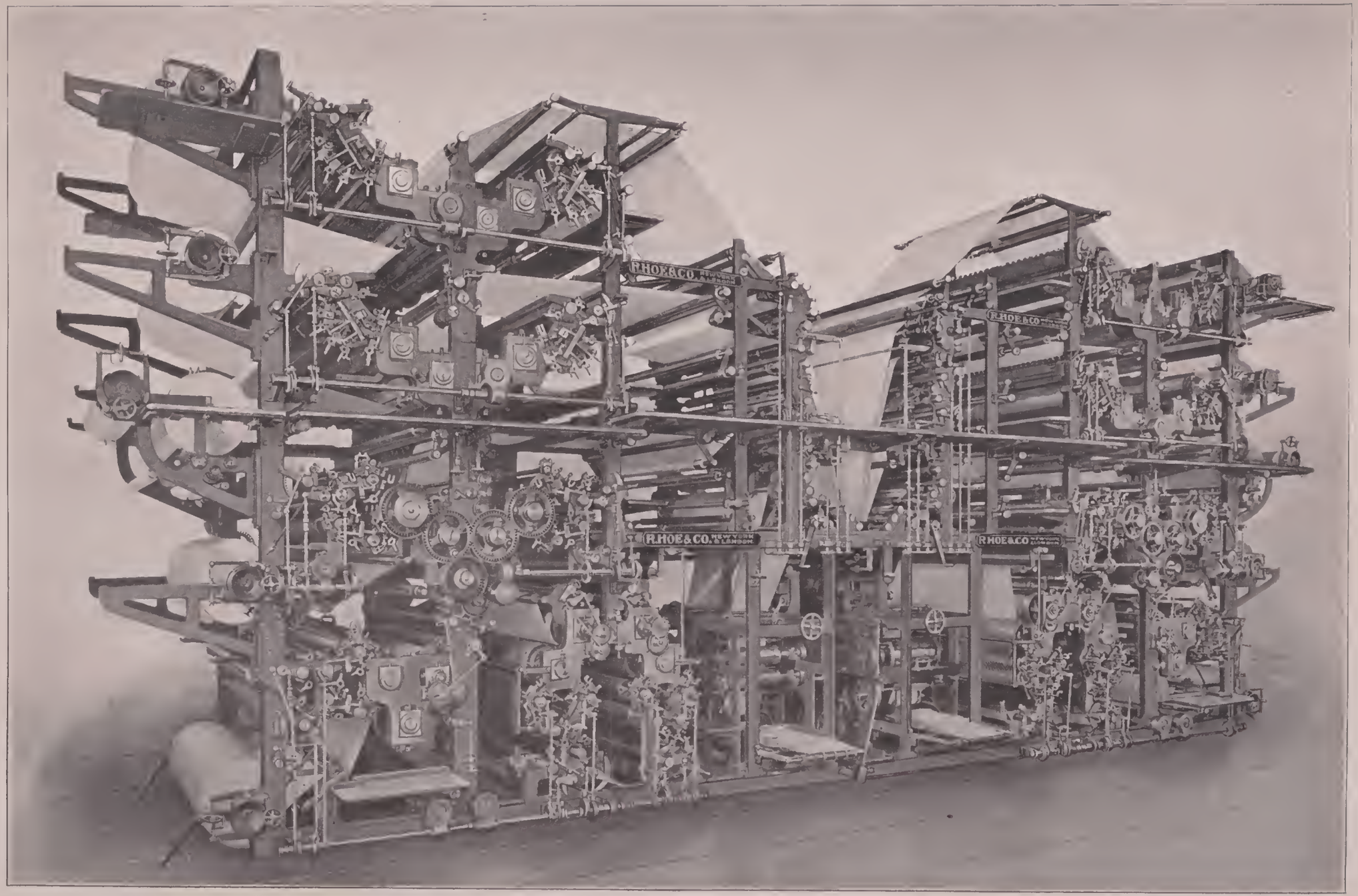


Fig. 2162.—HOE SEXTUPLE PRESS.



This press, the largest in use, has a capacity of 96,000 16-page papers per hour, all inset, folded to half size, pages pasted in, and counted.

DOUBLE OCTUPLE NEWSPAPER PRESS

doubled the product. This was followed by 4-, 6-, 8-, and 10-cylinder presses, got out to meet the demands of the growing circulations of the New York newspapers, and those of other great cities. These machines were in use about the close of the War of the Rebellion, and were enormous and clumsy mechanisms, produced to meet an emergency. The Hoes in New York, Bullock in Pittsburg, and Walters in England, set themselves to work to develop presses printing from the roll, with all rotary motions. The first machine of this sort produced by Hoe had the type mounted on a cylinder. The first time it was tried it threw the type all over the floor, owing to the centrifugal force overcoming the wedging. By ingenious use of the column-rules, the type was finally made to stay in place pretty well, and the press went on the market as a great improvement over the clumsy 10-cylinder machine, which was thrown aside as fast as better presses could be bought. This first web-perfecting press of the Hoes was called type-revolving, and shortly gave way to the plate-cylinder web machines, which were made possible by the invention of methods of producing curved stereotype plates. In these machines no type is used, paper matrices being made from the forms, and plates cast therefrom in curved metal molds, so that they come out in proper shape to be clamped to the plate-cylinder of the press. This principle has maintained, and is in use in all the fast newspaper presses built to-day. Color-cylinders are sometimes added for producing illuminated sheets. The speed of these printing-machines is limited to about 24,000 an hour, but by doubling, quadrupling, and sextupling the machinery, the output is increased in the proportion indicated. Various patterns of these web-perfecting presses are built for printing newspapers and magazines by Cottrell, Hoe, Scott, Potter, Kidder, and others. For commercial printing, many forms of web-feeding presses are built. The Kidder flat-bed web press, shown in the illustration, is Meisel's patent; prints either one or two colors from type forms, and cuts off the web in any desired length. Scott builds a double-cylinder press, printing on one or both sides of the paper, either by hand-feeding or fed automatically from the roll. The Cox duplex press, and the Campbell multipress, each print from flat forms on both sides of the paper, and feed from the roll, delivering the product folded. Presses for small commercial printing are built to run by treadle or power, and have flat beds and platens, printing direct from the type. Among the common forms are the Gordon, which has a double rotating ink-disk; the Liberty, in which the bed and ink-disk oscillate under inking-rollers in fixed bearings; the Universal, in which the distribution is accomplished by means of a cylinder and vibrating rollers; the Peerless, having a goose-neck movement for the platen; the Golding, having wedge mechanism for throw-off of impression; the Colt's Armory, Pronty, &c. Lithographic cylinder presses are built in a form very similar to cylinder presses, but with lithographic stones or zinc plates mounted on the bed in place of the form. Copper-plate printing presses have flat beds, which roll under a cylinder fixed in upright bearings. The quality of printing has been greatly improved within twenty years by the use of half-tone photo-engraved plates for illustration, coated papers, graceful forms of type, hard packing on the platen, and superior ink-distribution on the printing-machines. The cost of press-work has been lessened by the use of more rapid machines, and automatic feeding from the roll, while the cost of composition has been equally reduced by the use of type-setting machines. See PAPER, TYPE, STEREOTYPING, and ENGRAVING.

Print'ing-press, *n.* A press with which books, pamphlets, &c., are printed.

Print'less, *a.* That which leaves no impression; as, *printless* feet.

Print'-shop, *n.* A shop where engravings or prints are kept for sale.

Print'-works, *n.* An establishment where cloth is printed.

Prion'ns, Prion'idæ, *n. pl.* (*Zoöl.*) A genus and family of coleopterous insects. These insects only fly in the evening or during the night. The family comprises a very great number of species, which, from the variety in the form and size of their mandibles, antennæ, thorax, and abdomen, are divisible into many smaller sub-genera. Some (chiefly exotic species) have the body elongated, straight, with the thorax much shorter than the abdomen, and greatly curved at the sides, and the mandibles of large size in the males. Others have the body not so oblong, somewhat depressed in front, and with moderate-sized mandibles in both sexes, and the antennæ strongly serrated in the males. The one here described is the *Prionus cervicornis;* the larvæ live in the wood of the Gossampinus tree, and are eaten by the natives of South America. The largest of the tribe is also a native of South America; it is called *Titanus giganteus*, and well merits the name.

Fig. 2164.— PRIONUS.

Pri'or, *n.* [Fr. *prieur;* It. *priore;* Lat. *priore.*] The superior of a convent of monks, or one next in dignity to an abbot; one who presides over others in the same churches.

—*a.* Coming before in the order of time; antecedent; preceding; foregoing.

Prior, MATTHEW, a pleasing English poet, b. at Wimborne-Minster, 1664. He possessed little vigor or originality, but was remarkable for skill in versification, and his gay and easy grace of imagery and diction. D. 1721.

Pri'orate, *n.* [Lat. *prioratus;* It. *priorato.*] Government by a prior.

Pri'oress, *n.* A female superior of a convent of nuns.

Pri'orily, *adv.* By way of precedence; antecedently.

Prior'ity, *n.* [Fr. *priorité.*] State of being prior or antecedent in time, or of preceding something else; as, *priority* of birth.

(*Law.*) He who has the precedency in time has the advantage in right, is the maxim of the law; not that time, considered barely in itself, can make any such difference, but because the whole power over a thing being secured to one person, this bars all others from obtaining a title to it afterwards. In the payment of debts, the United States is entitled to priority when the debtor is insolvent, or dies and leaves an insolvent estate. The priority was declared to extend to cases in which the insolvent debtor had made a voluntary assignment of all his property, or in which his effects had been attached as an absconding or absent debtor, on which an act of legal bankruptcy had been committed. Among common creditors, he who has the oldest lien has the preference — it being a maxim both of law and equity, *qui prior est tempore potior est jure.*

Pri'orship, *n.* The state or office of prior.

Pri'ory, *n.* A convent of which a prior is the superior; in dignity below an abbey.

Prise, *n.* See PRIZE.

Prism, *n.* [Fr. *prisme;* Gr. *prisma*, from *prizo*, or *prio*, to saw.] (*Geom.*) A polyhedron, two of whose faces are equal, similar, and parallel, while all the rest are parallelograms. Prisms take particular names from the figures of their ends, or opposite equal and parallel sides. When the ends are triangles, as in Fig. 2165, they are called *triangular* prisms; when the ends are square, *square* prisms; when the ends are pentagonal, *pentagonal* prisms; and so on. A *right* prism has its sides perpendicular to its ends; an *oblique* prism is that of which the two sides are oblique to the ends. The solid content of a prism is found by multiplying the area of the base into the perpendicular altitude; hence all prisms are to one another in the ratio compound of their bases and altitudes.

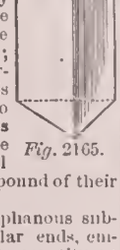


Fig. 2165.

(*Optics.*) A piece of glass or other diaphanous substance, more or less long, with triangular ends, employed to separate a ray of light into its constituent parts or colors by refraction. The prism is the instrument by means of which many of the remarkable phenomena of light and colors are exhibited. The prisms used for experiments are generally right triangular prisms of glass (Fig. 2165), and their principal section is a triangle (Fig. 2166). In this section the point A is called the *summit* of the prism, and the right line B C is called the *base;* these expressions have reference to the triangle A B C, and not to the prism. When the laws of refraction are known, the passage of rays in a prism is readily determined.

Let O be a luminous point (Fig. 2166) in the same plane as the principal section A B C of a prism, and let O D be an incident ray. This ray is refracted at D, and approaches the normal, because it passes into a more highly refracting medium. At K it experiences a second refraction, but it then deviates from the normal, for it passes into air, which is less refractive than glass. The light is thus refracted twice in the same direction, so that *the ray is deflected towards the base*, and consequently the eye which receives the emergent ray K H sees the object O at O'; that is, *objects seen through a prism appear deflected towards its summit.* The angle O E O', which the incident and emergent rays form with each other, express the deviation of light caused by the prism, and is called *the angle of deviation.* Besides this, objects seen through a prism appear in all the colors of the rainbow; this phenomenon is described under the name of DISPERSION, *q. v.* See also CHROMATICS, SIGHT, OPTICS, RETRACTION, DAYLIGHT-PRISM.

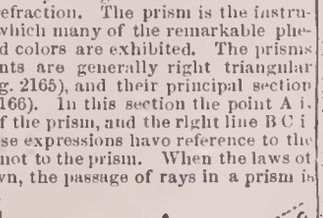


Fig. 2166.

Daylight-prism, a form of corrugated glass applied to windows, its effect being to break up the light passing through it, and disperse it to all parts of the room. Its effect is to increase the illumination of rooms, the light being thrown in all directions, thus preventing the formation of shadows. It is much used to light large and long rooms in stores, and rooms with imperfect illumination. It has been somewhat widely introduced, with very beneficial effect.

Prismat'ic, Prismat'ical, *a.* [Fr. *prismatique.*] Resembling a prism.

—Separated or distributed by a prism; formed by a prism. *Prismatic colors.* See DISPERSION, PRIMARY COLOR, SPECTRUM.

Prismat'ically, *adv.* In the form or manner of a prism.

Prismatoid'al, *a.* [Gr. *prisma, prismatos*, a prism, and *eidos*, form.] Having the form of a prism.

Pris'moid, *n.* [Fr. *prismoide.*] A body approaching to the form of a prism.

Prismoid'al, *a.* Resembling the prism in form.

Prism'y, *a.* Relating to, or resembling a prism.

Prison, (*priz'n,*) *n.* [Fr.; It. *prigione*, from Lat. *prehensio, prensio*, a seizing, from *prendere*, to seize, to take.] A public building for the confinement or safe custody of criminals or debtors; a jail; any place of confinement or restraint. See PENITENTIARY SYSTEM.

—*v. a.* To shut up in a prison; to imprison.

Pris'on-base, *n.* A kind of rustic game, originated in England by the debtors incarcerated in the Queen's Bench prison, hence the name.

Pris'oner, *n.* [Fr. *prisonnier.*] One who is confined in a prison by local arrest or warrant; a person under arrest or in custody of the sheriff, whether in prison or not; a captive; one taken by an enemy in war; one whose liberty is restrained, as a bird in a cage.

Pristi'na, a town of European Turkey, in Servia, 42 m. N.N.W. of Uskup.

Pristine, (*pris'tīn,*) *a.* [Lat. *pristinus*, akin to Sans. *pra*, before.] Former; early; primitive; pertaining to an earlier state or period; original; first; ancient; old.

Pri'thee, a corruption of *pray thee;* as, I *prithee;* but it is generally used without the pronoun, *prithee.*

Prit'tle-prat'tle, *n.* Tittle-tattle; idle and empty talk.

Pri'vacy, *n.* A state of being private, or in retirement from the company or observation of others; secrecy; a place of seclusion from company or observation; retreat; solitude; retirement; concealment of what is said or done.

Privas', a town of France, cap. of the dept. of Ardèche, 26 m. S.W. of Valence; *pop.* 5,300.

Pri'vate, *a.* [It. *privato* = Lat. *privatus*, from *privo*, to separate, deprive of, from *privus*, separate, peculiar; akin to Sans. *prithak*, separately, *privus* being mutilated from *prith-vus.*] Separate; apart or withdrawn from the state, or from public affairs; not invested with public office or employment; unconnected with others; — hence, peculiar to one's self; belonging to, or concerning an individual only; peculiar to a number in a joint concern, to a company or body politic; sequestered from company or observation; secret; secluded; retired; not publicly known; not open; individual; personal; — in contradistinction from *public.* — A secret message.

Privateer, (*pri-vat-ēr',*) *n.* A ship or vessel of war owned and equipped by a private man, or by individuals, at their own expense, and having a commission from government to seize or plunder the ships of an enemy in war. *P.* are in naval warfare much the same as volunteer corps are in the land-service. In both cases, the commissions proceeding from the government make those who bear them the instruments and servants of the state.

—*v. n.* To cruise in a commissioned private ship against an enemy, for seizing their ships or annoying their commerce.

Privateering, (*pri-va-teer'ing,*) *n.* The act of plundering the ships of an enemy by means of privateers.

Privateers'man, *n.* A man belonging to a privateer.

Pri'vately, *adv.* In a private or secret manner; not publicly; in a manner affecting an individual or company.

Pri'vateness, *n.* State of being private; secrecy; privacy; retirement; seclusion from company or society; state of an individual not invested with office.

Pri'vate-way, *n.* (*Law.*) A right of passage over another man's ground.

Priva'tion, *n.* [Fr.; Lat. *privatio*, from *privo, privatus*, to bereave, to deprive of.] A taking away or depriving; state of being deprived; particularly, deprivation or absence of what is necessary for comfort; hardship; act of removing something possessed; the removal or destruction of any thing or quality; absence in general; act of the mind in separating a thing from something appendant.

Privative, (*priv'ol-iv,*) *a.* [Fr. *privotif;* late Lat. *privativus.*] Causing privation; consisting in the absence of something; not positive.

—*n.* That deprives of something; that of which the essence is the absence of something.

—A prefix to a word which changes its signification, and gives it a contrary sense, as *a* in Greek, and *un* and *in* in English.

Pri'vativeness, *n.* Notation of absence of something that should be present.

Pri'vet, *n.* (*Bot.*) See LIGUSTRUM.

Priv'ilege, (*-leg.*) *n.* [Fr. *privilége;* Lat. *privilegium* — *privus*, separate, private, peculiar, and *lex, legis*, a law.] A law or ordinance for private or separate individuals; a particular and peculiar benefit or advantage enjoyed by a person, company, or society, beyond the common advantages of other citizens; any peculiar benefit or advantage not common to others of the human race; advantage; favor; benefit; prerogative; immunity; franchise; right; liberty. (STOCK EX., see PUT, p. 2017.)

—*v. a.* To bestow a privilege upon; to grant some particular right or exemption to; to invest with a peculiar right or immunity; to exempt from something, as taxes.

Priv'ily, *adv.* [From *privy.*] Privately; secretly.

Priv'ity, *n.* [Fr. *privauté.*] Privacy; secrecy, private knowledge; joint knowledge with another of a private concern, which is often supposed to imply consent or concurrence; relationship; friendly connection; admitted to participation of knowledge.

Priv'y, *a.* [Fr. *privé;* Lat. *privus.*] Private; peculiar; particular; pertaining to some person exclusively; assigned to private uses; not public; secret, clandestine; not open or public; appropriate to retirement; not

shown; not open for the admission of company; privately kuowing; admitted to the participatiou of kuowledge, with another, of a secret transaction; admitted to secrets of state.

P. Council. (*Eng. Hist.*) An assembly of state advisers, unlimited in number, and appointed by the will of the sovereign, on whose nomination alone, after taking the prescribed oath, the appointment is completed. The sole qualification required is that the party to be appointed should be a natural-born subject of Great Britain. The dissolution of the *P. C.*, or the disuissal of any individual member of it, depends upon the will of the sovereign. Its natural duration is for the life of the sovereign, and is continued for six months longer, unless dissolved by the successor. The *P. C.* seems to have beeu intended, at one timo, as a sort of check upon royal authority, and at first it consisted of about twelve members. The uumber is now unlimited, and it comprises most of the principal officers of state; but the usage is for no member to attend the deliberatious of the Council that has not been specially summoned for that purpose. The members of the *P. C.* are entitled to the prefix of *Right-Honorable*, aud rank next after the Kuights of the Garter.

Priv'y, *n.* A partaker; a person having an iuterest in any action or thing. — A necessary house.

Prize, *n.* [Fr. *prise*, from *prendre*, to take; Lat. *prendere*.] That which is taken from another. — A reward gained by competitors; that which is obtained or offered as the reward of a contest; a premium; the reward gained by any performance. — Any valuable thing gained. — The money drawn hy a lottery-ticket.

(*Law.*) Anything captured in virtuo of the rights of war, but more especially captures made at sea. The rights of belligerents to capture the property of their enemies upon tho sea is admitted, as well as their right to prevent auy frauds or violations of the law of nations on the part of neutrals. The rights, however, are limited, and must be so exercised as not to intrench upon the independence or rights of other nations. It is evident that many nice questions must, iu such cases, uecessarily arise between different states: and hence arises the necessity of having some tribunals to whom they may he referred. Accordingly, it is settled as a part of the law of nations, that every belligerent has a right to establish prize-courts to examine into all maritime captures, and judicially to decide upon their validity. The prize-courts of tho captors have exclusive jurisdiction over all matters touching captures made under the authority of their sovereign; and the courts of other nations have no jurisdiction or authority to inquire into or to adjudicate upon them. The final sentence, when pronounced, is deemed the act of the sovereign, and he becomes responsible to all foreign nations for its correctness. — See Law of Nations.

Prize, *v. a.* To set or estimate the value of; to rate.—To value highly; to estimate to be of great worth; to esteem. —*n.* A lever; a pry. — See Pry.

Prize'-fight, *n.* A public fight for a reward or wager.

Prize'-fight'er, *n.* One who fights publicly for a reward or prize; a boxer; a pugilist.

Prize'-fight'ing, *n.* Fighting or boxing for a wager or reward; pugilism.

Prize'-master, *n.* An officer entrusted with the command of a captured ship.

Prize'-medal, *n.* A medal bestowed as a prize.

Prize'-money, *n.* The proceeds from the capture of a vessel divided among tho captors.

Priz'er, *n.* Ono who prizes, or estimates, or sets the value of a thiug.

Priz'ing, *n.* (*Naut.*) The use or application of a lever to move any weighty body.

Pro. [Lat. and Gr.] For; in defence or behalf of.

Pro and con. [Lat. *pro*, and *con*, abbrev. of *contra*, against.] For and against.

Pro'a, *n.* A narrow canoe, about 30 feet long by 3 feet wide, used in the Ladrone Islands. The vessel is steered by a paddle at either end, and moves with great velocity either backwards or forwards, being adapted to a side-

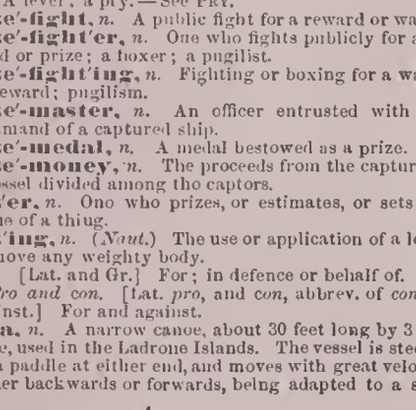


Fig. 2167. — PROA.

wind in running between two places. The sail is lateen, with a boom upon one unast.—*Proa* is also the name for large boats used by the Malays, propelled both by oars and sails.

Prob'abilism, *n.* (*Theol.*) A theory professed by some casuistical divines, according to which it is lawful to follow a *probable* opiniou in doubtful points, although other opinions may seem to the mind of the inquirer more probable. Those who teach this doctrine are styled *Probabilists.*

Probabil'ity, *n.* [Fr. *probabilité.*] State or quality of being probable; likelihood; appearance of truth. — Anythiug which has the appearance of reality or truth. — That state of a case or question of fact which results from superior evidence or preponderation of arguments on one side, inclining the mind to receive it as the truth, but leaving some room for doubt.

Theory of Probabilities. (*Math.*) A very extensive and important application of analysis, having for its object the determination of the number of ways in which a future or uncertain event may happen or fail, in order that we may be enabled to judge whether the *chances* of its happening or failing are the greater, and in what proportion. — In this theory, the word *chance* is used to signify the occurrence of an event in a particular way, when there exist two or more ways by which it may take place, and no reasou can be assigned for its happening in one way rather than another. In ordinary language, when an event is said to happeu by chauce, it is merely implied that the cause is unknown, or cannot be certainly appreciated. — In mathematical language, *probability* has a defiuite significatiou; and if all chances are considered equal, it is measured by a fraction, the *numerator* of which expresses the number of chances favorable to the occurrence of tho event, and the *denominator* the whole number of chauces favorable and unfavorable. — Every contingent event gives rise to two opposite probabilities, — one that the event will happen, the other that it will not; and the sum of theso probabilities, which necessarily amounts to certainty, is always equal to unity. Hence, if p denote the probability of the occurrence of an event, the probability that it will not occur is $1-p$. The probability of the simultaneous occurrence of several independent events is obtained by multiplying together their several probabilities. Thus, let p denote the probability of an event A, q that of an event B, r that of an event C, &c.; then the probability of the joint occurrence of those events is expressed by the continued product $p\ q\ r$, &c. — The probability of the successive recurrence of the same event, or of different events, is determiued iu a similar manner.

Prob'able, *a.* [Fr.; Lat. *probabilis*, from *probo*, to try, to test.] Having more evideuce than the contrary; likely; credible. — That renders something likely or credible.

—*n.* That which is likely or probable.

Prob'ably, *adv.* Likely; iu likelihood; with the appearance of truth or reality.

Pro'bang, *n.* (*Surg.*) A long, slender rod of whalebone, with a piece of sponge at its extremity, intended to push down extraneous bodies, arrested iu the œsophagus, into the stomach.

Pro'bate, *n.* [Lat. *probatus*, from *probare*, to prove.] (*Law.*) The proof before an officer authorized by law that an instrument offered to be proved or recorded is the last will and testament of the deceased person whose testamentary act it is alleged to be. In a trial at common law, or in equity, the probate of a will is not admissible as evideuce, but the original will must be produced and proved the same as any other disputed instrument. This rule has been modified by statutes in some of the United States. In New York, the record, when the will is proved by the subscribing witnesses, is *primâ-facie* evidence, and provision is made for perpetuating the evidence. In Massachusetts, Connecticut, North Carolina, and Michigan, the probate is conclusive of its validity, and a will cannot be used in evidence till proved. In Pennsylvania, the probate is not conclusive as to lands; and although not allowed by the register's court, it may be read in evidence. In N. Carolina, the will must be proved *de novo* in the court of common pleas, though allowed by the ordinary. In New Jersey, probate is uecessary; but it is not conclusive. (See Letters-testamentary.) The *proof* of the will is a judicial proceeding, and the probate a judicial act. The party propounding the iustrument is termed the *proponent*, and the party disputing, the *contestant.* In England, proof *ex parte* was called *probate in common form;* and proof on notice to the next of kin, *proof in solemn form.* In the United States, generally speaking, proofs cannot be taken until citation or notice has been issued by the judges to all the parties interested to attend. On the return of the citation, the witnesses are examined, and the trial proceeds before the court. If the judge, when both parties have been heard, decides in favor of the will, he admits it to *probate;* if against the will, he rejects it, and pronounces sentence of *intestacy.*

—*a.* Relating to a probate, or court of probate.

Proba'tion, *n.* [Fr.; Lat. *probatio*, from *probo*, *probatus*, to test.] Any proceeding designed to ascertain truth; moral trial. — The state of a man in the present life, in which he has the opportunity of proving his character and being qualified for a happier state. — Trial for proofs or satisfactory evidence, or the time of trial.

Proba'tional, *a.* Pertaining to probation.

Proba'tionary, *a.* Serving for trial.

Proba'tioner, *n.* One who is on trial, or in a state to give proof of certain qualifications for a place or state; a novice. — In Scotland, a student in divinity who is licensed to preach; a licentiate.

Pro'bative, *a.* [Lat. *probativus.*] Serving for trial or proof.

Pro'bator, *n.* [Lat., from *probare*, to try, to examine.] An examiner; an approver.

Pro'batory, *a.* [Fr. *probatoire.*] Serving for trial or for proof. — Relating to proof.

Probe, *n.* [From Lat. *probo*, to test.] (*Surg.*) An instrument, generally made of silver-wire, rounded at one end and pointed at the other, used for the purpose of examining wounds.

—*v. a.* To examiue, as a wound, ulcer, or some cavity of the body, by the use of an instrument thrust into the part. — To search to the bottom; to scrutinize; to examine thoroughly into the causes and circumstances of.

Prob'ity, *n.* [Fr. *probité;* It. *probità;* Lat. *probitas*, from *probus*, good.] Honesty; rectitude; integrity in principle, or strict conformity of actions to the laws of justice.

Prob'lem, *n.* [Fr. *problème;* Lat. *problema;* Gr. *problema*, from *proballo*, to throw or cast.] (*Log.*) A proposition that appears neither absolutely true nor absolutely false, and consequently may be asserted either affirmatively or negatively; — hence, it has come in general to be applied to any question involving doubt or uncertainty, aud requiring further evideuce for its solutiou.

(*Geom.*) A proposition requiring some operation to be performed, or construction to be executed; such as to bisect a line, to describe a circle passing through three given points.

Problemat'ic, Problemat'ical, *a.* [Fr. *problematique.*] Characterized by doubt or uncertainty; questionable; disputable; doubtful; dubious; uncertain; undetermined.

Problemat'ically, *adv.* Doubtfully; dubiously; uncertainly.

Probos'cidate, *a.* Having a proboscis or snout.

Proboscid'ial, *a.* Supplied with a proboscis.

Proboscid'iform, *n.* [Lat. *proboscis*, aud *forma*, a form.] Of the form, or use of the proboscis.

Probos'cis. [Gr., from *bosco*, I feed.] (*Entomology.*) The oral instrument of the Diptera is so called, in which the ordinary trophi are replaced by an exarticulate sheath, terminated by a pair of tumid lobes (*labella*), and containiug one or more lancet-shaped instruments (*scapella*), covered by a valve (see Fig. 331).

(*Mammology.*) The prehensile organ formed by a prolongation of the nose, of which the trunk of the elephant is an example.

Probos'cis Monk'ey, *n.* (*Zoöl.*) See Kahau.

Pro'bus, Marcus Aurelius Valerius, a native of Pannonia, who served in the Roman army, and became emperor after the death of Tacitus, 276. He distinguished himself by several victories over the barbarians in Gaul, and was killed by his mutinous soldiers, 282.

Procatarc'tic, *a.* [Gr. *procatarcticos*, previous, from *pro*, before, and *catorein*, to begin.] (*Med.*) Beginning or commencing; applied to causes which produce disease. By some these are employed synonymously with *predisponent* or *remote causes;* by others with *occasional* or *exciting causes.*

Procatarx'is, *n.* [Gr.] (*Med.*) The preëxisting cause of a disease; which coöperates with others that are subsequent, whether internal or external.

Procedendo, *n.* [Lat.] (*Law.*) A writ which lies where an action has been removed from an inferior to a superior jurisdiction on insufficient grounds, to send the cause back to the inferior court for further proceeding.

Proced'ure, *n.* [Fr. *procédure*, from Lat. *procedo.*] Act of proceeding or moviug forward; proceeding; process; progress; operation; a series of actions; manner of proceeding; course; conduct; management; actiou.

Proceed', *v. i.* [Fr. *procedes;* Lat. *procedo* — *pro*, aud *cedo*, to go.] (See Cede.) To go forth or forward: to advance; to make progress; to move or pass forward from one place to anotber. — To pass from one point, stage, or topic, to another. — To issue; to arise; to emanate; to be produced; to come, as from a source or fountain; to come from a person or place; to prosecute any design. — To begiu and carry on a series of actions or measures; to conduct; to act methodically; to have a course.

(*Law.*) To commence and carry on a judicial process. — To take effect; to have its course.

Proceed'er, *n.* One who goes forward; one who makes a progress.

Proceed'ing, *n.* A going forth or forward; process or movement from one thing to another; a measure or step taken in business; transaction; in the *pl.*, a course of measures or conduct; course of dealing with others.

Proceedings of a society, the published record of its action, or what takes place at its meetings.

Pro'ceeds, *n. pl.* (*Law.*) Money or articles of value arising or obtained from the sale of property. Goods purchased with money arising from the sale of other goods, or obtained on their credit, are *proceeds* of such goods. — The sum, amount, or value of goods sold, or converted into money.

Proceleusmat'ic, *a.* [Gr. *proceleusmaticos*, from *pro*, before, and *keleuma*, to incite.] Encouraging; inciting; urging.

(*Pros.*) Noting a foot of four short syllables.

Procel'laridæ, *n. pl.* (*Zoöl.*) The Petrel family, order *Natatores*, comprising swimming birds which have the bill more or less lengthened, compressed, deeply grooved, and appearing as if formed of several distinct parts; and nostrils opening from distinct tubes. They are all oceanic.

Pro'cess, *n.* [Fr. *procès;* Lat. *processus*, from *procedo.*] A going or coming forward; advance; progressive course; tendency; proceedings; gradual progress; course. — Operation; experiment; series of actions or experiments; series of motions or changes in growth,

decay, &c.; continual flux or passage, as of time; methodical arrangement; series of measures or proceedings.

(*Law.*) In its original and most comprehensive sense, the whole of the proceedings in any action, civil or criminal, real or personal, from the beginning to the end. In its more ordinary and limited sense, the writs which issue out of any court for the purpose of compelling the parties to a suit, or others, to do some act connected with the progress of the suit.

(*Anat.*) Any sharp, blunt, irregular, or flat projection from a bone, or any smooth and peculiar surface appertaining to a bone. The best and most familiar examples of a process are the angular projections from the spinal column, each bone having 2 or 3, the *spinous*, *transverse*, *oblique*, and *articulating* processes. The bones which have the greatest number of processes are the *ethmoid*, *sphenoid*, and *temporal*. Processes in general serve the purpose of affording attachment to strong muscles.

Procession, (*sesh'un,*) *n.* [Fr.; Lat. *processio.*] A marching forward; act of proceeding or issuing. — A train of persons walking, or riding on horseback, or in vehicles, in a formal march, or moving with ceremonious solemnity.

—*v. n.* To go in procession. (R.)

Processional, (*-sesh'un-al,*) *a.* [Fr. *processional;* Lat. *processionalis.*] Pertaining to a procession; consisting in a procession.

Proces'sionalist, *n.* A person who takes part in a procession. (a.)

Proces'sionary, *a.* [Lat. *processionarius.*] Consisting in procession; as, *processionary* service.

Proces'sioning, *n.* (*Law.*) A term used in Tennessee and N. Carolina to denote the manner of ascertaining the boundaries of land, as provided for by the laws of those States.

Proces'sive, *a.* Going forward; advancing.

Proces-verbal, (*pros'a-var-bal.*) [Fr.] (*Fr. Law.*) A memorandum or instrument drawn up and attested by officers of justice, containing a detailed statement of the circumstances which have taken place upon the execution of a commission, upon an arrest, upon a precognition or preliminary examination of a party accused, or in the course of other legal investigations, and set forth in the order in which they have occurred.

Pro'chein, *a.* [Fr. *prochain*, from Lat. *proxemus*, the next.] Next; nearest.

Prochein ami. (*Law.*) The nearest friend or next of kin to a child in his nonage, who in that respect is allowed to act for him, and be his guardian, &c.

Procida, Giovanni da, (*pro-che'da,*) the great Sicilian patriot and chief promoter of the conspiracy known as the "Sicilian Vespers," was B. at Palermo, about 1225. He was educated as a physician, became the trusted friend of the great emperor, Frederick II., and of his sons, Conrad IV. and Manfred. He took part in Conradin's unsuccessful attempt to recover his dominions from Charles of Anjou, and his estates were confiscated. The court of Aragon then received him, and conferred on him wealth and honors, but he did not forget his country and its oppressions. In 1279 he visited Sicily, and began preparing the people for the insurrection he meditated; obtained the aid of the emperor, Michael Palæologus, and the sanction of the Pope, Nicholas III.; and returned to Sicily in 1281. The insurrection broke out in March, 1282, and was completely successful. *P.*, it is said, took no direct part in the massacre of the French. He continued to be the counsellor of the succeeding sovereigns, and D. abt. 1303.

Procida, (*pro-che'da,*) a small island of S. Italy, at the N.W. extremity of the bay of Naples, separated from the mainland by a narrow channel 1½ m. wide; Lat. 40° 45′ N., Lon. 95° 5′ E. *Ext.* 3 m. long, and 1½ m. broad. *Pop.* 15,000.

Procid'uous, *a.* [Lat. *prociduus.*] Falling from its natural place.

Proclaim', *v. a.* [Fr. *proclamer;* Lat. *proclamo*, from *pro*, and *clamo*, to call.] To promulgate; to announce; to publish; to give official notice of; to utter openly; to publish. — To publicly denounce.

Proclaim'er, *n.* One who proclaims or publishes by authority; one who announces or makes known.

Proclama'tion, *n.* [Fr.; Lat. *proclamatio*, from *proclamo, proclamatum.*] Act of proclaiming; a publication by authority; an official notice given to the public; a declaration of the sovereign's will, or of any supreme magistrate, openly published; an edict; a decree. — The paper containing an official notice to a people.

Proclivity, *n.* [Fr. *proclivité;* Lat. *proclivitas.*] Inclination; propensity; proneness; tendency. — Readiness; facility of learning.

Procœlian, *a.* [Gr. *pro*, before, and *koilos*, hollow.] (*Anat. and Zoöl.*) Those vertebræ are so called which have a cavity or cup at the fore part of the body, and a ball at the back part. The term is also applied to a group of animals — *e. g.*, a certain family of reptiles which manifest this vertebral character. It is found in most existing Saurians, but not in any extinct terrestrial species of earlier date than the Wealden period. The oölitic pterodactyls were *procœlian*.

Procon'sul, *n.* (*Roman Hist.*) Originally an officer invested with consular command without the office. Thus, a consul sometimes had his command prolonged to him after his year of magistracy had ceased, with the title of *proconsul*. The provinces which at first were governed by prætors were, for the most part, subsequently put under *proconsuls* and *proprætors*. The office was properly annual: but it might be prolonged, as was done in the case of Cæsar. In the time of the republic the proconsul held the military command as well as the civil jurisdiction of his province; but Augustus, on assuming the chief power in the state, remodelled the system by a new partition of the provinces, and by separating the civil jurisdiction, which was left to the proconsul, from the military command.

Procon'sular, Procon'sulary, *a.* Pertaining to a proconsul. — Under the government of a proconsul.

Procon'sulate, Procon'sulship, *n.* The office of a proconsul, or the term of his office.

Procras'tinate, *v. a.* [Lat. *procrastino, procrastinatum* — *pro*, and *crastinus*, of to-morrow.] To put off till to-morrow, or from day to day, or to a future time; to postpone; to defer; to delay; to retard; to protract; to prolong.

—*v. n.* To delay; to be dilatory.

Procras'tination, *n.* [Lat. *procrastinatio.*] A putting off or deferring till to-morrow, or to a future time; delay; dilatoriness.

Procras'tinator, *n.* One who defers the performance of anything to a future time.

Procras'tinatory, *a.* Relating to procrastination.

Pro'creant, *a.* [Lat. *procreans*, from *procreare*, to procreate.] Productive; pregnant. (R.)

Pro'create, *v. t.* [Fr. *procréer;* Lat. *procreo, procreatus* — *pro*, and *creo*, to make, bring forth, beget, produce.] To bring forth; to beget; to generate and produce; to engender; to propagate; to produce.

Procrea'tion, *n.* [Fr.; Lat. *procreatio.*] Act of begetting; generation and production of young.

Pro'creative, *a.* Generative; productive.

Pro'creativeness, *n.* Power of generation.

Pro'creator, *n.* [Lat.] One who begets; a generator; a father or sire.

Procrus'tes. [Gr. *prokroustes*, the stretcher.] (*Myth.*) A surname for the robber Polypemon, or Damastes, who placed his victims on a bed which was either too small or too large, and to the size of which he adapted their limbs by force. He was slain by Theseus.

Proc'tocele, *n.* [Gr. *proktos*, anus, and *kēlē*, tumor.] Inversion and prolapse of the mucous coat of the rectum, from relaxation of the sphincter, with more or less swelling.

Proc'tor, *n.* [Contracted from Lat. *procurator* — *pro*, and *curo, curatus*, to take care of.] One who takes care of anything for another; one who is employed to manage the affairs of another; a person authorized to manage another's cause in certain courts in England, especially the ecclesiastical; an officer who attends to the morals of the students in the English universities, and enforces obedience to the college regulations.

—*v. a.* To manage. (A cant word.)

Proc'torage, *n.* The management of affairs as conducted by a proctor; superintendence; — used in contempt.

Procto'rial, *a.* Relating to a proctor.

Proc'torship, *n.* The office or dignity of a proctor of a university.

Proc'torsville, in *Indiana*, a village of Crawford co., abt. 110 m. S. by W. of Indianapolis.

Proc'torsville, in *Vermont*, a post-village of Windsor co., abt. 75 m. E. of Montpelier.

Procum'bent, *a.* [Sp. *procumbente;* Lat. *procumbens*, from *procumbo*, to lean or bend forward.] Lying down on the face; prone.

(*Bot.*) Trailing on the ground.

Procur'able, *a.* That may be procured; obtainable.

Pro'curacy, *n.* [Lat. *procuratio.*] The management of anything; the duty of a proctor.

Procura'tion, *n.* [Fr.; Lat. *procuratio.*] Act of procuring; procurement. — The management of another's affairs. — The instrument by which a person is empowered to transact the affairs of another.

Procuration money. (*Law.*) Money for procuring a loan.

Procura'tor, *n.* [Lat.] (*Roman Hist.*) A Roman provincial magistrate, whose office it was to manage affairs of the revenue, and exercise a judicial authority in matters pertaining to it. Sometimes the procurator discharged the office of governor, especially in a small province, as did Pontius Pilate in Judæa; in which case, but not otherwise, he had the power of inflicting capital punishment. This magistracy did not exist under the republic, its duties being comprised under those of the prætor proconsul.

(*Law.*) One who undertakes the care of any legal proceeding for another, and stands in his place by virtue of a power of *procuration* from him. A *mandatory* is said to differ from a *procurator* in that the latter acts only by virtue of an express written instrument. A proctor; an agent; an attorney.

Procurato'rial, *a.* Relating to a proctor; made by a proctor.

Procura'torship, *n.* The office of a procurator.

Procu'ratory, *a.* Tending to procuration.

Procure', *v. a.* [Fr. *procurer;* It. *procurare;* Lat. *procuro*, from *pro*, and *curo*, to care for.] To get; to gain; to acquire; to obtain; as, by care, effort, labor, request, loan, or purchase. — To bring about; to effect; to contrive.

—*v. n.* To pimp; to bawd.

Procure'ment, *n.* Act of procuring or obtaining; obtainment; a causing to be effected.

Procur'er, *n.* One who procures or obtains; that which brings on or causes to be done. — A pimp; a pander.

Procur'ess, *n.* A female procurer; a bawd.

Pro'cyon, *n.* [Lat. and Ger., from *pro*, before, and *cyon*, a dog.] (*Astron.*) The brightest star in the constellation of *Canis Minor*.

(*Zoöl.*) See Raccoon.

Prod'igal, *a.* [Fr. *prodigue;* Lat. *prodigus*, from *prodigo*, to drive forth or away.] Squandering; given to extravagant expenditures; expending money or other things without necessity; profuse; lavish; wasteful; not frugal or economical. — Expended to excess or without necessity; profusely liberal.

—*n.* One who expends money extravagantly or without necessity; one who is profuse or lavish; a waster; a spendthrift.

Prodigal'ity, *n.* [Fr. *prodigalité.*] State or quality of being prodigal; extravagance in the expenditure of what one possesses, particularly of money; profusion; waste; excessive or profuse liberality.

Prod'igally, *adv.* With profusion of expense; extravagantly; lavishly; wastefully; with liberal abundance; profusely.

Prodig'ious, *a.* [Fr. *prodigieux;* Lat. *prodigiosus.*] Partaking of the nature of a prodigy; such as may seem a prodigy; very great in size, quantity, extent, &c.; adapted to excite wonder; huge; enormous: monstrous; portentous; amazing; astonishing; wonderful; extraordinary.

Prodig'iously, *adv.* Enormously; wonderfully; astonishingly. — Very much; extremely.

Prodig'iousness, *n.* Enormousness; portentousness; amazing qualities.

Prod'igy, *n.* [Fr. *prodige;* It. *prodigio;* Lat. *prodigium.*] In ordinary modern language, a surprising though natural event; — in contradistinction to *miracle*, which denotes something out of the course of nature. Among the Romans, however, any extraordinary event or appearance, to which, from insufficient acquaintance with natural history, they could not assign a cause, was termed a *prodigy*, and regarded as indicating the dispositions of their gods. Hence the number of recorded prodigies which occur in Roman history. See Omens.

Produce', *v. a.* [Lat. *produco* — *pro*, and *duco*, to lead, bring.] To lead or bring forth; to bring before or forward; to bring or offer to view or notice; to exhibit to the public. — To bring forth; to bear; to yield; to generate and bring forth, as young. — To impart; to furnish; to supply. — To cause; to effect; to beget; to give rise to; to occasion; to create; to make. — To draw out in length; to lengthen.

(*Geom.*) To extend, as a line.

—*v. n.* To yield offspring; to bring about proper results, effects, &c.

—*n.* That which is produced, brought forth, or yielded; product.

Produc'er, *n.* One who produces; one who generates.

Produc'ible, *a.* That may be produced or brought into being; that may be generated or made; that may be brought into view or notice; that may be exhibited.

Produci'bleness, *n.* The state or quality of being producible.

Pro'duct, *n.* [Fr. *product;* It. *prodotto*, from Lat. *productus*, brought or led forth, from *produco.* See Produce.] That which is produced by nature, as fruits, grain, metals; produce. — That which is made, formed, or produced by mental application; composition; production; performance; work. — Effect; result; issue; something consequential.

(*Math.*) The result of, or quantity produced by, the multiplication of one number by another, or a quantity of any kind by a number.

Produc'ta, *n.* [Lat.] (*Pal.*) An extinct genus of fossil bivalve shells, closely allied to the living genus *Terebratula*. They only occur in the older secondary rocks.

Product'ible, *a.* [Fr.] That may be produced; producible.

Produc'tile, *a.* [Lat. *productilis*, from *producere*, to extend.] That may be produced or drawn out at length.

Produc'tion, *n.* [Fr.; Lat. *productio.*] Act or process of producing or bringing forth, or exhibiting to view. — That which is produced or made; product; produce; fruit; work; performance; composition.

—A prolongation; as, "the mesentery is the *production* of the peritoneum."

Produc'tive, *a.* [Fr. *productif;* It. *produttivo.*] Having the quality or power of producing. — Fertile; fruitful; producing good crops; prolific. — Bringing into being; causing to exist; efficient.

Produc'tively, *adv.* By production; with abundant produce.

Produc'tiveness, *n.* The quality of being productive.

Productiv'ity, *n.* Productiveness; state or quality of being productive.

Produc'tress, *n.* A female who produces.

Proegu'minal, *a.* [Fr. *proegumene;* Gr. *proegoumenos*, from *proegeisthai*, to go first.] (*Med.*) Predisponent: as, *proeguminal* causes. — *Dunglison.*

Pro'em, *n.* [Old Fr. *proeme;* Gr. *prooimion* — *pro*, and *oimas*, way, course, path.] That which goes before a song; a prelude. — Preface; introduction; preliminary observations to a book or writing.

Proe'mial, *a.* Introductory; prefatory; preliminary. (R.)

Prœmp'tosis, *n.* [Gr. *prœmptein*, from *pro*, before, and *empiptein*, to fall in.] (*Chron.*) The term applied to the lunar equation or addition of a day to prevent the new moon happening too soon; this must be done every 330 years, and another day must be added every 2,400 years. The opposite term is *metemptosis*, which is used to signify the solar equation necessary to prevent the new moon from falling a day too late, or the suppression of the Bissextile every 134 years.

Prof. Abbreviation of *Professor.*

Profana'tion, *n.* [Fr.; Low Lat. *profanatio.*] Act of profaning or of violating sacred things, or of treating them with contempt or irreverence: desecration. — The act of treating with abuse or disrespect.

Profane', *a.* [Fr.; Lat. *profanus*, from *pro*, before, and *fanum*, a temple.] Unholy; not sacred; — hence, secular; relating to secular things. — Polluted; not pure; unhallowed; unholy. — Irreverent of sacred things or names; — hence, blasphemous; obscene; given to swearing.

Profane', *v. a.* [Lat. *profano.*] To render profane or unholy; to desecrate; to violate, as anything sacred, or treat with abuse, irreverence, obloquy, or contempt; to pollute; to defile. — To apply to temporal uses; to use as base or common.

Profane'ly, *adv.* With irreverence to sacred things or names; with abuse or contempt for anything venerable.

Profane'ness, *n.* Quality of being profane; irreverence of sacred things; particularly, the use of language which implies irreverence towards God; the taking of God's name in vain.

Profan'er, *n.* One who profanes; one who, by words or actions, treats sacred things with irreverence; one who uses profane language; a polluter; a defiler.

Profan'ity, *n.* Profaneness, *q. v.*

Profecti'tious, *a.* [Lat. *profectitius*, from *proficisci*, to set out.] Derived, or proceeding, as from an ancestor. (R)

Profert in curia. [Lat., he produces in court.] (*Law.*) In pleading, a declaration on the record that a party produces the deed under which he makes title in court.

Profess', *v. a.* [Fr. *professer*, from Lat. *profiteor*, from *pro*, before, and *fateor*, to confess.] To declare in strong terms; to make public or explicit declaration or profession of. — To declare publicly one's skill in, for inviting employment. — To lay claim to.

—*v. n.* To enter into a state of life, secular or religious, by public declaration.

Profess'edly, *adv.* By profession; by open declaration or avowal.

Profes'sion, *n.* [Fr.; Lat. *professio.*] Act of professing; open declaration of one's sentiments or belief; avowal; acknowledgment. — The business which one professes to understand and to follow for subsistence; calling; vocation: employment; avocation. — A declaration; a claim. — The collective body of persons engaged in a calling. — The entering into a religious order.

Profes'sional, *a.* Pertaining to a profession, or to a calling.

Profes'sionalist, *n.* A person who practices in some profession. (R.)

Profes'sionally, *adv.* By profession, or avowal. — By calling or vocation; as, a person engaged *professionally.*

Profes'sor, *n.* [Lat.; Fr. *professeur.*] One who professes; one who makes open declaration of his sentiments or opinions; — particularly, one who has professed religion by joining himself to a church of Christ. — One who publicly teaches any science or branch of learning; — particularly, an officer in a university, college, or other seminary, whose business is to read lectures or instruct students in a particular branch of knowledge. — One who is visibly or professedly religious.

Professo'rial, *a.* [Fr. *professoral.*] Pertaining to a professor.

Professo'rialism, *n.* The characteristics, manners, &c., of a professor. (R.)

Professo'riate, Profes'sorship, *n.* The office of a professor or public teacher of the arts or sciences.

Proffer, *v. a.* [Fr. *proférer*, to utter, to deliver; Lat. *profero* — *pro*, and *fero*, to bring, bear, carry. See BEAR.] To propose; to offer for acceptance; to tender. — To essay or attempt of one's own accord.

—*n.* An offer made; something proposed for acceptance by another. — Essay; attempt. (R.)

Profferer, *n.* One who offers anything for acceptance.

Profi'cience, Profi'ciency, *n.* [From Lat. *proficiens*, from *proficio* — *pro*, and *facio*, to make, to perform.] Advance in the acquisition of any art, science, or knowledge; improvement; progression in knowledge.

Profi'cient, *a.* [Lat. *proficiens.*] Making progress or advancement; becoming an adept; well-qualified; competent; skilful.

—*n.* One who has made considerable advances in any business, art, science, or branch of learning.

Profi'ciently, *adv.* By proficiency.

Pro'file, *n.* [Fr. *profil*; It. *profilo*, from *pro*, and *filum*, a thread.] (*Fine Arts.*) The outline of a section through a cornice or other series of mouldings. — The outline of a capital when drawn geometrically. — The outline of the human face in a section through the median line, &c.

(*Fort.*) A vertical section through a work, perpendicular to the face of the work.

Pro'filist, *n.* One who takes profiles.

Profit, *n.* [Fr.; It. *profitto*, from Lat. *profectus*, progress, increase, from *proficio* — *pro*, and *facio*, to make.] Advance; progress; increase; growth; improvement; benefit; gain; emolument. — The advance in the price of goods sold beyond the cost of purchase: any pecuniary advantage; any benefit. — Any accession of good from labor or exertion.

—*v. a.* [Fr. *profiter*; It. *profittare.*] To be profitable or advantageous; to benefit; to advantage; to improve; to advance.

—*v. n.* To gain profit or advantage in pecuniary interest; to make improvements; to improve; to grow wiser or better; to advance in anything useful. — To be of use or advantage; to bring good to.

Profitable, *a.* [Fr.] Yielding or bringing profit or gain; yielding benefit or advantage; gainful; lucrative; productive; advantageous; beneficial; serviceable.

Profitableness, *n.* Quality of being profitable; gainfulness; usefulness; advantageousness.

Profitably, *adv.* With profit or gain; gainfully; usefully; advantageously; with improvement.

Profiting *n.* Profit; accession of good.

Profitless, *a.* Void of profit, gain, or advantage.

Profligacy, *n.* A profligate course of life; a state of being abandoned in moral principles and in vice.

Profligate, *n.* [Lat. *profligatus*, from *profligo* — *pro*, and *fligo*, to strike.] Vile; lost to principle, virtue, or decency; shameless in wickedness or vice; abandoned; dissolute; depraved; vicious; wicked.

—*n.* An abandoned man; a wretch who has lost all regard to good principles, virtue, or decency.

Profligately, *adv.* Shamelessly; in a profligate manner.

Profligateness, *n.* The quality of being profligate. — Profligacy.

Profluent, *a.* [Lat. *profluens.*] Flowing forward; as, a "*profluent* stream." — *Milton.*

Profound', *a.* [Fr. *profond*; Lat. *profundus*, from *pro*, and *fundus*, bottom, foundation.] Deep; descending far below the surface; low, with respect to neighboring places. — Lowly; humble; submissive; as, *profound* reverence. — Intellectually deep; not obvious to the mind; not easily fathomed by the mind; as, a *profound* treatise. — That enters deeply into the subject; strongly impressed; as, a *profound* impression. — Having profound or hidden qualities; as, a *profound* thinker. — Bending lowly; humble; as, a *profound* bow.

—*n.* The deep; the abyss. — The sea; the ocean.

Profound'ly, *adv.* Deeply; with deep concern; with deep penetration into science or learning; with deep knowledge or insight.

Profound'ness, *n.* State or quality of being profound; depth of place, depth of knowledge or of science.

Profun'dity, *n.* [L. Lat. *profunditas.*] Depth of place, of knowledge, or of science; profoundness.

Profuse', *a.* [Lat. *profusus*, from *profundo* — *pro*, and *fundo*, to pour, pour out.] Lavish; liberal to excess; prodigal; extravagant. — Overabounding; exuberant.

Profuse'ly, *adv.* Lavishly; prodigally; with exuberance; with great abundance.

Profuse'ness, *n.* State or quality of being profuse; lavishness; prodigality; extravagant expenditure; great abundance; profusion.

Profu'sion, *n.* [Fr.; Lat. *profusio.*] State or quality of being profuse; lavishness; prodigality; extravagance of expenditure; lavish effusion; rich abundance; exuberant plenty.

Prog, *v. n.* [Du. *pragchen*; Ger. *prachen.*] To rob; to steal. — To shift meanly for provisions; to seek food in a beggarly manner. (Low.)

—*n.* Victuals; provisions of any kind. (Low.) — A person seeking food by begging.

Progen'itor, *n.* [Lat., from *progigno*, *progenitus* — *pro*, and *gigno*, to beget, bear, bring forth, produce.] A forefather; the founder of a family; an ancestor in the direct line.

Progen'iture, *n.* [Fr.] Progeny; offspring.

Prog'eny, *n.* [Lat. *progenies.*] Offspring; race; children; descendants of the human kind, or offspring of other animals.

Progna'thism, *n.* A prolongation or forward extension of the jaws.

Progna'thous, *a.* [Gr. *pro*, before, and *gnathos*, the jaw.] (*Anat.*) Having a projecting jaw.

Progno'sis, *n.* [Gr., from *pro*, before, and *gignoskein*, to know.] (*Med.*) The judgment formed by a physician regarding the future progress and termination of any disease.

Prognos'tic, *a.* [Sp. *pronastico*; Gr. *prognāstikos* — *pro*, and *gignāscō*, to know, to perceive. See KNOW.] Knowing or perceiving beforehand; foreshowing; indicating something future by signs or symptoms.

—*n.* That which foreshows; a sign; omen; presage; token; indication.

(*Med.*) A foreknowledge; a prognosticating.

Prognos'ticable, *a.* Such as may be foreknown or foretold.

Prognos'ticate, *v. a.* [It. *prognosticare*; Sp. *prognosticar.*] To indicate, as a future course or event by present signs; to foretell; to predict.

Prognos'tication, *n.* [Sp. *pronosticación.*] Act of prognosticating, or of foreshowing a future course or event by present signs; the act of foretelling a course or event by present signs. — A foretoken; previous sign.

Prognos'ticator, *n.* [Sp. *pronosticador.*] One who prognosticates; a foreknower or foreteller of a future course or event by present signs.

Pro'gram, *n.* Same as PROGRAMME, *q. v.* (R.)

Pro'gramme, *n.* [Fr.; Gr. *programma* — *pro*, and *graphō*, to write. See GRAPHIC.] A public notice or order in writing; a brief outline or explanation of the order to be pursued, or the subjects embraced, in any public exercise, performance, entertainment, or series of exercises.

Pro'gress, *n.* [Fr. *progrès*; Lat. *progressus*, from *progredior* — *pro*, and *gradior*, to take steps, to step, to walk. See GRADE.] A moving or going forward by steps; a proceeding onward; advancement; a moving forward in growth; increase; advance in business of any kind; advance in knowledge; intellectual or moral improvement; proficiency; removal; passage from place to place; a journey of state; a circuit.

—*v. i.* To move forward in space; to pass; to proceed; to continue onward in course; to advance; to make improvement.

Pro'gress, in *New Jersey*, a post-village of Burlington co., abt. 11 m. N.E. of Camden.

Progression, (*-gresh'un,*) *n.* [Lat. *progressio.*] Act of moving forward; a proceeding in a course; motion onward. — Course; passage.

(*Math.*) Regular or proportional advance in increase or decrease of numbers or magnitudes; continued proportion, arithmetical, geometrical, or harmonical.

P. Arithmetical. See ARITHMETICAL PROGRESSION.

P. Geometrical. A series in which each term is derived from the preceding one by multiplying it by a constant quantity, called the *ratio* of the progression. If the ratio is greater than unity, the progression is *increasing*; if the ratio is less than unity, the progression is *decreasing.*

P. Harmonical. The conditions of the *H. P.* of a series are frequently stated as follow: *three numbers are in H. P., when the first has to the third the same ratio that the excess of the first over the second has to the excess of the second over the third*, i. e., *a*, *b*, *c* are in *H. P.* when $a : c :: a-b : b-c$; but a much simpler conception of it is obtained by means of one of its properties, viz., that if the terms of a harmonical series be inverted, they form a series in arithmetical progression; thus, 1, 2, 3, 4, 5, 6, &c., is an arithmetical progression; and 1, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, &c., is a *H. P.*; 1, $\frac{1}{2}$, 0, $-\frac{1}{2}$, -1, &c., is an arithmetical progression; and 1, 2, ∞ (infinity,) -2, -1, &c., is a *H. P.* This series is principally important in connection with the theory of music, in determining the length of the strings of instruments.

(*Mus.*) The succession of chords or movements of the parts in harmony.

Progres'sional, *a.* Such as are in a state of increase or advance. — Improving.

Progres'sionist, *n.* One who makes or advocates progress.

Progres'sist, *n.* A progressionist.

Progres'sive, *a.* [Fr. *progressif.*] Moving forward; proceeding onward; advancing. — Improving.

Progres'sively, *adv.* By motion onward; by gradual steps or regular course; with progress.

Progres'siveness, *n.* The state of advancing.

Prohib'it, *v. a.* [Lat. *prohibeo.* from *pro*, and *habeo*, to have, to hold.] To forbid; to interdict by authority. — To debar; to hinder; to prevent.

Prohib'iter, *n.* One who forbids or interdicts.

Prohibition, (*-bish'un,*) *n.* [Fr.; Lat. *prohibitio.*] Act of forbidding or interdicting; a declaration to hinder some action; an interdict.

Writ of prohibition. (*Law.*) A writ issued by a superior court, directed to the judge and parties of a suit in an inferior court, commanding them to cease from the prosecution of the same, upon a suggestion that the cause originally, or some collateral matter arising therein, does not belong to that jurisdiction, but to the cognizance of some other court. The writ of prohibition may also be issued when, having jurisdiction, the court has attempted to proceed by rules differing from those which ought to be observed; or when, by the exercise of its jurisdiction, the inferior court would defeat a legal right.

Project', *v. a.* [Lat. *projicio*, *projectus* — *pro*, and *jacio*, to throw or cast.] To throw forth; to cast or shoot forward. — To cast forward in the mind; to scheme; to contrive; to devise, as something to be done. — To draw or exhibit, as the form of anything; to delineate.

—*v. i.* To shoot forward; to extend beyond something else; to jut; to be prominent. — To plan; to scheme. (R.)

—*n.* [Fr. *projet.*] Something cast forward in the mind; a scheme; a design; a plan; something intended or devised; contrivance. — An idle scheme; a design not practicable.

Project'ed, *pp.* or *a.* Cast forward; schemed; devised; delineated.

Project'ile, *a.* [Fr.] Throwing or impelling forward. — Given by impulse; impelled forward.

—*n.* (*Mech.*) A heavy body which is thrown or driven by an impelling force from the surface of the earth, and acted on by gravity and the resistance of the air. Examples of projectiles are a stone thrown from the hand, a bullet from a gun, &c. The theory of projectiles is a part of high mechanics, and very important in the study of the science of gunnery. Projectiles may move either perpendicularly, horizontally, or obliquely, and, as stated above, are acted upon by the force of projection and the force of gravity. The path which they describe must therefore depend upon the ratio of these forces. The resistance of the air must also be taken into account. When the direction of the impelling force is perpendicular, the path of the projectile is a straight line. Gravity causes the motion to be accelerated when the direction is downward; but when the direction is upward, the motion is retarded and finally destroyed, at which point the projectile falls by its gravity alone. When a projectile passes in a horizontal or oblique path, so that the direction of the projecting force forms an angle with the force of gravity, a curvilinear motion is the result; and according to Galileo's discovery of the laws of falling bodies, the path of the projectile, setting aside the resistance of the air, is a parabola. The theory of the parabolic motion of projectiles, in which they are supposed to move in a non-resisting medium, is based upon principles deduced from the law of Galileo. The resistance of the air is, however, of great importance; and the problem to determine its effect was first solved by the Prussian general Georg Friedrich von Templehoff. — See AERODYNAMICS, GUNNERY, &c.

Projection, (*-jek'shun,*) *n.* [Fr.; Lat. *projectio.*] Act of projecting, or of throwing or shooting forward. — A part jutting out, as of a building; an extension beyond something else. — Act of scheming; plan; scheme; design of something to be executed; delineation. — The representation of something.

(*Math.*) The theory of projections is general in its application, and has been employed within the last few years to generalize the ancient geometry, and as a powerful aid to algebra. Its basis is the investigation and determination of those properties which, being true of a figure, are also true of its projections, such properties being necessarily dependent not on the "magnitude," but on the "position" of the lines and angles belonging to the figure. These properties are generally denomi-

nated *projective properties*. For instance, the three conic sections, the *parabola*, *ellipse*, and *hyperbola* are merely various projections of a circle on a plane; and all "positional" properties of the circle are at once, by this theory, connected with similar properties of the three conic sections. The theory is also largely employed in demonstrative mechanics.

(*Geog.*) *Projections of the sphere.* See MAP.

Project'or, *n.* [Fr. *projecteur.*] One who projects or forms a scheme or design. — One who forms wild and impracticable schemes.

Project'ure, *n.* [Lat. *projectura.*] (*Arch.*) The outjutting or prominence which the moulding and members have beyond the plane of a wall or column.

Projet, (*prō-zhā'*,) *n.* [Fr., a project, a plan.] (*International Law.*) The draft of a proposed treaty or convention.

Prolapse', *v. n.* [Lat. *prolapsus*, from *pro*, and *labi*, to glide, to fall.] To fall down or out of place.

Prolapse', Prolap'sion, Prolap'tion, *n.* Prolapsus, *q. v.*

Prolap'sus, *n.* (*Med.*) A genus of disease, distinguished by the falling down of a part through the orifice with which it is naturally connected.

Pro'late, *a.* [Lat. *prolatus*, from *proferre*, to bring forth.] Extended; lengthened; extended beyond the line of an exact sphere.

Prolate spheroid. (*Math.*) A spheroid produced by the revolution of an ellipse around its major axis; — so called in opposition to the *oblate* spheroid, which is produced by the revolution of the ellipse about its minor axis.

Pro'leg, *n.* [Lat. *pro*, for, and Eng. *leg.*] (*Zoöl.*) One of the fleshy, exarticulate, pediform, often retractile organs, which assist various larvæ in walking and other motions, but which disappear in the perfect insect.

Prolegom'ena, *n. pl.* [Gr.] (*Lit.*) Preliminary observations prefixed to a book or treatise, serving as an introduction, and with the view of enabling the reader the better to understand the book, or to enter deeper into the science.

Prolegom'enary, *a.* Containing introductory observations; introductory.

Prolegom'enon, *n.; pl.* PROLEGOMENA. [Gr., from *prolegein*, to say beforehand, from *pro*, before, and *legein*, to say.] Previous discourse; introductory observations.

Prolep'sis, *n.* [Gr., from *prolambanō*, *prolepsomai*, from *pro*, and *lambano*, to take.] (*Rhet.*) A figure by which objections are anticipated or prevented. — An error in chronology, when an event is dated before the actual time.

Prolep'tic, Prolep'tical, *a.* [Gr. *proleptikos.*] Pertaining to prolepsis or anticipation. — Antecedent; previous.

(*Med.*) Said of a periodical phenomenon which anticipates the usual time, *i. e.*, which recurs at progressively shorter intervals.

Prolep'tically, *adv.* By way of anticipation.

Prolep'tics, *n. sing.* (*Med.*) The art and science of predicting in medicine.

Proletaire', *n.* [Fr.] One of that class of the community who depend solely upon physical labor for support; the laboring class.

Proleta'rian, *a.* [Lat. *proletarius*, from *proles*, offspring.] Mean; wretched; vile; vulgar. (R.)

Proleta'riat, *n.* The laboring class.

Prol'etary, *n.* [Lat. *proletarius*; Fr. *prolelaire.*] (*Roman Antiq.*) A citizen of the lowest class, who served the State with his children. The laboring class; those depending solely upon physical labor.

Prol'icide, *n.* [Lat. *proles*, offspring, and *cædere*, to kill.] (*Medical Jurisprudence.*) The destruction of human offspring. Jurists divide the subject into *fœticide*, or the destruction of the fœtus in the utero, or *infanticide*, or the slaying of the new-born infant.

Proliferous, *a.* [Lat. *proles*, offspring, and *fero*, to bear.] (*Bot.*) Applied to a branch or a cluster of flowers from another root.

Prolific, *a.* [Fr. *prolifique*; from Lat. *proles*, offspring, and *ferre*, to bear.] Having the quality of generating; producing young or fruit; fruitful; generative. — Productive of results; as, *prolific* controversies or disputes.

(*Bot.*) Same as PROLIFEROUS, *q. v.*

Prolificacy, *n.* Prolificness.

Prolifical, *a.* Prolific.

Prolifically, *adv.* Fruitfully; pregnantly.

Prolifica'tion, *n.* [Fr.] The act of generating or producing young or fruit.

(*Bot.*) The act of producing offspring; the generation of young.

Prolificness, *n.* The state of being prolific.

Prolix', *a.* [Lat. *prolixus* — *pro*, and *laxus*, wide, loose, open, roomy. See LAX.] Stretched far out; extended to a great length; long; diffuse; protracted; said of a discourse. — Minute in narration or argument; tedious; tiresome; prosy; — applied to a writer or speaker.

Prolix'ity, *n.* [Late Lat. *prolixitas.*] State or quality of being prolix; great length; minute detail.

Prolix'ly, *adv.* At great length; tediously.

Prolix'ness, *n.* Tediousness.

Prol'ocutor, *n.* [Lat., from *proloqui*, from *pro*, for, and *loqui*, to speak.] One who speaks for or before others. — The speaker or chairman of a convocation.

Prolocu'torship, *n.* The office or dignity of a prolocutor.

Prol'ogizer, *n.* One who prefaces or introduces a discourse or performance; one who delivers a prologue.

Prologue, (*pro'log.*) *n.* [Gr., from *pro*, before, and *logos*, discourse.] (*Dramatic Lit.*) A short poem or address, sometimes prefixed to plays, explaining the subject of the piece, and not unfrequently apologizing for the shortcomings of the author. Among the ancients the player who delivered this address was called the *prologus*.

Prolong', *v. a.* [Fr. *prolonger*; Lat. *pro*, and *longus*, long.] To lengthen in time; to extend the duration of; to protract; to delay; to draw out in time by delay; to continue. — To put off to a distant time; to postpone. — To extend in space or length.

Prolong'able, *a.* That may be prolonged.

Prolon'gate, *v. a.* [Low Lat. *prolongare.*] To lengthen in space. — To extend or delay in time. (R.)

Prolonga'tion, *n.* [Fr.; L. Lat. *prolongatio.*] Act of prolonging or lengthening in time or space. — Extension of time by delay or postponement.

Prolonge, (*-lonj,*) *n.* [Fr.] (*Mil.*) A rope used to drag a gun-carriage without the limber, when it is required to retire firing through a street of a village, or any narrow defile.

Prolong'er, *n.* The person or thing that lengthens in time or space.

Prolong'ment, *n.* Prolongation.

Prolu'sion, *n.* [Lat. *prolusio*, from *pro*, and *ludere*, to play.] A prelude, or trial before the principal performance; a performance for diversion.

Prome, or **Prone,** a city of Burmah, India, on the Irrawaddy, 24 m. N.N.W. of Rangoon; Lat. 18° 50′ N., Lon. 95° 5′ E; *pop.* 30,000.

Promenade', *n.* [Fr., from *promener*, from late Lat. *prominare*, to drive forward or along — *pro*, and *minare*, to drive with threats.] A walk for amusement, show, or exercise. — A place for walking.

—*v. i.* To walk for amusement or exercise.

Promenad'er, *n.* A person who promenades.

Prom'erops, Promerop'idæ, *n.* [Gr. *pro*, before, and *merops*, a bee-eater.] (*Zoöl.*) A genus and family of tenuirostral birds, order *Insessores*, many of which are remarkable for the beauty of their plumage, and its singular arrangement. They have an extensible tongue, and feed upon insects, soft fruits, and the saccharine juices of plants. They are mostly natives of Africa.

Prome'thean, *a.* [Lat. *Prometheus.*] Relating to Prometheus.

Prome'theus. (*Myth.*) The son of the Titan Japetus, was brother to Atlas and Epimetheus, and surpassed all mankind in cunning. He ridiculed the gods, and deceived Jupiter himself. To punish *P.* and the rest of mankind, Jupiter took fire away from the earth; but *P.* climbed to the heavens, by the assistance of Minerva, and stole fire from the chariot of the sun. This provoked Jupiter, who ordered Vulcan to make a woman of clay, and, after he had given her life, he sent her to *P.*, with a box of the most valuable presents. (See PANDORA.) *P.*, suspecting the snare, took no notice of Pandora, but induced his brother to marry her, when the god, still more irritated, caused this wily mortal to be tied to a rock on Mount Caucasus, where, for 30,000 years, a vulture was to feed upon his liver, which was never to be diminished. He was delivered from this punishment 30 years afterwards, by Hercules.

Prom'inence, Prom'ineny, *n.* [Lat. *prominentia*; Fr. *prominence.*] A standing out from the surface of anything; conspicuousness. — That which juts out; a protuberance.

Prom'inent, *a.* [Fr.; Lat. *prominens.*] Jutting out; protuberant; in high relief; full; large, as eyes. — Eminent; distinguished above others; principal. — Most visible or striking to the eye; conspicuous.

Prom'inently, *adv.* In a prominent manner; so as to stand out beyond the other parts; eminently; in a striking manner; conspicuously.

Promiscu'ity, *n.* The state or quality of being promiscuous.

Promis'cuous, *a.* [Sp. *promiscuo*; Lat. *promiscuus*, from *promisceo*—*pro*, and *misceo*, to mix or mingle.] Mixed; mingled; consisting of individuals united in a body or mass without order; confused; undistinguished. — Common; indiscriminate; not restricted to an individual.

Promis'cuously, *adv.* In a crowd or mass without order; with confused mixture; indiscriminately; without distinction of kinds.

Promis'cuousness, *n.* A state of being promiscuous or mixed without order or distinction.

Prom'ise, *n.* [Fr. *promesse*; Lat. *promissum*, from *promitto* — *pro*, and *mitto*, to send, to let go.] An assurance of a benefit; word pledged; a declaration or engagement, verbal or written, made by one person to another, which binds the person who makes it to do or forbear a certain act specified. — A binding declaration of something to be done or given for another's benefit. — Hopes; expectation, or that which affords expectation of future distinction. — That which is promised; fulfilment or grant of what is promised.

Promise of marriage. (*Law.*) A contract mutually entered into by a man and a woman that they will marry each other. Every marriage is necessarily preceded by an express or implied contract of this description, as a wedding cannot be agreed upon and celebrated at one and the same instant. If the man or the woman be an infant, or labor under any other legal disability, he or she will not be bound by a promise of marriage; but if one of the parties be an infant and the other an adult, the promise will be binding upon the latter. If the communications between the parties are verbal, the only questions which usually arise relates to evidence and proof. The very words, or time, or manner of the promise need not be proved, but it may be inferred from the conduct of the parties, and from the circumstances which usually attend an engagement to marry; as, visiting, the understanding of friends and relations, preparations for marriage, and the reception of the man by the woman's family as a suitor. When the parties are at a distance from each other, and the offer is made by letter, it will be presumed to continue for a reasonable time for the consideration of the party addressed; and if accepted within a reasonable time, and before it is expressly revoked, the contract is then complete. If no time be fixed and agreed upon for the performance of the contract, it is, in contemplation of law, a contract to marry within a reasonable period after request, and either party may call upon the other to fulfil the engagement, and in case of a default, may bring an action for damages. The common opinion that an agreement to marry between persons incapable of forming a valid marriage is necessarily void, is erroneous. If the disability pertains only to one of the parties, and the other party was ignorant of it at the time of the engagement, it will constitute no defence for the former. Thus, if a man who already has a wife living makes a promise of marriage to another woman who is ignorant of the former marriage, he will be liable in damages for a breach of his promise, although a performance is impossible. When an action for breach of promise of marriage is brought by a woman, it seems that she may prove, in aggravation of damages, that the defendant, under color of a promise of marriage, has seduced her.

Prom'ise, *v. a.* To make a declaration to do or to forbear some act. — To afford reason to expect. — To make declaration or give assurance of some benefit to be conferred; to pledge or engage; to bestow.

—*v. n.* To assure one by a promise or binding declaration. — To afford hopes or expectations; to give good reason to expect good.

Prom'ise-breach, *n.* Violation of promise.

Prom'ise-breaker, *n.* A violater of promises.

Prom'ise City, in *Iowa*, a post-village of Wayne co., abt. 10 m. E. of Corydon.

Promisee', *n.* One to whom a promise is made.

Prom'iser, *n.* One who makes a promise.

Prom'isingly, *adv.* In a promising manner.

Prom'isor, *n.* (*Law.*) One who promises.

Promis'sive, *a.* That makes, or employs a promise.

Prom'issorily, *adv.* By way of promise.

Promissory, *a.* [It. *promissorio.*] Containing a promise or binding declaration of something to be done or forborne.

Promissory note. (*Law.*) A promise, in writing, made by one person to pay another, absolutely and unconditionally, a certain sum of money at a time specified. It is rarely made payable only to the person named therein, but also to order or bearer, by which it becomes negotiable. The person who grants the note is called the *maker*; the person to whom it is payable, the *payee*, who becomes the *indorser*, when he negotiates it by *indorsement*; and the person to whom it is transferred is the *indorsee*.

Prom'ontory, *n.* [Fr. *promontoire*; Lat. *promontorium* — *pro*, and *mons*, *montis*, a mountain.] (*Geog.*) A part of a mountain, or a high point of land or rock, projecting into the sea beyond the line of the coast; a headland; a high cape.

Promote', *v. a.* [Lat. *promotus*, from *promoveo*, from *pro*, and *moveo*, to move.] To advance; to forward; to further; to help; to contribute to the growth, enlargement, or excellence of, as of anything valuable, or to the increase of, as of anything evil. — To raise to higher rank or honor; to exalt; to elevate; to dignify.

Promot'er, *n.* One who or that which forwards, advances, or promotes; an encourager. — One who excites or promotes; as, a *promoter* of rebellion.

Promo'tion, *n.* [Fr.; Lat. *promotio.*] Act of promoting; advancement; encouragement. — Exaltation in rank or honor; preferment.

Promo'tive, *a.* That tends to promote; apt to forward; advancing.

Prompt, *a.* [Fr.; Lat. *promptus*, from *promo*, from *pro*, and *emo*, to take.] Ready and quick to act as occasion demands; acting with cheerful alacrity; — said of persons. — Quick; ready; without hesitation; as, *prompt* obedience.

—*n.* (*Com.*) A limit of time given for payment of an account for goods purchased.

—*v. a.* To move or excite to action or exertion; to instigate; to incite.

—To assist, as a speaker when at a loss, by pronouncing the words forgotten or next in order. — To dictate; to suggest to the mind of.

Prompt'-book, *n.* The book made use of for the purpose of prompting.

Prompt'er, *n.* One who prompts; one who admonishes or excites to action. — One whose business is to assist an actor or speaker when at a loss, by uttering the first words of a sentence, or words forgotten.

Promp'titude, *n.* [Fr.; from Lat. *promptus.*] State or quality of being prompt; quickness of decision and action when occasion demands. — Readiness of will; cheerful alacrity.

Prompt'ly, *adv.* Readily; quickly; expeditiously; cheerfully.

Prompt'ness, *n.* Promptitude. — Readiness; quickness; alacrity.

Prompt'-note, *n.* (*Com.*) A note given to a purchaser at the time of sale, reminding him of the time of payment, &c.

Promp'ton, in *Pennsylvania*, a post-borough of Wayne co., abt. 4 m. N.W. of Honesdale.

Promptuary, *a.* Relating to, or assisting in preparation. (R.)

—*n.* [Lat. *promptuarium.*] A storehouse, a repository; a magazine.

Prompt'ure, *n.* Suggestion; motion given by another; instigation. (R.)

Promul'gate, *v. a.* [Lat. *promulgo, promulgatus.*] To expose to public view; to publish; to proclaim; to make known by open declaration.

Promul'gating, *ppr.* Publishing.

Promulga'tion, *n.* [Fr.; Lat. *promulgatio.*] Act of promulgating; publication; open declaration.

Promulga'tor, *n.* A publisher; one who makes known, or teaches publicly, what was before unknown.

Promulge, (*pro-mulj'*) *v. a.* [Fr. *promulguer*, from Lat. *promulgo.*] To promulgate; to publish; to teach openly. (R.)

Promulg'er, *n.* A publisher; a promulgator.

Prouns'cis, *n.* [Lat.] (*Zoöl.*) The name of the suctorious organs of the hemipterous, formed by the union of the two jaws (maxillæ) to the lower lip, which they embrace; thus forming a jointed organ, containing four long capillary lancets and a short tongue.

Pronaos, *n.* [Gr., from *pro*, before, and *naos*, a temple.] (*Arch.*) The front porch of a temple.

Prona'tion, *n.* [Fr.; from Lat. *pronare*, to bend forward.] (*Anat.*) The motion by which the inferior extremity of the radius passes before the ulna, and thus causes the hand to execute a kind of rotation from without inwards.

Prone, *a.* [Lat. *pronus*, probably akin to Gr. *proneuō*, to stoop forwards — *pro*, before, and *neuō*, to nod; Lat. *nūo*, found in *annūo*, to nod to; Sans. *pravana*, prone. See NOD.] Turned or leaning forward; bending forward; inclined; not erect; lying with the face downward; headlong; precipitous; inclining in descent; sloping; declivous; inclining; propense; disposed.

Prong-horn. (*Zoöl.*) See ANTELOPEÆ.

Pronom'inally, *adv.* With the effect, or after the manner, of a pronoun.

Pro'noun, *n.* [Lat. *pro*, for, and *nomen*, a name.] (*Gram.*) The name given to a class of words which are used as substitutes for the names of persons and things. Pronouns are of several kinds: *personal, relative, demonstrative*, &c. Personal pronouns indicate directly a person or thing — as, *I, thou, it*; demonstrative pronouns relate to a present subject, as, *this, that*; relative refer to some subject previously mentioned, as, *who, which, that*; interrogative ask a question, as, *who? which? what?*; possessive indicate possession, as, *mine, thine, his.*

Pronounce', *v. a.* [Fr. *prononcer*; Lat. *pronuntio, pronuntiatus* — *pro*, and *nuntio*, to announce, declare, make known.] To make publicly known; to proclaim; to announce; to speak; to utter articulately; to articulate.—To utter formally, officially, or solemnly. — To speak or utter rhetorically; to deliver; to utter, in almost any manner. — To declare or affirm.

—*v. n.* To make declaration; to speak; to utter an opinion. (R.)

Pronounce'able, *a.* That may be pronounced or uttered.

Pronoun'cer, *n.* One who pronounces; one who utters or declares.

Pronoun'cing, *a.* Teaching pronunciation; as, a *pronouncing* dictionary.

Pronsk, a town of Russia, govt. of Riazan, on the Prona, 30 m. S. of Riazan; *pop.* 1,700.

Pronu'bial, *a.* [Lat. *pronuba*, bridesmaid, from *pro*, and *nuba*, bride.] That presides over marriages.

Pronun'cial, *a.* Expressing pronunciation.

Pronunciamento, (*-noon-the-a.*) [Sp. *pronunciamiento.*] A proclamation; formal public announcement

Pronunciation, (*-shi-a'shun,*) *n.* [Fr.; Lat. *pronunciatio.*] Act of pronouncing or uttering; utterance.— The mode of uttering words or sentences.

Pronun'ciative, *a.* [Lat. *pronunciativus.*] Relating to pronunciation.

Pronun'ciator, *n.* A pronouncer. (R.)

Pronun'ciatory, *adv.* Expressing pronunciation.

Proof, *n.* [Fr. *preuve.*] Something which proves, or tends to prove; test; trial; essay; experiment; any effort, process, or operation that ascertains truth or fact. —That which convinces the mind of the certainty of truth or fact, and produces belief; evidence; testimony; reason; argument; demonstration. — Firmness or hardness that resists impression, or yields not to force; impenetrability of physical bodies. — Firmness of mind; stability; unshaken adhesion.

(*Law.*) See EVIDENCE.

(*Math.*) A verification of a rule or a result.

(*Engraving.*) An impression taken from an engraving to prove the state of it during the progress of executing it; also one taken before the letters are engraved on the plate.

(*Printing.*) An impression on paper taken for examination or correction. (*pl.* PROOFS.)

—*a.* Able to resist something; impenetrable.

Proof-arm, *v. a.* To arm securely, or with power to resist.

Proofless, *a.* Unproved; wanting evidence.

Prooflessly, *adv.* Without evidence or proof.

Proof-sheet, *n.* (*Printing.*) A proof.

Proof-spirit, *n.* A mixture of equal weights of absolute alcohol and water; the specific gravity of such a mixture is 0·917; but that of the proof-spirit of commerce is 0·920 at 60°. The term *proof* appears to be derived from the gunpowder test. Spirit was poured over gunpowder and the vapor inflamed; if it fired the gunpowder, it was *over proof*; if it burnt without igniting the powder, owing to the residuary water rendering the powder damp, it was said to be *under proof.* The weakest spirit capable of firing gunpowder was the proof-spirit of pharmacy, specific gravity 0·920.

Proof-text, *n.* A text of Scripture believed to prove a particular doctrine.

Prop, *v. a.* [L. Ger., and Du. *proppen*; Belg. *proppe*, a prop, support.] To support or prevent from falling by placing something under or against; to support by standing under or against.

—To support or sustain.

—*n.* That which supports or sustains an incumbent weight; that on which anything rests for support; a support; a stay.

Propædeu'tic, Propædeu'tical, *a.* Giving preliminary instruction; teaching beforehand.

Propædeu'tics, *n. sing.* [From Gr. *pro*, before, and *paiaeuein*, to bring up a child.] Preliminary learning, connected with any art or science.

Prop'agable, *a.* That may be continued or multiplied by natural generation or production. — That may be spread, or extended by any means, as tenets, doctrines or principles.

Propaganda, *n.* [Lat. *propagare*; Fr. *propagande.*] (*Eccl. Hist.*) A designation given to those institutions by which Christianity is propagated in heathen countries; but is more particularly applied to certain institutions established by the Papacy for the extension of its religion and power throughout the world. The Propaganda, strictly so called, or *Congregatio de propaganda Fide* (Congregation for propagating the Faith), was founded at Rome in 1622, by Gregory XV., having for its object the extension of Catholic faith and the extirpation of heretics. It consists of a board of cardinals, and has a secretary, who is generally a bishop or archbishop, and a number of priests, advisers, and under-secretaries, who meet for consultation weekly. The cardinal-prefect of the Propaganda is the Pope's representative in all matters relating to foreign missions. In 1627, Pope Urban VIII. added to the congregation a college for the education of priests for the missionary work; and here young men from all parts of the world (except Catholic countries) are educated. Connected with the Propaganda is a printing establishment, celebrated for the number of works in different languages which it has sent out.

Propagand'ism, *n.* [Fr. *propagondisme.*] The propagating of certain tenets or principles.

Propagand'ist, *n.* One who devotes himself to propagate certain tenets or principles.

Prop'agate, *v. a.* [Lat. *propagare, propagatum.*] To give continuance or greater number to the kind of by generation or successive production; to multiply.

—To extend; to impel forward in space, as sound.

—To cause to go from person to person; to diffuse; to disseminate; to spread.

—To promote; to increase; to carry from place to place.

—To generate; to produce.

—*v. n.* To have young or issue; to be produced or multiplied by generation, or by new shoots or plants.

Propaga'tion, *n.* [Fr.; Lat. *propagatio.*] Act of propagating; the continuance or multiplication of the kind by generation or successive production.

—The spreading or extension of anything; forwarding or promotion.

Prop'agative, *a.* Producing by generation.

Prop'agator, *n.* One who propagates; one who continues or multiplies his own species by generation; one who continues or multiplies any species of animals or plants; one who spreads or causes to circulate, as a report; one who plants, originates, or extends; one who promotes.

Propel', *v. a.* [Lat. *propello, propulsus*, from *pro*, and *pello*, to drive, thrust, push. See COMPEL.] To drive forward; to urge or press onward by force.

Propel'ler, *n.* [Lat. *pro*, forward, *pello*, to drive.] (*Mech.*) An arrangement by which motion is given to a carriage bearing a portion of the working gears required to traverse regularly in a horizontal direction. The term is also very generally applied to a peculiar mechanism set in motion by some mechanical power in vessels or ships, which causes them to advance by the resistance of the water itself. Oars and sails were the only propellers used before the steam-engine was applied to purposes of navigation. The uses of wheels bearing floats, working in the water by the side of the boats to which they were attached, had been known for a very long period; but it was not till the steam-engine was applied as a motive power to them that they became generally used as propellers. When paddle-wheels are used they are placed upon a horizontal shaft or axis, and in front of the center of gravity of the vessel. There does not, however, seem to be any uniformity among steamboat builders as to the exact position of these parts of the machinery. The screw propeller has occasionally been used for many years, and now has come largely into use, not only for deep-sea traffic, but to some extent on canals and narrow rivers. For war vessels, the sheltered position of the screw and of the engines gives that description of propeller an incomparable advantage over the exposed engines and wheels of those vessels which are propelled by paddles. The large passenger steamers and naval vessels of to-day have often two or more screws, a method of value not only for propulsion, but for steering, and of the greatest utility in case of an accident to one of the screws. Other propelling agents have of late years been experimented with, the most promising being jets of water driven by steam power backward into the sea, whose resistance forces the vessel forward. See JET PROPULSION; PROPELLER, in SECTION II.

Propend'ency, *n.* Inclination or tendency to desire anything.—Attentive deliberation. (R.)

Propense', *a.* [Lat. *propensus*, from *propendeo*, from *pro*, and *pendeo*, to hang.] Leaning toward, in a moral sense; inclined; disposed; prone.

Propense'ly, *adv.* After a propense manner.

Propense'ness, *n.* The state or quality of being propense; inclination. (R.)

Propen'sion, Propen'sity, *n.* [Lat. *propensio*; Fr. and Sp. *propension.*] Bent of mind, natural or acquired; natural tendency; disposition; bias; inclination.

Prop'er, *a.* [Fr. *propre*; Lat. *proprius.*] One's own; special. — Peculiar; naturally or essentially belonging to a person or thing; not common.

—Particularly suited to; noting an individual. — Pertaining to one of a species, but not common to the whole. — Fit; adapted; accommodated; suitable; qualified. — Exact; precise; just.

(*Her.*) Applied to a charge which is borne of its natural color.

Prop'erly, *adv.* Fitly; suitably; in a proper manner. —In a strict sense.

Proper'tius, SEXTUS AURELIUS, a Roman poet, was b. at Melvania, about B. C. 52. Nothing more of his life is known than that, after the end of the civil war, he found a patron at Rome, in Mæcenas, through whom he obtained the favor of the emperor. He appears to have been the bosom friend of Ovid, and was also on terms of intimacy with other eminent contemporaries. His life appears to have been a series of amours, and his "elegies" are, for the most part, expressions of his passion.

Prop'erty, *n.* [Fr. *propriété*; Lat. *proprietas*, from *proprius*, proper.] A peculiar quality or attribute of anything; that which is inherent in a subject, or naturally essential to it; characteristic. — An acquired or artificial quality; that which is given by art or bestowed by man.

—The exclusive right of possessing, enjoying, and disposing of a thing; ownership. — Possession held in one's own right. — The thing owned; that to which a person has the legal title, whether in his possession or not. — An estate, whether in lands, goods, or money. — Nearness or right; as, "Propinquity and *property* of blood." — *Shak.*

—A portion of land, with buildings, &c., attached.

(*Logic.*) A predicable which denotes something essentially conjoined to the essence of the species. There are enumerated in books on logic four kinds of *P.*, which are termed *universal, but not peculiar; peculiar, but not universal; universal and peculiar; universal and peculiar, but not at every time.* The last kind is more properly designated as *accident.*

(*Law.*) All things are not the subject of *P.*; the sea, the air, and the like, cannot be appropriated; every one may enjoy them, but he has no exclusive right in them. When things are fully our own, or when all others are excluded from meddling with them, or from interfering about them, it is plain that no person beside the proprietor, who has this exclusive right, can have any claim either to use them, or to hinder him from disposing of them as he pleases; so that *P.*, considered as an exclusive right to things, contains not only a right to use those things, but a right to dispose of them, either by exchanging them for other things, or by giving them away to any other person without any consideration, or even throwing them away. *P.* is divided into PERSONAL PROPERTY, and REAL PROPERTY. *q. v.*

Prop'erty-man, *n.* A person who has charge of the properties of a theatre.

Proph'asis, *n.* [Gr., from *prophainein*, from *pro*, and *phainein*, to bring to light.] (*Med.*) A cause, especially a remote cause, of a disease; prognosis.

Prophecy, (*prof'e-se,*) *n.* [Gr. *prophēteia*, from *prophēmi*, to predict.] Prophecy is defined to be "a knowledge and manifestation of secret things which a man knows not from his own sagacity, nor from the relation of others, but by an extraordinary revelation of God from heaven." It is thus generally and properly restricted to those predictions which are to be met with in the sacred Scriptures. In Hebrew, the word translated *prophet* properly signifies inspired; and a prophet was, therefore, one who spoke by Divine inspiration. The principal function of the prophets of the Old Testament was to keep up the intercourse between God and his people; and hence their prophecies are frequently called the words of Jehovah. They announced the will of God towards his people, directed them on the right path, reproved their iniquities, and pointed out to them the future consequences of their transgressions. The language in which they predicted future events is necessarily in general obscure; for their object was not to gratify human curiosity with respect to the future, but rather to give weight to their teaching, so that when the time of their fulfilment came, people might know that their inspirations were of God. The ways by which the Deity made known his will were various, — as by dreams, visions, angels, symbolic representations, impulses on the mind. Many writers, especially within the last hundred years, have attempted to explain away the divine character of the prophecies, by attributing them to a high degree of religious enthusiasm and ecstacy, or a kind of spiritual clairvoyance. Others, again, as Dr. Williams in the *Oxford Essays and Reviews*, deny their prophetic character, and maintain that the very few cases that can claim to be strictly prophetic "tend to melt, if they have not already melted, in the crucible of free inquiry," leaving only certain "deep truths and great ideas." These views, however, are rejected by the great majority of theologians, who maintain that it is contrary to the plain intent of the Old Testament, and opposed by the testimony of Christ and his Apostles in the New. "The very course of history," says Tholuck, "has impressed upon these declarations the stamp and confirmation of an objective and

supernatural inspiration." The great prophetic æra extends from the time of Samuel to the Babylonian captivity, during which time hardly an important event happened in which they do not appear as performing a leading part. Schools of the prophets are mentioned as existing in various places, and Samuel, Elijah, and Elisha, as principals of such institutions; their pupils being frequently designated the "sons of the prophets." About a hundred years after the return from the Babylonian captivity, the prophetic profession ceased, and Haggai, Zechariah, and Malachi, are uniformly mentioned by Jewish tradition as the last of the prophets. The New Testament mentions the power of prophecy as one of the gifts of the Holy Spirit, and the Book of Revelation bears a marked prophetic character.

Proph'esier, *n.* One who prophesies or predicts events.

Proph'esy, *v. a.* [Sp. *profetizár*; Fr. *prophétiser*; Gr. *prophēteuō*, to be an interpreter of the gods.] To foretell; to predict. — To foreshow. (R.)

—*v. n.* To utter prophecies or predictions; to make declarations of events to come; to preach.

(*Script.*) To instruct in religious doctrines; to interpret or explain Scripture or religious subjects; to exhort.

Prophet, (*prŏf'et,*) *n.* [Fr. *prophète*; Sp. *profēta*; Gr. *prophētēs* — *pro*, before, and *phēmi* (belonging to the root *phāō*, to bring to light), to make known.] One who foretells future events; a predicter; a foreteller. — A person inspired or instructed by God to announce future events, and to instruct the people. — An interpreter.

Books of the Prophets. (*Script.*) They form an important part of the Old Testament. The Jews included in this class the books of Joshua, Judges, Samuel, and Kings, but excluded the book of Daniel, as he did not strictly belong to the class of the prophets. Modern biblical critics, however, exclude these four books, and include that of Daniel. They are divided into the four great and twelve minor prophets: the former being Isaiah, Jeremiah, Ezekiel, and Daniel; the latter Hosea, Joel, Amos, Obadiah, Jonah, Micah, Nahum, Habakkuk, Haggai, Zechariah, Zephaniah, and Malachi.

Proph'etess, *n.* A female prophet.

Prophet'ic, Prophet'ical, *a.* [Fr. *prophétique.*] Containing prophecy; foretelling future events; unfolding that which is to come.

Prophetical'ity, *n.* The state or quality of being prophetic.

Prophet'ically, *adv.* By way of prediction; in the manner of prophecy.

Prophet'icalness, *n.* Propheticality.

Proph'etize, *v. n.* [Fr. *prophétiser*; Lat. *prophetizare*; Gr. *prophetizein.*] To make predictions. (R.)

Proph'etstown, in *Illinois*, a post-village of Whiteside co., abt. 20 m. S.W. of Fulton.

Prophylac'tic, Prophylac'tical, *a.* [Gr. *prophylaktikos*, from *pro*, and *phylassein*, to guard.] (*Med.*) Preventive; preservative.

Prophylac'tic, *n.* A medicine or agent intended to prevent or preserve from disease.

Propinquity, (*pro-pink'wi-ty,*) *n.* [Lat. *propinquitas*, from *propinquus*, from *prope*, near.] Nearness in place; neighborhood. — Approximation in time. — Nearness of kindred.

Propith'ecus, *n.* (*Zoöl.*) A genus of quadrupeds allied to the *Lemurs*, but distinguished from them by its shorter muzzle and its rounded ears, as well as by the marked disproportion in length between the hinder and anterior extremities, the greater length of its hands, and the shortness of its anterior thumb. They inhabit Madagascar.

Propi'tiable, *a.* That may be propitiated, or that may be made propitious.

Propi'tiate, *v. a.* [Lat. *propitio, propitiatus.*] To make propitious; to render favorable; to conciliate; to appease and render favorable, as one offended; to reconcile; to make propitious.

—*v. n.* To make propitiation or atonement.

Propitia'tion, *n.* [Fr.; L. Lat. *propitiatio.*] The act of propitiating, or of appeasing wrath and conciliating the favor of an offended person; the act of making propitious.

(*Theol.*) The atonement, or atoning sacrifice which removes the obstacle to man's salvation.

Propi'tiator, *n.* [L. Lat.] One who propitiates.

Propi'tiatorily, *adv.* By way of propitiation.

Propi'tiatory, *a.* [Fr. *propitiatoire.*] Having the power to make propitious; conciliatory.

—*n.* (*Jewish Hist.*) The mercy-seat; the covering of the ark in the Jewish temple.

Propi'tious, *a.* [It. *propizio*; Lat. *propitius*, from *prope*, near.] Kind; favorable; — said of men. — Disposed to be gracious or merciful; ready to forgive sins and bestow blessings; — applied to God. — Favorable; as, *propitious* weather.

Propi'tiously, *adv.* Favorably; kindly.

Propi'tiousness, *n.* Kindness; disposition to treat another kindly; disposition to forgive. — Favorableness; as, the *propitiousness* of a climate.

Pro'plasm, *n.* [Lat. *proplasma*; Gr. *proplasma*, from *pro*, before, and *plasma*, a thing formed or moulded.] A mould; a matrix. (R.)

Proplas'tic, *a.* Belonging to a mould or cast.

Proplas'tice, *n.* The art of making moulds for castings.

Pro'polis, *n.* [Lat. and Gr., from *pro*, before, and *polis*, a city.] A name applied to the substance employed by bees in closing up crevices in their hives, and in strengthening the margins of the cells of the comb. It is a glutinous resin, of a reddish-brown color and an aromatic odor, and in time acquires a firm consistence. It is collected from the wild poplar and other trees.

Propo'nent, *n.* [Lat. *proponens*, from *proponere*, to propose.] One who makes a proposal or lays down a proposition.

—*a.* Proposing.

Proportion, (*-pōr'shun,*) *n.* [Fr.; Lat. *proportio*, from *pro*, for, and *portio, portionis*, a share.] The comparative relation of parts, portions, or shares, or the comparative relation of one thing to another in respect of size, quantity, or degree. — Suitable adaptation of one part or thing to another; equal or just shares. — The relation between unequal things of the same kind, by which their several parts correspond to each other with an equal augmentation and diminution.

(*Math.*) The equality of two ratios. There are two methods by which the comparison of two magnitudes may be effected. First, it may be determined by how many units one is greater than the other (*difference*); secondly, one magnitude may be taken as the measure of the other, and it may be determined how many times it is contained in it (*quotient*). The former relation is called an *arithmetical P.* In the arithmetical *P.*, the difference, and in the geometrical, the quotient, are called the *ratio* of the *P.* Each *P.* consists of four terms, — two *extremes* and two *means.* In every arithmetical *P.* the sum of the extremes is equal to the sum of the means. Thus in an arithmetical *P.* either extreme or mean can be found by subtracting the given extreme or mean from the sum of the given means or extremes; and in a geometrical *P.* by dividing the product of the means or extremes by the given extreme or mean.

(*Chem.*) See AFFINITY, and ATOMIC THEORY.

(*Fine Arts.*) The proper relation of the measure of parts to each other and to the whole. In many instances *proportion* may be considered almost synonymous with *fitness*, though there is a distinction between them, since every form susceptible of proportion may be considered either with respect to its whole as connected with the end designed, or with respect to the relation of the several parts to the end. In the first case, fitness is the thing considered; in the second, proportion. Fitness, therefore, expresses the general relation of means to an end, and proportion the proper relation of parts to an end. It is hence needless to dwell on the intimate connection that exists between beauty and proportion, in all complex forms.

Propor'tion, *v. a.* To adjust the comparative relation of, as of one thing, or one part with another. — To form with symmetry or harmoniousness, as the parts of the body.

Propor'tionable, *a.* That may be proportioned, or made proportional.

Propor'tionableness, *n.* The state or quality of being proportionable.

Propor'tionably, *adv.* According to proportion or comparative relation.

Propor'tional, *a.* [Lat. *proportionalis.*] Having a due proportion or comparative relation; being in suitable proportion or degree. — Relating to proportion. — Having a proper relation to.

(*Math.*) Having the same ratio.

—*n.* (*Math.*) One of the terms of a proportion.

(*Chem.*) An equivalent. See ATOMIC THEORY.

Proportional'ity, *n.* [Fr. *proportionnalité.*] The quality of being proportional.

Propor'tionally, *adv.* In proportion; in due degree; with suitable comparative relation.

Propor'tionate, *a.* [L. Lat. *proportionatus.*] Proportional; — adjusted to something else accordiug to a certain rate or comparative relation.

—*v. a.* To proportion; to make proportional; to adjust according to a settled rate or to due comparative relation.

Propor'tionately, *adv.* With due proportion; according to a settled or suitable rate or degree.

Propor'tionateness, *n.* The state or quality of being adjusted according to a settled rate or comparative relation.

Propor'tionless, *a.* Without proper proportions.

Propor'tionment, *n.* The act of making proportional.

Propos'al, *n.* That which is offered or propounded for consideration or acceptance; a scheme or design; terms or conditions proposed.

Propose', *v. a.* [Fr. *proposer*; Lat. *propono, propositus*, from *pro*, and *pono*, to place, put.] To bring forward or offer for consideration, discussion, or acceptance; to propose or offer for consideration. — To intend or purpose. (R.)

—*v. n.* To purpose; to lay schemes. — To offer one's self in marriage.

Propos'er, *n.* One who proposes or offers anything for consideration or adoption.

Proposi'tion, *n.* [Fr.; Lat. *propositio.*] That which is proposed; that which is offered for consideration, acceptance, or adoption; a proposal; offer of terms.

(*Math.*) A statement in terms either of a truth to be demonstrated, or of an operation to be performed.

(*Rhet.*) Anything stated or affirmed for discussion or illustration.

(*Logic.*) A part of an argument in which some quality, either negative or positive, is attributed to a subject. It consists of two terms: the one, that of which we affirm or deny, called the *subject*; the other, the thing affirmed or denied, called the *attribute*, or *predicate.* These two are either joined or separated by the intervention of some copula or disjunctive. Thus, in the proposition, God is just, *God* is the subject, *just* the attribute, and *is* the copulative. A syllogism consists of three propositions,—*major*, *minor*, and *conclusion.*

Proposi'tional, *a.* Pertaining to a proposition; considered as a proposition.

Propound', *v. a.* [Lat. *propono.*] To offer for consideration; to propose; to exhibit.

(*Eccl. Law.*) To present or offer.

Propound'er, *n.* One who proposes, or offers for consideration.

Prepræ'tor, *n.* (*Roman Hist.*) A magistrate bearing to the prætor the relation which the proconsul bore to the consul.

Propri'etary, *n.* [Lat. *proprietarius.*] In its strict sense, this word signifies one who is master of his actions, and who has the free disposition of his property. During the colonial government of Pennsylvania, William Penn was called the *proprietary.*

—*a.* Belonging to a proprietor, or proprietors.

Propri'etor, *n.* [Fr. *propriétaire.*] A proprietary.

Proprieto'rial, *a.* Proprietary.

Propri'etorship, *n.* State of being proprietor.

Propri'etress, *n.* A female proprietor; a female who has the exclusive legal right to anything.

Propri'ety, *n.* [Fr. *propriété*; Lat. *proprietas*, from *proprius.*] Suitableness; appropriateness; consonance with established principles, rules, or customs; justness; accuracy.

Proproc'tor, *n.* (*Eng. Universities.*) An assistant of a proctor.

Propt, *part.* of PROP. Propped.

Propugn'er, *n.* A defender.

Propul'sion, *n.* [Sp. *propulsa*; Lat. *propulsus*, from *propello*, to propel.] Act of propelling or of driving forward.

Propul'sive, *a.* Tending or having power to propel.

Propylæ'um, *n.*; *pl.* PROPYLÆA. [Lat.; Gr. *propylaion*, from *pro*, before, and *pulē*, a gate.] (*Anc. Arch.*) The open court of a temple in advance of the building itself; the vestibule of a house of the higher class.

Prop'ylon, *n.* (*Anc. Arch.*) A propylæum.

Pro Ra'ta. [Lat., according to the rate.] (*Com.*) In proportion.

Prorate', *v. a.* [From Lat. *pro rata*, according to the rate.] (*Com.*) To divide proportionally.

Prore, *n.* [Lat.; Gr. *prora.*] (*Poet.*) The prow; the fore part of a ship. (R.)

Prorec'tor, *n.* (*German Universities.*) An officer who presides in the academic court.

Prorec'torate, *n.* The office of a prorector.

Prorep'tion, *n.* [Lat. *prorepere*, to creep forward.] A creeping forward.

Proroga'tion, *n.* [Lat. *prorogatio.*] The continuance of Parliament from one session to another; adjournment. (Eng.)

Proro'gate, *v. a.* To prorogue.

Prorogue, (*pro-rog',*) *v. a.* [Fr. *proroger*; Lat. *prorogo*, from *pro*, and *rogo*, to ask.] To protract; to prolong. — To put off; to delay. — To continue, as the parliament from one session to another.

Prorup'tion, *n.* [Lat. *proruptio*, from *prorumpo*, to burst forth.] Act of bursting forth.

Prosaic, Prosaical, (*pro-za'ik,*) *a.* [Fr. *prosaïque*; Lat. *prosaicus.*] Pertaining to prose; resembling prose; not restricted by numbers. — Dull; uninteresting.

Prosa'ically, *adv.* In a prosaic or dull manner.

Prosa'icalness, *n.* The state or quality of being prosaic.

Prosa'icism, *n.* Prosaicalness; prosaic style or manner.

Prosa'ism, *n.* Being in the form of prose.

Prosa'ist, *n.* One who writes prose.

Prosce'nium, *n.* [Lat.; Gr. *proskenion*, from *pro*, before, and *skene*, a tent.] The stage of a Greek or Roman theatre, or the space included in the front of the drop-scene; in contradistinction to the *postscenium*, or space behind the drop-scene. In the modern theatre it is improperly used to designate the ornamental framework from which the curtain hangs when performances are not going on, and thus divides the spectator from all engaged on the stage.

Proscribe', *v. a.* [Sp. *proscribir*; Lat. *proscribo*, from *pro*, and *scribo*, to write.] To put out of the protection of the law; to exile; to outlaw. — To denounce and condemn as dangerous; to interdict; to exclude.

Proscrib'er, *n.* One who proscribes; one who dooms to destruction; one who denounces as dangerous, or as utterly unworthy of reception.

Pro'script, *n.* One who is proscribed. — An interdict.

Proscrip'tion, *n.* [Fr.; Sp. *proscripcion*; Lat. *proscriptio.*] Act of proscribing or dooming to death; a putting out of the protection of the law; condemning to exile. — State of being proscribed.

(*Hist.*) The most vindictive species of proscription was that introduced by Sylla when he wrested Rome from the hands of the Marian faction. It consisted in making out a list of persons supposed to be obnoxious to the state, and getting a sentence of condemnation passed, which made it unlawful to harbor them. By these measures thousands of citizens perished in the civil wars of Rome. The most celebrated proscription was that of the triumvirs, Octavius, Antony, and Lepidus, in which Cicero was slain.

Proscrip'tional, *a.* Proscriptive.

Proscrip'tionist, *n.* A person who proscribes.

Proscrip'tive, *a.* Pertaining to, or consisting in proscription.

Prose, *n.* [Fr.; It. and Sp. *prosa*, from Lat. *prosa* (*oratio*, discourse being understood), from *pro*, and *versus*, from *vertere*, to turn.] The natural or common language of men. All literary composition belongs to one or other of the two great classes of *prose* or *poetry.* As to what constitutes the distinction between the two, writers are by no means agreed. Many contend that the difference lies in the form, and that metre is essential to poetry; others, that it is in the character; and that in poetry the imagination and feelings prevail, while prose is mainly addressed to the understanding. The distinguish-

ing feature of poetry is not the metre, but the character or style. Poetry may be said to deal with the emotions, prose with the reason and understanding.

(*Rom. Cath. Church.*) A part of the massin Latin verse.

—*a.* Relatiug to prose; prosaic; not poetical.

—*v. a.* To write in prose.—To make a tedious relation of.

—*v. n.* To write prose.—To talk or write in a dull, tedious manner.

Prosec'tor, *n.* [Lat., from *prosecare*, from *pro*, and *secare*, to cut.] A practical anatomist; one who prepares the parts for the anatomical lecture.

Pros'ecutable, *a.* Capable of prosecution, or of being prosecuted.

Pros'ecute, *v. a.* To follow or pursue with a view to reach, execute, or accomplish; to commence or continue, as endeavors to obtaiu or complete; to persist in or continue, as efforts already begun.—To seek to obtain by legal process.

(*Law.*) To accnse of some crime or breach of law, or to pursue for redress or punishment before a legal trihunal.

—*v. n.* To carry on a legal prosecution; as, to *prosecute* for public offeuces.

Prosecu'tion, *n.* [L. Lat. *prosecutio.*] Act or process of endeavoring to gain or accomplish something; pursuit by efforts of body or mind.

(*Law.*) The institution and carrying on of a suit ln a court of law or equity.—The institution, or commencement and continuance of a criminal suit. The law of England and America differs from that of other countries in having no office analogons to what is termed in France *ministère public* for the prosecution of offences. At common law, therefore, and in the great majority of cases, the so-called *prosecutor* is merely the person injured by an offence, who in the first instance obtaius a summons or warrant against the accused. In case of injury to the public, however, the Attorney-General is the recognized public prosecutor; and sometimes govt. originates proceedings in private cases of great importance or scandal: while informations for misdemeanors, in many statutable cases, are *prosecuted* by the informer.

Pros'ecutor, *n.* [Lat.] One who prosecutes, or who pnrsues or carries on any purpose, plan, or business.

(*Law.*) Tho person who institutes or carries on a criminal suit before a legal tribunal.

Pros'ecutrix, *n.* A female who prosecutes.

Pros'elyte, *n.* [Fr.; Gr. *proselytos*, from *proserchesthai*, to come to, from *pro*, and *erchesthai*, to come.] One who changes his religion—giving up one and adopting another. The term is not classic Greek, but it occurs in the New Testament nnd in the Septuagint, and was used almost exclusively among the Jews. They distinguished two kiuds of proselytes,—the proselytes of the gate, and the proselytes of justice or righteousness. The former feared and worshipped the true God, without adopting circumcision or any of the other ccremonies of the law. They were allowed to dwell in the land of Israel, and through holiness might have hope of eternal life. The latter received circumcision and observed the whole law of Moses, and were admitted to all the prerogatives of the people of God.

—*v. a.* To make convert, as to a rcligion.

Pros'elytism, *n.* [Fr. *proselytisme.*] The making of converts to a rcligion or religious sect, or to any opinion, system, or party; conversion to a system or creed.

Pros'elytize, *v. a.* To proselyte. (R.)

—*v. n.* To make proselytes.

Pro'ser, *n.* A writer of prose.—One who dwells with tedious minuteness on uninteresting matters; a tedious, dull writer or uarrator; a bore.

Pros'erpine. [Gr. *Persephone.*] (*Myth.*) A daughter of Ceres and Jupitar, of extreme innocence aud beauty, and who, while gathering flowers in the lovely vale of Tempe, or the Mysian Plain, was seen and carried off by the god of the infernal regions, Plnto. The prayers and intercessions of her mother ultimately prevailed on Pluto to permit her to spend half of each year on earth, to gratify and gladden the heart and eyes of her devotcd parents, the other half being passod with her infernal lord in the realms below.

Pros'ily, *adv.* In a dull, prosy manner.

Prosimet'rical, *a.* That consists of both prose and verse.

Pros'iness, *n.* Quality of being prosy or dull; tediousness in writing or relation.

Pro-slav'ery, *a.* Favorable to slavery.

Prosodi'acally, *adv.* In a prosodial manner.

Proso'dial, Prosodi'acal, Proso'dical, *a.* [Fr. *prosodique*; Lat. *prosodiacus.*] Pertaining to prosody, or the quantity and accents of syllables; according to the rules of prosody.

Proso'dian, *n.* One skilled in prosody, or in the rules of pronunciation and metrical composition.

Pros'odist, *n.* One who is versed in prosody.

Pros'ody, *n.* [Fr. *prosodie*; Sp. *prosodio*; Lat., from Ger. *prosōdia*, a song sung to or with; the tone or accent of n syllable, differing from its metrical quantity; from *pros*, denoting that which is suitable, and *ōdē*, a song.] That part of grammar which treats of the quantity of syllables, of accents, and of the laws of versification. If we taka the first words of the sentence here written, count the syllables, and note those that are accented, we find thnt there is no regularity in the recnrrence of the accent; while if we take the same course with the following line,

"The way was long, the wind was cold,"

we find that every second syllable ls accented. Now, the extract where there was no regularity ln the recurrence of the accent is *prose;* and the line ln which the accent recurred at regular intervals is *metrical;* metre being a general term for the recurrence, within certain intervals, of syllables similarly affected. The syllables in the before-quoted line are siuilarly affected, being similarly accented. At the same time, accent is not the only quality of a syllable which, by its periodic returu, cau constitute metre, the classical grammarians determining the character of their metre not by accent, but by *quantity*. The metres wherein quantity plays its chief part are those of the Latin aud Greek languages; and to define what quantity was in languages, the proprietors of which have long since passed away, is somewhat difficult, from the fact that not only were there 15 vowel sounds represented by six letters, but that each of these was again susceptible of one of the three accents,—the *acute*, the *grave*, or the *circumflex*. The matter may be thus briefly explaiued:—There is a difference between the length of *vowels* and the length of *syllables*. The vowel in the syllable *see* is long; and long it remains, whether it stand as it is or be followed by a consonant, as in *seen;* or by a vowel, as in *see-ing*. The vowel in the word *sit* is short. Followed by a *second* consonant, it stills retains its shortness; *e.g. sits*. Whatever the comparative length of the syllables *see* and *seen*, *sit* and *sits* may be, the length of their respective vowels is the same. Now, if we determine the character of the syllable by the character of the vowel, all syllables are short wherein there is a short vowel, and all are long wherein there is a long one. Measured by the quantity of the vowel, the word *sits* is short, and the syllable *see* in *seeing* is long. But in the eyes of a classical scholar, the *see* (in *seeing*) is short, and in the word *sits* the *i* is long; for he measures his quantity not by the length of the vowel, but by the length of the syllable taken altogether. To a Roman, the word *monument* consists of two short syllables and one long one; to an Englishman, it contains three short syllables. Another subject which comes within the consideration of prosody is *rhyme*,—unknown or neglected by the ancients,—which is the correspondence of sounds in the terminating words or syllables of two verses, one of which succeeds the other immediately, or at no great distauce. A full and perfect rhyme consists ln the recurrence of one or more final syllables equally and absolutely accented, wherein the vowels and the parts following the vowel shall be identical, while the parts preceding the vowel shall be articulately different. Rhymes may consist of a single syllable, as *told*, *bold;* of two syllables, as *water*, *daughter;* of three, as *cheerily*, *wearily*. The rhyme begins where dissimilarity of parts, immediately before the main vowel begins. Then follows the vowel, and lastly, the parts after the vowel, the latter of which must be absolutely identical. Syllables may be similar in their sound, and yet fail in furuishing full, true, and perfect rhymes, as in the case of *eye* and *I;* while, on the other hand, there may be rhymes only to the eye—In the case of words where the letters coincide, but the sounds differ; as in the case of *cease* aud *ease* (eaze). If, however, the sounds coincide, the difference of the letters is unimportant; and thus, according to the laws of prosody, *rules* is a good rhyme to *fools*.—*Rhythm* and *metre* are also subject to the rules of prosody, and each may be thus defined or explained. *Metre* is an arrangement of syllables and *feet* according to certain rules, and, in this abstract and general sense, comprehends indiscriminately either an entire verse, a part of a verse, or any number of verses. But a metre, in a specific sense, means a combination of two *feet*, and sometimes only one *foot* (a foot in poetry signifying a certain number of syllables constitutiug a portion of a line of poetry.) Rhythm, however, respects the *time* only, and is a general name, expressing the proportion that subsists between the parts of time employed in the pronunciation of different feet, the least division of which is that which is employed in the pronunciation of a short syllable. Finally, we may observe that *blank* verse is poetry without rhyme; that *heroic* verse usually consists of ten syllables, or five feet, containing each an accented syllable, and one or two unaccented ones; and that *alliterative* verse is a kind of verse in which two successive lines usually commence with the same initinl letter, or in which two words in the first line of each couplet, and one in the second, begins with the same letter; this kind of verse being an especial characteristic of Anglo-Saxon aud Scandinavian poetry.

Proso'pis, *n.* [Gr. *prosopon*, a mask.] (*Bot.*) A genus of plants, order *Fabaceæ*, sub-order *Mimoseæ*. The leguines of *P. pallida* and some other South American species are remarkable for their astringency, and have been successfully employed for tanning. In commerce they are known under the name of *algaroba* and *algarobilla*. From the fruit of *P. algaroba* a drink called *chica* is prepared. The name *chica* was first given to a fermented drink prepared from maize; but it is now used in South America as a common term for several kinds of intoxicating liquor.

Prosopolep'sy, *n.* [Gr. *prosopolepsia*, from *prosopon*, a face, and *lambaneir*, to take, *lepsis*, a taking.] Prejudice from the first view of a person; personal partiality.

Prosopopœ'ia, (*-pe-ya,*) *n.* [Gr. *prosōpopoiia*, from *prosopon*, a face, and *poieo*, to make.] (*Rhet.*) A figure by which inanimate objects or abstract ideas are personified, and addressed or represented hy the poet or orator as if endowed with human shape or sentiments; a personification. Milton's famous digression of Sin and Death, in the *Paradise Lost*, is at once a *prosopopœia* nnd an allegory.

Pros'pect, *n.* [Lat. *prospectus*, from *prospicere*, to look forward to, from *pro*, and *spicere*, to look.] View of things within the reach of the eye; a distant view.—View of things to come; intellectual sight.—Expectation; ground of anticipation.—A scene or landscape; the place and the objects seen: object of view.—A view delineated or painted; a picturesque representation of a landscape.—Position of the front of a building.

—*v. a.* To look forward.

—*v. n.* To search for metals. (Local U. S.)

Pros'pect, in *Connecticut*, a post-township of New Haven co.

Prospect, in *Indiana*, former name of a post-village of Madison co., about 44 m. N.E. of Indianapolis.

Prospect, in *Maine*, a post-town and township of Waldo co.

Prospect, in *New York*, a post-village of Oneida co., about 100 m. W.N.W. of Albany.

Prospect, in *Ohio*, a post-township of Marion co.

Prospect, in *Pennsylvania*, a post-borongh of Butler co., about 200 m. W. by N. of Harrisburg.

—A post-village of York co., about 13 m. E. of York. Now called EAST PROSPECT.

Prospect, in *Virginia*, a post-village of Prince Edward co., about 80 m. S.W. of Richmond.

Prospect Hill, in *Iowa*, a village of Linn co., about 25 m. N.N.E. of Iowa City.

Prospect Hill, in *Missouri*, an unimportant village of Clay co.

Prospect Hill, in *Wisconsin*, a post-village of Waukesha co., about 70 m. S.E. of Madison.

Prospect Station, in *Tennessee*, a post-village of Giles co., about 90 m. S. of Nashville.

Prospec'tion, *n.* The act of looking forward, or of providing for future wants.

Prospec'tive, *a.* [Lat. *prospectivus.*] Looking forward in time; acting with foresight;—opposed to *retrospective*.—Regarding the future.—Pertaining to, or furnishing a prospect; viewing at a distance.

Prospec'tively, *adv.* With reference to the future.

Prospec'tiveness, *n.* State or quality of being prospective.

Prospec'tus, *n.* [Lat., from *prospicio.*] In its most extended sense, this word is applied to the outline of any plan or proposal submitted for public approbation; but it is most usually confined to literary undertakings, in which it signifies an outline or sketch, or the plan or design of a work, together with such other circumstances connected with the publication, &c., as it may be thought desirable to enlarge upon or make known.

Pros'per, *v. a.* [Fr. *prospérer*; Lat. *prospero*, from *pro*, and *spero*, hope.] To render fortunate or happy; to favor; to render successful.

—*v. a.* To be successful; to succeed.

Prosper'ity, *n.* [Fr. *prospérité*; Lat. *prosperitas.*] Advance or gain in anything good or desirable; successful progress in any business or enterprise; attainment of the object desired; success; good fortune.

Pros'perous, *a.* [Lat. *prosperus*, from *pro*, and *spero*, hope.] Agreeable to one's wishes; successful; flourishing; fortunate; thriving; making gain or increase; characterized by success.—Promising success; favorable; auspicious.

Pros'perously, *adv.* With gain or increase; successfully.

Pros'perousness, *n.* State of being prosperous or successful; prosperity.

Prosper, (St.,) a learned theologian and historian of the 5th century, known by his opposition to the Pelagians. He was a native of Aquitaine, aud survived Augustine, to whom he wrote in 427.

Pros'physis, *n.* [Gr. *proshysis*, from *pros*, and *phuein*, to grow.] (*Med.*) Adherence; connection; in a more limited sense, the morbid adhesion of the eyelids, either between themselves, or with the globe of the eye.

Pross'nitz, a town of Austria in Moravia, on the Rumza, 12 m. S.W. of Olmutz. *Manuf.* Woollen, linen, nud cotton goods, and brandy. *Pop.* 11,500.

Pros'tate, or PROSTATE GLAND, *n.* [Gr. *prostateo*, to stand before.] (*Anat.*) A glaud situated in front of the neck of the bladder in men, and the *vesiculæ seminales*. The gland itself is about the size of a chestnut, is traversed by the urethra, aud is often enlarged in youth and middle age by scrofulous disease, but is more frequently the seat of disease in men advanced in life. In a healthy state of the body, this gland seems to be almost insensible and passive; hence its proneness to chronic mischief rather than acute, when any disease overtakes it. A swelling of this gland may depend either upon a common inflammation of the organ, the formation of an abscess, the deposition of calculi in its substance—chiefly composed of the phosphate of lime,—a varicose enlargement of the veins, or a chronic inflammation, degenerating into a scirrhous induration of the gland. Though occasionally liable to acute or phlegmonous inflammation, the prostate, from the reason advanced, is far more prone to chronic than acute disease. The most frequent disease encountered here by the surgeon is scirrhous enlargement, a condition that requires leeches to the part, cold applications, and the internal use of iodide of potassium. The retention of urine, which is the most distressing symptom of disease of the prostate, is caused by the distended gland pressing above and on all sides of the tube of the urethra, as it passes directly through the gland.

Prostat'ic, *a.* (*Anat.*) Of, or pertaining to the prostate.

Pros'thesis, *n.* [Lat.; Gr., from *prostithenai*, to put, to place.] (*Surg.*) The addition to the human body of some artificial part, in place of one that may be wanting, as a wooden leg, an artificial eye, &c. Sometimes written *Prothesis*.

(*Gram.*) A figure of grammar, by which one or more letters are prefixed to a word; as, in the common English participles, *b*eloved, *b*ereft, &c. See METAPLASM.

Prosthet'ic, *a.* Belonging to prosthesis.

Pros'titute, *v. a.* [Lat. *prostituere*, from *pro*, before, and *statuere*, to put, to place.] To expose publicly for lewd purposes; to give up to any vile or infamous purpose. — To devote to anything base; to sell to wickedness; to offer or expose upon vile terms, or to unworthy persons.

—*a.* Openly devoted to lewdness; sold to wickedness or to infamous purposes.

—*n.* A female given to indiscriminate lewdness; a strumpet. — A hireling; a mercenary; one who offers himself to infamous employment for hire.

Prostitu'tion, *n.* [Lat. *prostitutio.*] The act or practice of offering the female body to an indiscriminate intercourse with men; common lewdness of a female. — Act of setting one's self to sale, or of devoting to infamous purposes what is in one's power; as, the *prostitution* of the law, the *prostitution* of justice by a corrupt judge.

(*Law.*) The common lewdness of a woman for gain. The act of permitting a common and indiscriminate sexual intercourse for hire. In all well-regulated communities this has been considered a heinous offence, for which the woman may be punished; and the keeper of a house of prostitution may be indicted for keeping a common nuisance. So much does the law abhor this offence, that a landlord cannot recover for the use and occupation of a house let for the purpose of prostitution.

Pros'titutor, *n.* [Lat.] A person who prostitutes.

Pros'trate, *a.* [Lat. *prostratus.*] Lying at length or with the body extended on the ground or other surface. — Lying at mercy, as a supplicant; prone in the posture of humility or adoration.

(*Bot.*) Lying flat on the ground.

—*v. a.* [Lat. *prosterno*, *prostratus*, from *pro*, and *sterno*, to spread out.] To lay flat; to throw down. — To overthrow; to demolish; to ruin. — To bow in humble reverence. — To sink totally; to reduce; to exhaust; to depress, as one's vital powers.

Prostra'tion, *n.* [Fr.; Lat. *prostratio.*] Act of prostrating, or of throwing down or lying flat; act of falling down, or the act of bowing in humility or adoration. — Great mortal depression; dejection.

(*Med.*) Great depression of natural strength and vigor; that state of the body in disease in which there is almost a total loss of power over the muscles of locomotion.

Pro'style, *n.* [Fr.; Gr. *prostylos*, from *pro*, and *stylos*, a pillar.] (*Arch.*) A temple with a portico in front. When it had a portico at both ends, it was termed *amphi-prostyle.*

Pros'y, *a.* Like prose. — Dull and tedious in discourse or writing.

Prosyl'logism, *n.* (*Logic.*) Two or more syllogisms so connected that the conclusion of the former is the major or the minor of the following.

Protacca'ceæ, *n.* [After the Greek divinity *Proteus.*] (*Bot.*) The Protea family, an order of plants, alliance *Daphnales.* — DIAG. Apetalous flowers, anthers bursting lengthwise; erect ovules; and a valvate calyx. — They are shrubs or small trees, chiefly natives of Australia and the Cape of Good Hope, and are generally remarkable for the beauty or singularity of their flowers, and their rich evergreen foliage. The wood of *Protea grandiflora* is used at the Cape for wagon-wheels; — hence, the plant is called by the Dutch settlers *Wagenboom.* The order contains 44 genera and 650 species.

Protag'onist, *n.* [Gr. *protos*, first, and *agonistes*, an actor.] A chief actor in a theatre.

Protag'oras, a Greek sophist, B. at Abdera, B. C. 480, was taught by Democritus, and became a teacher at Athens; travelled through the chief cities of Greece, teaching for pay, and again went to Athens, from which city he was banished on the charge of atheism. He then went to Epirus, where he resided several years, and D. probably about 411. Plato has illustrated the doctrines and the fame of this sophist in the dialogue named after him. None of the writings of *P.* are extant.

Prot'asis, *n.* [Lat.; Gr., from *proteinein*, from *pro*, before, and *teinein*, to stretch.] A maxim or proposition. (R.)

(*Anc. Drama.*) The first part of a comedy or tragedy, that explains the argument of the piece.

(*Gram. and Rhet.*) The first part of a properly constructed period, the second being called *apodosis.*

Pro'tean, *a.* Relating to Proteus; capable of assuming different shapes.

Pro'teanly, *adv.* Like Proteus, or such as easily assumes different shapes.

Protect', *v. a.* [Lat. *protectus*, from *pro*, and *tego*, to cover.] To cover from danger or injury; to throw a shelter over; to keep in safety; to shield; to defend; to preserve; to save.

Protect'ingly, *adv.* By protection; in the way of protection.

Protec'tion, *n.* [Lat. *protectio.*] Act of protecting or preserving from evil, loss, injury, or annoyance. — The state of being protected. — That which protects or preserves from injury. — A safe-conduct; a passport or other writing which secures from molestation.

Protec'tionist, *n.* (*Eng. Pol.*) A name popularly given to those who maintain the principle of protection to native industry against that of free-trade.

Protec'tive, *a.* Affording protection; sheltering; defensive.

Protec'tor, *n.* [Lat., a defender; Fr. *protecteur.*] One who defends or shields from injury, evil, or oppression; a guardian.

(*Eng. Hist.*) This title has been three times borne by daring statesmen. 1. Richard, duke of York, in 1453, was appointed, by Parliament, Protector during pleasure. 2. The Duke of Somerset, being constituted one of the 16 executors of Henry VIII., obtained a patent from the young king, Edward VI., in 1548, constituting him Lord-Protector, with the assistance of the other 15 as councillors; but he enjoyed this dignity only a few months; and his loss of it was soon followed by his death. 3. Cromwell took the title of *Lord-Protector of the Commonwealth of England, Scotland, and Ireland*, on Dec. 12, 1653, when the *Barebones Parliament* resigned its authority into his hands. His son Richard succeeded him in his title and authority, but was never formally installed Protector.

Protec'toral, Protec'torial, *a.* Relating to a protector.

Protec'torate, *n.* [Fr. *protectorat.*] The government of a protector. — The authority assumed by a superior power over an inferior or dependent one.

Protec'torless, *a.* Without a protector.

Protec'torship, *n.* The office of a protector or regent.

Protect'ress, Protec'trix, *n.* A woman who protects.

Protégé, (*pro-ta-zha'*,) *n.* [Fr., from *protéger*, to protect.] One under the care and protection of another.

Protégée, *n.* [Fr.] A female under the protection of another.

Pro'teids, *n. pl.* [Gr. *protenein*, to be the first.] (*Chem.*) An important class of substances, chiefly animal in origin, though not unknown in the vegetable kingdom. Of the proteids, egg albumen may be offered as a good example. The various members of this class are closely related chemically, and together make up most of the animal organism. Analysis shows that they all contain nearly the same proportions of their constituent elements, they being made up of about 53·5 per cent. of carbon, 7 of hydrogen, 15·5 of nitrogen, 22·5 of oxygen, and from 0·9 to 1·6 of sulphur. Mulder believed that a substance which he obtained from albumen by the action of caustic potash, and named proteine, was the basic molecule of all the proteids. This theory is now obsolete, but the name proteids has proved very convenient to designate the class of substances above referred to. The majority of the proteids present two modifications, the one soluble, the other insoluble in water. The insoluble form can be produced by the addition of alcohol, ether, or various acids or salts to the aqueous solution. Heat also has usually the same effect, as in the coagulation of egg albumen in boiling water. The *P.* are all soluble in phosphoric acid, a strong solution of acetic acid and alkalis. By the action of the gastric juice, of pepsin and dilute hydrochloric acid, and of other ferments, the *P.* are converted into peptones, which are soluble in water and not coagulated by heating.

Proteina'ceous, Protei'nous, *a.* Belonging to protein.

Pro'teles, *n.* (*Zoöl.*) Same as AARD-WOLF, *q. v.*

Proteran'thous, *a.* [Gr., from *protos*, first, and *anthos*, a flower.] (*Bot.*) Applied to plants whose leaves appear before their flowers.

Protest', *v. n.* [L. Lat. *protestor*, from *pro*, and *testor*, from *testis*, a witness.] To affirm with solemnity; to make a solemn declaration of a fact or opinion; to testify; to declare; to avow.

—To make a solemn declaration expressive of opposition, used with *against;* to make a formal declaration in writing against a public law or measure.

—*v. a.* To make a solemn declaration or affirmation of, as one's innocence. — To call as a witness. — To declare formally against for non-payment.

To protest a bill or *note.* (*Law.*) To cause an act of protest to be done. (See below, the noun.)

—*n.* A solemn declaration of opinion, commonly against some act; a formal and solemn declaration made in writing by a minority of a deliberative body, to testify their dissent from the proceedings of the majority.

(*Law.*) A formal statement, made in writing by a public notary, under seal, that a bill or note was, on a certain day, presented for acceptance or payment, and that such acceptance or payment was refused, thereby making a claim against the parties for the loss or damage which may arise to the holder. Protest for non-acceptance or non-payment, when duly made and accompanied by notice to all the parties to the bill or note, has the effect of making all of them responsible to the holder for the amount of the bill or note, together with damages, &c.

(*Maritime Law.*) A writing, attested by a justice of the peace, a notary public, or consul, made and verified by the master of a vessel, stating the severity of a voyage by which a ship has suffered, and showing that it was not owing to the neglect or misconduct of the master. — The protest is not, in general, evidence for the master of the vessel or his owners in the English or American courts; yet it is often proper evidence against them.

Prot'estancy, *n.* Protestantism. (R.)

Prot'estant, *n.* (*Eccl. Hist.*) A member of one of the various denominations of Christians which have sprung from the adoption of the principles of the Reformation in the sixteenth century. The term was assumed, in the first instance, by the reformers of North Germany, who, in the year 1529, formally protested against a decree of the Imperial Diet held at Spires, which ordained that the question between the parties should remain unsettled, some restrictions being laid upon the progress of the new opinions, until the calling of a general council, the time of which was left uncertain. The Protestants accordingly asserted that the decree was unfavorable and unjust to their party, and claimed the immediate summons of a lawful council, which they knew it was the interest of the Papacy, under the circumstances, to delay. In the early period of the Reformation, the principal Reformed Churches were two, those of the followers of Luther and of Calvin, the partizans of Zwingli having become nearly identified with the latter. Since that time the number of subdivisions upon every point of doctrine and discipline has been infinite. The general bond of union, however, among all, continues to this day to be the assertion of private judgment, and the rejection of any infallible head of the church, or ultimate authority in Pope or Council.

—*a.* Pertaining to Protestants or Protestantism.

Prot'estant Epis'copal Church. This Christian denomination in the U. States is directly descended from the Church of England, which doctrinally claims to be based on the Holy Scriptures, as interpreted in the Apostles and other ancient creeds of the Church that have been universally received, and to have kept herself aloof from all the modern systems of faith, whether of Calvin, or Luther, or Arminius, leaving her members free to enjoy their own opinions on all points not represented in the Scriptures as necessary to the soul's health, and refusing to be narrowed down to any other creed or creeds than those of the Apostles and the Primitive Church. She claims also to have retained all that is essential to church organization in her episcopate, and in her liturgy to have not only a wise and judicious compend of doctrine and devotion, but also one of the most effectual of all possible conservative safeguards for the faith once delivered to the saints. The characteristic tenets of the Church of England, besides the fundamental doctrines of the Trinity and redemption through the all-sufficient atonement once made for all by the death of Christ on the cross, are a regeneration or spiritual birth in baptism, in which the baptized becomes a member of the Church, and a growth in grace by the use of the sacraments and ministrations of the Church duly administered and duly received, made efficacious by the word of divine truth and the gracious influences of the Holy Ghost, freely given to all who duly seek and faithfully use them. The condition of man after the fall is such that he can do nothing acceptable to God without preventing grace; good works, though pleasing to heaven, have no power to put away sin; works of supererogation, over and above God's commandments, cannot be taught without arrogance and impiety. The Church has power to decree rites or ceremonies, and to decide matters of faith; the Roman Catholic doctrines of purgatory, invocation of saints, and respect to relics and images, are rejected; clergymen are allowed to marry; and communion is to be given in both kinds. The number of sacraments is two — *baptism* and the *Lord's Supper.* Three clerical orders are recognized, — *bishops*, *priests*, and *deacons.* — the first deriving their office in direct succession from the apostles by episcopal consecration, and the others receiving ordination at the hands of a bishop. Those of the second order are entitled *archdeacons*, *deans*, *rectors*, *vicars*, or *curates*, according to their functions. A *reader* is a layman licensed by the bishop to read in a church or chapel where there is no clergyman. *Parson* signifies a clergyman in possession of a parochial church. — From the time of the first congregations of the Church of England in America, in 1607, to the close of the Revolution, all the clergy in the colonies were regarded as under the supervision of the Bishop of London. The first American bishop was Rev. Samuel Seabury, who, in 1783, was consecrated in Scotland as Bishop of Connecticut. All Protestant Episcopal churches in the United States are associated in one national body, called the *General Convention*, which meets triennially. This body is composed of two houses — the House of Bishops, including the bishops of all the dioceses in the country, and the House of Clerical and Lay Deputies. The clergy and laity, composing the House of Deputies, meet and deliberate together; but, when required, vote separately, and sometimes by dioceses. The General Convention directs the manner in which the qualifications of candidates for orders shall be estimated and determined; regulates the particulars in regard to the election and ordination of the orders of the ministry; defines the nature of ecclesiastical offences, and decrees the punishment thereof; settles the particular form and orders of its common prayer, and publishes authorized editions of the Book of Common Prayer; and directs the mode and manner of its intercourse with foreign churches. In all cases, the House of Bishops has a negative upon the House of Deputies; but when exercised, must be communicated within a limited time to that house. No law or canon can be enacted without the concurrence of both clergy and laity; no man can be introduced into the sacred office without testimonials from both orders; no clergyman be sent to minister where he may not choose to go; no parish be required to receive or continue a clergyman obnoxious to a majority of the parishioners; no man be punished for any offence not clearly defined by the laws of the Church, nor in any manner but in that prescribed by the same, and never without an opportunity of a trial by his peers. The salaries of the clergy are determined by the mutual agreement of minister and people. In 1902 there were in the United States 6,639 churches, 4,927 ministers, and 741,697 members or communicants.

Prot'estantism, *n.* [Fr. *protestantisme.*] The principles and religion of Protestants.

Protesta'tion, *n.* [Fr.; Lat. *protestatio.*] A solemn declaration of a fact, opinion, or resolution; a solemn declaration of dissent, a protest.

(*Law.*) An oblique allegation or denial of some fact, protesting that it does or does not exist, and at the same time avoiding a direct affirmative or denial.

Protesta'tor, Protest'er, *n.* One who protests; one who utters a solemn declaration.

Protest'ingly, *adv.* By way of protesting.

Pro'teus, *n.* (*Myth.*) A sea delty, who received the gift of prophecy from Neptune. He generally resided in the Carpathian Sea, and reposed himself on the shore. He was difficult of access, and, when consulted, he refused to give answers, by immediately assuming different shapes and eluding the grasp. Aristæus was in the number of those who consulted him, as also Hercules.

(*Zoöl.*) A genus of tailed batrachians, peculiar to certain subterranean waters, or underground lakes, of the Tyrol. It is very eel-like in its appearance and movements, but has four short limbs. The waters in which it dwells are sometimes dried up; and when this happens it buries itself in the mud. They retain their ex-

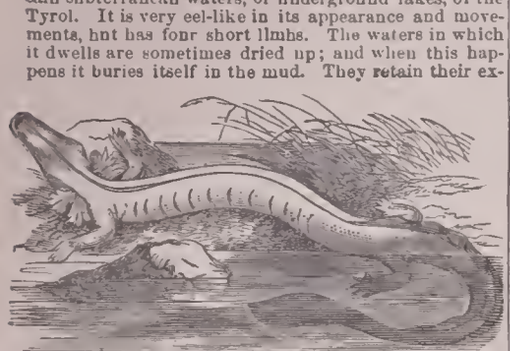


Fig. 2168. — PROTEUS ANGUINUS.

ternal gills through life, the lungs not being developed sufficiently to maintain respiration by themselves. — The name *Proteus* is also given by many naturalists to certain annualcules remarkable for changefulness of form; on which account, also, as the name *P.* has been otherwise appropriated in science, they now receive the generic name *Amœba.* They are *Protozoa,* and ranked among the *Rhizopoda.*

Prothe'sis, *n.* [From Gr. *pro,* before, and *tithenai,* to place.] (*Eccles.*) A CREDENCE, *q. v.*

(*Surg.*) Same as PROSTHESIS, *q. v.*

Prothonotary, *n.* [Fr. *protonotaire.*] A title originally of the Byzantine empire. The apostolical prothonotaries of the Papal courts are officers having precedence of the other notaries or secretaries of the Roman chancery; the Papal *notaries participant* rank after bishops, but before abbots. — In some of the United States, an officer who officiates as principal clerk of some courts.

Prothonotaryship, *n.* The office of a prothonotary.

Pro'thorax, *n.* [Gr., from *pro,* before, and *thorax,* breast-plate.] (*Zoöl.*) The first segment of the thorax in insects.

Pro'to. [Gr. *protos,* first.] A prefix expressing priorities.

(*Chem.*) See CHEMICAL NOMENCLATURE.

Pro'tocol, *n.* [Fr. *protocole;* L. Lat. *protocollum,* a register of public acts, from Gr. *protos,* first, and *kolla,* glue.] A diplomatic term, signifying the original copy of any despatch, treaty, or other document.

—*v. a.* To form a protocol of.

—*v. n.* To make or write protocols.

Pro'tocolist, *n.* One who writes or forms a protocol; a clerk or register.

Proto'genes, an eminent Greek painter, who flourished about 330 B. C., was a native of Caunus, in Caria, a city subject to Rhodes. A considerable part of his life was passed in obscurity, but he was at length brought into notice by Apelles giving a large price for his pictures. On the siege of Rhodes by Demetrius Poliorcetes, Protogenes is said to have continued tranquilly working at his house in the suburbs, and Demetrius spared that part of the city for the sake of the famous artist and his precious works.

Pro'togine, *n.* [Fr. *protogyne;* Gr. *protos,* first, and *ginesthai,* to be born.] (*Min.*) A porphyritic rock in which mica is replaced by talc or steatite.

Protomartyr, (*-mar'tur,*) *n.* [Fr.; Gr., from *protos,* first, and *martyr.*] The first martyr; — applied to St. Stephen, the first Christian martyr. — The first who suffers, or is sacrificed in any cause.

Protomorphic, *a.* [Gr. *protos,* and *morphē,* shape.] (*Physiol.*) Applied to the first stage of organized beings intervening between the fecundation of the germ and the first appearance of the typical or characteristic organization of the species.

Pro'toplasm, *n.* [Gr. *protos,* first, and *plasma,* form, from *plassein,* to mould.] (*Physiol.*) A term applied to matter deposited over the inside walls of a plant-cell subsequent to the formation of the cell itself, according to Prof. Huxley. *P.* is a complex body, consisting almost entirely of carbon, hydrogen, oxygen, and nitrogen, which plays an important part in the formation of vegetable and animal life.

Pro'toplast, *n.* [Gr. *protoplastos,* from *protos,* and *plastos,* formed, from *plassein,* to form.] The thing first formed as a copy to be followed, or imitated afterwards; a prototype.

Protoplas'tic, *a.* First formed.

Pro'topope, *n.* [From Gr. *protos,* first, and Eng. *pope.*] (*Gr. Church.*) The chief pope, or the imperial confessor; an officer of the supreme spiritual court of the Greek Church in Russia.

Pro'tosalt, *n.* [From Gr. *protos,* and Eng. *salt.*] (*Chem.*) An oxysalt whose base is a protoxide. — Also, an haloid and analogous salt containing only one equivaleut of its electro-negative element or componeut, as protochloride of tin.

Pro'totype, *n.* [Fr.; Gr. *prototypus,* from *protos,* first, and *typos,* a model, a type.] An original type or model after which anything is formed; the pattern of anything to be engraved, cast, &c.; exemplar; archetype.

Protox'ide, *n.* (*Chem.*) See CHEMICAL NOMENCLATURE.

Protozo'a, *n. pl.* [Gr. *protos,* and *zōon,* animal.] (*Zoöl.*) The lowest branch of the animal kingdom, including a large variety of forms of a very simple type of organization, they being each composed of a single cell, in contrast with the many-celled organization of the Metazoa. In some few instances there are groups of protozoans, acting together as a single animal, but in nearly all cases each protozoan is a separate individual cell, complete as a living being in itself. They vary, however, very considerably in organization, some being simply masses of largely homogeneous animal jelly, others having parts and organs, and to some extent simulating the higher animals. Among the lowest forms are minute creatures, now amœboid, now encysted and dividing into germs, now possessed of rapidly moving cilia. The Rhizopods embrace the Amœba, a class destitute of organs, moving by parts protruded and withdrawn in succession, and obtaining nutriment by surrounding and engulfing food substance. To this class belong also the Foraminifera, Heliozoa, and Rodiolaria. The Gregarines form a sluggish more or less elongated class. Highest of all are the Infusoria, active, ciliated animals, possessing a mouth and some trace of internal organs, and even in some cases indications of eye spots. The *P.* reproduce both by division or cleavage, and by union of two individuals, followed by encystment and germ production. See INFUSORIA, ROTIFERA, RHIZOPODA, &c.

Protozo'ic, *n.* (*Geol.*) A term applied to the lowest system of rocks in which the traces of any organic structure have been discovered.

Protract', *v. a.* [Lat. *protraho, protractus,* from *pro,* and *traho,* to draw.] To draw out or lengthen in time; to continue; to prolong. — To delay; to retard; to defer; to put off to a distant time.

(*Surveying.*) To plot, lay down, or draw to a scale.

Protracted-meeting, a religious revival, or prayer-meeting, continued for many successive days. (U. S.)

Protract'edly, *adv.* With protraction; tediously.

Protract'er, *n.* One who protracts or lengthens in time.

Protrac'tion, *n.* [Lat. *protractio.*] Act of drawing out or continuing in time; act of delaying the termination of a thing.

(*Surveying.*) The act or process of plotting, or laying down the dimensions taken in the field.

Protrac'tive, *a.* Drawing out or lengthening in time; prolonging; continuing; delaying.

Protract'or, *n.* One who, or that which protracts.

(*Surveying.*) An instrument used in drawing and plotting, or laying down and measuring angles on paper.

(*Surg.*) An instrument used to draw foreign bodies from a wound.

Protrude', *v. a.* [Lat. *protrudo, protrusus,* from *pro,* and *trudo,* to thrust.] To thrust forward; to drive or force along. (R.) — To thrust out, as from confinement.

—*v. n.* To be thrust forward; to shoot forward.

Protru'sile, *a.* That may be protruded and withdrawn.

Protrusion, (*-tru'zhun.*) *n.* Act of protruding, or of thrusting forward or beyond the usual limit. — The state of being protruded.

Protru'sive, *a.* Thrusting or impelling forward.

Protu'berance, *n.* [Fr.] A swelling or tumor on the body; a prominence; a bunch or knob.

Protu'berancy, *n.* The state or quality of being protuberant.

Protu'berant, *a.* [L. Lat. *protuberans.*] Prominent beyond the surrounding surface.

Protu'berantly, *adv.* In a protuberant manner.

Protu'berate, *v. n.* [Lat. *protuberare,* from *pro,* and *tuber,* a hump.] To swell or be prominent beyond the adjacent surface; to bulge out.

Protubera'tion, *n.* The act of swelling beyond the adjacent surface.

Proud, *a.* [A. S. *prut;* Dan. *prud.*] Having inordinate self-esteem; possessing a high or unreasonable conceit of one's own excellence, either of body or mind: conceited. — Splendid; magnificent; ostentatious; exhibiting grandeur and distinction. — Salacious; eager for the male; — applied particularly to the female of some animals.

Proud flesh. (*Med.*) A fungous excrescence of flesh which arises in wounds or ulcers.

Proud'hon, PIERRE JOSEPH, a celebrated French publicist, was B. at Besançon, in 1809. Occupied with rustic labors in his earliest years, he received gratuitous instruction at the college of his native town, and at 19 became a compositor. He was employed in various printing-offices till 1837, but had found time to think and study, and make considerable acquirements. The sense of the inequality of conditions among men, and of the social stigma attached to poverty, early weighed on his mind, and gave permanent direction to his speculations and endeavors. In 1840, after several small works, appeared his famous memoir, entitled, *Qu'est-ce que la Propriété?* his answer to this question, *La Propriété c'est le Vol,* being almost all that is popularly known of him. A second memoir on the same subject exposed him to a prosecution, but he was acquitted. After the Revolution of February, 1848, *P.* became editor of *Le Représentant du Peuple,* and attracted great attention and popularity by his articles; so that, in June, he was chosen member of the Constituent Assembly for the department of the Seine. But he found no hearing at the tribune, and therefore started a newspaper under the title of *Le Peuple,* which was suppressed, and reappeared three times. In 1849, he founded his *People's Bank,* but being soon after sentenced, under the press laws, to three years' imprisonment and a fine, he left France, and the bank was closed by the government. Returning a few months later, he submitted to his sentence, and was only liberated in 1852. D. 1865.

Proud'ish, *a.* Somewhat proud. (R.)

Proud'ly, *adv.* With an arrogant self-esteem; in a proud manner; haughtily; ostentatiously; with lofty airs or mien.

Proud'ness, *n.* State or quality of being proud.

Provable, (*proov'a-bl,*) *a.* That may be proved.

Prov'ableness, *n.* The state of being proved.

Prov'ably, *adv.* In a provable manner.

Prove, (*proov,*) *v. a.* [A. S. *profian;* Ger. *prufen, proben;* Fr. *prouver,* to prove, *éprouver,* to try; Lat. *probare,* to try, test.] To ascertain, as some unknown quality or truth, by an experiment, or by a test or standard. — To ascertain or render certain, as truth, reality, or fact, by testimony or other evidence; to bring to the test; to bring out the truth, as by argument, induction, or reasoning. — To endure by suffering or encountering; to experience. — To ascertain the genuineness or validity of, as a will or testament.

—*v. n.* To make trial or essay. — To be found, or to have its qualities ascertained by experience or trial. — To be ascertained by the event, or something subsequent; to be found true or correct by the result.

Provedi'tor, *n.* [It. *proveditore.*] One who undertakes to procure supplies for an army; a purveyor.

Prov'en, *part.* of PROVE, *q. v.* (R.)

Pro'ven, a town on the W. coast of Greenland, abt. 50 m. S. of Upernavik.

Provençal, (*pro-vong'sal,*) *a.* [Fr.] (*Geog.*) Relating to Provence.

—*n.* A native of Provence.

Provençal Language. The language of the *Troubadours* — one of the romance dialects which sprang up on the decline of the literary Latin.

Proven'çal Island, lies in the Mediterranean, off the S. coast of Asia Minor; Lat. 36° 10′ N., Lon. 33° 47′ E.

Provence, (*pro'vance,*) an old prov. of the S.E. of France, now forming the depts. of Bouches-du-Rhône, Var, Basses-Alpes, and the E. part of Vaucluse.

Prov'ence-rose, *n.* A variety of the common rose; the cabbage-rose.

Prov'ender, *n.* [Fr. *provende;* It. *provenda,* from Lat. *providere,* to foresee, to provide for.] Dry food for beasts, usually oats, or a mixture of meal and cut-straw or hay. — Provisions; meat; food. (R.)

Prover, (*proov'er,*) *n.* One who proves or tries; that which proves.

Prov'erb, *n.* [Fr. *proverbe;* Lat. *proverbium,* from *pro,* and *verbum,* a word.] A familiar saying, which has been variously defined. In point of form, there are two species of proverbs; one containing a maxim directly expressed in a concise and familiar style; the other, in which a maxim is expressed metaphorically, e. g. *honesty is the best policy,* or rather allegorically, e. g. *strike while the iron is hot.* In point of substance, proverbs are for the most part rules of moral, or, still more properly, of prudential conduct. — An enigma; a charade; a paradoxical assertion. — A bye-word; — in a contemptuous sense.

Prover'bial, *a.* [Fr.; L. Lat. *proverbialis.*] Mentioned or comprised in a proverb; used, or current as a proverb.

—Pertaining to proverbs; resembling or suitable to a proverb.

Prover'bialism, *n.* A proverbial phrase.

Prover'bialist, *n.* One who speaks proverbs.

Prover'bially, *adv.* In a proverb; so as to be a proverb.

Prov'erbs of Solomon. (*Script.*) One of the sacred books of the Old Testament ascribed to Solomon. The Hebrew term translated *proverbs* means literally a similitude or comparison of two objects, and this is the form that most of them take. Solomon, we are told, uttered 3,000 proverbs; but it has been doubted whether he ever made any collection of them in writing: and it is expressly stated that the latter part of the book, beginning with chapter xxv., was written and added by order of King Hezekiah. The title shows the author rather than the compiler. It has hardly ever been contended that a large share in the composition of the book is to be ascribed to the Wise King: and the divine authority of the book is sufficiently proved by the quotations made from it in the New Testament. In all ages this book has been regarded as a great storehouse of practical wisdom. It naturally divides itself into several parts. The first seven verses of the first chapter may be regarded as a heading to the rest of the book. Then begins the first part, which constitutes a sort of proem or exordium, and closes with the end of the ninth chapter. It may be described as a series of connected admonitions in a sententious form, written in the highest style of poetry, and adorned with apt, beautiful, and striking illustrations. Wisdom is here personified with indescribable majesty and grace, and love is here inculcated, and her rewards set forth, together with the pernicious consequences that follow her rejection. The second part, which constitutes the chief portion of the book, and is the strictly proverbial portion, extends from chap. x. to xxii. 16. The proverbs, about 400 in number, contain moral precepts and rules of life for every age and class of men in a clear, sententious form. Generally, one proverb is comprised in one short verse of two members or classes, forming a parallel opposition to each other. Except in a few cases, the grouping appears to be accidental. "They may be compared to so many jewels, put together without any visible order or connection, but each shining with its own peculiar beauty; a beauty which is increased rather than obscured by this apparently accidental association of one with another." With chap. xxii. 17, a kind of appendix

begins, introduced by a separate heading. The proverbs of this section generally consist of two verses, and sometimes of three, are constructed with less regularity, and often without any parallelism. A second appendix begins at chap. xxiv. 23, denoted by the heading, "These things also belong to the wise." The second main collection begins with chap. xxv., introduced with the heading, "These are also proverbs of Solomon, which the men of Hezekiah, king of Judah, copied out." The proverbs here, as in the former part, generally consist of one verse of two parallel opposing members; but they are less plain and intelligible, and frequently obscure. They extend over five chapters. The thirtieth chapter contains the words of *Agur*, and the thirty-first the counsels addressed to King Lemuel by his mother. Who these persons were is not known. That Lemuel is another name for Solomon is conjecture that has little of probability to support it.

Provide', *v. a.* [Lat. *providere*, from *pro*, and *videre*, to see.] To procure beforehand; to get; to collect or make ready for future use; to prepare.

—To furnish; to supply; followed by *with*. —To afford.

—*v. n.* To procure supplies or means of defence, or to take measures for contracting or escaping an evil. — To stipulate previously; to make a previous conditional stipulation.

Provi'ded, *conj.* Upon these terms; this stipulation being made; stipulated as a condition; — followed by *that*; — as, "*provided that* you do no outrage." —*Shaks.*

Prov'idence, *n.* [Fr.; It. *providenza*; Lat. *providentia*.] Timely care, provision, or preparation. — The care and superintendence which God exercises over his creatures;—hence, also, God viewed in this relation. — Prudence; frugality; reasonable and moderate care of expense.

(*Theol.*) *P.* denotes not merely foresight, but rather the superintending care with which God watches over his whole creation, more particularly the human race. This universe constantly depends upon the Deity for its conservation, as it did at first for its creation. The arguments, therefore, for a providence are similar to those for the existence of the Deity, and are derived from the order which we find to prevail in all parts of the material universe, and the adaptation of means to ends. Providence also interposes in human affairs in a manner which is quite unintelligible to us. Various divisions of providence are adopted, as *general*, *common*, or *ordinary*; that by which God governs and sustains the world; *special*, which regards the church; *particular*, which is exercised for the benefit of individuals.

Prov'idence, in British N. America, a lake abt. Lat. 65° N., Lon. 113° W. — A fort of British N. America, on the N. shore of Great Slave Lake; Lat. 62° 30′ N., Lon. 114° W.

Prov'idence, in *Illinois*, a post-village of Bureau co., abt. 42 m. N. of Peoria.

Providence, in *Indiana*, a village of Clarke co., abt. 18 m. N.N.W. of New Albany.

Providence, in *Iowa*, a twp. of Hardin co.

Providence, in *Kentucky*, a village of Fayette co., about 7 m. S. W. of Lexington.—A post-village of Webster co., 56 m. E. N. E. of Paducah.

Providence, or **Lake Providence,** in *Louisiana*, a post-town, cap. of East Carroll parish, about 430 m. N. by W. of New Orleans.

Providence, in *Missouri*, a post-village of Boone co., about 27 m. N. W. of Jefferson City.

Providence, in *New York*, a township of Saratoga co. *Pop.* (1897) 922.

Providence, in *North Carolina*, a post-village and township of Mecklenburg co.

Providence, in *Ohio*, a village and township of Lucas co., about 25 m. S. W. of Toledo.

Providence, in *Pennsylvania*, a township of Lancaster co. *Pop.* (1897) 1,920.—A borough of Lackawanna co., about 20 m. N. E. of Wilkesbarro.

Providence, in *Rhode Island*, a N. co., adjoining Massachusetts on the N. and E., and Connecticut on the W.; *area*, about 440 sq. m. *Rivers.* Blackstone and Pawtuxet rivers. *Surface*, uneven and broken; *soil*, generally fertile, producing corn and potatoes in abundance. *Cap.* Providence. *Pop.* (1895) 286,776.

—A city, port of entry, seat of justice of the above co., and semi-cap. of the State, on Providence River, an arm of Narragansett Bay, at the head of navigation, 35 m. from the Atlantic Ocean and 43 m. S.S.W. of Boston; Lat. 41° 49′ 22″ N., Lon. 71° 24′ 48″ W. The city stands on elevated ground, on both sides of the river, which is here crossed by several substantial bridges. The site is very uneven, and the streets are mostly built without regularity, but there are numerous fine edifices, and the city presents altogether a very handsome, substantial appearance. It is the second city of New England in point of population, wealth and commerce. Among the numerous public buildings are the City Hall, erected at a cost of $1,000,000, the High School building, Brown's University buildings, &c. The Athenæum has a library of over 50,000 volumes. *P.* has over 100 church edifices, some of considerable architectural beauty. *P.* contains many benevolent, literary, and educational institutions, eminent for the improved and liberal manner with which they are conducted. Roger Williams' park, of over 100 a., was bequeathed to the city in 1871, by a descendant of Roger Williams. The manufactures of *P.* are various and extensive, consisting chiefly of jewelry, plated ware, machinery, fire-arms, cotton, and woollen goods, steam-engines, locomotives, hollow-ware, edge tools, carriages, boots, shoes, &c. The Providence River, with the numerous railroads centring here, afforded almost unlimited facilities for commerce, which was formerly very extensive, but has of late years given way considerably to inland traffic and manufactures. *P.* was settled by Roger Williams in 1636, and in 1649 was incorporated as a town. During King Philip's War it suffered severely, was nearly destroyed by fire, and at one time was almost depopulated. After the close of the Revolution it began to improve, and has continued to increase with remarkable rapidity. *Pop.* (1900) 175,597.

Prov'ident, *a.* [Lat. *providens*.] Foreseeing wants and making provision to supply them; exercising prudence in preparing for future exigencies; forecasting; careful; frugal; economical.

Providen'tial, *a.* [Sp. *providencial*.] Effected by the providence of God; referable to divine providence; proceeding from divine direction or superintendence.

Providen'tially, *adv.* By means of God's providence.

Prov'idently, *adv.* With prudent foresight; with wise precaution in preparing for the future.

Prov'identness, *n.* The state or quality of being provident; prudence.

Provid'er, *n.* One who provides, furnishes, or supplies; one who procures what is wanted.

Province, (*prov'ins,*) *n.* [Fr., from Lat. *provincia*, usually supposed to be formed from *pro*, and *vinco*, to conquer.] (*Geog.*) A division of a kingdom or state, comprising several cities, towns, and districts, all under the same government, and usually distinguished by the extent either of the civil or ecclesiastical jurisdiction. A province, among the anc. Romans, was a district of conquered country, governed by a proconsul or proprætor, and called, therefore, *provincia consularis*, or *prætoria*. But this name was only applied to lands lying beyond the boundaries of Italy. In the time of Augustus, they were divided into the *provinciæ senatoriæ* or *populares* (the people's provinces), and the *provinciæ imperatoris* (the emperor's provinces). The latter comprise those that were most exposed to hostile inroads, and the administration of which was left entirely to the emperor. In modern times, the term has been applied to colonies, or to dependent countries at a distance from the metropolis, or to the different divisions of the kingdom itself. Thus the Low Countries belonging to Austria and Spain were styled provinces; and the different governments into which France was divided previously to the Revolution were also called provinces.—Used in reference to ecclesiastical affairs, the Anglican Church distinguishes its provinces by archbishoprics; and in this sense England is divided into two provinces, namely, Canterbury and York.

—In a figurative sense, the proper office or business of a person; jurisdiction; power; authority.

Prov'incetown, in *Massachusetts*, a post-township of Barnstable co.

Provin'cial, *a.* [Fr.; Lat. *provincialis*.] Pertaining to a province, or relating to it. — Appendant to the principal kingdom or state. — Not polished; rude, as accent. — Pertaining to an ecclesiastical province, or to the jurisdiction of an archbishop; not œcumenical.

—*n.* A person belonging to a province.

(*Rom. Cath. Church.*) A monastic superior, who, under the general of his order, has the direction of all religious houses of the same fraternity in a given district, called a *province of the order*.

Provin'cialism, *n.* [Fr. *provincialisme*.] A peculiar word, or manner of speaking, in a province or district of country remote from the principal country, or from the metropolis.

Provin'cialist, *n.* One who lives in a province.

Provinciality, (*-shi-al'i-ty.*) *n.* Peculiarity of language, manners, &c., in a province.

Provin'cialize, *v. a.* To render provincial.

Provine', *v. n.* [Fr. *provigner*.] To lay a branch of a vine, or of any tree, in the ground for propagation.

Provins, (*pro'vance,*) a town of France, dept. of the Seine-et-Marne, 29 m. E. of Melun. *Manuf.* Woollens. *Pop.* 7,500.

Provision, (*-vish'un,*) *n.* [Lat. *provisio*, from *provideo*, *provisus*.] Act of providing, or of making previous preparation. — Things provided; preparation; measures taken beforehand, either for security, defence, or attack, or for the supply of wants. — Stores provided; stock; victuals; food: fare; all manner of eatables for man and beast. — Previous stipulation; terms or agreement made, or measures taken for a future exigency.

(*Law.*) The property which a drawer of a bill of exchange places in the hands of a drawee; as, for example, by remittances, or when the drawer is indebted to the drawee when the bill becomes due, *provision* is said to have been made.

—*v. a.* To supply with provisions, or with victuals or food.

Provisional, (*-vizh'un-al,*) *a.* [Fr. *provisionnel*.] Provided for present need, or for the occasion; temporarily established; temporary.

Provi'sionally, *adv.* By way of provision; temporarily; for the present exigency.

Provi'sionary, *a.* Provisional.

Provi'so, *n.*; *pl.* PROVISOS. [From Lat. *provisus*, from *providere*.] An article or clause in any statute, agreement, contract, grant, or other writing, by which a condition is introduced; a conditional provision or stipulation. It usually commences with the words, *provided that*.

Proviso, in *Illinois*, a post-township of Cook county.

Provi'sor, *n.* [Lat.; Fr. *proviseur*.] A provider. —A steward of a religious house.

Provi'sorily, *adv.* In a provisory manner.

Provi'sorship, *n.* The office or occupation of a provisor.

Provi'sory, *a.* [Fr. *provisoire*.] Making temporary provision: temporary. — Containing a proviso or condition; conditional.

Provoca'tion, *n.* [Fr.; Lat. *provocatio*, from *provoco*.] Act of provoking or exciting anger. — Anything that excites anger; the cause of resentment.

Provo'cative, *a.* [It. *provocativo*.] Exciting; stimulating; tending to awaken or incite appetite or passion.

—*n.* Anything that provokes; anything that tends to excite appetite or passion; a stimulant.

Provo'cativeness, *n.* The quality of being provocative.

Provo'catory, *a.* Provocative; tending to incite or provoke.

Pro'vo City, in *Utah*, a city, cap. of Utah co., about 45 m. S. S. E. of Salt Lake. *Pop.* (1895) 5,992.

Provok'able, *a.* That may be provoked.

Provoke', *v. a.* [Fr. *provoquer*; Lat. *provoco*, from *pro*, and *voco*, to call.] To call forth or bring into action; to excite; to stimulate; to arouse. — To make angry; to incense; to exasperate; to enrage.

Provok'er, *n.* One who provokes, or excites to anger.—That which causes, or promotes.

Provok'ing, *a.* Having the power or quality of exciting resentment; tending to awaken passion.

Provok'ingly, *adv.* In such a manner as to excite anger.

Provost, (*prov'ust,*) *n.* [O. Fr.; A. S. *profost*; Fr. *prévôt*; Lat. *præpositus*, from *præ*, and *pono*, to put, to place.] A person who is appointed to superintend or preside over something; a principal; a chief ruler; a president; the executioner of an army; in Scotland, the chief magistrate of a royal burgh or city.

Provost-marshal. (*Mil.*) An officer appointed in camp to preserve good order and discipline, to take charge of prisoners, and prevent crime. He is intrusted with authority to inflict *summary* punishment on any soldier or individual connected with the army, whom he may detect in the actual commission of any offence against order and discipline.

Prov'ostship, *n.* The office of a provost.

Prow, *n.* [Fr. *proue*; It. *prua* and *proda*; Sp. *proa*; Lat. and Gr. *prora*.] The fore part of a ship.—The beak or pointed cut-water of a xebec or galley.

Prowess, (*prou'es,*) *n.* [Fr. *prouesse*; It. *prodezza*, from *prode*, valiant, from Lat. *prodest*, he is able; from *pro*, and *sum*, *esse*, to be.] Bravery; particularly, military bravery; gallantry; intrepidity in war; fearlessness of danger.

Prowl, (*proul,*) *v. a.* [Fr. *proie*; from Lat. *prædari*, to plunder.] To rove over or about.

—*v. n.* To rove or wander, particularly for prey, as a wild beast.—To rove and plunder; to prey.

—*n.* A roving for prey. (Colloq.)

Prowl'er, *n.* One who roves about for prey.

Prox, *n.* A word applied in Rhode Island to a ticket, or list of candidates at elections, presented to the people for their votes.

Prox'imal, *a.* Nearest; next; proximate; — more usually applied to the nearest extremity of a bone.

Prox'imate, *a.* [Lat. *proximus*, superl. *propior*, near, from *prope*, near.] Nearest; next; immediate; having most intimate relation or connection.

P. analysis. (*Chem.*) See ANALYSIS.

P. principles. (*Chem.*) These are distinct compounds which exist ready formed in animals and vegetables, such as albumen, gelatin, fat, &c., in the former; and sugar, gum, starch, resins, &c., in the latter, which are so called without reference to their ultimate composition.

Prox'imately, *adv.* Immediately; by immediate relation to, or effect on.

Proxim'ity, *n.* [Fr. *proximité*; Lat. *proximitas*.] State of being next; immediate nearness, either in place, blood, or alliance.

Prox'imo, *n.* [Lat.] A day of the month next following.

Prox'y, *n.* [Contracted from O. Eng. *procuracy*, from L. Lat. *procuratia*.] The agency of another who acts as a substitute for his principal; agency of a substitute. —The person who is substituted or deputed to act for another. — A writing by which one person authorizes another to vote in his place.

(*Eng. Law.*) Every peer, spiritual or temporal, can constitute another lord of parliament, of the same order with himself, his proxy, to vote for him in his absence; but proxies cannot be used when the house is in committee, nor in any judicial cause.

—*v. n.* To vote or act by proxy, or by the agency of another. (R.)—In certain States, as in Connecticut, an election or election-day.

Prox'yship, *n.* The agency or office of a proxy.

Prude, *n.* [Fr.; Lat. *prudens*, from *providens*, from *providere*, to foresee.] A woman of affected or oversensitive modesty or reserve; one who is over-scrupulous or sensitive.

—A woman affectedly or excessively prudent; a woman of great reserve, coyness, affected stiffness of manners, or scrupulous nicety.

Pru'dence, *n.* [Fr.; It. *prudenza*; Lat. *prudentia*.] The quality of being prudent; providence; the habit of at all times acting with deliberation, judgment, and forethought; wisdom applied to practice; caution; discretion.

Pru'dent, *a.* [Lat. *prudens*, contracted from *providens*.] Provident; dictated or directed by prudence; practically wise.—Careful of the consequences of enterprises, measures, and actions; careful not to act when the end is of doubtful utility, or probably impracticable; judicious; discreet. — Practising economy or frugality.

Pruden'tial, *a.* Proceeding from prudence; dictated or prescribed by prudence. — Exercising prudence; politic.

—*n.* Whatever pertains to, or requires the exercise of prudence: — generally used in the plural. — A maxim of prudence and practical wisdom.

Pruden'tialist, *n.* One who is actuated by prudential motives (R.)

Pruden'tially, *adv.* In conformity with prudence; prudently.

Prudentius, AURELIUS CLEMENTIUS, (*pru-den'shi-us,*) a Latin poet, who was successively an advocate, a magistrate, and a soldier, and distinguished himself in all these professions. His Latin poems were printed by Elzevir in 1667, with the notes of Heinsius. Flourished in the 4th century.

Pru'dently, *adv.* With prudence; with due caution or circumspection; discreetly; wisely; with frugality; economically.

Prud'ery, *n.* [Fr. *pruderie.*] Affected prudence or scrupulousness; excessive nicety in conduct; affected reserve or gravity; coyness.

Prud'homme, *n.* [Fr., from Lat. *homo prudens,* prudent man.] (*Fr. Com. Law.*) A council was established in 1452, by King René, to decide disputes between the fishermen of Marseilles. Louis XI. allowed the citizens of Lyons to appoint a *prud'homme* to settle questions that might arise between merchants attending the Fair in 1464. Napoleon I., by a decree dated March 18, 1809, established a council of 9 members at Lyons to arbitrate between workmen and employers, masters and apprentices. A council of *prud'hommes* was established at Paris in 1844, three more in 1847; and several have since been formed in various parts of France.

Prud'ish, *a.* Partaking of prudery; affectedly grave; very formal, precise, or reserved.

Prud'ishly, *adv.* In a prudish manner.

Prui'na, *n.* [Lat.] Hoarfrost.

Pru'inose, Pru'inous, *a.* Frosty.

Prune, *v. a.* [Fr. *provigner,* to lay branches of vine in the ground to take root.] To lop or cut off, as the superfluous branches of trees, to make them bear better fruit, or grow higher, or to give them a more handsome and regular appearance. — To clear from anything superfluous; to dress; to trim.

—*v. n.* To dress; to prink; — used in contempt or ridicule.

—*n.* The dried fruit of the plum-tree (*Prunus domestica*). The very fine kind, which are sold in highly ornamental boxes, are called *French Plums,* or *Table Plums.* These are a larger and very sweet variety, called *Catherina.* They are carefully prepared, being gathered by hand and separately dried.

Prunel'la, *n.* [Probably from Ger. *bräune,* quinsy, croup.] (*Bot.*) A genus of plants, order *Labiaceæ.* Only one species is found in N. America, *P. vulgaris,* popularly known as Blue-curls or Self-heal, a plant very frequent in moist and barren pastures in Illinois and Indiana. It has oblong-ovate stalked leaves, and violet-blue flowers, very densely whorled, so as to form an imbricated oblong spike. It was at one time in considerable repute as a febrifuge. It is mildly aromatic and slightly astringent.

(*Anat.*) The pupil of the eye.

Prunella-salt. Fused nitre, moulded into cakes or balls, used for chemical purposes.

Prunel'la, PRUNEL'LO, *n.* [Fr. *prunelle;* L. Lat. *bruneta,* cloth made of dyed wool.] A smooth woollen stuff, generally black, used for making shoes or garments.

Prunel'lo, *n.* [Fr. *prunelle,* dimin. of *prune.*] A kind of plum.

Prun'er, *n.* One who prunes or removes what is superfluous.

Prune'-tree, *n.* (*Bot.*) The *Prunus domestica.* See PRUNUS.

Pruni'ferous, *a.* [Lat. *prunum,* a plum, and *ferre,* to bear.] Plum-bearing.

Prun'ing, *n.* (*Arboriculture.*) The art of cutting off parts of plants, and more especially of trees and shrubs, in order to strengthen those which remain, or to bring the tree or plant into some particular form calculated to increase particular products. Pruning, therefore, varies according to the kind of plant or tree to be pruned, and according to the object in view.

Prun'ing-hook, PRUN'ING-KNIFE, *n.* A hook or knife used in lopping or pruning trees.

Prun'ing-shears, *n. pl.* Shears used for pruning trees, &c.

Pru'nus, *n.* (*Bot.*) The Plum, a genus of plants, order *Rosaceæ,* sub-order *Amygdaleæ* or *Drupaceæ.* The common Plum, *P. domestica,* and other varieties, produce the well-known fruits called Plums, Green-gages, and Damsons. The stone of the fruit is sharp-pointed at each end, with a longitudinal furrow passing all round, and a smooth surface. The fruit is covered with a fine bloom, and the young leaves rolled up. Cultivated plums vary greatly in the size, form, color, and flavor of the fruit. The fruit of some varieties, as the *White magnumbonum,* is 2 inches long, while others, as *P. myrobalana* (Fig. 2170), are not quite 1 inch; and a single fruit of the one is equal to at least eight or ten of the other. The best varieties of *P.* are among the most delicious dessert fruits. Among these, the Green-gage (*Reine Claude* of the French), is unsurpassed, both in sweetness and flavor. The inferior varieties are used in pies, conserves, and sweetmeats. Some of them are very austere. In moderate quantity, plums are wholesome enough: but excess in the use of them is very apt to produce colic, diarrhœa, and cholera. The danger is greater if they are eaten before being perfectly ripe. A very pleasant wine is made from plums; and in some parts of Europe a strong spirit is distilled from them after fermentation: but for this purpose they are mixed in the S. of France with honey and flour, and in Hungary with apples. — The dried fruit, variously known as Dried Plum or French Plum, and Prune (*q. v.*), is much used for dessert; and the somewhat austere fruit of the St. Julien Plum, cultivated in the south of France, becomes, when dried, the Medicinal Plum, used as a mild laxative. — *P. spinosa,* the Black Thorn or Sloe, is a thorny shrub, 12–15 feet high, native of Europe, but found in Pennsylvania in hedgerows and cul-

Fig. 2170. — PRUNUS MYROBALANA.

tivated grounds. The Wild Bullace-tree, *P. insititia,* also a native of Europe, naturalized in some parts of Massachusetts, has a black fruit, covered with a yellow bloom. — *P. Armeniaca,* the Apricot, a native of Armenia, is a middle-sized tree of 15–20, or even 30 feet high, with ovate, acuminate, and cordate, smooth, doubly-toothed leaves on long stalks; solitary; sessile; white flowers, which appear before the leaves; and fruit resembling the peach — roundish, downy, yellow, and ruddy on the side next the sun, with yellow and juicy flesh. The apricot was brought into Europe in the time of Alexander the Great, and since the days of the Romans has been diffused over all its western countries. In this country, it is but occasionally cultivated in gardens.

Pru'rience, Pru'riency, *n.* An itching, longing desire or appetite for anything.

Pru'rient, *a.* [Lat. *pruriens,* from *prurire,* to itch.] Itching; uneasy with desire.

Prurig'inous, *a.* [Lat. *pruriginosus.*] Tending to prurigo.

Pruri'go, *n.* [Lat., an itching, from *prurire,* to itch.] (*Med.*) A genus of cutaneous diseases, the characteristic symptoms of which are a severe itching, accompanied by an irruption of papulæ of nearly the same color as the adjoining cuticle. The term is also carelessly applied to irritation of various parts of the body from other causes, as from vermin, worms, &c.

Prussia, (*prush'ah,*) the largest and most powerful state of the German Empire, occupying a northern central portion of the European continent. *P.*, situated between the 49th and 56th parallels of N. Lat., and the 6th and 23d deg. E. Lon., is bounded N. by the Baltic and Denmark, E. by Russia and Poland, S. by Bohemia, Bavaria, Wurtemburg, and Baden, W. by Belgium and the Netherlands.—*Pol. Div. P.* is administratively divided into 12 provinces, which are again subdivided into 35 government districts, with the principality of Hohenzollern, the cradle of the royal family:

Provinces.	*Area sq. miles.*	*Population.*	
		1880.	*1890.*
E. Prussia (Ostpreussen)..	14,446	1,933,936	1,958,132
W. Prussia (Westpreussen)	9,964	1,405,898	1,433,480
Brandenburg...	15,560	2,266,825	2,542,401
Pomerania (Pommern)...	11,762	1,540,034	1,521,211
Posen.....	11,311	1,703,397	1,752,094
Silesia (Schlesien).....	15,743	4,007,925	4,223,807
Saxony (Sachsen).....	9,863	2,312,007	2,579,852
Schleswig-Holstein.....	7,360	1,127,149	1,217,393
Hanover (Hannover).....	15,031	2,120,168	2,280,491
Westphalia (Westfalen)..	7,892	2,043,442	2,428,376
Hesse-Nassau.....	6,128	1,554,376	1,664,000
Rhine (Rheinland).....	10,543	4,074,100	4,710,313
Prin. of Hohenzollern....	447	67,624	66,148
Berlin (city).....	25	1,122,330	1,579,244
Heligoland.....	1	.....	2,086
Total.....	136,076	27,279,111	29,959,388

Principal Towns.	*Population, 1890.*	*Principal Towns.*	*Population, 1890.*
Berlin.....	1,579,244	Frankfort-on-Maine	179,985
Breslau	335,186	Hanover	163,593
Cologne (Köln)	281,681	Danzig	120,338
Königsberg	161,666	Barmen..... ...	116,144
Magdeburg	202,304	Stettin	116,238

The principal part of the Prussian dominions lies continuously along the S. shore of the Baltic, between Russia and Mecklenburg, comprising the N. part of what was formerly Poland, and most part of the N. of Germany. The inland frontier of this part of the monarchy on the E. and S. is sufficiently connected; but on the W. side it is very rugged, some small independent states being almost entirely surrounded by Prussian territory. But, exclusive of this major portion of the kingdom, there is an extensive outlying belt of country on both sides of the Rhine, divided into the provs. of Westphalia and the Rhine. Some detached territories in Saxony, the principalities of Hohenzollern in Wurtemberg, and the united duchies of Schleswig-Holstein and Lauenburg, forming the lower portion of the Danish peninsula between the North and Baltic seas, also form component parts of this extensive monarchy. From the extreme E. frontier of *P.* to Aix-la-Chapelle, in an E.N.E. and W.S.W. direction, the distance is about 775 m., and from the promontory on the Baltic above Stralsund, to the extreme S. frontier of Silesia, in a N.E. and S.W. direction, the distance is 404 m. The Duchy of Lauenburg belongs to the king of Prussia, but not consolidated with it. The length of coast line of *P.* is abt. on the North Sea 250 m., on the Baltic 750 m.—*Gen. Desc.* The surface of the Prussian states is generally flat. With the exception indeed of part of the *Harzgebirge* (or Hartz Mountains), in the prov. of Saxony, the *Teutoburgerwald,* and some other ranges in Westphalia and Saxony, the volcanic district in it and the Lower Rhine, and the *Riesengebirge* (Giants' Mountains), on the S.W. confines of Silesia, there is no other tract that is more than hilly. *P.* is, in fact, a country of vast plains, and in most parts so very level, that many marshes and small lakes have been formed by the inundations of the rivers. The E., or principal, division of the monarchy slopes imperceptibly from the S. frontier towards the Baltic, the shores of which are low and sandy. *Soil.* The quality of the soil is very various. In Brandenburg and Pomerania it is generally poor; in many parts, indeed, it consists of tracts of loose barren sand, diversified with extensive heaths and moors; but, in other parts, particularly along the rivers and lakes, there is a good deal of meadow, marsh, and other comparatively rich land. In Ducal *P.* and Prussian Poland, including the prov. of Posen, the soil consists generally of black earth and sand, and is, in many parts, very superior. But Silesia, and the Saxon and Rhenish provs., are naturally, perhaps, the most productive. The plain of Magdeburg, on the left bank of the Elbe is, perhaps, the most fertile and best cultivated district of the kingdom. — *Rivers, Lakes, &c. P.* is extremely well watered. The Rhenish provs. are traversed by the Rhine, while the E. frontier is partly formed by the Weser. The Elbe intersects the Saxon provs.; the Oder, which is almost entirely a Prussian river, runs through the whole extent of the monarchy, from the S. frontier of Silesia to the Isle of Usedom, where it falls into the Baltic. Polish Prussia (or Posen) is watered by the Wartha; W. Prussia by the Vistula; and Ducal, or E. Prussia, by the Pregel and Niemen. And, besides the above, there are many other large streams, as the Ems, Moselle, Spree, Havel, Netz, &c. Owing to the flatness of the country through which they flow, none of the great rivers are interrupted by cataracts, and they are all navigable — the Rhine, Elbe, and Vistula, throughout their whole course in the Prussian dominions; the Oder is navigable for barges as far as Ratibor in S. Silesia, and the Regel and Niemen to a considerable distance inland. The establishment of steam-packets on these rivers, and the freeing of the navigation of the Rhine and the Elbe from the oppressive tolls and regulations by which it was formerly obstructed, have already been, and will no doubt continue to be, of vast service to the country. Canals have also been constructed connecting the Elbe, the Oder, and the Vistula; so that goods shipped at Hamburg may be conveyed by water to Dantzig and conversely. Lakes are exceedingly numerous, particularly in E. Prussia and Pomerania. There are also along the coast several large bays, or rather lagoons, communicating with the sea by narrow mouths, and possessing more of the character of fresh-water lakes than of arms of the sea. They are denominated *hoffs,* the principal being the Curische Haff and the Frische Haff, on the coast of Ducal Prussia, and the haff at the mouth of the Oder. Prussia has 4 naval ports, at Kiel, Dantzig, Stralsund, and Jahde on the N. Sea (purchased from Oldenburg in 1854). Besides these she possesses the commercial seaports of Memel, Königsberg, Pillau, Stettin, and Swinemunde; also those of Hamburg and Altona, both of which may be said to belong to the monarchy. —*Clim.* The climate of *P.* is not less various than the soil. Along the Baltic it is moist, and in E. Prussia, especially, the winter is long and severe. It is also harsh in the S. parts of Silesia, contiguous to the Carpathian Mountains. In N. Silesia, Brandenburg, and the Saxon and Rhenish provs., it is comparatively mild. —*Min.* The mineralogical products of *P.* are rich and various. Iron is the ore most generally diffused; it is very extensively wrought in Silesia, principally on account of the crown, but also by private individuals. The trade and industry of the kingdom is much fostered by its wealth in coal, which is sufficient not only to supply its own wants, but serves as an important article of export into all parts of S. Germany, as well as to France and Switzerland. The greatest coal-mines are on the river Ruhr, on the Lower Rhine, and next in importance are those on the river Sarr, and in Upper Silesia. The total annual production of this mineral is estimated at 28,000,000 tons. Salt, which is a government monopoly, is produced principally in the Saxon provs., which also yield considerable quantities of copper, and some silver. Silesia furnishes annually large quantities of zinc, lead, and tin. Amber has been long known as a product, principally formed along the low narrow tongue of land between the

Curische Haff and the sea.—*Zoöl.* Wolves and wild boars continue to exist in considerable numbers in some parts of the Prussian states.—*Agric.* Wheat, rye, buckwheat, oats, barley, potatoes, with flax and hemp, form the chief products of Prussian farm husbandry. About 700,000 eimers of very fair wine are annually grown in the Rhenish provs. Rye used to be in *P.* an article of universal consumption, occupying the same place there that Indian corn occupies in the U. States, wheat in England, and potatoes in Ireland. But of lato years it has been, to a great extent, superseded by the potato, the culture of which has increased with a rapidity to which there is no parallel. It now, in fact, forms the principal dependence of a large proportion of the population. The usual agricultural course is to fallow overy third year, taking either first a crop of rye, and then wheat, or conversely. Flax and hemp are cultivated for domestic use, and also for sale, in all parts of the monarchy, but especially in Silesia. The best flax is made from foreign seed, the seed produced at home being used to make oil-cake. Tobacco, hops, madder, and other plants used in dyeing, are also raised. Chicory is largely cultivated. Beet-root plantations are very extensive, and have recently made great progress, especially in Saxony and Silesia. Except on the crown estates there are few farms. Most considerable landed proprietors are accustomed to manage their estates by stewards; and the smaller occupiers of lands are, in most cases, all proprietors. Horses, cattle, and sheep are raised everywhere throughout the monarchy. The breed of the latter has been of late years an object of much attention, particularly in Brandenburg, Saxony, and Silesia, and some other provs., and has become superior even to that of Spain. Wool now constitutes in point of fact the principal article of export from Germany. *P.* contains, in round numbers, 1,600,000 horses, 8,000 asses and mules, 5,500,000 oxen, 15,400,000 sheep, 670,000 goats, and 2,600,000 swine. *Manuf.* Though more of an agricultural than a manufacturing country, *P.* has greatly distinguished herself, particularly of late years, in various branches of manufacture. The Rhenish provs., and Saxony and Silesia, are the districts most prominent in this dept. Linens and coarse woollens for domestic consumption are made in every village, and, indeed, in most cottages throughout the kingdom. The total value of the linen stuffs annually fabricated is estimated at from 50,000,000 to 60,000,000 rix-dollars, of which a fourth part is exported. Large quantities of silk and cotton

Fig. 2171.—CASTLE OF RHEINFELS (RHENISH PRUSSIA).

goods, and linens, are produced in Elberfeld, and other towns of the Rhine provinces. Very superior broadcloth is largely manufactured at Eupen, Malmedy, Berlin, and Aix-la-Chapelle. *P.* occupies a respectable rank as a producer of the useful metals, more especially pig and bar iron. The articles of hardware made at Berlin, Iserlohn, Hagen, Solingen, Olpe, and Essen enjoy a high reputation, the last-named place being the seat of the famous Krupp steel and gun works. Porcelain, jewelry, watches, and carriages are also manufactured in the latter city on a most extensive scale. Vast numbers of books annually issue from the presses of Berlin and Halle. Beer and spirits are very extensively produced.—*Com.* The exports from *P.* consist principally of grain, wool, timber, Westphalian hams, zinc, flax, bristles, salted provisions, and other articles of raw produce; with linens and woollens, cloths, silks, wares, iron, hardware, jewelry, watches, and wooden clocks, Prussian-blue, spirits, and beer. The imports consist chiefly of sugar, coffee, and other colonial products, raw cotton and cotton-twist and stuffs, indigo and other dye-stuffs, spices, French and other wines, coals for the use of the ports of the Baltic, &c. The commercial statistics of the country are not separated from those of Germany. About one-half of the population of *P.* are engaged in agriculture, as sole or chief occupation, while nearly 5,000,000 possess landed property.—*Railroads.* *P.* has a very large and complete system of railways, with a total length of over 15,000 m., much the larger portion of which belong to the State. In 1878 three-fourths of the total railway system were held and operated by private companies, but since then there has been a steady process of State absorption, and the period is not distant when all the railroads of *P.* will be national property, this being evidently the policy of the government. This length of railway, the public roads (40,500 m. in length), a network of river and canal navigation, and 1,000 m. of coast line, together with her central European situation, greatly facilitate the commerce of *P.*, which is steadily developing. In 1890 the mercantile marine of this country numbered over 2,250 vessels, of about 360,000 tons, while a large fleet of foreign vessels annually enter her many ports, among which may be mentioned Memel, Pillau, Königsberg, Danzig, Stettin, Stralsund, &c. There are many interior commercial towns, and annual fairs are held at Breslau, Magdeburg, and Frankfort-on-the-Oder.—*Const. and Govt.* The present constitution of the kingdom, granted by Frederick William IV. in 1850, has since been considerably modified. Its fundamental laws vest the execution and part of the legislative authority in a king of the house of Hohenzollern, who attains his majority upon accomplishing his 18th

Fig. 2172. — GEN VON MOLTKE.

year. The crown is hereditary in the male line only, according to the rights of primogeniture. In the exercise of the govt., the king is assisted by a council of ministers, appointed and dismissed by royal decree. The legislative authority the king shares with a representative assembly, composed of two Chambers, the first called the *Herrenhaus*, or House of Lords, and the second the *Abgeordnetenhaus*, or Chamber of Deputies. The assent of the king and both chambers is requisite for all laws. Financial projects and estimates must first be submitted to the Lower Chamber, and be either accepted or rejected "*en bloc*" by the Upper House. The right of proposing laws is vested in the king and in both chambers. Projects of law rejected by either chamber, or by the king, cannot be reproduced during the same session. The first chamber is composed of, first, the princes of the royal family who are of age, including the scions of the formerly sovereign families of Hohenzollern-Hechingen and Hohenzollern-Sigmaringen; secondly, the chiefs of the mediatized princely houses, recognized by the Congress of Vienna, to the number of sixteen in Prussia; thirdly, the heads of the territorial nobility formed by the king, and numbering some 50 members; fourthly, a number of life peers, chosen by the king among the class of rich landowners, great manufacturers, and national celebrities; fifthly, 8 titled noblemen elected in the 8 original provs. of *P.*, by the resident landowners of all degrees; sixthly, the representatives of the universities, the heads of "chapters," and the burgomasters of towns with above 50,000 inhabitants; and seventhly, an unlimited number of members nominated by the king for life, or for a more or less limited period. The second chamber consists of 432 members—350 for the old kingdom, and the rest added in 1867 to represent the newly-annexed provs. Every Prussian who has attained his 25th year, and is qualified to vote for the municipal elections of his place of domicile, is eligible to vote as indirect elector. Persons who are entitled to vote for municipal elections in several parishes, can only exercise the right of indirect elector, or *urwähler*, in one. One direct elector, or *wahlmann*, is elected for every complete number of 250 souls. The indirect electors are divided into 3 classes, according to the respective amount of direct taxes paid by each; arranged in such manner, that each category pays one-third of the whole amount of direct taxes levied on the whole. The first category consists of all electors who pay the highest taxes to the amount of one third of the whole. The second, of those who pay the next highest amount down to the limits of the second third. The third, of all the lowest taxed, who, together, complete the last class. Each class may be divided into several electoral circles, none of which must, however, exceed 500 "urwähler." Direct electors may be nominated in each division of the circle from the number of persons entitled to vote indirectly, without regard to special divisions. The representatives are chosen by the direct electors. The legislative period of the second chamber is limited to 3 years. Every Prussian is eligible to be a member of the second chamber who has accomplished his 30th year, who has not forfeited the enjoyment of full civic rights through judicial sentence, and who has paid taxes during 3 years to the state. The chamber must be reëlected within 6 months of the expiration of their legislative period, or after being dissolved. In either case former members are reeligible. The chambers are to be regularly convoked by the king during the month of Nov.; and in extraordinary session, as often as circumstances may require. The opening and closing of the chambers must take place by the king in person, or by a minister appointed by him. Both chambers are to be convoked, opened, adjourned, and prorogued simultaneously. Each chamber has to prove the qualification of its members, and to decide thereon. Both chambers regulate their order of business and discipline, and elect their own presidents, vice-presidents, and secretaries. Functionaries do not require leave of absence to sit in the chamber. When a member accepts paid functions, or a higher office connected with increased salary, he vacates his seat and vote in the chamber, and can only recover the same by a new election. No one can be a member of both chambers. The sittings of both chambers are public. Members of the second chamber receive travelling expenses and diet money from the state, according to a scale fixed by law, amounting to 3 thalers per day. Refusal of the same is not allowed. The executive govt is carried on, under the king, by an irresponsible *Staatsrath*, or Council of State, and a nominally responsible council of ministers. The former consists of all the princes of the royal family who are above 18 years of age, and of an unlimited number of servants of the state, appointed by the sovereign. The Cabinet or Council of Ministers is divided into 10 depts., viz.:—1. Foreign Affairs; 2. Finance; 3. Royal Household; 4 War; 5. Marine; 6. Interior; 7. Justice; 8. Public Instruction and Ecclesiastical Affairs; 9. Agriculture; 10. Commerce and Public Works. Each of the provs. of the kingdom is placed under the superintendence of an *oberpräsident*, or governor, who has a salary of 6,000 thalers, or $4,285. Each prov. has also a military commandant, a superior court of justice, a director of taxes, and a consistory, all appointed by the king. The last is divided into 3 sections—one having the superintendence of schools, another of ecclesiastical affairs, and another of the public health. The provs. are subdivided into *regierungsbezirke*, or counties, and these again into *kreise*, or circles, and the latter into *gemeinden*, or parishes. Each co. has a president and an administrative board or council; and the further subdivisions have also their local authorities. The municipal organization of the towns is more complicated than that of the communes. The principal functionaries are all elective; but the elections must be confirmed by the king or the authorities. The system of law principally in force in the E. states of the monarchy is embodied in a well digested code, entitled, *Landrecht für die Preussischen Staaten*, which received the royal sanction in 1791, and became law in 1794; but it is occasionally modified by custom, and Polish, Swedish, and German laws are still in force in certain parts of the monarchy. The Rhenish provs. follow, with some exceptions, the rules laid down in the Code Napoléon. The

Fig 2173.
PRUSSIAN INFANTAY OF THE LINE.

judges are independent of the government. Juries are employed in the Rhenish provinces, but not in the other parts of the monarchy.—*Finances.* The budget of 1890 exhibited receipts estimated at 1,691,673,942 marks, just balanced by the expenditures. The expenditure for the army and navy is not entered in the budget of *P.*, but forms part of the budget of the empire. The public debt of the kingdom was in 1890, according to the official report laid before the House of Deputies, 5,204,724,261 marks (about equivalent to $1,301,680,000), or about $45.75 per head of the population, it being double that of the remainder of Germany. The direct taxes consist of an income-tax, land-tax, house-tax, class-tax, and trading-tax, the total being about $1.37 per head. The income-tax yields about 35 cts per head of the population.—*Military—Army.* The obligation of Prussian military service is universal; every man (no substitutes being accepted) is obliged to serve in the army of the line and the *landwehr* (militia), between the ages of 20 and 38. Every Prussian subject is enrolled as a soldier as soon as he has completed his 20th year. He has to serve in the army during seven years, three years of which must be passed in the regular army, and the rest among the troops of the reserve. At the end of this term the soldier enters the landwehr for nine years, with liability to be called upon for annual practice, and to be incorporated with the regular army in time of war. Leaving the landwehr, the soldier is finally enrolled in the *landsturm*, or levy *en masse*, which consists of all the men not in the army, or the landwehr up to the age of 50, and of young men between 17 and 20. This force is only called out in case of invasion. There are various exemptions from this law of military service, in favor of the nobility, clergy, and some other classes of the population. A certain amount of education and fortune con-

stitutes also a partial exemption, inasmuch as young men of 20, who pay for their own equipment, and can pass a light examination, have to serve only one year in the regular army. This does not exempt them, however, from the legal service in the reserve, the landwehr, and the landsturm. The army in 1897 consisted of about 380,000 men of all arms. On a war footing, the numbers can be raised to 900,000 men, exclusive of the landsturm. — *Religion and Education.* The royal family belongs to the Reformed or Protestant faith, but all denominations of Christians enjoy the same privileges, and are equally eligible to places of trust or emolument. The Protestants predominate very decidedly in Brandenburg, Pomerania, Saxony, Hanover, and Ducal Prussia; while the Catholics are in the majority in the Rhine provs. and Westphalia, in the regency of Oppeln, in Silesia, and in Posen. The Protestant Church is governed by *consistories*, or boards appointed by govt., one for each prov. There are also synods in most circles and provs., but no general synod has yet been held. The constitution of the Catholic Church differs in the various provs. In the Rhenish provs., it is fixed by the Concordat entered into between the govt. and Pius VII. But in every other part of the monarchy, the crown has reserved to itself a control over the election of bishops and priests. The incomes of the clergy differ greatly; those of the parochial clergy, of both sects, mostly arise from endowments. In general, the government does not guarantee the stipend of either Protestant or Catholic clergymen; but in some parishes the clergy enjoy a public provision from the state. This is peculiarly the case in the Rhenish provs., in virtue of the Concordat with Rome. Proselytism, whether by force or persuasion, is prohibited by law. The system of public education in force in *P.* is held to be a more perfect one than any other of Europe. The main feature of it is that attendance at school is enforced by law. Every child, whether male or female, must attend a public school from the age of 5 years complete, till such time as the clergyman of the parish affirms that the child has acquired all the education prescribed by law for an individual in its station; generally speaking, the school time extends from 6 to 14 years complete. Should a child not attend, its parents or guardians must satisfy the public authorities that it is receiving an appropriate education either at home or in a private seminary. The school-fees are exceedingly moderate; and the children of poor persons who are unable to pay them are instructed gratuitously at the public expense. Exclusive of the gymnasiums and superior schools, *P.* has 6 universities, those of Berlin, Breslau, Bonn, Halle, Königsberg, and Greifswalde, and the two semi-universities of Münster and Braunsberg. — *Hist.* The rise of the Prussian power has been rapid and extraordinary. The kings of *P.* trace their origin to Count Thassilo of Zollern, one of the generals of Charlemagne. His successor, Count Friederich I., built the family-castle of Hohenzollern, near the Danube, in the year 980. A subsequent Zollern, or Hohenzollern, Friederich III., was elevated to the rank of a prince of the Holy Roman Empire, in 1273, and received the burgraviate of Nuremburg in fief; and his great-grandson Friederich VI. was invested by the Emperor Sigismund, in 1411, with the prov. of Brandenburg, and obtained the rank of Elector in 1417. A century after, in 1511, the Teutonic Knights, owners of the large prov. of Prussia, on the Baltic, elected the Margrave Albert, a younger son of the family of Hohenzollern, to the post of Grand-Master, and he, after a while, declared himself hereditary prince. The early extinction of Albert's line brought the prov. of Prussia to the Electors of Brandenburg, whose own territories meanwhile had been greatly extended by the valor and wisdom of Friederich Wilhelm, "the Great Elector," under whose fostering care arose the first standing-army in central Europe. The Great Elector, dying in 1688, left a country of 1,500,000 people, a vast treasure, and 38,000 well-drilled troops, to his son Friederich I., who put the kingly crown on his head at Königsberg, June 18, 1701. Pomerania was soon after added to Prussia. But, notwithstanding these acquisitions, when Frederick the Great ascended the throne in 1740, his disjointed dominions did not contain 2,500,000 inhabitants, who had made but little progress in the arts, or in the accumulation of wealth. But this extraordinary man, with no extrinsic assistance, and by mere dint of superior talent and energy, wrested, in the early part of his reign, the valuable and extensive prov. of Silesia from the house of Austria. He afterwards defended himself, during the Seven Years' War, against the combined efforts of Austria, Russia, and France, and forced those powers to conclude a treaty by which Silesia was solemnly guaranteed to *P.* In the latter part of his reign, in conjunction with Russia and Austria, Frederick planned, and partly carried into effect, the partition of Poland, acquiring as his share the W. parts of Prussia, and secured, in addition to the increase of territory, an unrestricted communication between the great divisions of the kingdom. By these different acquisitions, *P.*, at the death of Frederick, in 1786, had been increased in size nearly a half; while, owing to the superior fertility of the conjoined provs., and the improvement effected in every part of his dominions, after the peace of 1763, the population had increased to about 6,000,000. *P.* acquired, by the subsequent partition of Poland in 1792, and its final dismemberment in 1795, a great extension of territory, including the important city of Dantzig, and upwards of 2,000,000 inhabitants. In addition to this she acquired the bishopric of Paderborn and the principalities of Bayreuth and Anspach, with several lesser dists. in Germany; so that, in 1805, the kingdom contained nearly 5,000 geog. sq. m. of territory, and a pop. of 9,640,000. Her disastrous contest with France in 1806 lowered *P.* for a while; but the spirit of the people was not subdued; and after Napoleon's Russian campaign, the people rose "en masse," and literally drove the French out of Germany. At the general peace of 1815, *P.* became more powerful than ever. She recovered all her former possessions, except a portion of her Polish dominions assigned to the kingdom of Poland; but this was more than compensated by valuable acquisitions in Saxony, Pomerania, and the Rhenish provs. After the accession, in 1862, of King William I., popular representation proved powerless to counteract the will of the executive govt. presided over by Count von Bismarck (*q. v.*), which made laws, and even decreed budget-estimates, without the concurrence of the chambers. In 1864, *P.*, conjointly with Austria, sent an army to occupy the duchy of Schleswig-Holstein. A war with Denmark followed, which resulted in the annexation of that duchy to *P.* In 1866, the military prestige of the monarchy was further maintained in the occupation of Hanover and Saxony by the Prussian troops, and a consequent war with those kingdoms and with Austria, in which, after a brilliant campaign of two weeks, the latter power was obliged to sue for peace, and relinquish her claims as a German power. In addition, Saxony was left a mere nominal sovereignty under the control of *P.*, while Hanover, Hesse-Cassel, Nassau, and the former free city of Frankfort-on-the Main became absorbed into the Prussian monarchy. In August, 1870, Napoleon III. declared war against *P.*, and French armies marched toward the Rhine. An alliance having been entered into between *P.* and the S. German powers of Bavaria, Wurtemberg, and Baden, their combined forces crossed the Rhine into France. The part of *P.* in the Franco-German war is inextricably involved with that of the whole German nation. The conflict seemed to precipitate the solution of the question which had always been the aim of the king and Bismark: German unity under Prussian leadership. On Jan. 18, 1871, King William was crowned at Versailles as emperor of Germany, and on March 21, the first German Reichstag assembled at Berlin. The history of *P.* since is that of Germany.

KINGS OF PRUSSIA.
(House of Hohenzollern.)

Frederick I.	Date of accession		1701
Frederick William I.	"	"	1713
Frederick II. ("The Great")	"	"	1740
Frederick William II.	"	"	1786
Frederick William III.	"	"	1797
Frederick William IV.	"	"	1840

William I., 1861; Frederick III., 1888; William II., 1888.

Prussian (*prush'an*), *a.* Relating to Prussia.
—*n.* A native or an inhabitant of Prussia.

Prus'sian-blue, *n.* (*Painting.*) A pigment largely consumed in decorative arts, and in dyeing and calico-printing; it is used in making some of the varieties of what is called *stone-blue*, and is sometimes added to starch, though for this purpose, as well as for covering the yellow tint of paper, smalt or cobalt-blue is preferable. *P.-B.* is prepared for different degrees of purity by precipitating solutions of peroxide of iron by ferrocyanide of potassium, various additions being made according to the purposes for which it is required. Pure *P.-B.* is obtained by adding a solution of ferrocyanide of potassium to persulphate of iron, thoroughly washing the precipitate, first with water slightly acidulated by sulphuric acid, and then with pure water, and ultimately drying it in a warm place. *P.-B.* is of a peculiarly rich and intense blue, with a copper tint upon its surface; it is insipid, inodorous, insoluble in water, in alcohol, and in dilute acids, and is not poisonous. The alkalies decompose it into soluble ferrocyanides and oxide of iron; hence, as a dyeing material, it does not resist the action of soap. According to Chevreul, *P.-B.* becomes white in the direct rays of the sun, but regains its blue color in the dark. It is occasionally used in the composition of writing fluids. *P.-B.* is a true chemical compound of iron and cyanogen — the base of prussic acid — whence the name of the pigment. Mixed with white, it forms numerous useful tints, although inferior to cobalt and ultramarine on account of its green hue. It is more used in water-color painting than in oil, and especially for coloring flowers. When burned with access of air, it yields a rich warm brown, provided the pigment contains sufficient alumina; but when burned in a covered crucible, it yields a fine blue-black pigment, which dries quickly, like the brown. Commercial *P.-B.* is generally contaminated with alumina, and often with chalk, plaster of Paris, and starch.

Prus'sian-brown, *n.* (*Painting.*) A color obtained by adding a solution of the yellow prussiate of potash to a solution of sulphate of copper, which throws down a precipitate of deep brown: this, when washed and dried, is equal to madder, and possesses a greater permanency.

Prus'sia Proper, an important division of the kingdom of Prussia, bounded on the S.W. by Pomerania and the Baltic Sea, and on the E. and S. by Russia and Poland; *area*, 24,880 sq. m. It is administratively divided into two provinces—East and West Prussia. About two-thirds of the soil consists of good land, the remainder being chiefly sandy. Agriculture is by far the most important branch of industry, manufactures being confined to such articles as supply merely local wants. *Chief Towns* Königsberg, Dantzig, Elbing, Tilsit, and Marienwerder.

Prus'siate, *n.* (*Chem.*) See HYDROCYANATE.

Prus'sic Acid, *n.* (*Chem.*) See HYDROCYANIC ACID.

Pruth, an affluent of the Danube, rises in the S.E. of the Austrian crown-land of Galicia, on the N.E. side of the Carpathian mountains, and near the base of Mount Rusky in that range. It flows in a deep valley eastward past Kolomea and Czernowitz, and, forming the boundary between Moldavia and the Russian territories from Bojana, passes Liptchany, then flows S.S.E. to Katamori; after which its course lies S. through Moldavia to the Danube, which it enters at Reni, about 12 m. below Galatz. Total length abt. 500 m.

Pry, *v. n.* [Probably from the verb *to eye*, with the prefix *per*; to eye through or all over.] To peep narrowly; to inspect closely; to attempt to discover something with scrutinizing curiosity, whether impertinent or not.
—*n.* Narrow inspection; impertinent peeping. — A lever. (U. S.)
—*v. a.* To raise or lift up with a lever; to prize. (U. S.)

Pry'ing, *a.* Inspecting closely; looking into with curiosity.

Pry'ingly, *adv.* With close inspection or impertinent curiosity.

Pryta'næum, [Gr. *Prytaneion.*] (*Gr. Hist.*) The place of assembly of the Prytanes. In a Greek city the *P.* was the home of the community, and answered to the private homes of individual citizens. Hence a fire was always kept burning in the *P.* as on the hearths of private houses. In this building were entertained those citizens who, by virtue of their office, or for merit, received the privilege of having their meals at public cost. At Athens this was among the highest honors which could be conferred on any one.

Pryta'nes, [Gr. *Prytaneis.*] The Athenian senate cousisted of 500 persons, fifty being elected from each of the ten tribes; each of these fifties took it by turn to preside over the council and the assemblies, with the title of *P.*, having one-tenth of the year assigned to it; or, more accurately speaking, 34 days were allotted to each of the first four tribes, and 35 to the last six; the Attic year consisting of 354 days.

Pryt'any, *n.* [Gr. *prytaneia.*] The period of office of the prytanes of one section.

Przemysl, (*pzhem'isl,*) a town of Austrian Galicia, on the San, 51 miles W. of Lemberg. *Manuf.* Linen and leather. *Pop.* 9,000.

Przibram, (*pzib'ram,*) a town of Bohemia, 21 m. S.S. W. of Berann. *Manuf.* Woollen cloth, paper, and potash. *Pop.* 5,300.

Psalm, (*sahm,*) *n.* [Fr. *psaume*; Lat. *psalmus*; Gr. *psalmos*, from *psallo*, to play a stringed instrument.] A sacred song or hymn; a song composed on a divine subject, and in praise of God.

Book of Psalms. (*Script.*) One of the canonical books of the Old Testament, comprising a copious collection of sacred songs. They are usually styled the "Psalms of David;" and though he was doubtless the largest and most eminent contributor, there are many that were clearly composed by different hands, and at very different periods. To David are ascribed 73 Psalms in the Hebrew text, and at least 11 others in the Septuagint. There can be little doubt, however, that some, even of those that bear his name, belong to a later date; and on the other hand, the contents and style of some that do not bear his name show him to have been the author. The other authors, to whom certain of the Psalms are ascribed, are Asaph, one of David's chief musicians, 12; the sons of Korah, another family of choristers, 11; Heman and Ethan, two of the chief singers, 1 each; Solomon, 2; Moses I. Some of these, however, evidently do not belong to the time at which their reputed author lived. David's compositions are generally distinguished by sweetness, softness, and grace, and his prevailing style is plaintive. The date of the Psalms ranged from the time of Moses to that of the captivity, a period of nearly 1,000 years; and the collection as it at present stands was probably formed by Ezra and his contemporaries. Particular collections, however, must have existed as early as the time of David, and the singers who were appointed by David for the service of the sanctuary sang psalms. In the time of Hezekiah, the Psalms of David and Asaph were sung at religious solemnities; and the same is recorded to have taken place in the second temple after the captivity. The Book of Psalms is, according to the analogy of the Pentateuch, divided in Hebrew into five books, each of which closes with a doxology. Various classifications, more or less arbitrary, have been proposed of the Psalms. According to De Wette, they may be arranged as follows: 1. Hymns in praise of God, as the Creator, Preserver, and Governor of the world, and, in particular, as the Protector of his chosen people. — 2. National psalms, referring to the history of the people, and the many favors which, in former times, they had received from Jehovah, especially in the time of Moses. — 3. Psalms of Zion and of the temple. — 4. Psalms relating to the king, in which he is held up as the representative of Jehovah, and the assistance of God invoked for him. — 5. Psalms containing the supplications and complaints of the pious in distress. — 6. Religious and moral psalms. This division, however, is too complex and indefinite for practical purposes. Tholuck divides them, according to their subject-matter, into songs of praise, of thanksgiving, of complaint, and of instruction. The inspiration and canonical authority of the Psalms are established by the most abundant and convincing evidence, and in every age of the church they have been extolled for their excellence and their use for pious purposes. On account of its beauty and significance, this book has called forth a greater number of commentaries than any other. In particular, is the theological literature of Germany rich in works of this class; among which we may mention De Wette, Hitzig, Hirzel, Ewald, Hengstenberg, Delitzsch, and Hupfeld.

Psalmist, (*sahm'ist,*) *n.* [Fr. *psalmiste.*] A writer or

composer of psalms or sacred songs; a title particularly applied to David, and the other authors of scriptural psalms.

(*Hom. Cath. Church.*) A clerk, precentor, or leader of music in the church.

Psalmistry, (*sahm'ist-ry,*) *n.* The using of psalms or sacred hymns.

Psalmod'ic, Psalmod'ical, *a.* Relating to psalmody.

Psal'modist, *n.* One who sings holy songs.

Psal'modize, *v. n.* To practice psalmody.

Psalmody, (*sal'mo-dy,*) *n.* [Fr. *psalmodie;* Gr. *psalmodia*, from *psalmos*, and *ode*, a song.] This word, in its widest sense, is applied to sacred hymns or psalms set to music and sung; but is commonly restricted to the metrical versions of the Psalms of David.

Psal'mograph, Psalmog'rapher, Psalmog'raphist, *n.* [From Gr. *psalmos*, and *graphein*, to write.] A writer of psalms, or sacred hymns.

Psalmog'raphy, *n.* [Fr. *psalmographie*, from Gr. *psalmos*, a psalm, and *graphein*, to write.] The act of writing psalms, or sacred hymns.

Psalm'-singing, *n.* The act or practice of singing psalms.

Psalter, (*sawl'ter,*) *n.* [Fr. *psautier;* It. *saltéro*, from Gr. *psalterion.*] The Book of Psalms; often applied to a book containing the Psalms separately printed.

(*Roman Catholic Church.*) A series of 150 devout sentences or aspirations, in honor of certain mysteries, as of the sufferings of Christ:—a large chaplet or rosary, consisting of 150 beads.

Psaltery, (*sawl'ter-y,*) *n.* [Lat. *psalterium;* Gr. *psalterion.*] (*Mus.*) A stringed instrument used by the Hebrews. Fig. 2174 represents a mediæval psaltery, from a wooden sculpture of the 15th century

Fig. 2174.—PSALTERY.

Psam'ma, *n.* [Gr. *psammos*, sand.] (*Bot.*) A genus of plants, order *Graminaceæ*. The Mat-Grass, *P. arenaria*, has a creeping root; stem erect, rigid, 2–4 feet high; leaves involate, smooth and glaucous, pungently acute. It is found on sandy seacoasts, from Canada to N. J. It is extensively manufactured into paper at Dorchester, Mass.

Psammite, (*sam'mīt,*) *n.* [From Gr. *psammites*, sandy.] (*Min.*) A variety of micaceous sandstone.

Psendeplg'raphy, *n.* [Gr. *pseudes*, false, and *epigraphe*, an inscription.] The ascription of false names of authors to works.

Psendo, (*su'do.*) [Gr. *pseudes*, false, from *pseudein*, to belie.] A prefix which, being put before words, signifies false or counterfeit; as, *pseudo*-apostle, a false or counterfeit apostle.

Pseudo-blep'sia, *n.* [Gr. *pseudes*, false, and *blepein*, to see.] (*Med.*) A perversion of sight; false-sight; visual hallucination.

Pseu'do-bulb, *n.* (*Bot.*) An enlarged aërial stem, resembling a tuber, from which it scarcely differs, except in being formed above ground in the epidermis, being often extremely hard, and in retaining upon its surface the scars of leaves that it once bore.

Pseudo-dip'teral, *a.* [Gr. *pseudo, dis*, twice, and *pteran*, a wing.] (*Arch.*) Noting a temple which has a single range of columns in the flanks, at the same distance from the walls of the cella as though the temple had been dipteral.

Pseudo-gale'na, *n.* (*Min.*) False galena, or blackjack.

Pseu'dograph, Pseudog'raphy, *n.* [Gr. *pseudes*, false, and *graphein*, to write.] False writing.

Pseudologist, (*su-dol'o-jist,*) *n.* One who utters falsehoods.

Pseudol'ogy, *n.* [Gr. *pseudes*, false, and *logos*, speech.] Falsehood of speech.

Pseudo-metal'lic, *a.* (*Min.*) Exhibiting lustre only when held to the light.

Pseudomor'phous, *a.* [Gr. *pseudes*, and *morphe*, form.] (*Min.*) Said of minerals which deviate from the form of crystallization peculiar to that species.

Pseudonym, (*su'do-nim,*) *n.* [Fr. *pseudonyme;* Gr. *pseudonymos*, falsely named.] (*Lit.*) A false or imaginary name assumed by a writer; more strictly, however, the former; a nom-de-plume.

Pseudon'ymous, *a.* Applied to an author who publishes a work under a false or feigned name, and also to the work itself, in the same way as *anonymous* is applied to one who publishes a work without any name, or to the book so published.

Pseudosau'ria, *n.* (*Zoöl.*) A family of tailed batrachians, which are said to be destitute of gills at all periods of their existence, and which breathe by means of exposed spiracles or branchial orifices at the sides of the neck. According to Holbrook, they undergo no metamorphosis after they are hatched, but at once appear in the forms which they are permanently to retain. To this family belong the Congo snake, *Amphiuma means*, of the Southern States, which lives in muddy waters. It has an eel-shaped body, and imperfectly developed legs.

Pseudo'scope, *n.* [Gr. *pseudos*, and *skopes*, I view.] (*Optics.*) A kind of stereoscope employed to produce converse figures differing from the normal figure in this circumstance, that those points which appear most distant in the latter are the nearest in the former, and *vice versâ*. The *P.* consists of two reflecting prisms placed in a frame, with adjustments, so that when applied to the eyes, each eye may separately see the reflected image of the projection which usually falls on that eye. The instrument being directed to an object, and so adjusted that the object shall appear of its proper size, and at its usual distance, the distances of all other objects are inverted; all nearer objects appear more distant, and all more distant objects nearer, and this constitutes what is called *conversion of relief*. The inside of a tea-cup appears a solid convex body. A china vase ornamented with colored flowers in relief, appears to be a vertical section of the interior of the vase, with painted hollow impressions of the flowers. A framed picture hung against a wall appears as if imbedded in a cavity made in the wall.

Pseudo-sper'mic, *a.* [Gr. *pseudes*, and *sperma*, a seed.] (*Bot.*) Noting fruits whose pericarp is so closely attached to the seed that it cannot readily be distinguished from one of its integuments.

Pseudo-volca'no, *n.* A volcano emitting smoke and sometimes flame, but never lava. — A burning mine of coal.

Pshaw, (*shaw,*) *interj.* An expression of contempt, disdain, or dislike. (Written also *psha.*)

Psidium, (*sid'e-um,*) *n.* (*Bot.*) A genus of plants, order *Myrtaceæ*. Various species yield excellent dessert fruits, much used in tropical countries, and known as *guavas*. The more important are *P. pyriferm, pomiferum, cattleyanum, albidum*, and *pygmæum*. The first of these bears fruit the size of a hen's egg, yellowish, with a peculiar smell. The rind is brittle, the pulp full of bony seeds, flesh-colored, sweet, and aromatic. It is commonly eaten raw in the West Indies in the dessert, and also preserved with sugar. *P. cattleyanum* is considered to be one of the best of the guavas; the fruit is of a fine deep claret-color, and the pulp in consistence and flavor bears some resemblance to the strawberry. Guava jelly is imported into this country, and is much prized as a confection. Guava pulp is employed in the preparation of some of the Indian chutnies.

Psilan'thropist, *n.* [Gr. *psilos*, and *anthropos*, man.] One who believes that Jesus Christ was an ordinary man, and the son of Mary and Joseph. (R.)

Psilom'elane, *n.* [Gr. *psilos*, bare, and *melas*, black.] (*Min.*) A common ore of manganese, of very variable composition, probably only a mixture of the protoperoxide, Mn_3O_4, with pyrolusite, Mn_4, and usually a little potash, baryta, and water.

Psilothron, (*sil'o-thron,*) *n.* [Gr., from *psilosn*, to make bare, from *psilos*, bare.] (*Med.*) Depilatory; a medicine which causes the loss of the hair.

Psiol, (*pse-ol',*) a river of Prussia, which, after a S.S.W. course of 300 m., joins the Dnieper, 10 m. E.S.E. of Krementchug.

Psittac'idæ, *n. pl.* (*Zoöl.*) The Parrot family, a numerous and splendid family of birds, ord. *Scansores*, subdivided, chiefly according to the form of the bill and tail,

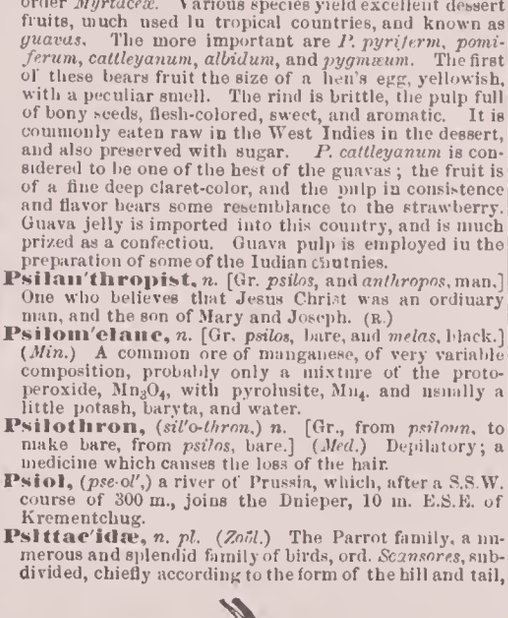


Fig. 2175.—RED-WINGED HEN-PARROTS.

into several groups; as the Macaws, Cockatoos, Lories, Paroquets, &c., which are each inserted in their alphabetical order. The *True Parrots*, which we are now to consider, have the upper mandible toothed, and longer than it is high; and the tail is short, or even and rounded at the end. They unite great beauty with great docility; and their faculty of imitating the human voice is superior to that of any other bird. The luxuriant tracts of the torrid zone seem to be the favorite residence of these richly-plumaged tribes; they are not, however, confined to that zone, as Buffon imagined, but are found in latitudes as far as forty or forty-five degrees on each side the equator.

Fig. 2176.—CAROLINA PARROT, (*Psittacus Carolinensis.*)

The tongue is fleshy, obtuse, and entire; their feet are formed for climbing, in which they assist themselves with their bill; they feed on the seeds and fruits of various plants, and often attain to a very great age. The only species found native in the U. States is the Carolina or Illinois parrot (Fig. 2176), which is resident from the Gulf of Mexico to the neighborhood of Lake Michigan, and on the east of the Alleghanies to Maryland. Their favorite food is the seeds of the cockle-bur, which grows in great abundance along the shores of the Mississippi and the Ohio, where they are seen in large flocks, screaming round the salt-licks. They are very sociable in their dispositions, extremely fond of each other, and showing the greatest grief for the loss of their companions. The plumage is very beautiful, the general color being a bright-yellowish silky-green, with light-blue reflections.

Pskov, or **Pskoff,** a govt. of European Russia, between Lat. 56° and 58° N., Lon. 27° 15′ and 32° E., having N. the govts. of St. Petersburg and Novgorod, E. Novgorod, Tver, and Smolensk, S. Vitebsk, and W. Vitebsk and Livonia; *area*, 17,318 sq. m. The surface is flat, well watered, but generally unfertile. *Principal towns.* Pskov, the cap., Torspetz, and Velikee-Looki. *Pop.* 718,907.

Pskov, cap. of the above govt., on the Velikeia, near its mouth, in Lake Pskov, 160 m. S.W. of St. Petersburg. *Manuf.* Woollen, silk, and cotton fabrics, and leather. *Pop.* 10,200.

Pso'as Muscles, *n.* [Gr. *psoai*, the muscles of the loins.] (*Anat.*) Two muscles upon the fore part and sides of the lumbar vertebræ. They bend the thigh forward, and assist in turning it outward.

Psora, (*so'ra,*) *n.* [Lat.; Fr.; Gr., from *psoein, psaein*, to rub.] (*Med.*) A contagious eruption of very minute pimples, pustular, vesicular, papular, intermixed, and alternating, itching intolerably, and terminating in scabs.

Psora'lea, *n.* (*Bot.*) A genus of plants, order *Fabaceæ*, consisting of small shrubby or perennial herbs, usually having pinnate leaves, and spicate or racemose flowers. *P. esculenta*, a native of our Western States, produces tuberous roots, known as Bread-root, Indian or Prairie turnips, which are eaten by the Indians, but when boiled are rather insipid.

Psoriasis, (*so-ri'a-sis,*) *n.* [Gr., from *psora.*] (*Med.*) A cutaneous affection, consisting of patches, or rough, amorphous scales, either continuous or of indeterminate outline.

Psychal, Psychical, (*si'kal, si'ke-kal,*) *a.* [Gr. *psychikos, psyche*, the mind, the soul.] Psychological.

Psyche, (*sī'ke.*) [Gr., breath or soul.] (*Myth.*) In the later Greek writings the word *psyche* occurs as a personification of the human soul, and it is manifestly of this personification that Apuleius relates the following allegory: By her surpassing beauty *P.*, the daughter of a king, excited the anger and jealousy of Venus, who sent Amor (Love) to inspire her with a passion for the most contemptible of mortals. But *P.* so charmed Amor that he fell in love with her himself, and taking her to some secret cave, visited her nightly, leaving her always before the dawn. *P.* had been warned by Amor against all attempts to find out who he was; but her jealous sisters told her that her lover was a hideous monster, and *P.* determined to learn the truth. Taking a lamp, she gazed at her lover while he slept, and saw before her the most beautiful of the gods. Amor, waked up by a drop of oil which fell from the lamp, rebuked her for her mistrust, and vanished. Then began the sorrows and wanderings of *P.*, who sought Amor in every temple till she came to that of Venus, who put her to a series of toilsome and degrading tasks, under which she must have died but for the love of Amor, who, though invisible, still consoled and cheered her. By his help she at last pacified the wrath of Venus, and, becoming immortal, was united with her lover forever.

Psychiater, (*si-ki'a-ter,*) *n.* (*Med.*) One who treats diseases of the mind.

Psychiatri'a, Psychi'atry, *n.* [Gr. *psyche*, the mind, and *iatrenein*, to heal.] (*Med.*) Treatment of diseases of the mind.

Psychism, (*si'kizm,*) *n.* [Fr. *psychisme*, from Gr. *psyche*, the soul, the mind.] (*Philos.*) The doctrine of Quesne, that there is a fluid diffused throughout all nature, animating equally all living and organized beings, and that the difference in their actions is owing to their particular organization.

Psychologic, Psychological, *a.* Pertaining to psychology, or to a treatise on the soul, or to the science of man's spiritual nature.

Psychologically, *adv.* In a psychological manner.

Psychol'ogist, *n.* One who is conversant with psychology.

Psychology, (*si-kol'o-je.*) *n.* [Gr. *psyche*, the soul, and *logos*, discourse.] The science of the soul or spiritual principle in man. It deals with the laws and relations of the various changes and phenomena which

taxs place in the mind during the intellectual operations, and traces the causes of these phenomena, in order to discover the nature of mind, and its relations to the universe; or, in short, to treat the mind either as it manifests itself, or as it is in itself. Investigations of the latter class, which have for their object that which cannot be discovered by observation, constitutes rational or transcendental *P.*, while those of the former class, in which the various manifestations of the soul are subjects of observation, constitute empirical or experimental *P.* Empirical *P.* may, therefore, be defined to be the scientifically conducted observation of the operations and changes of the human soul. As a science, it includes all the phenomena of the intellectual activity, taking for granted the distinction of the spiritual part of man from the body as a matter of consciousness, and, therefore, not attempting to explain it.

Psychomachy, (*si-kom'a-ky,*) *n.* [From Gr. *psyche*, the soul, and *mache*, fight.] A conflict of the soul with the body.

Psychopannichism, (*si-ko-pon'ni-kizm,*) *n.* [Gr. *psyche*, the soul, *pas*, *pan*, all, and *nux*, night.] (*Theol.*) The doctrine of the sleep of the soul from the moment of death till the resurrection of the body.

Psychrom'etry, *n.* [Gr. *psychros*, cold, and *metron*, measure.] Same as HYGROMETRY, *q. v.*

Psychropho'bia, *a.* [Gr. *psychros*, and *phobos*, fear.] (*Med.*) Dread of cold, especially of cold water.

Psychtic, (*sik'tik,*) *n.* [From Gr. *psychtikos*, cooling.] (*Med.*) A refrigerant or cooling medicine.

Ptarmic, (*tar'mik,*) *n.* [Gr. *ptarmikos*, *ptairein*, to sneeze.] (*Med.*) A remedy which excites sneezing.

Ptarmigan, (*tar'mi-gan,*) *n.* [Gael. *tarmachan.*) (*Zoöl.*) The White Grouse, a bird of the genus *Logopus*. It is about 15 inches long; the bill is black; orbits bright-red; the upper parts of the body pale-brown or ash, mottled with small, dusky spots and bars; the head and neck with broad bars of black, rust-color, and white; the under parts are white, as are also the wings, excepting the shafts of the quills, which are black. In winter this plumage is changed to a pure white, except that in the male there is a black line between the bill and the eye. This bird is found in lofty situations in most of the northern parts of Europe. It is rare in the U. States.

Fig. 2177. — PTARMIGAN, (*Lagopus mutus.*)

Ptel'ia, *n.* (*Bot.*) A genus of plants, order *Zanthoxylaceæ*. The Shrubby Trefoil, *P. trifoliata*, is an ornamental shrub, 6–8 feet high, leaves 3-foliate, cymes apecorymbose, flowers white, odorous. It is common in the Western, but rare in the Eastern States.

Pteriplegis'tic, *a.* [Gr. *pteron*, a wing, and *plassein*, to strike.] Belonging to fowling, or shooting birds.

Pter'is, *n.* [Gr. *pteron*, a wing, from the resemblance of its leaves.] (*Bot.*) The Brakes, a genus of Ferns. *P. aquilina* is the common branched fern of our woods and heaths. The fronds are tripartite, annual, 1–5 feet high, very much divided, with spreading branches. The capsules (*sori*) are attached to the marginal vein, lying upon a fine membrane, and covered by the membranous continuation of the epidermis.

Pterocar'pus, *n.* [Gr. *pteron*, and *karpos*, fruit.] (*Bot.*) A genus of plants, order *Fabaceæ*, sub-order *Papilionaceæ*. The species *P. draco* is one of the plants that yield the *dragon's blood* of commerce. This is a red resin, much used for coloring varnishes and for staining marble. *P. dalbergicides* is said to furnish the valuable dye-stuff called *Andaman red-wood*. *P. santalinus* yields the *Red Sandal*, or *Sander's wood*, which contains a peculiar coloring matter called *santalin*, and is used in medicine as a coloring agent, and by the dyer for red and scarlet dyes. The bark of *P. flavus* is used in China to produce a yellow dye. *P. marsupium* is the source of the officinal *kino* of our pharmacopœias, which is known under the names of *Gum kino*, *East Indian*, *Amboyna*, and *Malabar kino*. It is one of the most powerful vegetable astringents known. *P. erinaccus*, a native of West Africa, yields a similar astringent substance called *African kino*.

Pterodac'tyl, *n.* [Gr. *pteron*, a feather, and *dactylos*, a digit.] (*Pal.*) A genus of extinct reptiles, in which the second digit of the hand is of extreme length, and is considered to have supported an aliform expansion of the skin. It is peculiar to the secondary strata.

Pter'omys, *n.* (*Zoöl.*) The Flying Squirrels, a genus of Rodentia, family *Sciuridæ*. They are characterized by a densely furred membrane extending laterally from the sides between the fore and hind feet, by means of which the animal is enabled to glide from one tree to another, supported as by a parachute. There are long, bony appendages to the feet, which support a part of this lateral membrane. Four North American species have been described. The common Flying Squirrel, *P. volucella*, of the U. S. east of the Missouri, is about 5 inches long to the tail, the fur very soft and silky, the color light yellowish-brown above, and creamy-white beneath.

Pterop'oda, Pter'opods. *n. pl.* [Gr. *pteron*, and *pous*, a foot.] (*Zoöl.*) An order of Molluscs, comprehending those which have a natatory, wing-shaped expansion on each side of the head and neck. — See CLIONIADÆ, HYALEIDÆ, LIMACINIDÆ.

Pterop'odous, *a.* Pertaining to, or resembling, pteropods.

Pter'ygoid, *a.* [Gr. *pteryx*, *pterigos*, a wing, and *eidos*, a shape.] Wing-shaped.

Ptisan, (*tiz'an,*) *n.* [Gr. *ptisane*, peeled barley, from *ptissein* to peel.] (*Med.*) Tisane; an aqueous medicine containing but little, if any, medicinal agent; formerly, a decoction of barley.

Ptolema'ic System, *n.* (*Astron.*) See PTOLEMY.

Ptolema'is. (*Anc. Geog.*) See ACRE.

Ptolemy I., (*tŏl-e'mȳ.*) (PTOLEMÆUS,) surnamed SOTER, founder of the Græco-Egyptian dynasty of the Lagides, was a Macedonian, supposed to be a natural son of Philip II., and became a favorite general of Alexander the Great, whom he accompanied on his expedition to Asia. On the death of his master, in B. C. 323, *P.* obtained Egypt for his province. For twenty years he was almost constantly engaged in war. He defeated his rival Perdiccas, acquired Phœnicia and Cœlo-Syria; joined the league against Antigonus; was defeated by Demetrius in 306, and lost the Island of Cyprus, and soon after took the title of king. He saved Rhodes when besieged by Demetrius, and received the title of Soter (saviour); and after the fall of Antigonus he applied himself to the promotion of commerce, literature, science, and the arts in his own dominions. Philosophers, poets, and painters gathered to his court, and the foundations were laid of the famous Alexandrian Library and Museum. In 285, *P.* resigned his crown to his son, surnamed *Philadelphus*, and D. 283.

PTOLEMY II., surnamed *Philadelphus* (lover of his brother), B. in Cos, B. C. 311, was the youngest son of the preceding by his favorite wife, Berenice. He became king on the abdication of his father in 285, and had a long, and for the most part peaceful, reign. He had been carefully educated, and he entered heartily into his father's plans for promoting the prosperity of his kingdom, completing the Alexandrian Library and Museum, patronizing learning and learned men, founding colonies, and increasing his army and his revenue. He made a treaty of alliance with the Romans, and encouraged the resort of Jews to Egypt. According to tradition, it was by his order that the Septuagint version of the Old Testament was made. *P.* was twice married; his second wife being his sister Arsinoë, widow of Lysimachus. D. 247.

PTOLEMY V., surnamed *Epiphanes*, son of Ptolemy Philopator, and great-grandson of Philadelphus, was born B. C. 210, and at five years of age succeeded his father. The aid of the Romans was obtained against the kings of Macedonia and Syria, who threatened to dismember his dominions. The young king was declared of age at 14, and crowned at Memphis; and three years later he married Cleopatra, daughter of Antiochus of Syria. He had an able and upright minister in Aristomenes, but, nothwithstanding his great service, had him put to death. Most of the foreign possessions were lost to Egypt during this reign. Ptolemy was poisoned, B. C. 181.

PTOLEMY, surnamed *Philometor*, son of the preceding, succeeded his father B. C. 181, under the regency at first of his mother, Cleopatra, and then of feeble and corrupt ministers, who involved the kingdom in a disastrous war. Egypt was invaded, and the young king taken prisoner by Antiochus Epiphanes; a younger Ptolemy was set up as king, and the two brothers tried to reign jointly, supported by the Romans; but they quarrelled, and Philometor was driven away. He was restored by the Romans, and his brother (Energetes II., or Physcon,) was made king of Cyrene. Philometor was killed in a battle near Antioch, B. C. 146.

PTOLEMY XII., (*Dionysius,*) son of Ptolemy Auletes, succeeded to the throne conjointly with his sister Cleopatra, under the protection of Pompey, 52. He became a partizan of Cæsar in the civil wars, and after the battle of Pharsalia caused Pompey to be assassinated, who sought refuge in his states, 48. Aspiring to be sole king, he then took arms against Cæsar, who had decided that Cleopatra should continue to reign with him, and was drowned in the Nile while flying from the field of battle, B. C. 47.

PTOLEMY XIII., younger brother of the preceding, was eleven years of age when Cleopatra was left sole mistress of Egypt by his death. She was compelled to marry him by Cæsar, and he reigned with her till his death, 44 or 43 B. C.

PTOLEMY XIV., (*Cæsarion,*) an illegitimate son of Cæsar and Cleopatra, and the last of the Lagides, obtained the title of king from the Roman triumvirs, B. C. 42. He was killed by order of Augustus at the age of 18, B. C. 30.

Ptol'emy, CLAUDIUS, a celebrated astronomer and geographer, who flourished at Alexandria, about A. D. 140–160. He is considered the first astronomer of antiquity. Through him the observations and principal discoveries of the ancients were preserved and handed down. He corrected Hipparchus' catalogue of the fixed stars, and formed tables by which the motions of the sun, moon, and planets might be calculated and regulated. He was the first who collected the scattered and detached observations made by the ancients, and digested them into a system; this he called the *Megale Suntaxis*, or Great Construction, divided into thirteen books. In this work he adopts and exhibits the ancient system of the world, which placed the earth in the centre of the universe; and this has been called from him the *Ptolemaic System*, to distinguish it from those of Copernicus and Tycho Brahé. The *Megale Suntaxis* was translated by the Arabians into their language about 827, and from this translation, which bears the title of *Almagest*, a Latin verse was made by command of the emperor Frederick II., in 1230. Of this principal work of the great astronomer of the ancients, it may in general be observed, that the work is founded on the hypothesis of the earth's being at rest in the centre of the universe, and that the heavenly bodies, the stars and planets, all move round it in solid orbs, whose motions are all directed by one, which Ptolemy called the *Primum Mobile*, or first mover, of which he discourses at large. This great work of Ptolemy will always be valuable on account of the observations he gives of the places of the stars and planets in former times, and according to ancient astronomers that were then extant; but principally on account of the large and curious catalogue of the stars, which, being compared with modern catalogues, enables astronomers to deduce the true quantity of their apparent slow progressive motion according to the order of the signs, or of the precession of the equinoxes.

Pto'sis, *n.* [From Gr. *pipto*, to fall.] (*Med.*) A kind of paralysis of the upper eyelid, causing the lid to fall at any moment over the vision, the patient having no power to draw it up again. It may arise either from debility, in which case it may be removed by tonics; or from congestion of the brain, when it is usually accompanied with giddiness, headache, &c., and should be treated by bleeding, purgatives, and low diet; or from organic disease of the brain, in which case remedies are of little use. If it occurs without any apparent cause, and resists medical treatment, it may be removed by a surgical operation, by which the eyelid is brought under the action of the occipito-frontal muscle, which receives its nervous power from another source.

Pty'aline, *n.* (*Chem.*) An organic principle obtained from saliva. It is insoluble in alcohol, said to be analogous to the vegetable substance termed *diastase*, and to convert starch into dentine and glucose.

Ptyalism, (*ti'a-lizm,*) *n.* [Gr. *ptyalismos*, from *ptyalizein*, to spit much.] (*Med.*) Salivation; a superabundant secretion of saliva.

Ptyalogogue, Ptysmagogue, (*tiz'ma-gog,*) *n.* [Gr. *ptisma*, spittle, and *agein*, to drive.] (*Med.*) Sialogogue.

Pu'beral, *a.* Relating to puberty.

Pu'berty, *n.* [Lat. *pubertas*, from *puber*, *pubes*, grown up.] The age of supposed virility in males, and of womanhood in females. The word is derived from the name of a part of the body, and the first appearance of hair on the face. The exact age of puberty differs in different countries, and even in individuals, being earlier in warm climates than it is in cold ones. In the greater part of this country, from 14 to 16 is the general age at which puberty commences in males, and from 12 to 14 in girls. It is a critical period with either sex, and care should be taken that at such an age no vices are contracted which may lay the seeds of after mischief.

Puberulent, *a.* (*Bot.*) Covered with fine, short, almost imperceptible down; pulverulent.

Pu'bes, *n.* (*Anat.*) The middle part of the hypogastric region; so called, because it is covered with hair in both sexes, at the period of puberty. — The hair itself.

(*Bot.*) A downy substance growing on some plants.

Pubescence, *n.* [Fr.] The state of a youth who has arrived at puberty, or the state of puberty.

(*Bot.*) Down closely pressed to the surface.

Pubescency, *n.* Pubescence. (R.)

Pubescent, *a.* [Lat. *pubescens*, from *pubescere*, to reach the age of puberty.] Arriving at puberty.

(*Bot. and Zoöl.*) Covered with very fine short hairs.

Pu'bic, *a.* (*Anat.*) That which belongs to, or concerns the pubis.

Pu'bis, *n.* [Lat.] (*Anat.*) The anterior part of the *os innominatum*; so called because it corresponds to the genital organs.

Pub'lic, *a.* [Fr.; Lat. *publicus*, contracted from *populicus*, changed to *poblicus*, from *populus*, the people.] Of, or belonging to the people, the community, or to the multitude; pertaining to a nation, state or community;—opposed to *private*.—Common to many; common to a nation, state, city, or to mankind at large; open to all; directed to the interest of a nation, state, or community. — Open for general entertainment; open for general use; as, a *public* house.

—*n.* The general body of mankind, or of a nation, state, or community; the people indefinitely.

In public. Before the people at large.

Publican, *n.* [Lat. *publicanus*, from *publicus*.] (*Rom. Hist.*) The farmers of the public revenue of Rome. They formed two distinct classes; the farmers-general of the revenues, who were regarded as belonging to one of the most honorable grades of citizens; and deputies, or under publicans of an inferior caste, whose reputation was very questionable. Hence, in the New Testament, the τελῶναι, or *publicans*, are almost always placed in juxtaposition with sinners.

—The keeper of an inn or public-house; one licensed to retail beer, spirits, or wine.

Publication, *n.* [Fr.; Lat. *publicatio.*] Act of publishing or offering to public notice; notification to the people at large, either by words, writing, or printing; proclamation; divulgation; promulgation. — Act of offering a book or writing to the public by sale or by gratuitous distribution. — A work printed and published; any pamphlet or book offered for sale, or to public notice.

Pub'lic-house, *n.* An ordinary inn or house of public entertainment.

Pub'licist, *n.* [Fr. *publiciste.*] A writer on the laws and rights of nature and nations.

Publicity, *n.* [Fr. *publicité.*] State of being public or open to the knowledge of a community; notoriety.

Pub'licly, *adv.* With exposure to public view or notice; without concealment. — In the name of the community.

Pub'lic-mind'ed, *a.* Disposed to advance the interests of the public. (R.)
Pub'lic-mind'edness, *n.* A disposition to advance the public interests. (R.)
Pub'licness, *n.* State of belonging to the community. — The state of being generally known, or public; publicity.
Publico'la. See VALERIUS PUBLICUS.
Pub'lic-spir'ited, *a.* Having or exercising a disposition to advance the interests of the community; disposed to make private sacrifices for the public good. — Dictated by a regard to public good.
Pub'lic-spir'itedly, *adv.* With public spirit.
Pub'lic-spir'itedness, *n.* A disposition to advance the public good, or a willingness to make sacrifices of private interest to promote the common weal.
Pub'lish, *v. a.* [Fr. *publier;* Lat. *publico*, from *publicus.*] To make known to mankind, or to people in general, what before was private or unknown; to proclaim; to announce; to divulge. — To make known by posting or by reading in a church; as, to *publish* the banns of marriage. — To put forth or issue to the public, as a book, or an engraving; to print and offer for sale.
Pub'lishable, *a.* That may be published; fit to be published.
Pub'lisher, *n.* One who publishes or makes known what was before private or unknown. — One who publishes books; one who sends a book or writing into the world for common use; one who offers a book, pamphlet, &c., for sale.
Pub'lishment, *n.* Act of publishing; publicity. (R.) —An official notice of an intended marriage. (Local U. S.)
Puccin'ia, *n.* (*Bot.*) A genus of *Fungi*. The only noteworthy species is *P. graminis*, which produces the mildew of wheat. To prevent the growth of this and other parasitic fungi, wheat is often steeped in some poisonous solution before it is sown. A solution of sulphate of copper (blue vitriol) has been specially recommended for this purpose.
Puc'coon, *n.* (*Bot.*) See LITHOSPERMUM.
Puce, *a.* [Fr., from *puce*, a flea.] Of a dark-brown or brownish-purple color.
Pu'celage, *n.* [Fr., from *pucelle*, a maid.] A state of virginity.
Pucelle, *n.* [Fr.] A maid; a virgin.
Puelle', (La.) See JOAN OF ARC.
Pu'eeron, *n.* (*Zoöl.*) See APHIS.
Pu'elapas, *n.* (*Bot.*) See POGOSTEMON.
Puck, *n.* [Scot. *puck;* Icel. *puki*, a wicked sprite; Ir. *púca.*] (*Mediæval Myth.*) The "merry wanderer of the night," whose character and attributes are depicted in Shakspeare's *Midsummer Night's Dream.* This celebrated fairy is known by a variety of names, as *Robin Goodfellow* and *Friar Rush* in England, and in Germany as *Knecht Ruprecht;* but it is by his designation of *Puck* that he is most generally known in England, Germany, and the more northern nations. He was the chief of the domestic tribe of fairies, or *brownies*, as they are called in Scotland; and innumerable stories are told of his nocturnal exploits, among which drawing the wine and cleaning the kitchen while the family were asleep are the most prominent.
Puek'awa, or **Paeawa Lake,** in *Wisconsin*, an expansion of Fox river in Green Lake co.
Puek'-ball, *n.* (*Bot.*) A Puff-ball, *q. v.*
Puck'er, *v. a.* [O. Eng. *poke*, a bag or pocket; Fr. *poche.*] To gather into small folds or wrinkles; to contract into ridges or furrows; to corrugate.
—*n.* A fold or wrinkle; a collection of folds.
Puck'erer, *n.* The person or thing that puckers.
Puek'ery, *a.* Producing puckers.—Inclined to pucker.
Puek'-fist, *n.* A puff-ball;—used as a term of contempt.
Pud'dening, *n.* (*Naut.*) A thick wreath or circle of cordage fastened about a mast, between the trusses, to prevent the yards from falling down when the ropes by which they are suspended are shot away.
Pud'der, *n.* A tumult; a bustle. (Low.)
—*v. n.* To make a tumult; to cause a bustle.
—*v. a.* To perplex; to disturb; to confound.
Pud'ding, *n.* [Ger. and Dan. *pudding;* Fr. *boudin;* W. *poten*, a pudding.] A species of food of a soft or moderately hard consistence, variously made, but usually a compound of flour or meal of maize, with milk and eggs, sometimes enriched with raisins. *P.* of all kinds constitute an important part of the food in this country; but the *plum-pudding* is nowhere so extensively used as in Great Britain. It is the glory of an English dinner-table, and regarded as an essential on all festive occasions.
—Anything resembling a pudding.
(*Naut.*) Same as PUDDENING.
Pud'ding-headed, *a.* Dull; sluggish; stupid.
Pud'ding-pie, *n.* A pudding with meat baked in it.
Pud'ding-stone, *n.* A name sometimes given to a peculiar variety of conglomerato, consisting of pebbles, rounded by the action of water, cemented together with a large quantity of silicious paste. The pebbles within them bear a fanciful resemblance to the raisins in a plum-pudding; but the stones are generally much larger than raisins.
Pud'ding-time, *n.* The time of dinner; the time at which pudding, formerly the first dish, is set upon the table.
Pud'dle, *n.* [L. Ger. *peudel;* Ir. *boidhlia.*] A muddy plash; a small pool of dirty water. — A mixture of clay and sand worked together until they are impervious to water.
—*v. a.* To make foul or muddy; to pollute with dirt. — To make thick or close with clay, so as to render impervious to water; to convert iron by puddling.
Pud'dle, *v. n.* To make a dirty stir.
Pud'dler, *n.* One who puddles iron.
Pud'dle-rolls, *n. pl.* A pair of large, heavy rollers, with grooved surfaces, for flattening iron into bars.
Pud'dling, *n.* (*Metal.*) See IRON (MANUF. OF).
(*Civil Engin.*) The process by which wells, ponds, canals, &c., are lined with clay or loam impervious to water.
Pud'dly, *a.* Muddy; dirty; miry.
Pud'dock, *n.* A small inclosure. (Prov. Eng.)
Pudeu'cy, *n.* [Lat. *pudens*, from *pudere*, to be ashamed.] Modesty; shamefacedness.
Pudeu'da, *n. pl.* [Lat., from *pudendus*, from *pudere*, to be ashamed.] The genital organs.
Pudeu'dal, *a.* Relating or appertaining to the pudenda.
Pu'die, Pu'dieal, *a.* [Lat. *pudicus*, bashful, from *pudere*, to be ashamed.] Relating to the pudenda.
Pudie'ity, *n.* [Fr. *pudicité;* Lat. *pudicitia.*] Modesty; chastity.
Pud'sey, a township of England, co. of York, from Bradford. *Manuf.* Woollen goods.
Pueb'la, or LA PUEBLA, a S.E. state of Mexico, between Lat. 16° 20′ and 20° 15′ N., and Lon. 97° and 99° 15′ W.; *area*, 12,042 sq. m. *River.* Nasca River. *Surface*, mostly elevated, the central portion occupying a part of the Anahuac table-land. Popocatepetl, an active volcano and the highest mountain in Mexico, is within this state. *Chief towns.* La Puebla, the capital, Cholula, and Tehuacan. *Pop.* 997,788.
PUEBLA, (LA,) or LA PUEBLA DE LOS ANGELES. [Sp., "City of the Angels," from its delightful situation.] A city of Mexico, cap. of the above state, abt. 76 m. E.S.E. of the City of Mexico. It is regularly and handsomely built, and contains many elegant (chiefly religious) edifices. *Manuf.* Soap, glass, earthenware, &c. This town was besieged and taken by the French in 1863, after a long and glorious defence by the Mexicans under General Ortega. *Pop.* 75,000.
Pueb'la Peaks, in *New Mexico*, summits of the Sierra Madre, in Santa Aña co.; Lat. 36° 25′ N., Lon. 105° 40′ W.
Pueblo (*pweb'lo*), in *Colorado*, a S.E. central co.; *area*, about 2,400 sq. m. *Rivers.* Arkansas river, and Squirrel creek. *Surface*, somewhat diversified; *soil*, generally fertile. Iron, steel, and lead are largely mined, smelted, manufactured, and exported. *Cap.* Pueblo. *Pop.* (1897) 41,500.
Pueb'lo, or PUEBLO NUEVO, a town of Mexico. See TAMPICO.
Pueb'los Indians. The name of several semi-civilized tribes, residing in the W. part of New Mexico, receiving their name from residing in *pueblos*, or villages. They differ in many characteristics from the nomadic tribes, devoting their attention principally to the cultivation of the soil, and in raising large herds of cattle, horses, sheep, &c. They live in houses built of stone, or sun-dried brick, some of which are several stories in height, and they spin and weave cotton and wool, making blankets and other textile fabrics for domestic use. Their civilization dates back to a period anterior to the arrival of the Spaniards, and they still retain their ancient language, and many of their customs and superstitions, owing to their isolated position and manner of living. The earliest account we have of them is from Alvarado Nuñez (*q. v.*), who visited them on his journey from Florida to the Pacific between 1529 and 1538. He was followed by Marco de Niza in 1539, and by Coronado and Fernando Alarcon in 1540, all of whom speak of their advanced stages of civilization. They have now 20 pueblos, or villages, Zuni is the principal. Total p. 20,000. Recent explorations among their ruined towns, carved by the old cliff-dwellers out of the rocks for miles along the face of the cliffs, have brought to light one at least, which must have been the abode of 100,000 souls.
Pueblo Viejo, (*veeā'ho*) [Sp., Old Town.] A seaport-town of Mexico, abt. 6. m. S.E. of Tampico.
Pu'er, *n.* [Lat.] (*Law.*) In its enlarged sense, this word signifies a child of either sex: though in its restrained meaning, it is applied to a boy only—BOUVIER.
—A dog's dung, used as an alkaline steep for removing the lime from the pores, and destroying the grease in the skin, in order to fit it for receiving the tannin.
Puereo, (*pwer'ko,*) in *N. Mex.*, a river rising in Santa Aña co., flowing S. enters Rio Grande 15 m. ab. Socorro.
Pu'erile, *a.* [Fr. *puéril;* Lat. *puerilis*, from *puer*, a boy.] Characterized by puerility; boyish; trifling; childish.
Pue'rilely, *adv.* Triflingly; childishly.
Pue'rileness, Pueril'ity, *n.* [Fr. *puérilité;* Lat. *puerilitas.*] The manners or actions of a boy: that which is trifling: a thought or expression which is flat, insipid, or childish. — Boyishness; childishness.
Puer'peral, *a.* [Fr. *puerpérale;* Lat. *puerperalis*, from *puerpera*, from *puer*, a child, and *parere*, to bear.] Relating to parturition and its consequences.
P. Fever. (*Med.*) A fever attended by peritoneal inflammation, which comes on about the third day after delivery. The usual febrile symptoms are attended with great tenseness and tenderness of the abdomen; the milk disappears, and the bowels are usually affected by diarrhœa. It is most common in the autumn, and appears to be contagious. It is an alarming disease, and requires great promptitude and judgment in its treatment. It must be regarded as the result of contamination of the blood by animal poison generated in the system, and not as a local affection. This poison is probably produced by the decomposition of coagula or other material retained in the uterus. Bleeding, modified according to the circumstances of the case, calomel, saline sudorifics, and occasionally opium, to quiet pain and induce rest, are among the remedial means; but it often happens that great irritability of the stomach and bowels, or even incessant purging and vomiting, are predominant symptoms, and the fever assumes a typhoid character, in which case the system requires support from cordials.
Puer'perous, *a.* Parturient; bringing forth, about to bring forth, or having recently brought forth young.
Puer'to Bello, a seaport-town of the United States of Colombia, abt. 40 m. N.N.W. of Panama.
Puer'to Cabel'lo, a seaport-town of Venezuela, abt. 20 m. N.W. of Valencia.
Puer'to del Padre, a harbor on the N.E. coast of Cuba: Lat. 21° 17′ N., Lon. 76° 42′ W.
Puer'to de San'ta Mari'a, a seaport-town of Spain, prov. of Cadiz, at the mouth of the River Guadalete, 6 miles N.E. of Cadiz. *Manuf.* Linen and printed cottons. It is the entrepôt for the Xeres (sherry) wine. *Pop.* 18,000.
Puer'to Naran'jo, a harbor on the N.E. coast of Cuba, abt. 50 m. E. of Puerto del Padre.
Puer'to Principe, PORTO PRINCIPE, or SANTA MARIA DE PUERTO PRINCIPE, a city of Cuba, W. Indies, abt. 36 m. S.S.W. of Las Nuevitas, its port; *pop.* 54,000.
Puer'to Real, (*pwer'to ra-al',*) a seaport-town of Spain, prov. of Cadiz, on the Bay of Cadiz, 6 m. E. of the city of Cadiz. *Manuf.* Leather. *Pop.* 4,000.
Puer'to Rico. See PORTO RICO.
Puer'to Viejo, a town of Ecuador, abt. 85 m. N.N.W. of Guayaquil.
Puff, *n.* [Ger. and Dan. *puff;* Du. *pof.*] A sudden and single emission of breath from the mouth; a quick, forcible blast; a whiff. — Anything light and porous, or something swelled and light: a fungous ball filled with dust. — A tumid or exaggerated commendation.
—*v. n.* [Ger. *puffen;* Du. *poffen.*] To drive air from the mouth in a single and quick blast; to swell the cheeks with air. — To blow, as an expression of scorn or contempt. — To breathe with vehemence, as after violent exertion. — To swell with air; to inflate or dilate. — To do or move with hurry, agitation, and a tumid, hustling appearance.
—*v. a.* To drive with a blast of wind or air. — To swell; to inflate, as with pride. — To dilate with air; to blow up. — To drive with a blast in scorn or contempt. — To praise or commend extravagantly, or with exaggeration.
—*a.* Puffed up; proud; vain. (R.)
Puff-ball, *n.* A genus of fungi, which, when burst, emits dust-like seeds or spores.
Puff'-bird, *n.* (*Zoöl.*) The BARBET, *q. v.*
Puff'er, *n.* One who puffs; one who praises with noisy commendation. — One who attends a sale by auction for the purpose of raising the price and exciting the eagerness of bidders.
(*Zoöl.*) The Balloon-fish. See DIODON.
Puffery, *n.* Act of puffing; extravagant praise.
Puf'fin, *n.* [Fr.] (*Zoöl.*) The common name of the bird comprising the genus *Mormon*, of the Auk family. Four species or more belong to N. America. The Arctic Puffin, *M. arctica*, has a very large, singular looking bill, which has the appearance of a sheath slipped over both mandibles; it is curved towards the point, compressed vertically, and transversely furrowed on the sides; the chin and cheeks are white, bordered with gray, the latter much puffed up with feathers, which make the head look large and round. The crown of the head and upper part of the plumage are black, and a collar of the same color encircles the neck; the under parts are white, and the legs are orange. The Puffin can fly with great rapidity when once upon the wing. In tempestuous weather it takes shelter in the holes of caverns and rocks, or in those made by the rabbit on the beach, where it sits dozing, in snug security, till the return of calm weather; for they are unable to brave the storm. They live chiefly upon small crustaceans, sea-weed, &c., as it is said; but it is evident, from the structure and great strength of their bill, that they are able to crush and pluck out other kinds of shell-fish. The female deposits her single whitish-colored egg in a hole dug out and formed in the ground by her mate and herself. The *P.* are gregarious and migratory.

Fig. 2178. — ARCTIC PUFFIN.

Puffiness, *n.* State or quality of being puffy or turgid.
Puffingly, *adv.* Tumidly; with swell; with vehement breathing or shortness of breath.
Puf'fy, *a.* Swelled with air or any soft matter; tumid with a soft substance. — Turgid; bombastic.
Pug, *n.* (Contracted from *puck.*) A monkey, from his amusingly mischievous tricks. (Colloq.) — A little dog, with a face and nose like a monkey.
Puget, PIERRE, a celebrated French sculptor, painter, and architect, was B. in 1622, at Marseilles; resided for a considerable time at Genoa, but was recalled to France by Colbert; and D. there, in 1694. Many of his finest productions are at Genoa, but his colossal statue of Milo, and his Andromeda, are at Versailles.
Puget Sound, in *Washington*, an irregularly shaped inlet extending from the Strait of Juan de Fuca, with which it is connected by Admiralty Inlet, far into the interior. It is everywhere navigable for the largest vessels, which can lie close to the shores without need of docks.
Pug'ging, *n.* [Prov. Ger. *puken, pocker, peiken,* to

steal.] (*Arch.*) The coat of lime and hair, or chopped straw, laid upon the sound boarding, in order to resist the transmission of sound between one story and another.

Pugh, (*poo,*) *interj.* A word used in contempt or disdain.

Pugh'town, in *Pennsylvania*, a post-village of Chester co., abt. 68 m. E.S.E. of Harrisburg.

Pu'gil, *n.* [Lat. *pugillus, pugillum*, a handful; dim. of *pugnus*, a fist.] What is taken between the thumb and first two fingers.

Pugilism, (*pū'jil-izm,*) *n.* [Lat. *pugil*, a pugilist, from *pugnus*, the fist.] The practice of boxing or fighting with the fists. In the schools and by amateurs, it is practised with the gloves; in the prize-ring with the naked fists. Man being instinctively a pugnacious animal, and the fist being the simplest and most natural weapon, it may be taken for granted that pugilism, as a mode of settling differences, is coeval with man himself. It formed one of the earliest of the athletic games of the Greeks; and we find the Greek poets describing their heroes and gods as excelling in the *pugne*. *Boxing* for men was introduced in the Olympic games in the 23d Olympiad, and for boys in the 37th Olympiad. With the exception of a girdle about the loins, the ancient pugilists fought nude, precisely after the manner of the annexed illustration, copied from the antique, and showing the fashion in which they "settled their differences." There was one feature, however, which bore no analogy to the pugilism of modern days; this consisted in the use of *cæstus*, a weapon formed of thongs or bands of raw ox-hide tied round the hands, and frequently as high as the elbows, of the boxers. Even in its simplest and most primitive forms, it was a fearful weapon enough; but when "improvements" crept in, in the shape of knobs of lead or iron, and, still later, when it assumed the form of a disc of bronze, it came to be a murderous piece of mechanism, fraught with despair and death to the less skilful fighter. Both forms of the cæstus are shown in Fig. 2180. The original of the cæstus was found at Herculaneum. As the head was exposed to great danger through the use of the cæstus, *amphotides*, or armor for the head, by which the temporal bones, arterics, and ears were protected, were invented; altogether, they were not unlike helmets. Properly speaking, the ancient boxing appears to have had three distinct æras. In the first, practised during the heroic age, the head and hands were both naked; in the second, the hands were armed with bands of leather, while the head was left uncovered; in the third æra, the head was clothed with the amphotide, while the hands battled with the most deadly form of the cæstus. During the first and second periods, — the amphotides being apparently never used in the great public games of the Greeks, — the boxers stood before each other unflinchingly — he who possessed the greater skill standing on the defensive, and seeking to wear out his adversary; and the boxer who purchased victory without any wounds was held to be the better pugilist and the conqueror. Both ancient Greeks and Romans used the right arm chiefly in attacking, the left being reserved as a protection for the head and upper portions of the body. Owing to the employments of the bronze cæstus during the third æra of ancient boxing, blows were dealt with such force as to dash out teeth, break bones, and often to cause death. It was the weapon rather than the skill of the combatants that did this; anyhow, the disfigurements the ancient boxers underwent were such that frequently they were damaged beyond recognition by their friends, a fact which excited some rather grim raillery at the expense of the boxers on the part of the poets Lucian and Lucilius. But it is more than doubtful whether any ancient athlete could, with all his pugilistic paraphernalia, deliver so telling a blow as can a modern professor of the art with his naked hand, — clean, quick, effective, from the shoulder. Like all the other athletic games of the Greeks, boxing was regulated by certain rules; the principal of these was that the pugilist was bound to fight until wounds, fatigue, or despair compelled him to desist. Although the natives of the British Islands are said to be inherently prone to batter each other's person with the fist, as a mode of settling their private quarrels, still it was not until a century ago that pugilism came to be in a manner appropriated by the English. During the reigns of Elizabeth and James, and perhaps during the Restoration, we hear nothing of boxing, either as a national sport or as a national mode of defence. "Clubs," the rallying-word of the "flat-caps," or apprentices, were the weapons of the English artisan, mechanic, or peasant; the sword, of those whose rank entitled them to wear that distinctive feature of dress. Pugilism was, however, finally established in that country during the reign of the first monarchs of the house of Brunswick. Henceforth we find it the usual mode of deciding all disputes with the middle and lower classes, while noblemen and gentlemen practised it as the best system of gymnastics, as the best means of attack and defence, and as the best mode of making the body pliant, flexible, and firm. In America, as in England, the art has been brought down to the present day, through a succession of pugilistic champions, although now it is no longer universally admired and patronized as it was in the beginning of this century. Society now sets its face against the active and practical part of boxing, and occasionally magistrates imprison the pugilists and their "seconds" for a breach of the public peace. Boxing is brutal and debasing in the eyes of a majority of the modern community. Nevertheless, those who are the defenders of pugilism, and they are still numerous, allege that the prize-ring is guided by certain rules, to transgress which is regarded as infamous — as to strike below the waist, to strike a man when he is down, to bite, kick, or inflict any injury except with the shut hand; that it encourages individual, and consequently national, courage; that it conduces to a general sense and sentiment of fair play and honor; that it discourages and renders odious the use of the knife, stiletto, or of deadly weapons, setting aside those unmanly, barbarous, and savage practices which passion and motives of revenge might otherwise suggest; and lastly, that as it is not in the nature of man to submit tamely to injury, and as quarrels must arise between man and man which cannot be decided by law, the best way is to fight it out fairly, and then shake hands and become better friends than ever. Such are the views and arguments of those who advocate the use of the human hand as a weapon of defence or attack. In one thing we may all safely agree with the pugilist, — we may all learn from him with advantage the use of our hands, clothed after the manner termed "gloved." Boxing, as practised under a scientific teacher, and with the gloves on, ranks second to no other as a gymnastic exercise. It invigorates the frame by expanding the chest, and gives confidence and a quick eye to those who are of natural courage.

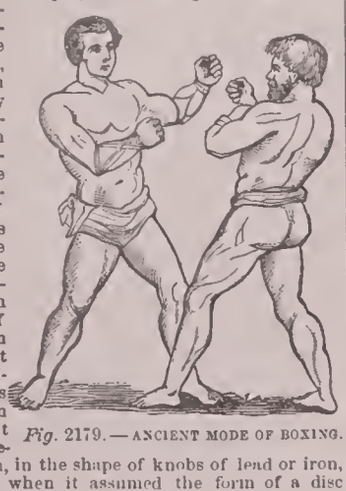


Fig. 2179. — ANCIENT MODE OF BOXING.

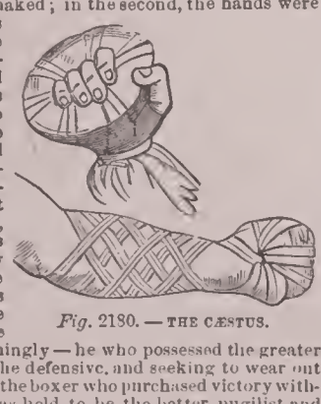


Fig. 2180. — THE CÆSTUS.

Pu'gilist, *n.* A boxer; one who fights with the fist.

Pugilis'ti, *a.* Pertaining to boxing, or fighting with the fist.

Pugin, AUGUSTUS WELBY NORTHMORE, an English architect, B. 1811, whose works on the Gothic architecture of the Middle Ages have had a powerful influence in promoting the last revival in the taste for Gothic form. D. 1852.

Pug'lia, (*Anc. Geog.*) See APULIA.

Pug'mill, *n.* A mill used by brickmakers for the purpose of thoroughly blending the materials. It is an upright cylinder, in the axis of which a shaft revolves having several knives projecting from it, arranged spirally round the arbor, so as effectually to knead and mix the mass of clay, which is finally forced through a hole in the bottom of the cylinder.

Pugnacious, (*-na'shus,*) *a.* [Lat. *pugnax, pugnacis*, from *pugnare*, to fight.] Disposed to fight; inclined to fighting; quarrelsome.

Pugna'ciously, *adv.* In a pugnacious manner.

Pugnac'ity, *n.* [Lat. *pugnacitas;* Fr. *pugnacité.*] Inclination to fighting; quarrelsomeness.

Pug'nose, *n.* A short and thick nose; a snub-nose.

Puh, *interj.* Same as PUGH, *q. v.*

Puisne, Puisny, (*pu'ny,*) *a.* [Fr. *puis*, since; Lat. *post*, and Fr. *né*, born.] (*Law.*) Small petty; inconsiderable; puny.

Puisne, *n.* One of an inferior rank. — An inferior judge.

Pu'issance, *n.* [Fr., from *pouvoir;* Lat. *possum, posse*, to be able.] Power; strength; might; force.

Pu'issant, *a.* [Fr.] Powerful; strong; mighty; forcible.

Pu'issantly, *adv.* In a puissant manner; powerfully; with great strength.

Pu'issantness, *n.* The state or quality of being puissant.

Puke, *v. n.* [Allied to Scot. *bok, bock.*] To vomit; to eject from the stomach.

—*v. a.* To vomit; to throw up.

—*n.* A vomit; a medicine which excites vomiting.

—*a.* [Lat. *picinus*, from *pix, picis*, pitch.] Of a color between black and russet, now called *puce.*

Puk'er, *n.* One who vomits or pukes. — Medicine causing a vomit.

Pulas'ki, CASIMIR, [Pol. *Kazimierz Pulawski,*] COUNT, a Polish patriot, and brigadier-general, who participated in the war of the American Revolution, B. in 1747. His father, a Polish nobleman, was the organizer of the celebrated Confederation of Bar, in hostility to Russia, and for the liberation of his country, in which Casimir eagerly joined, carrying on a desultory warfare with varied success, until the coalition of Russia, Austria, and Prussia completed the conquest of Poland. His father and brothers being killed, Casimir escaped with difficulty into Turkey, whence he proceeded by way of France to join the Americans, then fighting for independence, bearing recommendations from Franklin to Washington, whom he joined in 1777. Entering as a volunteer, he so distinguished himself at the battle of Brandywine as to be promoted by Congress to a cavalry command, with the rank of brigadier-general, which command, however, he resigned 5 months after, in 1778. He afterwards organized an independent corps of cavalry and light infantry, with which he rendered effectual service under General Lincoln, in South Carolina, in 1779, and in the siege of Savannah, Ga., where, in an assault upon the latter place, he was mortally wounded. D. in 1779.

Pulas'ki, in *Arkansas*, a central co.; *area*, abt. 1,200 sq. m. *Rivers.* Arkansas River, Big Mammelle Creek, Fourche Bayou, and Meto Bayou. *Surface*, pleasantly diversified; *soil*, fertile. *Min.* Silver, lead, granite, and slate. *Cap.* Little Rock (also the seat of State government).

Pulaski, in *Georgia*, a S. central co.; *area*, about 540 sq. m. *Rivers.* Ocmulgee river, and Cedar, Cypress, and Reedy creeks. *Surface*, level or undulating; *soil*, not very fertile. *Products.* Corn and cotton. *Cap.* Hawkinsville. *Pop.* (1897) 17,420.

Pulaski, in *Illinois*, a S. co., adjoining Kentucky; *area*, about 190 sq. m. *Rivers.* Ohio and Cache rivers. *Surface*, generally level; *soil*, in some parts very fertile. *Cap.* Mound City. *Pop.* (1897) 12,150.

—A village of Hancock co., located about 85 m. N.W. of Springfield.

Pulaski, in *Indiana*, a N.W. co.; *area*, about 430 sq. m. *River.* Tippecanoe river. *Surface*, generally level; *soil*, fertile. *Cap.* Winamac. *Pop.* (1897) 12,890.

Pulaski, in *Iowa*, a post-village of Davis co., abt. 8 m. S. E. of Bloomfield.

Pulaski, in *Kentucky*, a S. E. co.; *area*, abt. 650 sq. m. *Rivers.* Cumberland and Rock Castle rivers. *Surface*, hilly or mountainous; *soil*, fertile. *Min.* Iron, lead, and coal, all of superior qualities, and in great abundance. *Cap.* Somerset.

Pulaski, in *Michigan*, a post-township of Jackson county.

Pulaski, in *Missouri*, a S. central co.; *area*, abt. 500 sq. m. *Rivers.* Gasconade River, Robidoux Fork, Big Piney Fork, and Little Piney Creek. *Surface*, hilly; *soil*, generally fertile. *Cap.* Waynesville.

Pulaski, in *New York*, a post-village of Oswego co., abt. 150 m. W. N. W. of Albany.

Pulaski, in *Ohio*, a post-township of Williams co.

Pulaski, in *Pennsylvania*, a post-village and township of Lawrence county, abt. 10 miles northwest of Newcastle.

Pulaski, in *Tennessee*, a post-town, cap. of Giles co., about 75 m. S. of Nashville.

Pulaski, in *Virginia*, a S. W. co.; *area*, abt. 250 sq. m. *Rivers.* Kanawha, or New, and Little rivers. *Surface*, much diversified, being bounded N.W. and S. E. by ridges of the Alleghanies and Blue Ridge respectively; *soil*, generally fertile. *Min.* Iron in abundance. *Cap.* Newbern.

Pulaski, in *Wisconsin*, a village and township of Iowa co., abt. 28 m. N.N.W. of Mineral Point.

Pulaski Creek, in *Georgia*, enters the Ocmulgee River from Pulaski co.

Pulcheria, (St.,) ÆLIA, (*pul-kee'ri-a,*) empress of Constantinople, was daughter of Arcadius and Endoxia. She was born at Constantinople, 399, and governed the empire under the name of her brother, Theodosius, from the age of fifteen to the year 447, when she was disgraced. After the death of Theodosius, in 450, she was proclaimed empress, and ruled with Marcianus, whom she married, till her death, in 453. She was a woman of exemplary conduct, and has the credit of assembling the Council of Chalcedon in 451.

Pul'chritude, *n.* [Lat. *pulchritudo*, from *pulcher*, beautiful.] Beauty; grace; handsomeness; quality opposite to *deformity.* — Moral beauty or worth.

Pule, *v. n.* [Fr. *pleurer:* Lat. *pipilo*, to chirp, from *pipio, pipo*, to pip.] To cry like a chicken; to chirp. — To cry as a complaining child; to whimper.

Pul'er, *n.* One who pules; one who complains.

Pu'lex, *n.* [Lat.] (*Zoöl.*) See APHANIPTERA, and FLEA.

Pu'licene, *a.* [From Lat. *pulex, pulicis*, a flea.] Relating to, or abounding with fleas.

Pul'ing, *n.* A cry, as of a chicken; a whining.

Pul'ingly, *adv.* With whining or complaint.

Pulk'ha, *n.* A Laplander's travelling-sledge, made somewhat in the form of a boat. As it is very liable to upset, the traveller is strapped to it.

Pull, *v. a.* [A. S. *pullian, apullian*, to pull.] To draw violently toward one; — opposed to *push*, which is to drive from one.

—To tear; to rend. — To pluck; to gather.

Pulled and hauled, drawn here and there. — *To pull down*, to subvert; to demolish; to degrade; to bring down; as, *to pull down* the prond. — *To pull up*, to extirpate; to eradicate; as, "*pulling up* the old foundations of knowledge." (*Locke.*) — *To pull off*, to remove; to separate by pulling; as, *to pull off* a coat. — *To pull out*, to draw out.

—*v. n.* To give a pull; to draw: to tug.

To pull apart, to separate by pulling. — *To pull up.* To stop; to halt.

—*n.* Act of pulling or drawing with force; an effort to move by drawing toward one. — A contest; a struggle.

Pull'back, *n.* One who, or that which, keeps back; a drawback.

Pull'er, *n.* One who pulls.

Pul'let, *n.* [Fr. *poulet*, diminutive of *poule*, a hen, from Lat. *pullus.*] A young hen, or female of the domestic fowl.

Pul'ley, *n.; pl.* PULLEYS. [Fr. *poulie:* Lat. *polus;* Gr. *polos*, a pivot, a hinge, from *poleo*, to turn, to go about.] (*Mech.*) One of the six mechanical powers. The pulley

is a small wheel turning on an axis, with a rope or chain passing over it. The circumference is generally grooved to receive the rope, which is attached on the one end to the moving power, and on the other to the resisting force. Pulleys are of two kinds — *fixed*, and *movable*. The fixed pulley (Fig. 2181), gives no mechanical advantage, but is of great utility in altering the direction in which it may be applied. The movable, on the contrary (Fig. 2182), doubles the power, which may be increased in any ratio by adding to the number of pulleys.

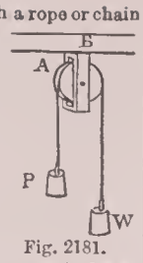


Fig. 2181.

So, in the system of pulleys (Fig. 2183), one end of each cord is fastened to a fixed support above; each cord descends, passes round a pulley (to the lowest of which the weight, W, is fastened), and is fastened to the block of the next pulley, with the exception of the last cord, which passes round a fixed pulley above, and is attached to the counterpoise, P. The tension of a string being the same in all its parts, the tension of every part of the string marked 1 is that which is produced by the weight of P, consequently, as the last movable pulley is supported on both sides by a string having a tension P, the tension applied in its support is 2P. The tension of the string marked 2 is therefore 2P, and the second moveable pulley is supported by a force equal to 4P. It may similarly be shown that the force applied by the strings marked 4 in support of the last pulley (which is attached to W), is 8P. Hence we see, that according to this arrangement, 1 lb. can support 4 lbs., if two movable pulleys are used; 8 lbs., if there are 3 movable pulleys; 16 lbs., if there are 4 movable pulleys; and if there are *n* movable pulleys, 1 lb. can support 2^n lbs. It must be noticed, however, that in practice, the weight of the chords, and of the pulleys, and the friction of the chord on the pulleys, must be allowed for; and the fact, that in this system all of these resist the action of the power P, and that to a large extent, has rendered it of little use in practice. The system of pulleys, of which two prevalent forms are represented in Figs. 2184, 2185, is much inferior in producing a mechanical advantage, but it is found to be much more convenient in practice, and is modified according to the purpose for which it is to be used. In this system, one string passes round all the pulleys, and as the tension in every part of it is that produced by the weight of P, the whole force applied to elevate the lower block, with its attached weight, W, is the weight P multiplied by the number of strings attached to the lower block; in Fig. 2184 W = 4P, and in Fig. 2185 W = 6P, the pulleys in the upper block being only of use in changing the direction of the pulling force. This system is the one in common use in architecture, in dockyards, and on board of ship, and various modifications of it — such as White's pulley, Smeaton's pulley, &c., have been introduced; but the simpler forms shown above have been found to answer best.

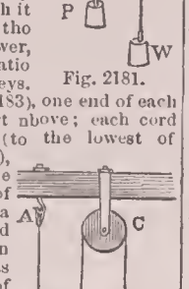


Fig. 2182.

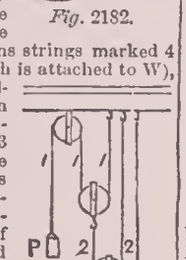


Fig. 2183.

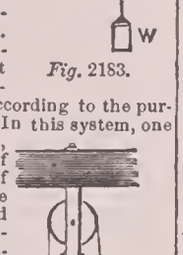


Fig. 2184.

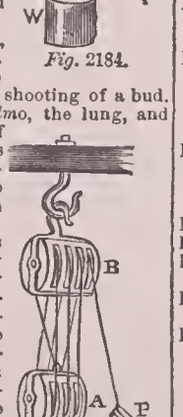


Fig. 2185.

Pul'ley, *v. a.* To raise with a pulley.

Pul'licat, Pul'licate, *n.* A kind of silk handkerchief.

Pul'lulate, *v. n.* [Lat. *pullulare*, from *pullulus*, a young animal; Fr. *pulluler*.] To germinate; to bud. (R.)

Pullula'tion, *n.* [Fr.] The first shooting of a bud.

Pul'monigrades, *n. pl.* [Lat. *pulmo*, the lung, and *gradi*, to walk.] (*Zoöl.*) A tribe of Acalephs, including those gelatinous species which swim by the contracting of the vascular margin of the disc-shaped body, when respiration also probably takes place.

Pulmona'ria, *n.* (*Bot.*) A genus of plants, order *Boraginaceæ*. They are perennial herbs, remarkable for the spotted leaves of some of the species, from which cause, and some reputed but wholly imaginary value in lung diseases, it was called Lungwort. It is also called Jerusalem Cowslip. The Pulmonaria are generally natives of Europe; but some species, as *Pulmonaria augustifolia* (Fig. 391), are cultivated in our gardens.

Pul'monary, *a.* [Fr. *pulmonaire*; Lat. *pulmonarius*, from *pulmo*, *pulmonis*, a lung.] Pertaining to the lungs; affecting the lungs.

Pul'monary, *n.* (*Bot.*) The English name of the genus PULMONARIA, *q. v.*

Pul'monates, Pulmonibran'chiata, Pulmonifera, *n.* (*Zoöl.*) A group of gasteropodous Molluscs, including those which breathe air, to which the blood is exposed while circulating through a vascular network lining the internal surface of the bronchial cavity.

Pulmon'ic, *a.* [Fr. *pulmonique*.] Pertaining to the lungs; affecting the lungs.

—*n.* A medicine for diseases of the lungs. — One affected by a disease of the lungs.

Pulmonif'erous, *a.* (*Zoöl.*) Having or producing lungs.

Pulp, *n.* [Fr. *pulpe*; Lat. *pulpa*, solid flesh, pulp of fruit; the pith of wood.] Any soft mass. — The soft substance within a bone; the marrow.

(*Bot.*) The juicy tissue found in the interior of plants. The term is applied in an especial sense to such tissue in fruits.

Pulp, Poulpe, *n.* (*Zoöl.*) The common name of the genus *Octopus*, including cephalopodous Molluscs, having eight *feet* or *arms*, nearly equal, united at the base by a membrane, and very long in proportion to the body. There is no shell, but it is represented by two small grains of horny substance imbedded in the back, one on each side. The arms are used for swimming in water, creeping on land, and seizing prey. *P.* swim by contractions of the muscular web of the body, which extends upon the arms. They creep on shore in a spider-like manner, with sprawling arms. Like other cephalopods, when alarmed or annoyed, they discharge an inky fluid. One species, *O. vulgaris* (Fig. 1829), common in the Mediterranean, is the *Polypus* of the ancients. Its arms are six times as long as its body, and each furnished with 120 pairs of suckers. In warmer seas, very large species occur; and although the stories related of their laying hold of and swamping boats, seizing and killing swimmers, &c., may probably be fabulous, yet it is certain that some of them have arms at least 30 feet long, and there is reason to believe that still larger ones exist, which are powerful and dangerous creatures. A *P.*, with its eyes fixed on its adversary, and its beak threatening to approach, undoubtedly has a very formidable aspect.

Pulp'iness, *n.* The state of being pulpy.

Pul'pit, *n.* [It. and Sp. *pulpito*; Lat. *pulpitum*, a platform of boards.] (*Arch.*) The raised part in a public building from which an oration is delivered; — especially in churches, an elevated stage or desk from which sermons are delivered (Fig. 2186). In ancient theatres, it was the higher part of the stage, on which the musicians stood.

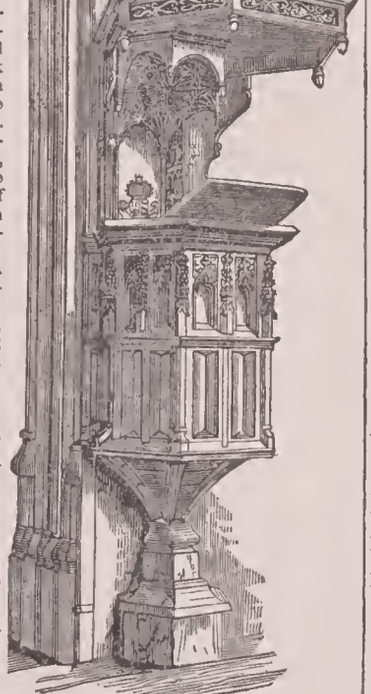


Fig. 2186.
PULPIT IN THE CHURCH OF FOTHERINGAY, England, (16th century.)

—*a.* Relating to a pulpit; as, *pulpit* eloquence.

Pulpiteer', *n.* A preacher; — in contempt.

Pul'pit-el'oquence, Pul'pit-or'atory, *n.* The eloquence or oratory of preachers.

Pulpit'ical, *a.* Suited to the pulpit. (R.)

Pul'pitish, *a.* Like the pulpit.

Pulp'ous, *a.* Consisting of pulp, or resembling it; soft, like pap.

Pulp'ousness, *n.* The quality of being pulpous.

Pulp'y, *a.* Like pulp; soft; fleshy; succulent.

Pulqué, (*pool'ka,*) *n.* [Sp.] See AGAVE.

Pul'sate, *v. n.* [Lat. *pulso*, *pulsalus*, from *pello*, *pulsus*, to push, to strike.] To beat or throb.

Pul'satile, *a.* [It.; L. Lat. *pulsatilis*.] That is or may be struck or beaten; played by beating, as a drum.

Pulsa'tion, *n.* [Lat. *pulsatio*, from *pulso*.] A throb or beat. — The beating or throbbing of the heart, or of an artery in the process of carrying on the circulation of the blood. — A stroke by which some medium is affected, as in sound, &c.

Pul'sative, *a.* [Fr. *pulsatif*.] Beating; throbbing.

Pul'satory, *a.* Beating; throbbing, as the heart.

Pulse, *n.* [Fr. *pouls*; Sp. *pulso*; Lat. *pulsus*, a beating, from *pello*, *pulsum*, to strike.] (*Physiol.*) The beating of the arteries, produced by the afflux of the blood propelled by the heart in its contractions. The pulse is usually felt by pressing the *radial artery* at the wrist; and the rapidity, regularity, and force of the circulation thus ascertained furnish an important criterion of the phenomena and progress of disease. The range of the pulse, as to *frequency*, in a healthy adult, is usually between 60 and 80; but there are persons whose pulses rarely beat 60 times in a minute, and others, not out of health, in whom the frequency exceeds 80. The pulse, in short, is extremely capricious; and before any correct inference can be drawn from it, the peculiarities of each individual require to be carefully considered. Slight mental afflictions, indigestion, irritability, and many other causes producing modifications of the pulse, do not admit of any general description. The terms *hard*, *full*, *soft*, and *wiry* pulse are used to indicate other obvious modifications independent of the number of pulsations. The average rate of the pulse of a healthy infant is, for the first year, from about 120 to 108; for the second year, from 108 to 90; for the third, from 100 to 80. From the seventh to the twelfth year the pulsations are about 70. When the pulse exceeds 140 beats in a minute, it is not easy to count it precisely; and to this it attains in some febrile diseases.

—The stroke by which a medium is affected, as in the motion of light, sound, &c.; oscillation; vibration.

To feel one's pulse. To try to know one's mind artfully.

—*v. n.* To beat, as the pulse.

—*n.* [Lat. *puls*, *pultis*; Gr. *pollos*, a thick pap of pottage.] Leguminous plants, or their seeds, as beans, peas, &c., which are contained in a case or pod.

Pulse'-glass, *n.* A tube of about a quarter of an inch diameter, and five or six inches long, with a bulb at each end, and about half filled with spirit of wine, care having been taken to expel the whole of the air before sealing the tube. When held in an inclined position, one of the bulbs being grasped in the hand, the ebullition of the included liquid causes the latter to rise and fall in the tube, or to *pulsate*.

Pulse'less, *a.* Having no pulsation.

Pulse'lessness, *n.* The state or quality of being pulseless.

Pulsif'ic, *a.* [Lat. *pulsus*, pulse, and *facere*, to make.] Causing pulsation, or exciting the pulse.

—*n.* (*Med.*) Any medical substance or agency which causes or excites pulsation.

Pulsim'eter, *n.* [Lat. *pulsus*, pulse, and *metrum*, measure.] (*Med.*) An instrument for measuring the quickness or force of the pulse.

Pulsion, (*pul'shun,*) *n.* [Lat. *pulsio*, from *pellere*, *pulsum*, to beat, strike.] The act of driving or of forcing forward; — in opposition to *suction* or *traction*. (R.)

Pultaceous, (*-ta'shus,*) *a.* [From Gr. *poltos*, porridge.] Macerated; softened; pappy.

Pult'ney, in *New York*, a post-township of Steuben co.

Pultney, in *Ohio*, a flourishing township of Belmont county.

Pultney'ville, in *New York*, a post-village of Wayne co., abt. 28 m. E.N.E. of Rochester.

Pultusk, or **Pultowsk,** (*pool-loosk',*) a town of Russian Poland, on an island formed by the Narew, 60 m. E.N.E. of Plock; *pop.* abt. 5,000.

Pu'lu, *n.* A kind of brown thistle-down, imported from the Sandwich Islands, to mix with silk in the manufacture of hats.

Pul'verable, *a.* Capable of being reduced to dust.

Pulvera'ceous, *a.* (*Bot.*) Pulveruleut.

Pul'verine, *n.* [Fr. *pulvérin*, from Lat. *pulvis*, *pulveris*, dust.] The ashes of barilla.

Pul'verizable, *a.* Capable of being pulverized.

Pulverizat'ion, *n.* [Fr.] Act of pulverizing, or of reducing to dust or powder.

Pul'verize, *v. a.* [Fr. *pulvériser*, from Lat. *pulvis*, *pulveris*, dust.] To reduce to dust or fine powder, as by beating, grinding, &c.

—*v. n.* To become powder; to fall to dust.

Pul'verous, *a.* [Lat. *pulverus*.] Consisting of dust or powder; like powder.

Pul'verulence, *n.* Dustiness; abundance of dust.

Pul'verulent, *a.* Dusty; consisting of dust or fine powder.

Pulvil'lio, Pulvil'lo. *n.* [Lat. *pulvillus*.] A small bag or cushion stuffed with perfumes.

Pul'villi, *n. pl.* [Lat.] (*Zoöl.*) The cushions of short hairs very closely set, or a membrane capable of being inflated, or very soft and concave plates, which cover the underside, or their apex, of the four first joints of the manus or tarsus, and sometimes even of the ends of the movable spines situated at the apex of the tibia, which act so as to produce a vacuum, and enable the insect to suspend itself, or walk against gravity.

Pul'vinate, Pul'vinated, *a.* [Lat. *pulvinatus*, from *pulvinus*, vine.] (*Arch.*) A frieze whose face is convex instead of plain is said to be *pulvinated*, from its supposed resemblance to the side of a cushion, which swells out when pressed upon.

Pu'ma, *n.* (*Zoöl.*) See PANTHER

Pum'icate, *v. a.* To smooth or polish with pumice. (R.)

Pumice, (*pum'is,*) *n.* [Lat. *pumex*, *pumicis*; It. *pómice*; Sp. *pomez*.] (*Min.*) A porous substance found in volcanic districts. It is a light spongy lava, of a whitish-gray color, and consists of silica and alumina, with certain per-centages of potash and soda. It is so light that it will float upon water. It is used by painters to smooth the surface of their work; it is also employed, in a powdered state, as a polishing material in different branches of trade.

Pumiceous, (*-mish'us,*) *a.* [Lat. *pumiceus*, from *pumex*.] Pertaining to pumice; consisting of pumice or resembling it.

Pum'ice-stone, *n.* Same as PUMICE, *q. v.*

Pum'mace, *n.* Same as POMACE, *q. v.*

Pum'mel, *n.* and *v. a.* Same as POMMEL, *q. v.*

Pump, *n.* [Fr. *pompe;* It. *pompa;* Ger. *pumpe;* Du. *pomp.*] (*Hydraul.*) In the ordinary acceptation of the term, a machine either for raising water or for forcing it through pipes. Occasionally pumps are used for dealing similarly with other aqueous fluids, their construction being slightly modified. Three kinds of pumps are used for raising water, the simplest of which is the suction- or household-pump. The *suction-pump* consists of a hollow cylinder of wood or metal, which contains a piston stuffed so as to move up and down in the cylinder easily, and yet be air-tight. A rod is attached to this piston, which reaches to the top of the cylinder at least, when the piston is at the bottom. There is a valve opening upwards in the piston, and another valve, also opening upwards, at the bottom of the cylinder; this valve covers the opening of a tube fixed in the bottom of the cylinder, and reaching to the well or reservoir from which the water has to be raised. Supposing the piston to be at the bottom, there can be very little air between it and the valves of the cylinder; for as the piston was pushed down, the valve in it would allow the air to escape. On raising the piston again, the pressure of the air causes the valve to remain closed; hence a vacuum is formed within the cylinder when the pistou is raised to the top. By this means the pressure on the valve in the cylinder is very much less than that of the atmosphere on the surface of the water in the reservoir; therefore the water will be pressed up the pump to a height not exceeding 32 or 33 feet. On lowering the piston again, the valve in the cylinder is closed, so that the water is prevented from returning; and the same operation being repeated, the water may be raised in any quantity to any height not exceeding 32 or 33 feet, the height of a column of water equal to the pressure of the atmosphere. The *lifting-pump*, like the suction-pump, has a piston and two valves, both opening upwards; but the valve in the cylinder is placed in the body of it, and at the height where the water is intended to be delivered, instead of at the bottom of the cylinder. The bottom of the pump is placed a considerable way into the well, and, supposing the piston to be at the bottom, as the valve opens upwards, there is no obstruction to the water rising in the cylinder to the height which it is in the well, since water always rises to its level. On raising the piston, the valve in it closes, and the water in the cylinder then opens, and the water passes through, and cannot return, as the valve opens outward. By another stroke of the piston the process is repeated, and the water is raised from the well. In the case of the lifting-pump, the height is not limited to 32 or 33 feet. The *forcing-pump* is unlike the two pumps just described. The piston has no valve, but there is a valve opening upwards at the bottom of the cylinder. Immediately above this valve, in the side of the cylinder, there is another valve opening outwards into a tube which is bent upwards to the height at which the water is to be delivered. On raising the piston, the valve in the bottom of the pump opens, and the water is pressed up into the cylinder, on the principle of the suction-pump. On pressing down the piston, the lower valve closes and the upper one opens, and the water is forced up the tube. When the piston is raised again, the upper valve shuts, retaining the water, and the lower valve opens. The same process is repeated, and the water is thrown out at every descent of the piston. In Fig 2187, we have these two pumps combined. The air is pumped out through the valves *S* and *O*, and the water is forced up into the cylinder through the pipe below, and the valve *S*, just as it was in the lifting-pump; and the water is then forced through the valve *O* and the pipe *D*, as in the force-pump, just described. In both these forms of force-pump, the water is driven out of the pipe *D* only when the piston is going down; but the discharge of water may be made continuous by the adjustment of an *air-vessel* or *air-chamber* fixed to the top of the eduction pipe, as may be seen in Fig 2188. In this and other varieties of pumps, an air-vessel is frequently fixed to the top of the eduction pipe, in order that the discharge of water may be continuous. This air-vessel consists of a box, in the bottom of which there is a valve opening upwards. This valve covers the top of the eduction pipe. A tube is fastened to the top of the box, which reaches nearly to the bottom; it rises out of the box, and is furnished with a stop-cock. When the water has been forced into the vessel by the action of the pump till it reaches the end of the tube, all communication is cut off from the external atmosphere, and every additional quantity of water forced into the vessel tends more and more to compress the air within it, which, pressing on the surface of the water, forces it upwards through the tube in a continuous stream. Large air-vessels are now employed in blowing-engines. The principle of the suction- and forcing-pump is applied in the case of the hydraulic press, and also of the fire-engine. The fire-engine differs from the models described, in the fact that the barrels dip into the water which is to be raised. Fig. 2188 represents a section of this machine. There are two solid pistons, P and P′, the rods of which are worked by a lever not shown in the figure. When the piston P′ is raised the valve *d′* opens, and water enters the barrel. When it is forced down, the valve *d′* closes, and water is forced through the valve *c′* into the larger air-chamber A. One end of the tube *a b* is near the bottom of the air-chamber, while the other fits into the roof, and

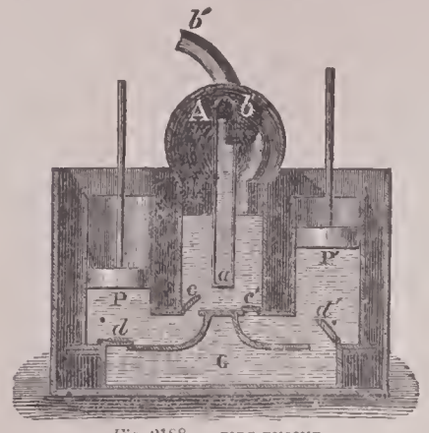


Fig. 2188. — FIRE-ENGINE.

on the outside of the roof there is a tube, *b b′*, to which the hose is attached. By means of the pressure which the compressed air in the chamber exerts on the water, a strong jet is forced through the delivery-tube, and can be sent in any direction. Both pistons are so fastened to the lever that when one is forced down the other rises, consequently water is being forced into the air-chamber without cessation. — The *chain-pumps* used in the navy consist of a continuous chain, to which are attached a series of pistons or buckets, for raising the water in a continual stream. Chain-pumps are used when a large quantity of water is to be raised, and must be worked rapidly. Pumps of various other descriptions are now in use, both in the navy and the merchant service. Besides the pumps mentioned, there are several other descriptions of machines used for raising water; such as *Archimedean screws, scoops, bucket-wheels, Persian-wheels, flush-wheels, rotary pumps,* &c. Rotary or centrifugal pumps are those in which a rectilineal vertical motion is given to the water to be raised, by means of a wheel rotating with great velocity in a close drum, and receiving its supply through the apertures in the side of the drum close to the axis.—See ARCHIMEDES' SCREW, AIR PUMP, &c.

—A shoe with a thin sole and low heel; a dancing-slipper.

—*v. a.* To raise with a pump, as water. — To draw out by artful interrogatories. — To examine by artful questions, for the purpose of drawing out secrets.

—*v. n.* To work a pump; to raise water with a pump.

Pump'-brake, *n.* The handle of a pump.

Pump'-dale, *n.* (*Naut.*) A tube, or trough, for carrying off water.

Pump'er, *n.* The person or the instrument that pumps.

Pumpet'-ball, *n.* (*Printing.*) A printer's ball for distributing ink on types; a pompet.

Pump'-hood, *n.* (*Naut.*) A short, semi-cylindrical frame of wood, for covering the upper wheel of a chain-pump.

Pump'kin, Pump'ion, *n.* (*Bot.*) See CUCURBITA.

Pu'na, or PU'NO, an island of Ecuador, in the Pacific Ocean, abt. 40 m. S.W. of Guayaquil; *area*, abt. 300 sq. m. The village of Puna, on the north shore, has a good harbor.

Pump'-spear, *n.* The bar to which the upper box of a pump is fastened, and which is attached to the pumping handle.

Pump'-stock, *n.* The body of a pump.

Pun, *n.* A play on words that agree or resemble in sound, but differ in meaning; an expression in which two different applications of a word present an odd or ludicrous idea; a kind of quibble or equivocation, that will be best understood by the two following examples: A Massachusetts lady complaining to a friend that her husband (whose business had taken him to the far West,) constantly sent her letters filled with expressions of endearment, but no money, was told, by way of comfort, that he was giving her a proof of his *unremitting* affection. — Two persons looking at a beggar-boy with an extraordinary large head — "What a tower!" cried the first. "Say, rather," replied the second, "what a *fort o' lice* (fortalice)."

—*v. n.* To play on words; to quibble; to use the same word at once in different senses.

—*v. a.* To persuade by a pun.

Punch, *n.* [Fr.; It. *punzone;* Sp. *punzon;* Fr. *poinçon.*] A pointed instrument of iron and steel used for piercing or perforating holes in plates of metal or other substances, and so contrived as to stamp out a piece. — A horse that is well set and well knit, having a short back and thin shoulders, with a broad neck, and well lined with flesh; as, a Suffolk *punch*. — A short, fat fellow; — used in contempt or ridicule.—A blow or thrust. (Colloq.)

—[Fr.; Ger. *punsch;* Sans. *panchan*, or *ponchon*, five.] A beverage introduced from India through Europe, and so called from being usually made of five ingredients — arrack, tea, sugar, water, and lemon-juice. As now prepared, punch may be described as a drink, the basis of which is alcohol, of one or more kinds, diluted with water, flavored with lemon or lime-juice and spices, and sweetened with sugar; sometimes other ingredients are added, according to taste, especially wine, ale, and tea. The mixture is usually compounded in a large china bowl made for the purpose, and is served out in glasses by means of a ladle. It is much more rarely seen now than formerly, which is not to be regretted, for a more unwholesome or intoxicating beverage could hardly be compounded.

—[Contracted from *Punchinello;* It. *pulcinella;* Fr. *polichinelle.*] One of the principal characters in a well-known puppet-show; one very popular in Europe, and still exhibited about the streets in England. According to Galiani, the name is a corruption of *Puccio d' Aniello*, a vintager, characterized by a very large nose and grotesque appearance, and remarkable for his wit and drollery. He subsequently went on the stage, and became extremely popular, and was personated all over the country. On being transported into Britain, the name became *Punchinello*, and for shortness *Punch*. The English puppet-show of "Punch and Judy" embodies a domestic tragedy, treated in a broadly farcical manner. Punch himself is represented as a short, obese personage, with an enormous hump on his back, a wide mouth, long chin, and hooked nose; and his wife *Judy* is in most respects his counterpart, while his dog *Toby* is an important character in the performance.

(*Lit.*) The title of a celebrated illustrated humorous periodical, published in London.

—*v. a.* To pierce or perforate with an iron instrument, either pointed or not. — To hit with the fist; to thrust against; as, to *punch* a man's head.

Punch'-bowl, *n.* A bowl in which punch is made, or from which it is drunk.

Puncheon, (*punch'un.*) *n.* [Fr. *poinçon.*] An iron or steel instrument, used for cutting, piercing, or stamping a body.

—A measure of liquids, or a cask containing sometimes 84, sometimes 120 gallons.

(*Arch.*) A short post; also the small quarters of a partition, above the head of a door.

Punch'er, *n.* One who punches. — A punch or perforating instrument.

Punchinel'lo, *n.* See PUNCH.

Punch'ing, *n.* The process of producing a hole in a piece of metal by direct pressure. This process can be applied only to the malleable metals, such as lead, zinc, copper, iron, &c., cast-iron or bronze being liable to break, or to produce a ragged edge, if so treated. — The action of piercing the plates by means of a drill must not be confounded with *punching*.

Punching-machine. The operation of punching holes through thick metal plates requires machinery of a very massive description, on account of the violent strains to which it is subjected; and the power of these machines being exerted only at intervals, it is necessary to apply some means of rendering the motion tolerably uniform, and thereby diminishing as much as possible the violence of the strain. This is effected by setting in motion a heavy fly-wheel, so that the power expended in giving a certain velocity to the wheel shall be stored up till the operation of punching commences, which tends to retard the motion; the accumulated power in the wheel will then tend to maintain the speed, and thus an approximation to uniform motion is obtained. The machine consists of a strong frame, at the front of which is a broad slide, moved vertically up and down by an eccentric fixed on the end of a shaft passing lengthwise through the frame; on this shaft there is a large wheel, which receives motion from a pinion on another shaft carrying the fly-wheel and driving pulleys. The punches, the number of which varies according to the size of the holes, are fixed in the lower end of the vertical sliding-piece, and immediately under them is fixed a piece of steel, called the *die*, which has holes in it to correspond with the punches. The plate in which holes are to be punched is fastened upon a travelling table in front of the machine; and the slide being up, and the surface of the table level with that of the dies, the part where the holes are to be punched is placed between the punches and the dies, so that when the machine is set in motion, the punches are forced through the plate by the action of the eccentric, and the pieces driven out fall through the holes in the dies; after the punches have risen above the surface of the plate, the travelling table is set forward to the required distance by self-acting apparatus, and the operation is repeated by the machine till the required number of holes has been punched.

Punch'y, *a.* Short and fat, or stout.

Punc'tate, Punc'tated, *a.* [From Lat. *punctum*, point.] (*Zoöl.*) Applied to a part which is beset with many points or minute impressions, which do not perforate the surface.

(*Bot.*) Being dotted with real or apparent minute holes, or with minute projecting dots.

Punc'tiform, *a.* [Lat. *punctum*, point, and *forma*, form.] (*Bot.*) That has the form of a point.

Punctilio, (*til'yo.*) *n.* [It *puntiglio*, from Lat. *punctum*, a point.] A nice point of exactness in conduct, ceremony, or proceeding; particularity or exactness in forms.

Punctilious, (*-til'yus,*) *a.* [It. *puntiglioso;* Fr. *pointilleux.*] Very nice or exact in the forms of behavior, ceremony, or mutual intercourse; very exact in the observance of rules prescribed by law or custom; sometimes, exact to excess.

Punctil'iously, *adv.* With exactness or great nicety.

Punctil'iousness, *n.* Nicety; exactness of behavior; ceremoniousness.

Punc'tion, *n.* [Lat. *punctio*, from *pungere*, to prick.] (*Surg.*) A puncture.

Punc'to, *n.* [It. and Sp. *punto.*] A nice point of ceremony. — The point in fencing.

Punctual, (*punkt'yu-al,*) *a.* [Lat. *punctus,* a point; Sp. *punctual;* Fr. *ponctuel.*] Consisting in a point. (R.) — Exact; observant of nice points. — Punctilious, particularly in observing time, appointments, or promises.— Accurate; minutely correct; done at the exact time.

Punc'tualist, *n.* A person who is very exact in regard to forms and ceremonies.

Punctual'ity, *n.* [Fr. *ponctualité.*] State or quality of being punctual; nicety; scrupulous exactness.

Punc'tually, *adv.* In a punctual manner; nicely; exactly; with scrupulous regard to time, appointments, promises, or rules.

Punct'ualness, *n.* Exactness; nicety.

Punctuate, (*punkt'yu-āt,*) *v. a.* [Fr. *ponctuer,* from Lat. *punctus.*] To mark with points; to designate sentences, clauses, or other divisions of a writing by points, which mark the proper pauses.

Punctua'tion, *n.* [Fr. *ponctuation;* Sp. *puntuacion.*] (*Gram.*) The act or art of pointing a writing or discourse; the art of dividing words and sentences by means of marks or points. *P.* is not, as some assert, a modern art, but was, in some measure at least, known and practised by the ancients. There is reason to believe that some system of punctuation was known to the Greeks in the time of Aristotle; and Jerome, in his translation of the sacred Scriptures, in the 4th century, made use of signs, which he called *commata* and *cola.* The invention of the modern system of punctuation has been attributed to Aristophanes, a grammarian of Alexandria; but it did not come into general use until after the invention of printing, the celebrated Venetian printers, Manutius, about the close of the 15th century, being the first to adopt it systematically. The principal points used in English composition are the comma (,), semicolon (;), colon (:), period (.), note of interrogation (?), note of exclamation or admiration (!), dash (—), and parenthesis ( ). Of these, the first four are marks of punctuation, strictly so called, regulating the length and character of the pauses to be made in reading; the others are chiefly rhetorical or syntactical aids, regulating the modulation of the voice. The *comma* marks the smallest division of a sentence, separating nouns, pronouns, verbs from verbs, and such other parts as are not necessarily joined together. The pause here is very short, and it may be remarked that sometimes the construction requires a comma where no pause is necessary in the reading, and *vice versâ*; as, "He was a man patient, sober, honest, and industrious," where, in reading, the pause ought to be after "man," but where the construction requires that there be no comma. The *semicolon* is used when a longer pause is required than at a comma, the disjoined parts being less closely connected; while with the *colon* the pause is still greater, being used when a member of a sentence is complete in itself, but is followed by some additional remark or illustration of the subject. A *period,* or full stop, is placed at the end of a sentence, to close up the sense and construction, and to release the voice. It is also used after every abbreviated word, after headings, titles of books, &c., and generally after Roman numerals. The note of *interrogation,* as its name implies, is placed at the end of every question; and in Spanish it is also put in an inverted form at the beginning of a question. The note of *exclamation,* or *admiration,* is placed at the end of such words or clauses as express any strong passion or emotion of the mind. The *dash* is used where the sentence breaks off abruptly, and the subject is changed, or where the sense is suspended, and is continued after a short interruption. The *parenthesis* incloses a word or phrase introduced into the body of a sentence with which it has no grammatical connection. Other marks in frequent use, and generally treated under the head of punctuation, though not strictly included in it, are the apostrophe ('), used to indicate the omission of a letter or letters, and also as a sign of the possessive case; the hyphen (-), placed between the constituent parts of a compound word, and at the end of a line where a word is divided; marks of quotation (" "), placed at the beginning and end of extracted passages and speeches, &c.; brackets or crotchets [ ], generally inclosing an explanatory phrase or passage inserted by one writer in a quotation from another; and the various marks of reference, as asterisk or (*), dagger (†), double-dagger (‡), section (§), parallel (‖), and paragraph (¶), or figures or letters smaller than those of the text, pointing to notes correspondingly marked at the foot or margin of the page, or at the end of the book.

Punc'tuative, *a.* Pertaining to punctuation.

Punc'tuator, *n.* A person who punctuates.

Punc'tuist, *n.* One who understands punctuation.

Punc'tum, *n.* [Lat.] A point.

Punctum cæcum. [Lat., blind point.] (*Med.*) A dark spot in the centre of the optic nerve, where the central artery enters the eye, and the corresponding vein passes out, and which receives no impression from the rays of light falling upon it.

Punctura'tion, *n.* The act of punctuating.

Puncture, (*punkt'yur,*) *n.* [Lat. *punctura,* from *pungere,* to pierce.] Act of perforating with a pointed instrument.—A small hole made by a point.

—*v. a.* To prick; to pierce with a small pointed instrument.

Punderpoor', a town of India, prov. of Bejapore, on the Beemah, 89 m. E. of Sattara; Lat. 17° 42′ N., Lon. 75° 26′ E.; *pop.* 25,000.

Pun'dit, Pan'dit, *n.* [Pers. *pand,* learning.] A name nearly equivalent to our word *doctor,* applied in Hindostan to a Brahmin who consecrates his life to the study of religion and science.

Pun'gence, *n.* Sharpness; pungency. (R.)

Pun'gency, *n.* The power of piercing or pricking; sharpness; acridness; power to pierce the mind, or to excite keen reflections or remorse, as of a sermon.

Pun'gent, *a.* [Lat. *pungens,* from *pungere,* to pierce.] Pricking; piercing; affecting the organs of sense, particularly those of taste or smell, with a pricking sensation, like that produced by vinegar or snuff.— Power to pierce the mind with a correspondent pricking sensation; keen; biting; stinging; as, a *pungent* retort.

(*Bot.*) Stinging or pricking.

Pun'gently, *adv.* In a pungent manner; acrimoniously.

Pun'gled, *a.* Shrivelled or shrunken, as grain which has been deprived of its juices by the insect called *Thrips cerealium.*

Pungoteague, (*pung-go-teeg',*) in *Virginia,* a post-village of Accomac co., abt. 12 m. S.W. of Accomac Court-House.

Pu'nic, *a.* [Lat. *punicus; Pœni,* the Carthaginians, who were descended from the *Phœnicians.*] Pertaining to the Carthaginians.—Faithless; treacherous; deceitful;—referring to vices that the Carthaginians were accused of practising.

Punic wars. (*Anc. Hist.*) The name given to the celebrated contests in which the Romans and Carthaginians were engaged for more than three centuries, and which finally terminated in the destruction of Carthage. The first commenced A. C. 264, and ended A. C. 241; the second lasted from A. C. 218 to A. C. 202; the third from A. C. 149 to A. C. 147, ending with the destruction of Carthage.

—*n.* The language of the ancient Carthaginians. It was a Phœnician dialect, and substantially the same as the Hebrew.

Pu'nica, *n.* (*Bot.*) A genus of plants, order *Myrtaceæ.* The Pomegranato (*P. granatum*) is the *Rimmon* of the Bible. It is repeatedly mentioned in the sacred writings. The fruit is peculiar, being composed of 2 whorls of carpels placed one above the other. It is the produce of a tree growing in N. Africa and W. Asia, and varying from 15 to 25 fee in height. The flowers are usually scarlet, and yield a red dye. The fruit is greatly valued in warm countries on account of its cooling and refreshing pulp. Many varieties are grown, some being sweet and vinous, and others acid, or of a bitter, astringent taste. It is generally about the size of the fist, and has a tough, leathery rind, of a beautiful deep golden color, tinged with red. The rind, especially that of the bitter kind, contains a large quantity of tannin, and is used for tanning the celebrated Morocco leather. Some double-flowered varieties are very beautiful garden shrubs. A peculiar principle, having the appearance of an oleo-resin, is obtained from the root of *Punica granatum,* and is called *Punicine,* or *Bulaustine.*

Pu'niness, *n.* Littleness; pettiness; smallness, with feebleness.

Pun'ish, *v. a.* [Fr. *punir,* from Lat. *punire,* to punish, from *pœna,* punishment.] To afflict with pain, suffering, loss, or calamity, as a penalty for a crime or fault. — To afflict with pain, &c., with a view to amendment; to chasten.—To reward with pain or suffering, inflicted on the offender, for an offence.

Pun'ishable, *a.* [Fr. *punissable.*] Worthy of punishment.—Liable to punishment; capable of being punished by law or right.

Pun'ishableness, *n.* The quality of deserving or of admitting punishment.

Pun'isher, *n.* One who punishes; one who inflicts pain, loss, or other evil for a crime or offence.

Pun'ishment, *n.* [Lat. *punire,* to punish.] Act of punishing.—Any pain or suffering inflicted on a person for a crime or offence by the authority to which the offender is subject, either by the constitution of God or of civil society.

(*Pol. Econ.*) The original idea of punishment was the infliction of pain on the offender corresponding to the amount of pain or suffering which he had inflicted upon others, in consequence of his offence. Hence arose the *lex taliomis,* or retaliatory principle of punishment, which demanded an eye for an eye, a tooth for a tooth, &c. With the spread of Christianity, it came to be seen that the infliction of pain as satisfaction for an offence was a vindictive proceeding, contrary to the spirit of Christianity, and that the proper end of punishment is not to avenge the past, but to prevent future offences. All punishment is an evil; and a penal system ought to aim at economizing pain by diffusing the largest amount of salutary terror at the smallest expense of actual punishment. The real objects of punishment may be classed as follows:—1. The interest of society, which must be subdivided into (*i*) its security from the injury to person or property occasioned by the crime, (*ii*) its moral and religious improvement. 2. The reformation of the offender. This is admitted as one of the ends of punishment by all writers; but Bentham and his followers regard it as such only so far as it conduces to the security of society by preventing the repetition of the offence. Those who embrace the other view regard it as an end, both on this account and also as the fulfilment of the duty of the state towards the offender himself. Considered in either view, it is clearly a secondary object only, the good of society being the first.—The security of society is attained by punishment in four ways: 1. By forcibly preventing the offender from repeating the offence, as by death, mutilation, or perpetual imprisonment. 2. By reforming the habits of the offender, and thereby taking away the desire to offend. 3. By deterring the offender from repetition by the fear of fresh punishment. 4. By deterring others through example. And this last is clearly the chief practical end of all legal inflictions.—On the subject of *capital punishment,* opinions have of late years undergone considerable modification. The argument which based the infliction of such punishment on an alleged divine command, supposed to be contained in Genesis, has been tacitly, if not avowedly, abandoned; and the argument from expediency has been more prominently brought forward in its stead. The gradual change of opinion on this subject is illustrated in Earl Russell's *Treatise on the English Government and Constitution.* In the first edition, published in 1825, Lord John Russell, while declaring that "there cannot be many offences to which capital punishment ought to be attached," asserted that "all wilful acts tending directly to inflict death ought to be punished with death"; and added that "murder, stabbing, shooting at, burning of dwelling-houses or buildings contiguous to dwelling-houses, and setting fire to the clothes of a person, are crimes of this description." In the introduction to the second edition, published in 1865, Earl Russell, while he still doubts not the right of a community to inflict such punishment, or the expediency of exercising that right in certain states of society, adds: "When I turn from that abstract right and that abstract expediency to our own state of society; when I consider how difficult it is for any judge to separate the case which requires inflexible justice from that which admits the force of mitigatory circumstances; how invidious the task of the secretary of state in dispensing the mercy of the crown; how critical the comments made by the public; how soon the object of general horror becomes the theme of sympathy and pity; how narrow and how limited the example given by this condign and awful punishment; how brutal the scene of the execution: I come to the conclusion that nothing would be lost to justice, nothing lost in the preservation of innocent life, if the punishment of death were altogether abolished."

Pu'nitive, *a.* Awarding or inflicting punishment.

Pu'nitory, *a.* Punishing; tending to punish.

Punjab', or **Punjaub',** an extensive region in the N.W. of Hindostan, comprising the country traversed by the "five great rivers," of which the Indus is the most westerly, and the Sutlej the most easterly; *area,* 78,000 sq. m. The surface is generally level and barren, though fertile along the river banks, and the climate tropical. *Rivers.* Indus, Chenaub, Jhilum, Beas, Ravee, and Sutlej. *Prod.* Grain of all kinds, with opium, indigo, and tobacco and fruits. *Min.* Rock-salt, alum, sulphur, nitre, coal, and gypsum. *Manuf.* Silk and cotton fabrics, carpets, shawls, and arms. *Chief towns.* Lahore, the cap., Umritsur, Serinagur, Mooltan, Peshawur, Jullinder, and Jelalpoor. *P.* derives its name from two Persian words, signifying the "five rivers." It was the scene of the exploits of Alexander the Great over Porus. It became an independent kingdom, under Runjeet Singh, in 1791. It was annexed to the British possessions in 1849. *Area,* 107,010 sq. m. *Pop.* (census of 1891) 20,866,847.

Punjab', Punjaub', in *Mo.,* a p.-v. of St. Genevieve co.

Punk, *n.* A kind of fungus or decayed wood, used as tinder.

—A prostitute; a strumpet.

Punk'ah, *n.* [Hind., *pankha.*] A fan held in the hand, or suspended from the ceiling. (India.)

Pun'ner, *n.* A punster; a quibbler.

Pun'net, *n.* A small, round, and shallow basket for fruit.—*Simmonds.*

Pu'no, a S.E. dept. of Peru, adjoining Bolivia, between Lat. 14° and 18° S., and Lon. 69° and 72° W.; *area,* abt. 21,540 sq. miles. Lake Titicaca, formerly famous for its rich silver mines, occupies the E. portion of the dept. *Chief towns.* Chuquito, Asangaro, Lampa, and Puno, the cap. The latter is a handsome city, situated 12,870 feet above the sea, abt. 130 m. E.N.E. of Arequipa. *Pop.* of town 10,000; of the dept. 300,000.

Pun'ster, *n.* One who puns, or is skilled in punning; a quibbler; a low wit.

Punt, *v. n.* [Fr. *ponter;* It. *pontare,* from Lat. *punctum,* point.] To play at basset, faro, or ombre.

—*n.* [Sp. *pontón;* Lat. *ponto,* from *pons, pontis.*] (*Naut.*) A flat-bottomed boat used in calking and repairing ships, or in fishing.

Pun'ta de Pied'ra, a seaport-town of Venezuela, abt. 70 m. E. of Cumana.

Pun'ta Espa'da, a headland at the E. end of the island of Hayti, W. Indies, Lat. 12° 4′ N., Lon. 71° 10′ W.

Pun'ta Ma'la, a cape of the Republic of Colombia, forming the W. boundary of the Bay of Panama.

Pun'tas Are'nas, ("Points of sand,") a seaport-town of Costa Rica, Central America, on the Gulf of Nicoya, abt. 40 m. N.N.W. of San Jose.

Punt'er, *n.* [Fr. *ponteur, ponte.*] One who plays at faro or basset, with the keeper of a faro bank.

Punto, *n.* [It., from Lat. *punctum,* a point.] (*Fencing.*) A point.—*Punto dritto,* a direct stroke.—*Punto reverso,* a back-handed stroke.

Punty, *n.* Same as Pontee, *q. v.*

Punxutaw'ney, in *Pennsylvania,* a post-borough of Jefferson co., on 2 R.Rs., 45 m. N. W. of Altoona.

Pu'ny, *a.* [Contracted from Fr. *puisné.*] Inferior; petty; of an under rate; small and feeble.

Pup, *v. n.* [Ger. *puppe,* a doll; Fr. *poupon,* a pretty, plump child; Lat. *pupus,* a boy.] To bring forth whelps or young, as the female of the canine species.

—*n.* A puppy; as, a bull-*pup.*

Pu'pa, *n.; pl.* Pupæ. (*Zoöl.*) Same as Chrysalis, *q. v.*

—Also, a genus of land-snails, so called from the resemblance of the shell to the pupa of an insect.

Pupe, *n.* Same as Pupa, *q. v.*

Pupe'lo, *n.* Cider brandy. (Local U. S.)

Pu'pil, *n.* [Fr. *pupille;* Lat. *pupilla.*] (*Anat.*) The

aperture of the iris, through which the rays of light pass that have to impress the image of an object on the retina.—See EYE.

Pin-hole pupil. (*Med.*) A condition of the pupil in typhus, in which it is so contracted as to resemble a pin-hole.

—*n.* [Lat. *pupillus*, from *pupus*, a child.] A youth or scholar of either sex under the care of an instructor or tutor.

—A ward; a youth or person under the care of a guardian.

Pu'pilage, *n.* State of being a pupil or ward; state of being a scholar, or under the care of an instructor for education and discipline; wardship; minority.

Pu'pillary, *a.* [Fr. *pupillaire*; Lat. *pupillaris.*] Pertaining to a pupil or ward.

(*Anat.*) That which belongs to the pupil.

Puplp'erous, *a.* (*Zoöl.*) Applied to insects which produce their young in the condition of a pupe or nymph.

Puplv'erous, *a.* [Lat. *pupa*, and *vorare*, to devour.] (*Zoöl.*) Applied to insects of which the larvæ live parasitically in the interior of the larvæ and pupæ of other insects.

Pup'pet, *n.* [Fr. *poupée*; Lat. *pupulus*, from *pupus*, a boy.] A doll; a small image in the human form.—A small figure in the human form, moved by a wire in a mock drama; a tantoccins figure.

—A word of contempt, used of a person who is under the control of another; a tool.

(*Mech.*) Same as POPPET-HEAD, *q. v.*

Pup'petish, *a.* Resembling a puppet.

Pup'pet-man, Pup'pet-master, *n.* The master of a puppet-show.

Pup'pet-play, *n.* A puppet-show.

Pup'pet-player, *n.* The person who manages the puppets in a show.

Pup'petry, *n.* An action resembling that of a puppet; pretended emotion or affection; form; display.

Pup'pet-show, *n.* A mock drama, performed by puppets moved by wires.

Pup'py, *n.* [Fr. *pupée*, a doll.] A whelp; one of the young progeny of a bitch, or female of the canine species.—Applied to persons, a name expressing extreme contempt, commonly used of one who is conceited.

—*v. n.* To bring forth pups or whelps.

Pup'pyism, *n.* Extreme meanness; extreme affectation or conceit; snobbery.

Pur, *v. n.* To utter a low, murmuring, continued sound, as a cat.

—*v. a.* To signify by purring.

—*n.* The low, murmuring, continued sound of a cat. (Written also *purr.*)

Puracé, a volcanic mountain-peak of the Andes in the Republic of Colombia, about Lat. 2° 20′ N. *Height*, 17,034 feet. The village of Puracé, or Pusambio, situated about 12 m. E.S.E. of Popayan, was almost totally destroyed by an eruption in 1827.

Purä'na, *n.*; *pl.* PURÄNAS. [Sans., a poem.] The sacred books of India which contain the explanation of the *Shaster*. There are eighteen books of the Puränos, chiefly filled with legends of the inferior gods and the heroes of Hindostan. Much doubt is entertained as to the great antiquity of the Puränas.

Pur'beck Beds, *n. pl.* (*Zoöl.*) A compact shelly limestone or imperfect marble, alternating with clay and fossil limestones, resting on the Portland beds, and forming the uppermost group of the great series of the oölites in England.

Pur'blind, *a.* Dim-sighted, so as to require to look near and steadily at an object in order to see it properly; near-sighted; seeing obscurely.

Pur'blindly, *adv.* In a purblind manner.

Pur'blindness, *n.* Shortness of sight.

Pur'cell, an island in the Pacific Ocean, off the W. coast of Patagonia; Lat. 46° 55′ 20″ S., Lon. 74° 39′ 55″ W.

Pur'chasable, *a.* That may be purchased, bought, or obtained for a consideration.

Pur'chase, *v. a.* [Fr. *pourchasser*; It. *procciare*, to get.] To obtain, as the object of pursuit; to gain, obtain, or acquire.—To buy; to obtain, as property, by paying an equivalent in money.—To obtain by an expense of labor, danger, or other sacrifice.

(*Law.*) The acquisition of lands or tenements by any other means than descent; as by devise, gift, or contract.

—*v. n.* To gain some mechanical advantage; to raise or move heavy bodies by means of mechanical powers.

—*n.* Act of purchasing anything.—Act of obtaining or acquiring the title to anything by rendering an equivalent in money.

(*Law.*) Act of obtaining or acquiring the title to lands and tenements by money, deed, gift, or any means except by descent.—Anything of which the property is obtained by giving an equivalent price in money.—Any mechanical hold, advantage, power, or force, applied to the raising or removing of heavy bodies.

Pur'chaser, *n.* One who obtains or acquires property, or anything, by paying an equivalent in money.

(*Law.*) A person who takes or comes into an estate in any other manner than by inheritance.

Pur'dy, in *Tennessee*, a post-town, former cap. of McNairy co., about 138 m. W.S.W. of Nashville.

Pur'dy Creek, in *New York*, a post-village of Steuben co., abt. 22 m. W.S.W. of Bath.

Pur'dy's Sta'tion, in *New York*, a post-village of Westchester co., abt. 50 m. N.N.E. of New York.

Pure', *a.* [Fr. *pur*; Sp. and It. *puro*; Lat. *purus.*] Clear; free from all heterogeneous or extraneous matter.—Free from all moral defilements; not sullied or tarnished by moral turpitude; unspotted; uncontaminated; innocent; virtuous; chaste; guiltless.—Mere; absolute; that, and that only; unconnected with anything else; sheer.

Purée, (*pu-ra'*) *n.* [Fr., from *pur*, pure; the pure liquid soup, with no solid part.] A soup made of peas, &c., or other leguminous plants.

Pure'ly, *adv.* In a pure manner; entirely separated from heterogeneous or foul matter; innocently.—Merely; absolutely; without connection with anything else.—Nicely; prettily. (Colloq.)

Pure'ness, *n.* State or quality of being pure; clearness; separation or freedom from any heterogeneous or foreign matter; freedom from moral turpitude and guilt.

Pur'fled, *p. a.* [O. Fr. *pourfiler*, from *pour*, for, and *fil*, a thread.] Embroidered.—(*Arch.*) Richly sculptured.—(*Her.*) A term used with reference to the lining, bordering, or garnishing of robes, or ornamentation of armor.

Pur'fle, Pur'flew, *n.* A border of embroidery.

Purga'tion, *n.* [Lat. *purgatio*, from *purgo*, to cleanse.] Act or operation of purging, or of clearing, cleansing, or purifying, by separating and carrying off impurities, or whatever is superfluous.

(*Law.*) The clearing of one's self of an offence charged, by denying the guilt on oath or affirmation.

Pur'gative, *a.* [Lat. *purgativus.*] Having the power of purging or of cleansing; cathartic.

—*n.* (*Med.*) A medicine which operates more powerfully on the bowels than a laxative, stimulating the muscular, and exciting increased secretion from the mucous coat.

Pur'gatively, *adv.* In a purgative manner; cleansingly.

Purgato'rial, Purgato'rian, *a.* Pertaining to purgatory.

Purgato'rian, *n.* One who believes in the doctrine of purgatory.

Pur'gatory, *a.* Tending to purge or cleanse; cleansing; expiatory.

—*n.* [L. Lat. *purgatorium*, from Lat. *purgatorius.*] (*Eccl.*) The name given in the Roman Catholic and in the Greek churches to a place of purgation, in which, according to their religious system, souls after death either are purified from venial sins (*peccata venalia*), or undergo the temporal punishment which, after the guilt of mortal sin (*peccata mortalia*) has been remitted, still remains to be endured by the sinner. The ultimate eternal happiness of their souls is supposed to be secured; but they are detained for a time in a state of purgation, in order to be fitted to appear in that Presence into which nothing imperfect can enter. As there is some obscurity and much misunderstanding on this subject, we shall briefly explain the doctrine of Catholics as collected from authentic sources, distinguishing those things which are held by them as "of faith" from the opinions which are freely discussed in their schools. Catholics hold as articles of their faith (1) that there is a purgatory in the sense explained above, and (2) that the souls there detained derive relief from the prayers of the faithful and from the sacrifice of the mass. The scriptural grounds alleged by them in support of this view are 2d *Macc.* xii. 43–46 (on which they rely, not merely on the supposition of its being inspired, but even as a simple historical testimony), *Matt.* xii. 32, 1 *Cor.* iii. 11–15, 1 *Cor.* xv. 29; as well as on certain less decisive indications contained in the language of some of the Psalms—as xxxvii. (in *Auth. Vers.* xxxviii.) 1, and lxv. 12. And in all these passages they argue not alone from the words themselves, but from the interpretation of them by the Fathers, as containing the doctrine of a purgatory.

Pur'gatory River, in State of *Colorado*, rises in the S.W. angle of Huerfano co., and flowing N.W. enters Arkansas River a few m. above Fort Lyon.

Purge, (*purj.*) *v. a.* [Fr. *purger*; Lat. *purgo*, from *purum ago*, to make clean.] To cleanse or purify by separating and carrying off whatever is impure, heterogeneous, foreign, or superfluous.—To clear from guilt or moral defilement.—To remove, as that which is offensive; to sweep away, as impurities;—frequently followed by *away*.—To clarify, as liquors.

(*Law.*) To clear from accusation, or the charge of a crime, as in ordeal.

—*v. n.* To become pure by clarification.—To have frequent or preternatural evacuations from the intestines by means of a cathartic.

—*n.* A medicine that purges or evacuates the intestines; a cathartic.—Act of purging.

Pur'ger, *n.* The person or thing that purges;—particularly a cathartic medicine.

Purg'ing, *n.* A diarrhœa or dysentory; preternatural evacuation of the intestines; looseness of the bowels.

Purg'ing-flax, *n.* (*Bot.*) The *Linum catharticum*, a species of flax, so called from its being used as a cathartic medicine.

Purificacion', a town of Mexico, abt. 95 m. W.N.W. of Colima.

Purificacion', a town of the Republic of Colombia, about 72 m. S.W. of Bogota.

Purifica'tion, *n.* [Fr.; Lat. *purificatio.*] The act of purifying; act or operation of separating and removing from anything that which is heterogeneous or foreign to it.—Act or operation of cleansing ceremonially, by removing any pollution or defilement.—A cleansing from guilt or the pollution of sin; the extinction of sinful desires, appetites, and inclinations.

(*Eccl.*) An observance enjoined on the Jews upon occasion of certain accidental defilements, which are scrupulously recorded in the Levitical code. The *P.* was generally by water; and in the case of women, who were considered impure after childbirth for the space of forty days, if delivered of a male, and eighty, if of a female, the offering of a lamb or some other sacrifice was required.—The *P.* of the Virgin Mary is a festival in the Roman calendar, and is observed on Feb. 2d, being forty days after Christmas. This festival is variously termed in the ecclesiastical antiquities by the names of *Festum Candelarum*, *Candlemas*, and the *Presentation*. The processions of this day were instituted by Gregory the Great.

Purifica'tor, *n.* A purifier; one who cleanses or purifies.

Purificatory, *a.* Purificative; having the power or tendency to make pure.

Pu'rifier, *n.* A cleanser; a refiner.

Pu'riform, *a.* [From Lat. *pus*, *puris*, and *forma*, a form.] (*Med.*) Having the appearance of pus.

Pu'rify, *v. a.* [Fr. *purifier*; Lat. *purificare*, from *purus*, pure, and *facere*, to make.] To make pure or clear; to free from extraneous admixture.—To free from pollution ceremonially; to remove, as whatever renders unclean and unfit for sacred services.—To free from guilt or the defilement of sin.—To free from improprieties or barbarisms.

—*v. n.* To grow or become pure or clear.

Pu'rim, *n.* [Heb. *pur*, pl. *purim*, a lot, a Persian word.] (*Judaism.*) The name of the solemn festival among the Jews, in which they commemorate their deliverance from the wiles and stratagems of Haman, as recorded in the book of Esther. The observance of this festival has been religiously maintained by all the Hebrew race down to the present time. It is a movable feast.

Pur'ism, *n.* [Fr. *purisme.*] Practice or affectation of rigid purity; niceness in the use of words; asceticism in taste.

Pur'ist, *n.* One excessively nice in the use of words, &c.

Pu'ritan, *n.* (*Eccl. Hist.*) The name by which the dissenters from the Church of England were generally known in the reign of Elizabeth and the first two Stuarts. The term was applied to them from the fact that they professed to follow the word of God alone, purified from all human inventions, of which they believed the English Church to retain a considerable share, notwithstanding its alleged reformation. According to Fuller, the use of the name commenced about 1564.

—One who pretends to eminent purity of religion;—used in contempt, or reproachfully.—A sympathizer with the early Puritans.

—*a.* Pertaining to the Puritans, or early dissenters from the Church of England.

Puritan'ic, Puritan'ical, *a.* Pertaining to the Puritans, or their doctrines and practices; as a term of reproach,—exact, rigid.

Puritan'ically, *adv.* In a puritanical manner; with the exact or rigid notions or manners of the Puritans.

Pu'ritanism, *n.* The notions or practices of Puritans.

Pu'ritanize, *v. n.* To agree with or accept the notions of Puritans.

Pu'rity, *n.* [Lat. *puritas*, from *purus*, pure; Fr. *pureté.*] State or quality of being pure; freedom from foreign admixture or heterogeneous matter.—Cleanness; freedom from foulness or dirt.—Freedom from guilt or the defilement of sin; innocence; chastity.—Freedom from any sinister or improper views.—Freedom from foreign idioms, or from barbarous or improper words or phrases.

Purl, *n.* An embroidered and puckered border.—Malt liquor medicated with wormwood or aromatic herbs;—probably so named from its foaming like water running through stones.—A gentle, continued murmur of a small stream of rippling water.—A ripple; a circle made in a fluid.

—*v. n.* To murmur, as a small stream flowing among stones or other obstructions, which occasion a continued series of broken sounds.—To flow or run with a murmuring sound.

—*v. a.* To decorate with fringe or embroidery.

Purlieu, (*pur'lu,*) *n.* [Fr. *pur*, pure, and *lieu*, place.] Originally, a place or piece of land bordering on a forest, which was made pure or free from the laws of the forest.—A border; a limit; a certain limited extent or district; environs.

Pur'lin, Pur'line, *n.* (*Arch.*) One of the horizontal pieces of timber which rest on the principals, or main rafters of a roof, and support the common rafters. See ROOF.

Purl'ing, *n.* A gentle murmuring, as of a stream.

Purloin', *v. a.* [Fr. *pour*; Lat. *pro*, for, and Fr. *éloigner*, to remove.] To remove for one's self; to steal; to take by theft.—To take by plagiarism; to steal from books or manuscripts.

—*v. n.* To practice theft.

Purloin'er, *n.* A thief; a plagiary.

Pur'neah, a town of British India, presidency of Bengal, on the Ganges, 230 m. N.W. of Calcutta; Lat. 25° 45′ N., Lon. 88° 23′ E.

Pur'party, Pour'party, *n.* [O. Fr. *pourpartie*, from *pour*, for, and *partie*, a part.] (*Law.*) A part or portion of an estate allotted to a coparcener by partition.

Purple, (*pur'pl,*) *n.* [Fr. *pourpre*; Lat. *purpura*, from Gr. *porphura*, the purple-fish.] The third and last of the secondary colors, is composed of red and blue, in the proportions of five of the former to eight of the latter, which constitutes a perfect purple. The color was in such high estimation among the ancients, particularly the Romans, that it became the badge of their highest offices, and at length was confined to the imperial use, and used to denote sovereignty. The celebrated Tyrian purple was obtained from an animal juice found in a shell-fish called *murex*, or *conchylium*, the quality of which, however, varied with the different coasts on which it was caught. See MUREX.

—*pl.* (*Med.*) Circular, livid spots on the skin, of different sizes, often in stripes or patches, irregularly scattered over the thighs, arms, and trunk, with occasional hæmorrhage from the mouth, nostrils, or viscera, and great debility and depression of spirits.—*Dunglison.*

Purple of Cassius. (*Chem.*) A precipitate obtained by adding the protochloride of tin to a dilute solution of gold; by dipping rods of tin in a solution of gold in dilute chlorohydric acid.

—*a.* Designating a much-admired color composed of red and blue blended. — Red or livid; dyed with blood. — Regal; imperial; — from being worn by the Roman emperors and those in authority.

—*v. a.* [Lat. *purpurare.*] To make purple, or to dye of a red color.

Pur'ple Sea Suail, *n.* (*Zoöl.*) See JANTHINIDÆ.

Pur'ple-wood, *n.* (*Bot.*) The wood of the *Copaiba publiflora* of Ginona; exteusively used for making the ramrods of muskets.

Pur'plish, *a.* Somewhat purple.

Pur'port, *n.* [Fr. *pour*, for, and *porter*, to carry.] Design or tendency; teuor; meaning; import; signification.

—*v. a.* To intend to show; to intend; to mean; to signify.

Pur'portless, *a.* Without meaning or design.

Pur'pose, *n.* [Fr. *propos*; Lat. *propositum*, from *propono*, from *pro*, before and *pono*, *positum*, to place.] That which one sets before himself as an object to be reached or accomplished; the end or aim to which the view is directed in any plan, measure, or exertiou; intention; design.

—*v. a.* To intend; to design; to resolve.

—*v. n.* To have an intention; to have a design; to determine on some end or object to be accomplished.

Pur'posedly, *adv.* With intentiou, purpose, or design.

Pur'poseless, *a.* Without aim, intent, or purpose.

Pur'posely, *adv.* By design; intentionally; with predetermination.

Pur'poser, *n.* One who intends or purposes.

Pur'posive, *a.* Intended for an end.

Pur'presture, Pourpres'ture, *n.* [From Lat. *porprendere*, to invade.] (*Law.*) An inclosure of, or encroachmeut upon, any public domain, thoroughfare, or right of holding.

Purprise, (*-prīz,*) *n.* [L. Lat. *purprisum.*] An inclosed domain.

Pur'pura, *n.* [Lat., purple.] (*Med.*) An eruption of small purple specks aud patches, caused hy extravasation of blood under the cuticle; it is attended by constitutional debility, and sometimes by fever. Aperient medicines, and occasional purgatives, carried to a greater or less extent, followed by mild tonics, and in some cases by wiue, bark, and acids, are the principal remedies; but, in the treatment, much will depend upou the concomitant symptoms.

(*Zoöl.*) A generic name of the univalve gasteropod which secretes the purple fluid forming the base of the Tyrian dye. — See MUREX.

Pur'pure, *n.* (*Her.*) One of the colors or tinctures used in blazonry. It is equivalent to amethyst among precious stones, and to Mercury among planets. In engraving, it is represented by diagonal lines from the sinister to the dexter side of the escutcheon.

Purpu'real, *a.* Of a purple color; purplish; as, "*purpureat* gleams"

Purpu'ric Acid, *n.* (*Chem.*) A substance resulting from the action of nitric acid upon uric acid; it forms deep-red or *purple* compounds with most bases.

Pur'purine, *n.* (*Chem.*) One of the coloriug matters of madder, closely allied to alizarin.

Purr, *n.* and *pp.* Same as PUR, *q. v.*

Purre, (*pur,*) *n.* The expressed liquor of crushed apples.

Pur'ree, *n.* (*Paint.*) See INDIAN YELLOW.

Pur'rock, *n* Same as PUDDOCK, *q. v.*

Purse, *n.* [Fr. *bourse*, a purse, from Lat. = Gr. *bursa.*] A small bag in which money is contained or carried in the pocket. — Hence, by analogy, a treasury: as, taxes are paid into the public *purse.* — A sum of money offered as the prize of winning in a horse-race; as, the Ladies' *Purse*; — also, a sum of money collected as a gratuity or gift; as, to make up a *purse.* — In Turkey, the sum of 500 piastres, or about $24. — In Persia, the sum of 50 tomans, or about $121.

Light or *empty purse*, deficiency of cash or money resources.

Long or *heavy purse*, wealth; opulence; cash in plenty.

Sword and purse, a figurative expression, typifying national military power aud wealth.

—*v. a.* To put in a purse.

"I will go and *purse* the ducats." — *Shaks.*

—To pucker, or draw together, as the mouth of a purse when tied; to contract into folds or wrinkles; — preceding *up*; as, she *pursed up* her mouth.

Purse'ful, *n.*; *pl.* PURSE'FULS. Sufficient to fill a purse.

Purse'-loom, *n.* A machine for netting purses.

Purse'-net, *n.* A net with a mouth which can be drawn together like a purse.

Purse'-pride, *n.* Pride or insolence springing from possession of wealth.

Purse'-proud, *a.* Puffed up with the possession of wealth; vain or ostentatious of one's affluence of money.

Purs'er, *n.* (*Naut.*) A commissioned officer in the naval and merchant services, who keeps the accounts of the ship to which he belongs, and has charge of the money, stores, provisions, &c.

(*Mining.*) The paymaster of the works.

Purser'ship, *n.* Office of a purser.

Purset', *n.* A small purse

Pur'siness, *n.* [From *pursy.*] State or conditlon of being swelled, bloated, or inflated; — hence, shortness of breath.

Purs'lain, Purs'lane, *n* [It. *porcellana*; Lat. *portulaca.*] (*Bot.*) See PORTULACEÆ.

Pursu'able, *a.* That may be followed or pursued.

Pursu'ance, *n.* Act of pursuing or following out. — Pursuit; prosecutlon, process, or continued exertion to reach or accomplish somethiug.

In pursuance of, in fulfillment of, or accordance with.

Pursu'ant, *a.* [Fr. *poursuivant.*] Performed in consequeuce or prosecution of anything; — hence, agreeable to; conformable to; — before *to*; as, *pursuant to* law.

Pursu'ant, Pursu'antly, *adv.* Conformably; in agreemeut with.

Pursue', *v. a.* [Fr. *poursuivre*; Lat. *prosequor* — *pro*, and *sequor*, *secutus*, to follow.] To follow forth, or to a distance; to go or proceed after, or in a like direction; to follow with a view to overtake; to chase; as, to *pursue* an enemy. — To seek; to endeavor, or adopt measures, to obtaiu.

"We happiness *pursue*, we fly from pain." — *Prior.*

—To prosecute; to coutinue. — To follow, with a view to some end or object; as, to *pursue* a trail through the wilderuess. — To imitate: to follow as an example; to endeavor to attain to. — To persecute; to strive to reach or bring to account; as, he is *pursued* by the law.

—*v. n.* To proceed, as in argumeut or narration. (A gallicism.)

"I have, *pursues* Carneades, wondered." — *Boyle.*

(*Law.*) To prosecute a matter by judicial process, as a complainaut.

Pursu'er, *n.* One who pursues, follows, or chases; one who follows in haste, with a view to overtake.

(*Scots Law.*) A plaintiff iu a suit.

Pursuit, (*-sūt,*) *n.* [Fr. *poursuite.*] Act of pursuing or following with a view to overtake; a following with haste, either for sport or in hostility; as, to go in *pursuit* of game, to follow in close *pursuit* of the enemy. — A following with a view to reach, accomplish, or obtain; endeavor to attaiu to or to gain; quest; proceeding.

"The *pursuit* of knowledge under difficulties." — *Lord Brougham.*

—Course of occupation, busiuess, or avocation; continued employment with a view to some definite aim or purpose; as, a man of literary *pursuits.* — Prosecution; protraction or continuance of intent or endeavor.

Pursuivant, (*-swe-,*) *n.* [Fr. *poursuivant*, from *poursuivre*, to pursue.] A state messenger; an attendant on the heralds.

"The *pursuivants* each his scutcheon bore." — *Dryden.*

(*Her.*) In England, a subordinate officer in the Herald's College; as, a *pursuivant*-at-arms.

Pur'sy, *a.* [Fr. *poussif*, broken-winded, from *pousser*, to thrust or push, from Lat. *pulsare*, to push, beat, frequent. of *pello*, *pulsum*, to push or strike] Swollen; inflated; distended; — hence, short, thick, and corpulent.

"A dowager grown fat and *pursy*." — *Hudibras.*

—Hence, by implication, short-winded.

Pur'ulence, Pur'ulency, *n.* [Lat. *purulentia.*] (*Med.*) Pus; the generation of pus or matter.

Pur'ulent, *a.* [Lat. *purulentus*, from *pus*, *puris.*] (*Med.*) Consisting, or characterized by the presence of pus or matter; as, a *purulent* ulcer.

Pur'ulently, *adv.* In a purulent manner.

Purvey, (*-vā',*) *v. a.* [Fr. *pourvoir*; Lat. *provideo*, to foresee — *pro*, and *video*, to see.] To furnish, supply, or provide with necessaries, provisions, &c. — To get; to obtain; to procure.

"*Purvey'd* for him each tributary life." — *Thomson.*

—*v. n.* To provide; to purchase or stock with provisions.

Purveyance, (*-vā'uns,*) *n.* [O. Fr. *purveaunce*, providence.] Act of purveying; procurement of provisions or victuals. — Provisious; victuals or food provided.

Purveyor, (*-vā'ur,*) *n.* [Fr. *pourvoyeur.*] A caterer; a victualler; one whose business is to supply provision for the table. — A procurer; a pimp; a bawd; a go-between.

Purview, (*-vū,*) *n.* [O. Fr. *pourvere.*] (*Law.*) The body of a legal statute, in contradistinction from the *preamble.* — Hence, scope, limit, or extent of a statute. — Full stretch, scope, or extent of authority.

Purus, PURÚ, or CUCHIVARA, a river of S. America, rises in Peru, and flowing a general N.E. course into Brazil, joins the Amazons in Lat. 4° S., Lon 61° W It traverses an almost unexplored region, and at its mouth is almost equal in size to the main stream. *Length*, estimated at 500 m.

Pus, *n.* [Lat.] (*Med. and Chem.*) A bland, yellowish fluid, somewhat like cream, found in abscesses, and formed upon the surface of what are termed *healthy sores*: it is heavier than water, and when viewed under the microscope appears composed of translucent globules floating in a colorless serum The globules contain fatty matter and cholesterin. An albuminoid substance has also been found in *P.* called *pyin*, soluble in water, but precipitated by acetic acid and by a solution of alum. Bœdecker has announced the presence of leucin and of a peculiar crystallizable acid in *P.*, which he calls *chloridic* acid, and Forbes has obtained a blue compound (*pyocyanin*) from certain purulent secretions which are occasionally met with, and which leave a blue stain on linen.

Pusey, EDWARD BOUVERIE, (*pu'se,*) an English divine, born 1800, one of the chief promoters of the High-Church movement in the Church of England, which movement was also called the *Anglo-Catholic* and the *Puseyite* movement He was educated at Oxford, where, about 1822, he was elected Fellow of Oriel College. In 1833 he commenced the publication of the Oxford *Tracts for the Times.* These tracts, together with his sermons and letters, evinced a desire for the reëstablishment of ceremonies and forms which had not been in use in the English Church since the Reformation. He incurred the displeasure of most of his ecclesiastical superiors; but, on the other hand, succeeded in finding a band of strong partisans among the clergy of England Dr Pusey has written several volumes of sermons, adapted some R. C. devotional works for the use of the Established Church, and edited the *Anglo-Catholic Library.* D. 1882.

Puseyism, (*pū'sĭ-ĭzm.*) *n.* (*Theol.*) See PUSEY.

Puseyist'ic, *a.* Pertaining or relating to Puseyism or Ritualism.

Pu'seyite, *n.* One who upholds or practices the doctrines or ceremonies of Puseyism; a High-Churchman; a Ritualist. (Englaud.)

Push, *v. a.* [Fr. *pousser*, to push, from Lat. *pulsare*, to push, beat, batter; frequent. of *pello*, *pulsum*, to push or strike.] To press against with force; to drive or impel by pressure; or, to endeavor to drive by steady pressure without striking; — antithetical to *draw.* — To butt; to strike with the end of the horns; to thrust the points of horns against. — To importune; to tease; to urge with solicitation. — To press; to drive to a conclusion; as, he *pushed* the question home to him. — To urge; to enforce; to press forward.

To push down, to overturn by force or impulsion.

—*v. n.* To make a thrust, as with a sword.

"Lambs . . . *push* with their foreheads." — *Addison.*

—To make an effort; as, he is *pushing* business. — To make an assault or attack. — To burst out, as a bud or shoot.

To push on, to urge forward; to advance with haste.

"The work being *pushed on* by many hands, must go forward." *Dryden.*

—*n.* A thrust or prod with a pointed instrument, or with the end of anything. — Impulse, force, or pressure applied. — An attack or assault; a forcible onset; a strong effort.

"One vigorous *push* will force the enemy to cry quarter." *Addison.*

—Exigency; sudden emergency, trial, or extremity; as, they will fight when matters come to the *push.* — A small pustule, pimple, or eruption.

Push'er, *n.* One who pushes or urges forward.

Pushe'ta, in *Ohio*, a township of Auglaize co.; *pop.* abt. 1,800.

Push'ing, *a.* Pressing forward in business; enterprising; energetic; active; as, a *pushing* tradesman; — also, officious; intrusive; impudent; forward.

Push'ingly, *adv.* In a vigorous, driving manner.

Push'pin, *n.* A child's play, in which pins are pushed alternately.

Pusillanim'ity, *n.* [Fr. *pusillanimité.*] State or quality of being pusillanimous; want of that firmness and strength of mind which constitutes courage or fortitude; absence or deficiency of spirit; cowardice; fear; timidity.

Pusillan'imous, *a.* [Fr. *pusillanime*, from Lat. *pusillus*, very little, and *animus*, the mind.] Mean-spirited; faint-hearted, timid; cowardly; destitute of that strength and firmness of mind which constitutes courage, bravery, and fortitude; — expressed of persons; as, a *pusillanimous* leader. — Proceeding from weakness of mind or want of courage; as, "fearful and *pusillanimous* counsels." — *Bacon.*

Pusillan'imously, *adv.* In a cowardly or pusillanimous manner.

Pusillan'imousness, *n.* Pusillanimity.

Pus'kiu, ALEXANDER SERGEIEVITCH, a Russian poet, surnamed the *Russian Byron*, b in St Petersburg, 1799. While a student, he neglected his studies for poetry, and immediately after quitting the academy he began to exercise his talents in writing verses to liberty; but these political views were unsuited to Russia, and the poet was compelled to accept an appointment at Odessa. Siberia would doubtless have been his destination, had he not brought out, at the same time, a patriotic poem relative to Vladimir, the Charlemagne of his country. In 1822 he produced his *Prisoner of the Caucasus*, which was not as successful as his later works: such as *The Gipsies*, *Onegin*, and *Poltava.* The great popularity of these latter poems led to his recall. He secured the favor of the emperor Nicholas, who appointed him historiographer, with a pension of 6,000 roubles. After this his opinions underwent an almost total change. His last efforts were almost entirely confined to prose composition: but his labors were brought to a sudden and unfortunate termination by his being shot in a duel with an officer. The emperor bestowed a pension upon his widow and family, and ordered a fine edition of the poet's works to be produced at his own expense. D. 1837.

Puss, *n.* [Ir. and Gael *pus*, a cat.] The pet name of a cat — The sportsman's name for a hare.

Pus'sy, *n.* A diminutive of *puss*, employed as a fondling name for a cat.

Pus'tular, *a.* (*Bot.*) Covered with pustules, or pustule-like prominences.

Pus'tulate, *v. a.* [From Lat. *pustula*, a blister, a pimple, a pustule, from *pus*, pus.] To form into pustulea or blisters.

Pus'tulate, Pus'tulated, *a.* Pustular; covered with pustule-like prominences.

Pustule, (*pŭst'yul,*) *n.* [Fr.; Lat. *pustula*, from *pus.*] (*Med.*) A small blister, or a small elevation of the cuticle, containing pus Pustulous eruptions are characteristic of several cutaneous diseases. The most familiar examples of the pustule are seen in small-pox and cow-pox.

Pus'tulous, *a.* [Lat. *pustulosus.*] Pustular; full of pustules; covered with pustules.

Put, *v a.* (*imp* and *pp.* PUT) [Dan. *putte*: Sw. and Goth. *pytta*, to put; perhaps akin to Lat. *pono*, *positum*, to put; to place.] To set, lay, place, bring, or cause to be in any state, condition, station, or situation. — To cause to exist in a given or specified relation; — said of a thing, or of an attribute; to bring to a certain moral or mental condition; as, to *put* in fear; to *put* out of temper; to *put* in mind. — To apply; to set to action or employment; as, to *put* one's hands to work. — To throw

or introduce suddenly, as a word. — To propose; to offer; to advance; to present; to state; to offer for consideration; as, to *put* a question, to *put* a case. — To urge, to push into action; to incite; to investigate.

"This caution will *put* them upon considering." — *Locke.*

—To force; to constrain; to compel; to oblige; as, to *put* an adversary to flight. — To cast with the hand raised over the head; as, to *put* the stone. (A Scotticism.)

To put about. (*Naut.*) To change the course of a ship. — *To put away*, to discard; to renounce; as, to *put away* fear: to divorce; as, *to put away* a wife. — *To put back*, to hinder; to obstruct; to delay; to return to the original or starting place; as, to *put* a ship *back* to port; to set, as the hands of a clock to an earlier hour. — *To put by*, to lay or set aside. — *To put down*, to deposit; to lay down. To baffle; to repress; to crush. — To degrade; to extinguish; to suppress; to confute.

"Mark, now, how a plain tale shall *put* you *down*." — *Shaks.*

To put forth, to thrust out; to extend; as, to *put forth* one's hand. To exert; to bring into action; as, he *put forth* all his strength. — To propose; to suggest; as, to *put forth* a question. — To bring out; to publish; as, to *put forth* a book.

To put forward, to promote; to advance to a superior or prominent position. To aid; to assist; to facilitate the progress of. To set, as the hands of a clock, to a later hour. — *To put in*, to interpose; to insert; to cause to intervene among others; as, to *put in* a word in conversation. To take into a port or harbor; as, a ship in distress. (*Law.*) To lodge among the archives of a court; as, to *put in* a bill of exceptions. — *To put off*, to divest one of; to lay aside; to discard; as, to *put off* clothes, to *put off* ambition. — To delay; to deter; to procrastinate; to postpone, as, to *put off* settling day. To defeat; to thwart; to frustrate; to disappoint; to baffle; as, to *put* a person *off* with excuses. — To push from shore; as, to *put off* a boat. — To get rid of artfully or fraudulently; as, to *put off* a forged document. — *To put on* or *upon*, to invest one's self with; as, to *put on* clothes. To assume; to take; as, to *put on* airs.

"The duke hath *put on* a religious life." — *Shaks*

—To impute to; to charge upon; as, he *put* the blame *upon* me. — To impose; to inflict; to make amenable for.

"That which thou *puttest on* me, will I bear." — 2 *Kings* xviii. 14.

(*Law.*) To rest upon; to make submission to; as, a defendant *puts* himself *on* the country. — *To put out*, to eject; to expel; to drive from; as, to *put out* an interloper. To shoot; to emit, as the shoots of a plant. To extinguish; as, to *put out* a light. To place at interest; as, to *put out* money. To disconcert; to interrupt; to confuse; as, to *put* one *out* when speaking. To wantonly provoke; to displease. To stretch forth; to extend; to protrude; as, to *put out* the hand. To make public; to cause to circulate abroad; as, to *put out* a manifesto. — (*Law.*) To open; as, to *put out* lights. (*Med.*) To dislocate; as, to *put out* the hip-joint. — *To put over*, to prefer; to set in place or authority; as, to *put* a guard *over* prisoners. To refer; to send.

"I *put* you o'er to heav'n and to my mother." — *Shaks.*

—To defer, to postpone; as, to *put* a case *over* for trial. — *To put the hand to*, to take hold of; as, to *put* one's *hand to* the pen. To take feloniously; as, to *put the hand to* stealing. — *To put to*, to add; as, to *put* this money *to* that. To refer to; to expose.

"Who dares not *put* it to the touch." — *Marquis of Montrose.*

To put to a stand, to arrest or check by obstacles or differences. — *To put to death*, to kill, to slay. — *To put together*, to unite; to connect, to accumulate into one sum or mass. — *To put to it*, to press hard; to perplex; to distress. — *To put to the sword*, to slay by means of the sword. — *To put to trial* or *on trial*, to try; to bring to a test or crucial experiment. — *To put trust in*, to repose confidence in. — *To put up*, to allow to pass unnoticed or unavenged

"National injuries are not to be *put up*."—*Addison.*

—To emit; to cause to germinate, as plants. To expose publicly; as, to *put up* goods for open sale. To hoard; as, to *put up* rent. To preserve, pack, or store for subsequent use; as, *to put up* meat. To incite; to instigate; — preceding *to*

Put, *v. a.* To steer; to conduct; to direct; as, to *put* to sea.

To put about. (*Naut.*) To tack; — said of a ship. — *To put forth*, to germinate; to bud, to shoot, as a plant. To leave a port or harbor, as a ship. — *To put in*, to sail into port; to enter a haven. — *To put in for*, to set forward a claim; as, he *put in for* a moiety of the spoil. — *To put in for*, to stand as a candidate for. — *To put off*, to leave the shore, as a ship or boat. — *To put on*, to accelerate motion; as, to *put on* a full head of steam. — *To put over*, to sail over or across.

"Sir Francis Drake *put over* to Carthagena, and took it."—*Abbot.*

To put to sea, to set sail; to commence a voyage. — *To put up*, to take lodgings, to seek entertainment; as, I *put up* at a hotel. To bring one's self forward as a candidate; as, he *put up* for London at the last election. — *To put up with*, to allow to pass without resentment or punishment; as, to *put up with* an affront. To accept without opposition or open remonstrance; as, to *put up with* bad cooking.

Put, *n.* An action of distress.

"The stag's was a forced *put*."—*L'Estrange.*

—[Lat. *putus*, a boy.] A rustic; a bumpkin; a clown; as, a country *put*. — A game of cards, played in some parts of England.

Put'age, *n.* [O. Fr.] (*Law.*) Female prostitution.

Putah Creek, in *California*, rises in Lake co., and flowing S.E. enters the Sacramento River between Solano and Yolo cos.

Puta'men, *n.* [Lat.] (*Bot.*) The shell of a nut; the stone of a drupe fruit; an endocarpium.

Putanism, *n.* [It *puttana*, a prostitute.] Habitual prostitution on the part of a female.

Puta River, in *California*, rises in Nepe co., and flowing E. through Berryssa Valley, loses its waters in the Tule Marshes.

Puta'tive, *a.* [Fr. *putatif*; late Let. *putativus*, from Lat. *puto*, to deem.] Reputed; supposed, presumed; commonly thought or deemed; as, the *putative* father of a child.

Put'chock, Put'chuck, Put'chuk, *n.* An aromatic Indian root, used in China for burning, as incense.

Putcul, *n.* [From Lat *puteus*, well.] (*Arch.*) The inclosure surrounding the opening of a well, to protect persons from falling into it

Putiol, (*poo-tiol'*) a town of European Russia, govt. of Kursk, on the Sem, 100 m. W.S.W. of Kursk; *pop* 10,000.

Put'log, *n.* (*Arch.*) A piece of timber about 7 feet long, used in building scaffolds, lying at right angles to the walls, with one of its ends resting upon it, and the other upon the poles which lie parallel to the side of the wall of the building.

Putlog holes, small holes left in walls for the use of the workmen in erecting scaffolding.

Put'nam, ISRAEL, an American general in the Revolutionary War, b. at Danvers (then part of Salem), Mass., 1718. He was destined to the occupation of a farmer, and continued in that avocation till the French and Indian war broke out, when, at the age of 36, he took service in the English army, and from his known courage and energy, received the command of a company of light troops, or "rangers," at the head of which he performed prodigies of valor during ten years. When the dispute between his country and England commenced, he was following the quiet life of a farmer and tavern-keeper; but the first blood that was shed roused all his fiery energy. He was created major-general by Congress; and at Bunker's Hill, New York, and during Washington's retreat through New Jersey, he showed himself one of the bravest and most devoted of the patriot leaders. But in 1779 he was stricken with paralysis, and was prevented from participating in the final triumphs of the national cause. His character is well depicted by the inscription upon his tomb: "He dared to lead where any dared to follow." D. 1790.

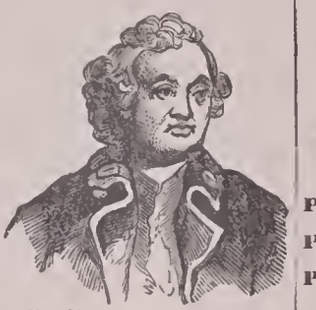


Fig. 2189. — GEN. I. PUTNAM.

Put'nam, RUFUS, an American brigadier-general, b. in Sutton, Mass., 1738, was one of the pioneer settlers of the State of Ohio, and in 1788 founded the city of Marietta, the first permanent settlement made in Ohio. D. 1824.

Put'nam, in *Connecticut*, a post-village and township of Windham county, about 34 miles north-east of Norwich.

Putnam, in *Florida*, a N.E. co.; *area*, about 776 sq. m. *Rivers*. St. John and Ocklawha rivers. *Surface*, low and level, consisting chiefly of marshy plains; *soil*, not fertile. *Cap.* Palatka. *Pop.* (1897) 11,560.

Putnam, in *Georgia*, a S. central co.; *area*, about 335 sq. m. *Rivers*. Oconee and Little rivers, and Indian and Crooked creeks. *Surface*, diversified; *soil*, not very fertile. *Min.* Copper and iron. *Cap.* Eatontou. *Pop* (1897) 15,240.

Putnam, in *Illinois*, a N. central co.; *area*, about 170 sq. m. *River*. Illinois river. *Surface*, nearly level; *soil*, very fertile. *Min.* Stone-coal. *Cap.* Henuepin. *Pop.* (1897) 5,250.

Putnam, in *Indiana*, a W. central co.; *area*, about 490 sq. m. *River*. Lel river. *Surface*, level or gently undulating; *soil*, very fertile, and well adapted to grass or cereals. Large quantities of wool are annually produced. *Min.* Limestone of superior quality. *Cap.* Greencastle. *Pop.* (1897) 24,010.

Putnam, in *Iowa*, a village and township of Fayette co., about 35 m. N. of Independence.

Putnam, in *Kansas*, a township of Anderson co.

—A post-office of Stafford co.

Putnam, in *Michigan*, a township of Livingston co.

Putnam, in *Missouri*, a N co., adjoining Iowa; *area*, about 542 sq. m. *Rivers*. Chariton river, East Fork of Grand river, and Locust and Shoal creeks. *Surface*, mostly level; *soil*, fertile. *Cap* Unionville. *Pop.* (1897) 16,485.

Putnam, in *New York*, a S.E. co., adjoining Connecticut; *area*, about 241 sq. m. *Rivers*. Hudson and Croton rivers, and Peekskill creek. *Surface*, uneven and hilly; *soil*, generally fertile. *Min* Iron ore of good quality, also plumbago sulphur and iron pyrites. *Cap.* Carmel *Pop.* (1897) 15,330.

—A post-township of Washington co.

Putnam, in *Ohio*, a N W. co.; *area*, about 480 sq. m. *Rivers*. Auglaize and Ottawa rivers, and Blanchard's Fork. *Surface*, mostly level, consisting for a large portion in the Black Swamp; *soil*, generally very fertile. *Cap.* Ottawa. *Pop.* (1897) 33,330.

Putnam, in *Tennessee*, a N E. central co.; *area*, about 430 sq. m. *Rivers*. Several affluents of the Cumberland river *Surface*, uneven; *soil*, generally fertile. *Cap.* Cookville. *Pop.* (1897) 16,550.

Putnam, in *West Virginia*, a W. co.; *area*, about 350 sq. m. *River*. Kanawha river. *Surface*, diversified; *soil*, generally fertile. *Cap.* Winfield. *Pop.* (1897) 15,100.

Put'nam Valley, in *New York*, a post-town and township of Putnam co.

Put'namville, in *Indiana*, a post-town of Putnam co., about 40 m. W.S.W. of Indianapolis.

Putnamville, in *Missouri*, a village of Putnam co., about 150 m. N.N.W. of Jefferson City.

Put'ney, in *Vermont*, a post-township of Windham co. It has slate quarries.

Put'-off, *n.* An evasion; a shift for avoidance or delay.

Putred'inous, *a.* [From Lat. *putredo*, rottenness.] Stinking; partaking of the qualities of putrefaction.

Putrefac'tion, *n.* [Fr., from Lat. *putrefactio*.] (*Chem.*) All organic bodies, when life ceases, if no effort to preserve them be made, begin to decompose with a rapidity that varies with the quantity of nitrogen they contain; *P.*, as this process is called, being accompanied by an offensive smell, and attended by the formation of ammonia or of ammoniacal compounds. Carburetted hydrogen and various other compounds also appear. The process of *P.* can be checked by means of cold, salt, sugar, spices, &c., and by other methods. *P.* was long supposed to be due to ordinary chemical change arising from the instability and affinity for oxygen of the organic matter. It is now known to be a result of the vital processes of certain very minute plants called Bacteria (*q. v.*), to which is due also Fermentation (*q. v.*). These plants are almost everywhere present, and attack all organic matter not preserved by its vital activity. They can be killed, however, by boiling an organic infusion, and if this be then kept in an air-tight vessel, or if the bacterial spores or germs be kept out by a plug of cotton-wool, the substance will remain unchanged for years. A low temperature stops the action of the bacteria though it does not kill them, and there are various acids which check their growth. Drying soon kills the developed plant, but the spores will live long in a dried condition.

Putrefac'tive, *a.* [Sp *putrefactivo*.] Pertaining to, or causing, or tending to promote putrefaction.

Putrefac'tiveness, *n.* State or quality of being putrefactive; rottenness.

Put'refy, *v. a.* [Fr *putréfier*; Lat *putrefacio* — *puter*, *putris*, rotten (from the root of *pus*), and *facio*, to make.] To render putrid; to cause to be decomposed; to cause to rot, or to become rotten; to disorganize and cause to pass into a state in which the constituent elements are newly arranged, forming new compounds, as animal or vegetable bodies. — To pollute; to corrupt; to make foul or stinking. — To make morbid, carious, or gangrenous; as, to *putrefy* a wound.

—*v. n.* To become rotten or putrid; to dissolve by spontaneous decomposition; to have the constituent elements newly arranged, forming new compounds; to rot.

Putrescence, (*-es'sens*,) *n.* The state of becoming putrescent or rotten; a putrid state.

Putrescent, (*-es'sent*,) *a.* [Lat. *putrescens* — *putresco* — *putreo*, to rot, from *puter*, *putris*, rotten.] Growing rotten or putrid; passing from an organized state into another state, in which the elements are newly arranged. — Pertaining or having reference to the process of putrefaction as, a *putrescent* smell.

Putrescible, (*-es'si-bl*,) *a.* Liable to become putrid or rotten

—*n.* A nitrogenized body, susceptible of decomposition in certain temperatures, when exposed to air or moisture.

Put'rid, *a.* [Fr. *putride*; It *putrido*; Lat. *putridus*, from *putreo*, to rot.] Rotten; decayed; corrupt; stinking; decomposed; indicating a state of dissolution; tending to disorganize the substances composing the body;—said of animal and vegetable matter; as, *putrid* flesh — Proceeding from, or pertaining to, putrefaction; as, a *putrid* scent.

P. Fever. (*Med.*) Typhus or spotted fever. See TYPHUS.

Putrid'ity, Putrid'ness, *n.* [Fr. *putridité*.] State or quality of being putrid, corruption; rottenness.

Putrifica'tion, *n.* State or condition of being or becoming putrified.

Put'rilage, *n.* (*Med.*) The slough formed in ulcers and thrown off.

Put'ter, *n.* One who puts, sets, or places. — One who pushes the wagons used in coal-mines.

Put'ter, *v. n.* Same as POTTER, *q. v.*

Put'ter-on, *n.* An inciter; an instigator; a prompter.

"You are abus'd, and by some *putter-on*." — *Shaks.*

Put'ting, *n.* The casting of a heavy stone, with the hand raised above the head;—a favorite diversion among the Scots Highlanders.

Put'ting-stone, *n.* In Scotland, a heavy stone used in the game of putting

Put'tock, *n.* An English provincialism for the common buzzard

Puttun, (*poot-toon'*,) a town of India, territory of Baroda *Manuf* Silks, cottons, pottery, swords, &c. *Pop.* 30,000

Put'ty, *n.* [Fr. *potée*, perhaps from Gr *spodos*, wood-ashes.] A kind of paste or cement, compounded originally of wood-ashes, now of whiting and linseed oil, beaten or kneaded to the consistence of dough, used in fastening glass in sashes, and in stopping crevices.

Putty powder. An oxide of lead and tin reduced to powder, and used in polishing glass, stones, metals, &c.

—*v. a* To cement with putty; to fill up with putty.

Put'ty-faced, *n.* White-faced; — used contemptuously or derisively

Put'ty-root, *n.* (*Bot.*) See ADAM-AND-EVE.

Putumay'o, or IÇA, a river of S. America, rises in the North Eastern Andes, in the U States of Colombia, and flowing a general E S E course through Ecuador into Brazil, joins the Amazons at San Antonio.

Puy-de-Dôme, a dept. in the S.E. of France, com-

Israel Putnam

1718–1790

prising part of the anc. prov. of Auvergne, and having N. Allier, E. Loire, S Cantal and Haute-Loire, and W. Corréze and Creuse; *area*, 3,070 sq. m. The surface is generally mountainous, and the soil dry and stony, except in the fertile valley of Limagne. *Rivers.* Allier, Dore, Sioule, Couze, Durolle, and Dordogne. *Prod.* Grain, hemp, fruit, and wine. Cattle and sheep are extensively raised. *Min.* Silver, lead, coal, alum, antimony, and marble. *Manuf.* Linens, woollens, and paper. *Cap.* Clermont-Ferrand. *Pop* 571,690.

Puy-l'aureus, (*pwe-lo-rong,*) a town of France, dept. of Tarn, 13 m. S.E. of Lavaur; *pop* 6,200.

Puy, (Le,) a town of France, cap. of the dept. of Haute-Loire, on the Loire, 65 m. S.W. of Lyons. It is built on the S. slope of Mount Anis, surmounted by the rock called *De Corneille.* *Manuf.* Blankets, linen, lace, silk, and stoneware.

Puzzle, (*pŭz'zl,*) *v. a.,* (dimin of *pose.*) To pose; to nonplus: to embarrass; to bewilder; to perplex; to involve in perplexity; to put to a stand; to gravel.—To entangle; to make intricate or complex.

"*Puzzled* in mazes, and perplex'd with error."—*Addison.*

—*v. n.* To be bewildered; to be awkward; as, "a *puzzling* fool."—*L'Estrange.*

—*n.* State or condition of being puzzled; perplexity; embarrassment; as, his mind is in a *puzzle.*—A toy or contrivance adapted to task or test the ingenuity.

Puz'zle-headed, *a.* Having the brain full of complicated, hazy, or confused notions.

Puz'zler, *n.* He who, or that which, puzzles or perplexes.

Puz'zlingly, *adv.* In a puzzling, intricate manner; with perplexity.

Puz'zolan, Puzzola'na, *n.* See POZZOLANA.

Puzzuoli, or **Pozzuoli,** (*pot-soo-o'lee,*) (anc. *Puteoli,*) a town of Italy, on the Bay of Pozzuoli, 7 m. S.W. of Naples. It was in ancient times a town of great importance, and a favorite resort for the wealthy Romans. Near it are the Solfatara, Lake Avernos, and the Grotto del Cane. Near it also are the ruins of a temple of Jupiter Serapis (Fig. 2190) which affords to geologists a

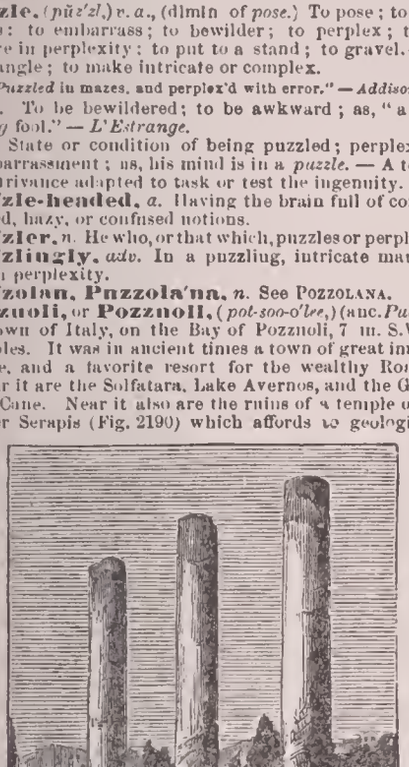


Fig. 2190.—TEMPLE OF JUPITER SERAPIS AT PUZZUOLI.

striking example of the frequent changes of level on the earth's surface. The three columns that are now standing bear evidence that they were once for a considerable time submerged to half their height. The lower twelve feet are smooth; for nine feet above this they are penetrated by lithodomous or boring shells, and remains of the shells (a species now living in the Mediterranean) were found in the holes. The columns, when submerged, were consequently buried in the mud of the bottom for twelve feet, and were then in water nine feet deep. The pavement of the temple is now submerged; but it has been recently stated that for some time previous to 1845 a slow sinking had been going on, and since then there has been as gradual a rising.

Pyc'nite, *n.* [Gr. *pyknos,* dense.] (*Min.*) Schorlous topaz, a massive variety of topaz, which is translucent, and of a dull-yellowish or red lish-white color. It is a silicate of alumina, with 1-7th of the oxygen replaced by fluorine.

Pycnodon'tes, *n. pl.* [Gr. *pyknos,* and *odous,* tooth.] (*Pal.*) A family of lepidoganoid fishes, found from the carboniferous to the earlier tertiary periods

Pyc'nostyle, *n.* [Fr., from Gr. *pyknos,* thick, close, and *stylos,* pillar.] (*Arch.*) That arrangement of Greek or Roman columns, in which the intercolumniations are equal to one diameter and a half of the lower part of the shaft

Py'gary, Pygar'gus, *n.* [Gr. *pygō,* the rump, and *argos* white.] A quadruped with white buttocks. *Deut.* xiv. 5.

Pyg'mean, Pyg'my, *a.* Pertaining to, or resembling a pygmy; dwarfish: elfish.

Pyg'my, Pig'my, *n.* [Fr. *pygmée;* Lat. *pygmæus.*] (*Myth.*) A fabulous race of dwarfish human beings, who, according to Homer, were dwelling somewhere near the shores of the ocean stream, and maintained perpetual wars with the cranes.

—Hence, a very small, insignificant person; a dwarf.

(*Zoöl.*) The chimpanzee. *Simia troglodytes.*

Pyla'des, (*Ancient Greek.*) The son of King Strophius, and nephew of Agamemnon, celebrated as the friend of Orestes, and married his sister Electra. See IPHIGENIA.

Pylor'ic, *a.* [Fr. *pylorique.*] (*Anat.*) Belonging, or relating to the pylorus; as, the *pyloric* artery.

Pylor'us, *n.; pl.* PYLORI. (Gr. *pyloros,* from *pyle,* a gate.] (*Anat.*) The lower orifice of the stomach, or the gatekeeper, as it is called (Fig 218). That aperture by which the digested food or chyme, passes from the stomach into the *duodenum.*

Pyogen'ic, *a.* [Gr. *pyon,* pus, and *genein,* to produce.] Producing pus.

Py'oid, *a.* [Gr. *pyon,* pus, and *eidos,* form.] (*Med.*) Pertaining to, or resembling pus.

Pyral'is, *n.; pl.* PYRALIDÆ. (*Zoöl.*) A genus and family of lepidopterous insects, comprising those called Delta-moths, because of their triangular form when the wings are closed (Fig. 538). The typical genus, *Pyralis,* contains the Meal-moth, *P. farinalis,* which expands about one inch, the fore-wings light-brown, crossed by two curved, white lines, and there is a dark, chocolate-brown spot on the base and tip. The caterpillar is found in old flour-barrels.

Pyral'lolite, *n.* [Gr. *pyr,* fire, *allos,* other, and *lithos,* stone.] (*Min.*) An altered form of augite, in which magnesia takes the place of lime.

Pyrame, (*pĕ-ram',*) *n.* [Fr.] A small kind of water-spaniel.

Pyr'amid, *n.* [Fr. *pyramide;* Lat. *pyramis;* Gr. *pyramis, pyramidos,* derived by the ancients from Gr. *pyr,* fire, but probably an Egyptian word.] A solid body, standing on a triangular square or polygonal base, and terminating in a point at the top.

(*Geom.*) A solid body whose base is a polygon, and whose sides are plane triangles, their several points meeting in one common vertex.

(*Arch.*) A term applied to elevated mounds of stone or brickwork, corresponding in form to the geometrical definition of the solid. The most remarkable structures of this kind are the colossal *P.* erected by the ancient Egyptians in the plain of Gizeh. In the opinion of Herodotus, the pyramidal form was looked upon by the Egyptian people as emblematical of human life. The beginning was signified by the broad base, and its termination by the point, or the end of our earthly existence. The exact derivation of the name is hid in considerable obscurity. *P.* are to be found among the Egyptians, Babylonians, Indians, and Mexicans. The Egyptian *P.* are sloped or symmetrical mounds placed over the graves or sepulchres of the monarchs and other great personages of the earliest Egyptian dynasties. After the twelve dynasties, the use of *P.* was discontinued. The *P.* are situated in the vast plain or cemetery lying between Dagshoor, and extending by Sakhara and Memphis, almost to 30° N. Lat.; they are supposed to be sixty-nine in number altogether. As before stated, the most remarkable of these are the *P.* of Gizeh, not far from Cairo. The largest of these is said by Herodotus to have been built by Cheops (Fig. 2191). He also states that another *P.*, close by, covers the remains of Cyphrenes, his brother. According to that ancient writer, 100,000 men labored, without interruption, for 20 years in building this enormous mound. The sides of its base, which are in a line with the four cardinal points, measure at the foundation 763·4 feet; so that it occupies a space of more than 13 acres. Its perpendicular height is 480 feet, being, consequently, 43 feet higher than St. Peter's at Rome, and 136 feet higher than St. Paul's. Supposing this pyramid to be entirely solid, its contents would exceed three millions of cubic yards, and the mass of stone contained in it would be six times as great as that contained in the Delaware breakwater! This huge fabric consists of successive tiers of vast blocks of calcareous stones, rising above each other in the form of steps. The thickness of the stones, which is identical with the height of the steps, decreases as the

Fig. 2191.—PYRAMID OF CHEOPS.

altitude of the *P.* increases, the greatest height being 4.628 feet, and the least 1.686 feet. The mean breadth of the steps is about 1 foot 9 inches. The best authorities agree in estimating the number of steps or tiers of stone at 203. It is generally agreed that the pyramids of the Gizeh group are all of the age of the fourth dynasty, that is, older than 2000 B. C. All the Egyptian *P.* are constructed in a uniform manner. A rectangular sepulchral chamber was first hollowed in the rock, with a passage sufficiently large to admit the sarcophagus, communicating with the surface. A cubical course of masonry was erected over this, which served as a nucleus for the *P.* If the king died during the year, the masonry was covered with a polished casing in the shape of a small *P.;* if this king survived a year, another course of masonry was added to the height of the nucleus, and the length of the base increased by courses of stones on each side. As long as the king lived, additions on the same plan were made every year. When the king died, this ceased; the edifice was cased by filling up the angles of the masonry with smaller stones, placing oblong blocks one upon the other, so as to make a series of steps from the base to the top. A smooth surface was then given to each side of the *P.*, rendering it a perfect triangle, while, owing to each stone overlapping the other, no vertical joint was left. Among the principal groups of *P.* besides those at Gizeh, are others of less magnitude at Abousir, Sakhara, and Dashour. In Mexico there are some singular monuments of the ancient inhabitants of a pyramidal form; they are called *Teocallis.* (See MEXICAN ANTIQUITIES.) Near Benares, and other places in the E. Indies, there are temples of a pyramidal form. They are said to be copies of the sacred Mount *Meru,* and are called *Meru Sringas,* or "Peaks of Meru." Pyramidal temples have also been found in Java.

Altitude of a pyramid, the perpendicular distance from the vertex to the plane of the base.—*Axis of a pyramid.* (*Geom.*) A straight line drawn from the vertex to the centre of the base.—*Right pyramid,* a pyramid whose axis is perpendicular to the base.

Pyram'idal, *a.* [Fr. *pyramidale.*] Formed like a pyramid; relating to a pyramid; tapering to a point; as, a *pyramidal* obelisk.—Relating or pertaining to the Pyramids.

Pyramid'ally, *adv.* Like a pyramid; in the form of a pyramid.

Pyramid'ic, Pyramid'ical, *a.* Having the form of, or relating to, a pyramid; as, a *pyramidical* rock.

Pyramidic'ally, *adv.* In a pyramidical manner.

Pyramid'icalness, *n.* State or condition of being pyramidical.

Pyr'amid Lake, in *Nevada,* a considerable sheet of water in Washoe co. It covers an area of abt. 420 sq. m., and receives its name from a pyramidal-shaped rock 600 feet high, which forms an island near its N. shore.

Pyram'idoid, Pyr'amoid, *n.* [Gr. *pyrāmis,* and *eidos,* form.] A solid having the form of a pyramid.

Pyr'amus, (*Myth.*) A Babylonian youth, who became enamored of Thisbe, a beautiful virgin. Their affection was mutual, and the lovers, whom their parents forbade to marry, regularly interchanged sentiments through the chink of a wall which separated their houses. They both agreed to elude the vigilance of their friends, and to meet at the tomb of Ninus, under a white mulberry-tree, outside the walls of Babylon. Thisbe came first to the appointed place; but the sudden arrival of a lioness frightened her away, and, as she fled, she dropped her veil, which the lioness found and covered with blood. *P.* soon arrived, and finding Thisbe's veil bloody, concluded that she had been torn to pieces by wild beasts, and stabbed himself. Thisbe, when her fears had vanished, returned from the cave, and at the sight of the dying *P.*, fell upon the sword still reeking with his blood. The tree, as the poets mention, was stained with the blood of the lovers, and ever after bore fruit, but of the color of blood.

Pyrar'gillite, *n.* [Gr. *pyr,* fire, and *argillos,* clay.] A hydrated silicate of alumina, protoxide of iron, magnesia, soda, and potash, found in granite at Helsingfors, in Finland.

Pyre, (*pīr,*) *n.* [Lat. *pyra,* from Gr. *pyr,* fire.] A funeral pile; a pile for burning.

Pyre'na, *n.* [Gr. *pyrēn, pyrēnos,* the stone of fruit.] (*Bot.*) A seed-like nutlet, or stone of a small drupe.

Pyre'nean, *a.* [Lat. *pyrenæi,* from Gr. *pyrēnē.*] (*Geog.*) Pertaining, or having reference to the Pyrénées, a range of mountains dividing France from Spain.

Pyrénées, (*pir'e-nees,*) an extensive mountain range in the S. of Europe, dividing France from Spain, and extending almost in a straight line from St. Sebastian, on the Bay of Biscay, to Cape Creux, on the Mediterranean. *Ext.* 270 m., with a breadth from 50 to 100 m. From them proceed, under various names, inferior ramifications of mountains along the French territory on the N., and that of Spain on the S. The acclivity of the *P.*, on the side of Spain, is often extremely steep, presenting a continued succession of rugged chasms, abrupt precipices, and huge masses of naked rock; on that of France, the ascent is generally gradual, and the mountains are more accessible, and of more pleasant aspect; they have a mean altitude of nearly 8,000 feet, which is also the limit of the snow-line. The principal summits are Mount Perdu, which has an elevation of 10,994 feet; the Vignemale, 10,820 feet; and the Peak of Nethou, 11,168 feet. They contain glaciers, as in the Alps; but these masses of permanent ice are much less extensive. In an extent of 250 m., there are necessarily many passes; the total number, including paths for pedestrians, exceeds 50; but the carriage-roads hardly exceed 5; and of these, the most frequented are from Jonquera to Perpignan on the E., and from St. Sebastian to St. Jean de Luz on the W., and at some distance inland, from Pampeluna to St. Jean Pied de Port. The passes in the interior are over very high ground; thus that of Pineda is 8,248 feet above the sea; Gavarnie, 7,654; Lavareze, 7,350; and Tourmalet, 7,143. The principal rivers rising in the Pyrénées are the Adour, Garonne, and Aude, flowing N., and the Slobregat, and numerous affluents of the Ebro, flowing S.

Pyr'enees, (Australian,) a mountain-range of Australia, colony of Victoria, between the Australian Alps and the Grampians.

Pyrénées, (Basses,) a dept. of the S.W. of France

comprising the anc. provs. of Bearn and Navarre, having N. the dept. of Landes; E. Pyrénées Hautes; S. the Pyrenees: and W. the Pyrenees and the Bay of Biscay. *Area*, 3,000 sq. m. The surface is diversified, and the soil very fertile in the valleys. *Rivers.* Bidouze, Nivelle, the Gave d'Oloron, and the Gave de Pau. *Prod.* Rye, oats, barley, millet, hemp, and flax; numerous cattle, horses and sheep are raised, and large quantities of excellent wines. *Min.* Copper, iron, sulphur, marble, alabaster, &c. Mineral springs are numerous, the most important of which are Biarritz, Cambo, Eaux-Bounes, and Eaux-Chaudes. *Chief town.* Pau. *Pop.* 435,486.

Pyrénées, (Hautes,) n dept. in the S.W. of France, comprises a part of the former prov. of Gascony, having N. Gers; E Haute Garonne; S. the Pyrenees; and W Pyrénees Basses. *Area*, 1,800 sq. m. The surface is mountainous, and the soil indifferent, though very fertile in the valleys. *Rivers.* Garonne, Larros, Neste, Baise, Save, and Gers. *Prod.* Principally wine; also cereals and fruit. *Min.* Copper, iron, zinc, antimony, lead, granite, &c. *Chief town.* Tarbes. *Pop.* 240,252.

Pyrénées Orientales, a maritime dept. in the S. of France, comprising the former provs. of Roussillon, Cerdagne, and part of Languedoc, and having N. the depts. Aude and Ariége; E. the Mediterranean; and S. and W. the Pyrenees. *Area*, 1,583 sq. m. The surface is diversified, the soil generally fertile, and the climate mild. *Rivers.* Tet, Gly, and Techs. *Prod.* The usual cerealia, and fruits. Wines constitute its principal wealth. *Chief town.* Perpignan. *Pop.* 189,490.

Py'rethrum, *n.* [Gr. *pyrethron*, feverfew.] (*Bot.*) A genus of plants, order *Asteraceæ*. The popular species is *P. parthenium*, the Feverfew, so called from being a domestic remedy in slight fevers. It possesses bitter tonic properties. Several varieties, notwithstanding their strong and not very agreeable odor, are cultivated, and are in great favor with many florists, on account of their fine pyramidal form, surmounted with a corymb of pure white, double flowers, which retain their beauty for several weeks.

Pyret'ics, *n. sing.* [Fr. *pyretique*, from Gr. *pyretos*, burning heat.] (*Med.*) A remedy for fever.

Pyretol'ogy, *n.* [Gr. *pyretos*, fever, and *logos*, treatise.] (*Med.*) A treatise on the doctrine and cure of fevers.

Pyrex'ia, *n.*; *pl.* PYREXIÆ. [Fr. *pyrexie*, from Gr. *pyretos*, fever.] (*Med.*) The febrile condition.

Pyrex'ial, Pyrex'ical, *a.* Feverish; relating or pertaining to fever.

Pyrgom, (*pĭr'gom,*) *n.* [From Gr. *pyrgos*, a tower.] (*Min.*) A dingy-green variety of sahlite.

Pyrheliom'eter, *n.* [Gr. *pyr*, fire, *helios*, sun, and *metron*, measure.] Same as ACTINOMETER, *q. v.*

Pyr'iform, *a.* [Lat. *pyrum*, a pear, and *forma*, form.] Pear-shaped

Pyritaceous, (*pĭr'ĭ-tā-shus,*) *a.* Belonging or relating to pyrites.

Pyrites, (*pī-rī'tēz.*) *n.* [Gr *pyrites*, from *pyr*, fire.] (*Min.*) The sulphides of iron, copper, cobalt, &c., are termed by mineralogists *pyrites*, from emitting fire when struck forcibly, or from decomposing spontaneously with the production of heat. Used alone, the term is generally applied to the sulphide of iron, or iron pyrites.

Pyrit'ic, Pyrit'ical, Pyrit'ous, *a.* Pertaining to, consisting of, or resembling pyrites.

Pyritif'erous, *a.* [Lat. *pyrites*, and *ferre*, to bear.] Containing or producing pyrites; as, *pyritiferous* ore.

Pyr'itize, *v. a.* [Fr. *pyritiser.*] To convert into pyrites

Pyrito'hedron, Pyr'itoid, *n.* [Gr. *pyrites*, *eidos*, form, and *hedra*, base.] The pentagonal dodecahedron, a common form of pyrites.

Pyritol'ogy, *n.* [Gr. *pyrites*, and *logos*, treatise.] A treatise on pyrites.

Py'ro, *n.* [Gr. *pyr*, fire.] (*Chem.*) The word *pyro* prefixed to any substance signifies that its composition has been altered by the application of heat; thus we have *pyro*gallic, *pyro*phosphoric, *pyro*mucic, and an infinite number of other acids produced from the original acids by submitting them to the action of an elevated temperature.

Pyritz, (*pē'ritz,*) a town of Prussia, in Pomerania, 24 m. S.E of Stettin. *Manuf.* Woollen cloth and leather. *Pop.* 5,500.

Pyr'mont, in *Ohio*, a post-village of Montgomery co., abt. 16 m. W. of Dayton.

Pyroacetic, (*-sēt'ik,*) *a.* [Fr. *pyroacétique.*] (*Chem.*) Relating, or pertaining to, or obtained from, acetic acid, when subjected to certain conditions of heat; as, *pyroacetic* spirit.

Pyroacid, (*-ăs'id,*) *n.* (*Chem.*) An acid procured by the subjection of another acid to the action of heat.

Pyrochlore, (*-klōr,*) *n.* [Gr. *pyr*, fire, and *chlōinos*, greenish-yellow.] (*Min.*) A compound of columbic and titanic acid with lanthanum, lime, potash, soda, zirconia, yttria, &c.

Pyrocitric, (*-sit'rik,*) *a.* [Fr. *pyrocitrique.*] (*Chem.*) Belonging to, or obtained from, citric acid, under the application of a certain degree of heat.

Pyrogal'lic Acid, *n.* (*Chem. and Phot.*) An important acid, formed from gallic acid by the action of heat. Gallic acid, or any vegetable extract containing it, is placed in a shallow iron pan, and covered with a cap of bibulous paper, over which a cover of writing-paper is fixed. Heat is applied to the vessel containing the gallic acid, care being taken not to exceed a temperature of 420° Fahr. The pyrogallic acid sublimes, passing through the bibulous paper cap, and condensing on the outside, being prevented from passing away by the writing-paper cover. *P. A.* has but feebly acid properties, — in fact, it is supposed by some chemists to be a neutral body. It forms, when sublimed, brilliant plates, which are freely soluble in water, alcohol, and ether. The solution has a bitter taste, but does not redden litmus paper. The solution speedily becomes brown from absorbing oxygen from the air, a property so much increased by the addition of free alkali, that a mixture of pyrogallic acid and caustic potash is used for eudiometrical purposes. The principal use of *P. A.* is in photography, as a developing agent in the collodion process.

Pyro'gen, *n.* Electricity. (R.)

Pyrogeneous, (*-ŏj-,*) *a.* [Fr. *pyrogene*, from Gr. *pyr*, fire, and *genein*, to produce.] Igneous; derived from, or produced by, fire.

Pyro'la, *n.* (*Bot.*) The typical genus of the order *Pyrolaceæ*, q. v.

Pyrola'ceæ, *n.* (*Bot.*) The Winter-green family, an order of plants, alliance *Ericales*. DIAG. Half monopetalous flowers, the stamens free and all perfect, loose-skinned seeds, and an embryo at the base of the albumen. They are herbs, or rarely under-shrubs, natives of N. America, Europe, and the N. parts of Asia. They are chiefly remarkable for their tonic, astringent, and diuretic properties. The *Chimaphila umbellata*, the Prince's Pine or Pipsissewa, is found in dry woods in the Northern States. Its fresh leaves are acrid, and when applied to the skin act as a rubefacient. The order includes 5 genera and 20 species.

Pyrol'atry, *n.* [Gr. *pyr*, fire, and *latreia*, worship.] Fire-worship.

Pyrolectric, (*-lĕk'trik,*) *n.* Thermo-electric.
—*a.* Receiving electric polarity when heated.

Pyrolectricity, (*-lĕk-trĭs'i-ty,*) *n.* Thermo-electricity.

Pyrolig'neous, Pyrolig'nous, Pyrolig'nic, *a.* [Gr. *pyr*, fire, and Lat. *lignum*, wood.] Generated by the distillation of wood.

Pyroligneous acid. (*Chem.*) A name formerly given to acetic acid, produced by the dry distillation of wood.

Pyroligneal ether. (*Chem.*) A name sometimes used for methylic ether.

Pyrol'ogist, *n.* One learned in pyrology. — An experimenter in the laws of heat.

Pyrolo'gy, *n.* [Fr. *pyrologie*, from Gr. *pyr*, fire, and *logos*, treatise.] A treatise on the natural history or doctrine of heat.

Pyrol'usite, *n.* [Gr. *pyr*, fire, and *lonsein*, to wash.] (*Min.*) The common black ore of manganese. See MANGANESE.

Pyromancy, *n.* [Gr. *pyr*, and *manteia*, prophecy.] Divination by fire.

Pyroman'tic, *a.* Having reference to pyromancy.
—*n.* A diviner by the agency of fire.

Pyrome'ter, *n.* [Gr. *pyr*, fire, and *metron*, measure.] (*Chem.*) A name given to instruments for measuring temperatures so high that mercurial thermometers could not be used. The older contrivances for this purpose, —Wedgewood's, Daniell's, Brongniart's, Ericsson's etc., — are almost gone out of use. None of them give an exact measure of temperature. The arrangements now are either based on the expansion of gases and vapors, or on the electrical properties of bodies.

Pyromet'ric, Pyromet'rical, *a.* Pertaining to, or obtained by means of, a pyrometer.

Pyrom'etry, *n.* Act, art, or process of determining the expansion of bodies by heat.

Pyromorphite, (*-fit,*) *n.* [Gr. *pyr*, fire, and *morphē*, shape.] (*Min.*) A native chloro-phosphate of lead. When heated before the blowpipe, it fuses into a globule, and the name has reference to the polyhedral crystalline form which such a globule assumes in cooling.

Pyromorphous, (*-môr'fus,*) *a.* (*Min.*) Possessing the property of crystallization by the action of fire.

Pyronom'ics, *n. sing.* The science of heat.

Pyr'ope, *n.* [Fr.; Lat *pyropus*; Gr. *pyr. pyros*, fire, and *ops*, the eye.] (*Min.*) Precious Garnet. A dark variety of garnet seldom found crystallized, but generally in rounded or angular grains. This stone, which is of a full crimson-red color, approaching to that of a ripe mulberry, is much used in jewelry Sometimes it is called *fire-garnet*, from the resemblance of its hue, when held between the eye and the light, to that of a burning coal It is procured chiefly from Bohemia, Saxony, and Ceylon.

Py'rophane, *n.* (*Min.*) A variety of semi-opal which becomes transparent on being heated.

Pyrophanous, (*-rŏf'a-nus,*) *a.* [Gr. *pyr*, and *phanos*, bright] Made diaphonous by heat.

Pyroph'oric, Pyroph'orous, *a.* [Gr. *pyr*, and *phoros*, bearing.] Pertaining or relating to, or having the characteristics of pyrophorus.

Pyrophorus, (*pī-rŏf'o-rus,*) *n.* [Lat., from Gr. *pyr*, and *phero*, I bear.] (*Chem.*) A substance which spontaneously takes fire when exposed to air. An excellent *P.* is afforded by heating tartrate of lead red-hot in a glass tube, in which it may afterwards be hermetically sealed. When the tube is broken, and the black powder within it shaken out through the air, it burns with the emission of a dense smoke of oxide of lead. The spontaneous inflammability of this *P.* is probably due to minutely divided lead

Pyrophyllite, (*-rŏf'il-līt,*) *n.* [Gr. *pyr*, *pyros*, fire, and *phyllon*, leaf.] (*Min.*) A hydrated silicate of alumina, of a white or a pale-green color.

Pyror'thite, *n.* (*Min.*) An impure orthite containing bitumen.

Pyr'oscope, *n.* [Fr., from Gr. *pyr*, fire, and *skopein*, to view.] An instrument for measuring the intensity of heat radiating from a fire, being a kind of differential thermometer.

Pyro'sis, *n.* [Gr., an inflammation.] (*Med.*) The WATER-BRASH, *q. v.*

Pyros'malite, *n.* [Gr. *pyr*, *pyros*, fire, and *osmē*, odor.] (*Min.*) A native silicate of iron, with chloride of iron, which when heated exhales the odor of chlorine.

Pyrotechnian, (*-tĕk'-,*) *n.* A pyrotechnist.

Pyrotechnic, Pyrotechnical, (*-tĕk'nĭk,*) *a.* [Fr. *pyrotechnique*; Gr. *pyr*, and *technē*, an art.] Pertaining to pyrotechny, or the art of making fireworks.

Pyrotechnician, (*-tĕk-nĭsh'an,*) *n.* One skilled in the making of fireworks.

Pyrotech'nics, *n. sing.* The art of making fireworks; pyrotechny.

Pyrotech'nist, *n.* One skilled in pyrotechny; a manufacturer of fireworks; a pyrotechnician.

Pyrotechny, (*pī-ro-tĕk'ne,*) *n.* [Gr. *pyr*, fire, *techna*, art.] In its proper sense, this term signifies the science which teaches the management and application of fires. In its more popular sense, however, the word chiefly refers to the art of making fireworks. The principal ingredients used are purified saltpetre, sulphur, and charcoal. Gunpowder is also used in the composition of fireworks. For this purpose it is first ground, or, as it is technically termed, *meated*. In different fireworks the proportions of the materials differ very much: and great care and precaution are necessary in mixing and working them into a proper state for use. Camphor, alcohol, antimony, and other substances are employed when it is required to produce colored stars. When gold or silver rain is required. brass-dust, steel-dust, sawdust, &c., are used. Steel-filings and cast-iron borings contain carbon, and give a brilliant fire with wavy radiations. Copper-filings give a greenish tint. zinc a fine blue, sulphide of antimony a greenish-blue, with much smoke. Amber affords a yellow fire with colophony and common salt; but the last must be very dry. All the salts of copper tinge the flames green; those of strontian, red; those of caryta, a peculiar green. Lycopodium burns with a magnificent rose-colored flame. It is principally used in theatres to represent lightning. All fireworks are divided into three classes, — those which are let off upon the ground (as *jets of fire* and *revolving wheels*), those which are shot up into the air (as *sky-rockets* and *Roman candles*), and lastly, those which act upon or under water.

Pyroth'onide, *n.* [Gr. *pyr*, *pyros*, fire, and *othonē*, linen.] (*Med.*) An oil produced by the combustion of textures of hemp, linen, or cotton in a copper vessel.

Pyrot'ic, *a.* [Gr. *pyrōtikos.*] Caustic.
—*n.* A caustic medicine.

Pyr'oxene, *n.* [Gr., from *pyr*, fire, and *xenos*, a stranger.] (*Min.*) Same as AUGITE. *q. v.*

Pyroxen'ic, *a.* Containing, or consisting of, pyroxene.

Pyrox'yle, *n.* (*Chem.*) See PYROXYLINE.

Pyroxylic, (*-il'ik,*) *a.* [Gr. *pyr*, *pyros*, fire, and *xylon*, wood.] (*Chem.*) Obtained from the complete distillation of wood; as, *pyroxylic* spirit.

Pyrox'yline, Pyrox'yle, *n.* (*Chem.*) A substitute compound of explosive character, discovered by Schönbein, and which may be prepared on a small scale as follows: — Dry 1,000 grains of pure nitre at a very moderate heat, place it in a dry retort (Fig. 2192), pour upon it 10 drachms (by measure) of strong sulphuric acid, and distil until 6 drachms of nitric acid have passed over into the receiver. Dry some pure cotton-wool, and weigh out 30 grains of it. Mix 2½ measured drachms of the nitric acid with an equal volume of strong sulphuric acid in a small beaker. Allow the mixture to cool; immerse the cotton wool, pressing it down with

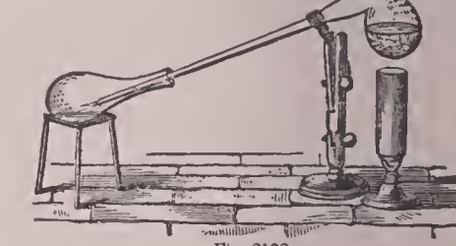


Fig. 2192.

a glass rod; cover the beaker with a glass plate, and set it aside for 15 minutes. Lift the cotton out with a glass rod; throw it into a pint of water, and wash it thoroughly in a stream of water till it no longer tastes acid or reddens blue litmus paper. Dry the cotton by exposure to air at a very moderate heat. No apparent change of form takes place; but a very remarkable chemical alteration ensues. A certain number of equivalents of hydrogen are abstracted, and their place supplied by an equal number of equivalents of peroxide of nitrogen. In fact, $C_{12}H_{20}O_4$ becomes $C_{12}H_{14}O_4(NO_5)_6$. In undergoing this change, the fibre is increased in weight 82 per cent., and acquires new properties. Pyroxyline is specially characterized by its explosibility and solubility in a mixture of ether and alcohol. The former property has caused it to be used in blasting operations, under the name of *gun-cotton*; the latter has rendered it one of the most important materials used by the photographer. Dissolved in a mixture of ether and alcohol, and mixed with a certain proportion of some soluble iodide, it forms ordinary photographic collodion. The preparation of this important material requires attention to so many minute details, which could not be given here, that the reader is referred to Hardwick's *Photographic Manipulation* for a full account of the precautions to be used. Collodion is also

used in surgery to form an artificial skin to excoriated surfaces. For this purpose the following process may be employed: — Take of fuming nitric acid and sulphuric acid, of each 4 fluid ounces. Thoroughly saturate half an ounce of clean carded cotton in the mixed acids, having first allowed them to become cool. Macerate for 12 hours, and then wash the cotton in a stream of running water. This quantity of pyroxyline should be dissolved in 3 parts of ether, to which about 2 ounces of alcohol have been added. If the film formed is too contractile, a few drops of castor-oil should be added.

Pyrrhic, (*pĭr'rĭk,*) *n.* A military dance of the ancients, performed to the music of the flute.

(*Pros.*) A foot composed of two short syllables.

—*a.* Pertaining or having reference to a military dance of the ancients, named after Pyrrhichus.

(*Pros.*) Belonging to, or consisting of, pyrrhics; as, a *pyrrhic* verse.

Pyrrhicist, (*pĭr'rĭ-sĭst,*) *n.* Among the ancients, a performer of the pyrrhic dance.

Pyr'rhite, *n.* [Gr. *pyrrhos,* flame-colored.] (*Min.*) A mineral occurring in minute octahedrons of an orange-yellow color, at Alabaschka in Siberia, and the Azores. It is probably columbate of zirconia, colored by the oxides of iron, uranium, and manganese.

Pyr'rho, a celebrated philosopher of Elis, and founder of the sect called Sceptics, or Pyrrhonists, flourished about B. C. 340. He was originally a painter, but afterwards became a disciple of Anaxarchus, whom he accompanied to India in the train of Alexander the Great, and while there obtained a knowledge of the doctrines of the Brahmins, Gymnosophists, Magi, and other eastern sages. On the return of *P.* to Greece, the inhabitants of Elea made him their high-priest, and the Athenians gave him the rights of citizenship. D. B. C. 288. — *P.*'s scepticism was by no means of the thorough-going kind that is usually associated with his name, which is synonymous with absolute and unlimited infidelity. He certainly disbelieved in the possibility of acquiring a scientific knowledge of things; but, like Kant, he appears to have tenaciously maintained the reality of virtue, and the obligations of morality.

Pyrrho'nean, Pyrrho'nic, *a.* Belonging or having reference to Pyrrhonism.

Pyrrhonism, (*pĭr'ro-nĭzm,*) *n.* Perfect scepticism; doubt of everything.

Pyr'rhonist, *n.* A universal sceptic.

Pyr'rhotine, *n.* (*Min.*) Magnetic iron pyrites. A sulphide of iron composed of 60·5 per cent. of iron and 39·5 sulphur. It generally occurs massive and amorphous, but sometimes crystallized, in irregular and variously modified six-sided prisms. The color, which is bronze-yellow, reddish, or brownish, is liable to become speedily tarnished on exposure to the air.

Pyr'rhus, king of Epirus, being obliged, on the murder of his father, to seek safety by flight, found a home, parent, and tutor in Glaucas, king of Illyria, where he remained for several years, till old enough to maintain his own right, and ascended his father's throne, 295 B. C. Having attempted to possess himself of Macedon, he was defeated in a great battle, and compelled to relinquish his ambitious design. In 281 a. c. he made war on the Romans, having been called to the assistance of the Samnites, and, in a desperate battle fought on the banks of the Syris, in Calabria, totally defeated the Roman army; yet, so dearly was this glory bought, that Pyrrhus exclaimed, "Another such victory will ruin me." After several signal advantages, the Romans at length triumphed, and Pyrrhus, sustaining many disasters, returned to Greece, and, in a subsequent war with the Argives, was killed, by a tile thrown on his head from the roof of a house, as he entered Argos. 273 B. C. Pyrrhus was one of the most illustrious generals of the age in which he lived. The Romans entertained the highest opinion of his military skill, and from him, in fact, they learned much of the art of war. He was fond of glory, and personally brave, even to rashness; but his faults of ambition were counterbalanced by acts of courtesy and benevolence.

Fig. 2193. — PYRRHUS, (From an ancient bust.)

Py'rus, *n.* [Lat., a pear-tree.] (*Bot.*) A gen. of trees and shrubs, ord. *Rosaceæ,* sub-ord. *Pomaceæ,* having a 5-celled fruit, with a cartilaginous endocarp and 2 seeds in each cell. It includes species differing very much in appearance, in foliage, and in almost everything except the characters of the flower and fruit. Our principal orchard-trees belong to this genus. *P. malus* and its varieties produce the different kinds of apples. (See APPLE.) *P. communis* (Fig. 2194) and its varieties produce the different kinds of pears. The Romans cultivated thirty-six varieties of pears, and at the present time there are many hundreds. The Jargonelles, Bergamots, Chaumontelles, and other choice sorts, are delicious dessert-fruits. The varieties of pear differ much in hardiness and in fitness for particular soils; although a deep, moderately strong, dry loamy soil is the best for this fruit. Pears succeed well as espaliers. They are generally grafted on seedling stocks of the wild pear, but sometimes on the rowan, and sometimes on the quince.

Fig. 2194. — PEAR, (*Pyrus communis.*)

Pears grafted on quince stocks are the best for shallow soils. The flowers and fruit of the pear are mostly produced on spurs, which spring from branches of more than one year old. Various modes of training and pruning are practised for pear-trees. Among the varieties of pears are some which ripen early in autumn, and some which do not ripen till the beginning of winter, and which even require to be mellowed by keeping for a short time; while some of the kinds cannot easily be kept for more than a few days. In general, pears cannot be kept so long nor so easily as apples. Pears are sometimes made into a preserve with syrup, and sometimes cut into pieces, and dried in the sun or in an oven, to be afterwards used in pies, a practice very prevalent in France. A very agreeable fermented liquor, called *Perry,* is made from pears in the same manner as cider from apples. The wood of the pear-tree is often used instead of boxwood for the coarser wood-engravings. *P. aucuparia* is the Mountain-ash, or Rowan-tree; *P. aria* is the Beam-tree, the timber of which is used for axletrees and other purposes; *P. domestica* is the Service-tree, and *P. torminalis* the Wild Service-tree.

Pyr'ula, *n.* (*Zoöl.*) A common and numerous gen. of Mollusca, family *Muricidæ,* chiefly found in the Indian Ocean, Red Sea, and Atlantic Ocean. The shell (Fig. 2195) is large, and pear- or fig-shaped; the spire short, and sometimes flattened; aperture wide, terminating in a long, open canal; outer lip thin; columella smooth; operculum horny.

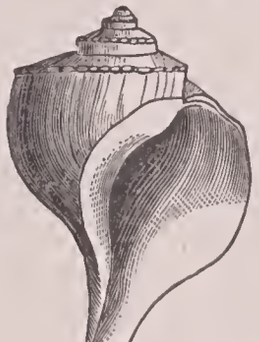


Fig. 2195. PYRULA CANALICULATA, (U. S.)

Pyrula'ria, *n.* (*Bot.*) A genus of plants, order *Santalaceæ,* including the Oil-nut, *P. oleifera,* a shrub 4–6 feet high, found in the Middle States, on the margins of mountain streams.

Pythag'oras, the celebrated Greek philosopher, was B. in Samos, probably about B. C. 580–570. So many legends have gathered about his history, that it is almost impossible to trace its details. He was the son of Mnesarchus, and, perhaps, a disciple of Pherecydes. He is said to have travelled extensively, especially in Egypt, and to have been initiated in the most ancient Greek mysteries. He attached great importance to mathematical studies, and is believed to have made several important discoveries in geometry, music, and astronomy. Aversion to the tyranny of Polycrates, in Samos, is said to have been the cause of his quitting that island after his return from the East; and he ultimately settled, between B. C. 540–530, at Crotona, one of the Greek cities of South Italy. There he set himself to carry out the purpose, probably formed long before, of instituting a society through which he might, to some extent, give embodiment and practical shape to his ideas. It was, says Thirlwall, at once a philosophical school, a religious brotherhood, and a political association, and was composed of young men of the noblest families, not exceeding 300 in number. *P.* himself was the chief, or general, of the order. The doctrines he taught, the discipline and observance he established, and the ultimate objects of the society, are wrapped in mystery. Similar societies were founded in other cities of Italy, and through all of them *P.* exerted a considerable influence on political affairs, and especially in opposition to democratic and revolutionary movements. This became at length the occasion of a popular rising against the Pythagoreans at Crotona, B. C. 504, — the house in which they were assembled was burned, many perished, and the rest were exiled. Similar tumults, with similar results, took place in other cities, and *P.* himself is believed to have D. soon after, at Metapontum. Among the doctrines of this extraordinary man are the following: that numbers are the principles of all things; that the universe is a harmonious whole (*kosmos*), the heavenly bodies by their motion causing sounds (*music of the spheres*); that the soul is immortal, and passes successively into many bodies (*metempsychosis*); and that the highest aim and blessedness of man is likeness to the Deity. He was regarded with the highest veneration as a superhuman being, and a favorite of heaven, and he probably encouraged such belief. And so far as respects his aim to train his followers to a wise, noble, rational, and religious life, it is evident that he was successful, and his influence on some of the greatest philosophers of later times was very great. He left no written account of his doctrines; they were first committed to writing by Philolaus. *P.* is said to have been the first who took the title of *philosopher,* and the first who applied the term *kosmos* to the universe. He shares with Thales and Xenophanes the high distinction of starting the problem of physical science; the study and interpretation of nature as an object governed by unchanging laws, instead of a variety of personal agencies, as conceived by the religious faith of earlier generations.

Pythago'rean, *n.* A follower of Pythagoras, *q. v.*

—*a.* Belonging to the philosophy indoctrinated by Pythagoras.

Pythagor'ic, Pythagor'ical, *a.* Same as PYTHAGOREAN.

Pythag'orism, *n.* The doctrines of the school of Pythagoras.

Pythagor'ize, *v. a.* [Gr. *pythagorizein.*] To speculate after the philosophical manner of Pythagoras.

Pyth'ia. The name of a priestess of the Delphic oracle of Apollo.

Pyth'iad, *n.* (*Gr. Hist.*) The intervening period betwixt one celebration of the Pythian games and the next.

Pyth'ian Games. (*Greek Antiq.*) One of the four great national festivals of Greece, celebrated every fifth year in honor of Apollo, near Delphi. The contests were the same as those at Olympia, and the victors were rewarded with apples and garlands of laurel.

Pyth'ias, (Knights of,) *n. pl.* A secret society largely ramified throughout the U. States, and bearing some resemblance to the Odd-Fellows.

Py'thon. (*Myth.*) The name of the dragon slain by Apollo.

(*Zoöl.*) A genus of serpents of the family *Boidæ,* q. v., differing from the true boas in having the plates on the under surface of the tail double. The tip of the muzzle is plated; the lips are grooved. The species are all natives of the Old World. They are all large; some of them very large, and rivalled in size by no serpents except the boas of America. This name is given to some species which belong to the genus or sub-genus *Hortulia,* one of which, the Natal Rock-Snake, *H. natalensis* (Fig. 2196), is said to attain so large a size that its body is as thick as that of a man.

Fig. 2196. PYTHON, OR ROCK-SNAKE, (*Hortulia natalensis.*)

Pyth'oness, *n.* [From Gr. *pythōn,* older form of *pythō,* also the oldest name of Delphi.] The priestess of Apollo who gave oracular answers at Delphi, in Greece.

—Hence, by analogy, any female supposed to possess a spirit of divination.

Pyth'onic, *a.* [Gr. *pythonikos.*] Pretending to divination of future events.

Pyth'onism, *n.* The art of prognosticating future events by sorcery or divination.

Pyth'onist, *n.* A conjurer; a necromancer.

Pyx, (*pĭks,*) *n.* [Lat. *pyxis.*] (*Eccl.*) In the Roman Catholic Church, the name given to the box in which the host is kept.

(*Naut.*) The box or binnacle in which a ship's compass is suspended.

(*Anat.*) See PYXIS.

—A box used in the English mint as the depository of coin awaiting test.

—*v. a.* To test as to weight and purity, as the coins deposited in the pyx.

Pyxid'ium, *n.*; *pl.* PYXIDIA. (*Bot.*) See CIRCUMSCISSILE.

Pyx'is, *n.* [Lat.] A pyx. — (*Bot.*) Same as PYXIDIUM.

(*Anat.*) The cavity of the hip-joint; acetabulum.

Pyx'is Nauti'ca, *n.* (*Astron.*) A constellation of the south hemisphere, formed by Lacaille.

P.—SECTION II.

Pach-, Pachy-. An initial compounding element, derived from the Greek *pachys*, thick; as *pachyderm*, having a thick skin.

Pacific Grove, In *California*, a post-town of Monterey co., on Monterey Bay. 2 m. from Monterey. *Pop.* (1897) 1,450

Pacific O'ceau, The. A vast expanse of water, extending between Asia and America (formerly, but improperly, called the SOUTH SEA), and covering a large portion of the surface of the globe. Its extreme southern limit is the Antarctic circle, from which it stretches north through 132 degrees of latitude to Bering Strait, which separates it from the Arctic Ocean. Its greatest breadth from east to west, measured along the equator, is about 10,000 miles. In some parts, especially off the coast of Japau, and southeast of Australia, it is very deep, but its bottom has not been so systematically surveyed as that of the Atlantic. Its shape is very irregular; but it becomes gradually narrower as it extends north, till at length the Sea of Kamchatka has a breadth of only 170 miles. The American coast is pretty uniform, though high and bold, presenting the long Cordillera of the Andes in South America, and the variously named continuations of it forming a series of coast ranges in Mexico, and extending to the end of the half submerged Aleutian peninsula. Its indentations are the Gulfs of California and Panama; besides which, at the north and south extremities, it is broken and rugged, forming numerous islands and fiords, similar to those of other high latitudes. The Asiatic coast-line, on the contrary, is extremely irregular, formed into deep bays and subdivided by groups of islands into separate gulfs or seas, as the Sea of Okhotsk and the Yellow Sea; besides which numerous straits are formed between the islands of the Asiatic Archipelago. The vast expanse south of the equator is studded with groups of coralline and volcanic islands, which constitute a distinct portion of the world, called POLYNESIA (*q. v.*). North of the equator the Islands are fewer, the Ladrone, Caroline, Marshall and Hawaiian groups being most important. These form MICRONESIA (*q. v.*; also HAWAII).

The general motion of the waters of the Pacific Ocean is from the coast of America to that of Asia; and this motion is very powerful in the vast and uninterrupted extent of its waters. The northeast trade-wind prevails uninterruptedly between Lat. 5° and 23° north, and, with the currents, enable ships to sail from America to Asia with great rapidity, and almost without changing the sails. The southeast trade-wind, which is not met met with near the American coast, varies in its extent at different seasons; but it commonly prevails between the equator and 26° south, so that the region of calms in the Pacific Ocean extends over only 5° of latitude, or somewhat less than in the Atlantic. In Lat. 40°, on both sides of the equator, tempests and variable winds prevail; but it may be remarked generally that north of Lat. 40° north, winds from west and northwest are more prevalent than any others, whereas in the regions south of the trade-winds the prevailing winds are from southwest, and often extremely violent. Winds from the south, however, are found along the coast of Peru, and may be attributed, in some measure at least, to the strength of the Polar current (*q. v.*) in the southern hemisphere. They are generally light, though steady. Navigators traversing the ocean between North America and Asia sail west from Mexico, touching at the Sandwich Islands, and entering the Chinese Sea between the islands of Luzon and Formosa. The voyage from Asia to America is effected by seeking the region of the variable winds north of Lat. 30°, and making the coast of California. This ocean, which received its name, Pacific, from Magellan, in consequence of the propitious weather which he met while navigating its surface, was not known to the ancients, nor was the existence of so vast an ocean at all suspected by Europeans till Sept. 25, 1513, Vasco Nuñez de Balboa beheld it from the summit of a mountain near the Isthmus of Panama. Magellan traversed it from America to Asia in 1521.

Pacific Univer'sity. (*Educ.*) A Congregational co-educational institution, at Forest Grove, Oregon, 21 m. W. of Portland. Founded in 1818, it had, in 1896, 13 instructors, 200 students, and 7,500 volumes in its library. It has some productive funds, and its total income in 1896 was $20,000.

Pack'ard, ALPHEUS SPRING, naturalist, was born in Brunswick, Maine, Feb. 19, 1839, son of Dr. A. S. Packard (1798–1884), president of Bowdoin College; graduated at Bowdoin (1861), and at Maine Medical College (1864); was an army surgeon (1864–65); State entomologist of Massachusetts (1871–73); director of the Peabody Museum, at Salem, Mass. (1868–76); professor of Zoölogy and Geology at Brown University (1878). He was a member of the United States Entomological Commission, and has written largely on insects.

Pad'dock, BENJAMIN HENRY, S. T. D., clergyman, was born at Norwich, Conn., Feb. 29, 1828. He was bishop of the Protestant Episcopal Church after 1873. Died March 9, 1891.

Paderewski (*pād-ēr-ĕf'-skĭ*), IGNACE JAN, pianist, was born in Podolia, Poland, Nov. 6, 1860. He began to play on the piano at 3 years of age. In 1872, he went to Warsaw, as a pupil of Roguski, and later studied under Frederick Kiel at Berlin. In 1878 he became professor of Music in the Conservatory at Warsaw, and in 1884 was made professor at the Conservatory of Strasburg. He soon after determined to become a piano virtuoso; studied three years with Leschitzki at Vienna; made his début in 1887, with instant success; toured through Germany, and went to Paris in 1889, and to London in 1890. His first American tour was in 1891, when he created a furore; he returned in 1893, visiting the World's Fair, and giving piano recitals, his tour bringing him $150,000. In 1896 he again visited the United States, this time realizing $187,000. He donated a sum of $10,000, the interest of which is to be devoted to the encouragement of American composers by the award of three triennial prizes. He also dedicated to his American admirers a *Menuet Moderne*, in contradistinction to the *Menuet à l'Antique*, which has been so popular in this country. He has composed over eighty vocal works, besides his instrumental compositions. His *Polish Phantasie* was produced at the Norwich festival in 1893. *P.* married at the age of 19; later his wife died, but a son survived her.

Padi'na, *n.* (*Bot.*) A beautiful genus of dark-spored *Algæ*, of which *P. paronia*, Turkey-feather Laver, or Peacock's Tail (Fig. 3017), is one of the most remarkable species; it is common in tropical countries.

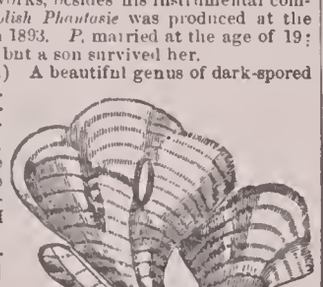


Fig. 3017.—PADINA PAVONIA.

Padrone (*pa-drō'-nā*), *n.* [It., master.] A house-proprietor, or an employer of labor; especially a contractor for street musicians and laborers.—The commander of a small vessel engaged in the Mediterranean trade.

Prædogen'esis, *n.* (*Biol.*) An acceleration in the life-history of certain animals, as, for instance, the Mexican axolotl and certain flies (*Cecidomyiidæ*), in which the larvæ are capable of reproduction. In the latter forms, the larvæ produce other larvæ, which feed upon the parent and eventually escape from the body by its complete destruction.

Pæ'onin, *n.* [Lat. *Pæonia.*] (*Chem.*) A red resinous coloring matter, obtained by heating phenylic alcohol with sulphuric and oxalic acids. It is used in printing cotton, silk, and wool a yellow or red-orange color.

Paez (*pä'-āth*), JOSÉ ANTONIO, soldier and politician, was born in the province of Barinas, Venezuela, June 19, 1790. He joined the patriots in 1810, and was thereafter constantly active in the military and civil affairs of Venezuela. He was military and civil commandant at various points until he was made President for four years (1831); commanded the army from 1835 to 1839, and was again President from Feb. 1, 1839, to Jan. 28, 1843. In Jan., 1848, he led against Monagas, but was defeated in 1849, and imprisoned for ten months, and then banished for a term of years. In 1860 he was minister to the U. S. In August of that year, on the deposition of Gaul, he was proclaimed dictator by the army. Three years of civil war followed, ending disastrously for *P.* After May, 1863, he left Venezuela, and resided for the remainder of his life in New York city, where he died, May 7, 1873.

Page, DAVID P'ERKINS, educator, was born at Epping, N. H., July 4, 1810. For his education he spent two terms at Hampton Academy; he then taught school; was recognized as possessing, in a rare degree, the qualities of a great teacher; received (1845) the appointment as principal of the newly established Albany Normal School, which post he filled until his death, Jan 1, 1848. He was the author of the well-known *Page's Theory and Practice of Teaching.*

Page, THOMAS NELSON, author, was born in Oakland, Va., on April 23, 1853; educated at Washington and Lee University; practiced law in Richmond; received the degree of LL.D. from his university in 1887. His first story, *Uncle Gab's White Folks*, appeared in *Scribner's Magazine* in 1877; his next, *Marse Chan*, appeared in the *Century Magazine* during 1884. Since that time he has written many other stories and sketches, several volumes of which have been issued, one of the latest being *Unc' Edinburgh* (1895). In his "author's readings," Mr. Page has given inimitable interpretation to his dialect stories, especially *Marse Chan.*

Page, WILLIAM, portrait-painter, was born in Albany, N. Y., on Jan. 23, 1811; studied painting under Samuel T. B. Morse, and at the National Academy of Design. Besides his notable success in portraits, he showed skill in classic and historical figure-painting. Of these works, his *Venus*, painted at Rome (where he resided much of the time from 1849 to 1860), is considered his finest canvas. He was a full member of the National Academy from 1836. Died Oct. 1, 1885.

Paget (*pă'jet*), RT. HON. SIR AUGUSTUS BRAKELEY, diplomatist, was born in 1823. His diplomatic career began in 1846, when he was attaché to the embassy of Paris; became secretary of legation at Athens (1852); filled various diplomatic offices in Egypt, Holland, and elsewhere, and was on several occasions *chargé d'affaires* at Lisbon; was ambassador successively to Saxony, Sweden, Denmark, Portugal, Italy, and Austria; retired on a pension July 1, 1893. Died July 11, 1896.

Paget, SIR JAMES, physician, was born in Yarmouth, England, on Jan. 11, 1814; studied at St. Bartholomew's Hospital, London; in 1836 became a member, and in 1843 a fellow, of the Royal College of Surgeons; was a member of the council (1865), and president of the college (1875). He is sergeant-surgeon to the Queen, surgeon to the Prince of Wales, and consulting surgeon to St. Bartholomew's Hospital. He was created a baronet in 1871, and the same year received the degree of LL. D. from the University of Edinburgh. His *Lectures on Surgical Pathology*, first published in 1853, has passed through many editions, and is a standard text-book. He was Croonian lecturer in 1857, his subject being the causes of the rhythmic action of the heart; delivered the Hunterian oration (1877); the Brashawe lectures, on some rare and new diseases (1882); and the Morton lecture, on cancer (1887). He was vice-chancellor of the University of London, and a member of the Institute of France.

Paget, VIOLET (pseudonym, VERNON LEE), writer, was born in England, in 1857; has resided chiefly in Italy, where she has devoted herself to the study of the Italian arts, literature, and drama. Her writings are mainly critical essays on these subjects, contributed to current magazines, and collected in several volumes since 1880.

Pa'go-Pa'go. (*Geog.*) A harbor on the south of Tutuila in the Samoan Islands. Since 1872 it has been occupied as a coaling station, first by the United States and then by Great Britain, but in 1892 it was formally ceded to the United States. Also called PAGO-PAGO.

Pah'lavi, Peh'levi. *n.* The ancient form of speech preserved in the Avesta, the Zoroastrian Bible. It is occasionally called the Avestan or Avesta language. It is also sometimes styled Zend, but erroneously, since Zend means "interpretation" or "commentary." The Zoroastrian Scriptures are by some designated Zend-Avesta, but the designation should be Avesta and Zend, corresponding to the Pahlavi phrase *Avestak va Zand*, meaning the Avesta and commentary or explanation. The Pahlavi is preserved in the form of inscriptions and coins, and in an extensive written literature. The language, though Persian, presents a strange non-Iranian appearance. There is a curious admixture of Semitic (Aramaic) words and Iranian elements. The fundamental words, those of commonest usage, are Semitic, and Semitic words also stand beside Iranian equivalents; but they are often treated in a way which is quite un-Semitic, or, again, they assume an Iranian look by receiving Iranian endings. This Semitic preponderance, however, is superficial rather than real. Pahlavi,

MARINE LIFE.

1 PECTEN OPERCULARIS (Scallop).
2 MURÆNA HELENA (Eel).
3 CYNTHIA (Sea-squirt).
4 CONGER VULGARIS (Conger Eel).
5 DOLIUM GALEA (Tun Shell).
6 ASCIDIAN (Tunicate Animal).
7 STEGOSTOMA TIGRINUM (Tiger Shark).
8 CESTUM VENERIS (Venus' Girdle).
9 ATLANTA (Heteropod).
10 SALPA MAXIMA (Swimming Tunicate).
11 RHIZOSTOMA CUVIERII (Umbrella-fish).
12 LOLIGO (Squid).
13 EGGS OF THE LOLIGO.
14 ACTÆON MEDITERRANEA (Hydrozoon).
15 OCTOPUS VULGARIS (Devil-fish).
16 HALICHONDRIA (Sponge).
17 POLYTHOA CAVOLINII (Rock Coral).
18 ADAMSIA RONDELETII (Sea-Anemone).
19 URANOSCOPUS (Star-gazer).
20 HOLOTHURIAN (Sea-cucumber).
21 TRIGLA PINI (Red Mullet).
22 CALAPPA (Decapod Crustacean).
23 HYAS ARANEUS (Great Spider Crab).
24 PALINURUS VULGARIS (Lobster).
25 SERRANUS (Sea-perch).
26 CRIBELLA OCULATA (Star-fish).
27 CORALLIUM RUBRUM (Red Coral).
28 SERPULA (Tubular Sea-worm).
29 SPIROGRAPHIS SPELLENSONIA (Annelid).
30 TRYGON PASTINACA (Sting-ray).
31 ASTERINA GIBBOSA (Gibbon's Starlet).
32 ASTEROIDIA (Yellow Coral).
33 APLYSIA PUNCTATA (Sea-hare).
34 CIDARIS PAPILLATA (Sea-urchin).
35 TORPEDO OCULATA (Electric-fish).
36 CEREACTIS AURANTIACII (Sea-anemone).
37 CEREANTHUS MEMBRANACEUS (Sea-anemone)

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when written, is indeed largely Semitic, but when read it becomes Iranian. The book-Pahlavi alphabet has only fourteen letters to discharge the duty of a complete alphabet. Owing to this paucity a single sign has to assume a number of offices. The separate signs, moreover, are further obscured by being combined into ligatures of which the elements are exceedingly difficult to decipher. The extent of Pahlavi literature may be estimated to be about the same as that of the Old Testament. In point of time the literature may be placed between the years A. D. 226 and A. D. 881. Nearly a hundred works have been preserved. These are in part translations of older Avesta texts, or they are works written on religious subjects, though some of them deal with legendary or miscellaneous topics. The most important of the Pahlavi texts have been translated by West in *Sacred Books of East* (Oxford, 1880), and translations of separate works have been contributed by other scholars.

Pah-Utes, or **Pi-Utes.** See UTE INDIANS.

Paidol'ogy, *n.* [Gr. *pais* (gen. *paidos*), child, and *logos*, treatise.] The scientific study of the life, growth, ideas, the very being of the child.

Paine, ELIJAH, jurist and politician, was born in Brooklyn, Conn., Jan. 21, 1757, and died April 28, 1842. He was U. S. Senator from Vermont (1795–1801).

Paine, ELIJAH, legal writer, son of the foregoing, was born at Williamstown, Vt., April 10, 1796; graduated at Harvard (1814); studied law at Litchfield, Conn; assisted in preparing *Wheaton's Reports;* was judge of the New York superior court (1850–53); author of *Paine's Reports*, and joint author of Paine and Duer's *Practice in Civil Actions and Proceedings in the State of New York*. Died Oct. 6, 1853.

Paine, JOHN KNOWLES, organist and composer, was born in Portland, Me., Jan. 9, 1839; studied under the first masters in Berlin (1858–61); returned to America and gave organ recitals; was instructor in music at Harvard (1862), and full professor in 1876. His compositions are numerous, including a grand mass in D, an oratorio, *St. Peter*, and a wide range of vocal and instrumental works. He composed the Columbian Hymn for the opening of the World's Fair at Chicago, Oct. 21, 1892. Also published *Famous Composers and Their Works* (1892–94).

Paine, MARTYN, physician, was born at Williamstown, Vt., July 8, 1794; educated at Harvard; took his medical degree (1816); removed to New York (1822), and became a leader in his profession; was one of the founders of the University Medical College (1841), in which he subsequently held important professorships. He wrote *Cholera Asphyxia of New York* (1832); *Medical and Physiological Commentaries* (1840–44); *The Soul and Instinct* (1849), &c. Died Nov. 10, 1877.

Paine, ROBERT, clergyman, was born in North Carolina, Nov. 12, 1799; began to preach in the Methodist Episcopal Church (1818). From 1844–45 was prominent in the debates over the slavery question, which led to the division of that church. In 1846 he was made bishop of the M. E. Church, South. Died Oct. 20, 1882.

Paine, ROBERT TREAT, a signer of the Declaration of Independence, was born in Boston, Mass., March 11, 1731; educated at Harvard; admitted to the bar (1759); was a member of the Colonial Legislature (1773); the Provincial Congress (1774–75); the Continental Congress (1774–78). After the formation of the U. S. government he became attorney-general of Massachusetts (1780–90), and judge of the Supreme Court of the State (1790–1804). He was founder of the American Academy of Massachusetts. Died May 11, 1814.

Paine, ROBERT TREAT, son of the foregoing, was born in Taunton, Mass., Dec. 9, 1773; educated at Harvard, and entered upon the profession of journalism; became interested in the theater, and married an actress, Miss Baker; was consequently estranged from his father; dropped theatrical matters, studied law, and began to practice in Boston (1802); returned to his former interest in the drama, and wrote criticisms. He led an unsettled life, and passed his closing days in destitution, dying Nov. 13, 1811.

Paine, WILLIAM H., civil engineer, was born in Chester, N. H., May 27, 1828. On the outbreak of the Civil War he was appointed captain of engineers on the staff of General McDowell; promoted to colonel, serving throughout the war on the general staff of the Army of the Potomac. He was one of the engineers of the East River Bridge, in 1869, and engaged in numerous important engineering projects subsequently. Died Dec. 31, 1880.

Pajamas (*pa-jah'maz*). *n. pl.* Loose trousers worn by both sexes in India, a modification of which is used for chamber wear in America and Europe.

Pak'enham, SIR EDWARD, soldier, was born at Pakenham Hall, Westmeath, Ireland, on March 19, 1778, the second son of the Earl of Longford, and a brother-in-law of the Duke of Wellington. He entered the British army (1794), and achieved honor at Salamanca. In 1814 he commanded the large force of British regulars which operated against New Orleans. Killed in that battle, Jan. 9, 1815.

Pale'-face, *n.* A name given to a white person by the North American Indians. Used also adjectively.

Pa'lenville, in *New York*, a post-village of Greene co. *Pop.* (1897) 650.

Paleolith'ic Age and Im'plements. See STONE AGE.

Pa'ley, WILLIAM, divine and author, was born at Peterborough, England, in 1743. His most notable work, among many, was *A View of the Evidences of Christianity*. Died in 1805.

Pal'grave, SIR FRANCIS, historian, was born in London, Eng., in 1788. He was the son of a Jew, Meyer Cohen, but changed his name by royal permission in 1823. Knighted in 1832, having been called to the bar in the Middle Temple and appointed deputy keeper of public records. Died in 1861.

Pâli (*pah'le*), *n.* [Corrupted from Sanskrit *Prâkrit*.] The sacred language of the Buddhists. Its origin must be sought for in one or several of the popular dialects of ancient India, which are comprised under the general name of Prâkrit, and stand in a similar relation to Sanskrit as the Romance languages, in their earlier period, to Latin. It has been formerly assumed that Pâli arose from the special Prâkrit dialect called *Mâgadhî*, or the language spoken in Magadha; but, according to the view expressed by Lassen in his *Indische Alterthumskunde*, an hypothesis of this kind is not tenable, since the peculiarities of this dialect are not compatible with those of the Pâli language. The same distinguished scholar holds that the Prâkrit dialects, called the *Saurasenî* and *Mâhârâshtrî*, have a closer relation to the Pali than any other, and that the origin of the latter must therefore be traced to the country of Western Hindoostan, between the Jumna river and the Vindhya Mountain; though he observes, at the same time, that the Pâli is older than these dialects, and that the latter are therefore more remote from Sanskrit than the former. Whether the oldest works of the Buddhist religion were written in Pâli may be matter of doubt. It is more probable, on the contrary, that the language in which the founder of the Buddhist religion conveyed his doctrine to the people was not yet that special language, but a mixture of classical and popular Sanskrit, such as it still appears in the Buddhistic *Sûtras*. At a later period, however, Pâli became the classical language in which the Buddhists wrote their sacred, metaphysical, and profane works. The most important historical work written in this language is the *Mahâvansa;* other Pali works, which have lately become known in Europe, and deserve special mention, are the *Dhammapada*, on the Buddhist doctrine, and five *Jâtakas*, containing a fairy tale, a comical story, and three fables—both works edited and translated by V. Fausböll (Copenhagen, 1855 and 1861). Pâli ceased to be a living language of India when Buddhism was rooted out of it; it was carried by the fugitive Buddhists to other countries, especially Ceylon, Burmah, and Siam; but in these countries, too, it had to give way before the native tongues, in which the later Buddhist literature was composed.

Pal'inal, *n.* [Gr. *palin*, again, backward.] Characterized by backward motion; moving backward.

Palla'dio, ANDREA, architect, was born at Vicenza, Italy, on Nov. 30, 1518. In early years he travelled over Italy and France, studying remains of Roman architecture, especially the works of Vitruvius and Leon Ballista Alberti. It appears that Giovanni Fontana was, for a time, his master. In 1547 he completed the Castle Nanie, begun by Fontana in 1519. In 1546 he competed with Fontana, and again, in 1549, with Giulio Romano, for the renovation of the Palace of Reason, at Vicenza, and won the competition. Soon after he went to Rome, where he made the grand façade of the palace of the Grand Duke of Tuscany. He settled at Vicenza, which, together with the surrounding country, is full of palaces and monuments designed by him. In 1556 he began his great work of restoring the Palace of Reason, a labor that lasted all his life. About the year 1560 he executed his first work in Venice, the Monastery Della Carità. Other important works have included the churches of San Georgio Maggiore, and Il Santissimo Redemptore, the façade of San Francisco della Vigna, and some palaces. His style is known as the Palladian, and was long considered the most perfect. He published *Illustrations to Cæsar's Commentaries* (1575), and *Treatise on Architecture* (1570), which has been reprinted and translated into all languages. This latter work he dedicated to the Duchess Emanuel Philibert of Savoy, for whom he had planned the royal park at Piedmont. Died August 19, 1580.

Pal'las I'ron. [Peter S. *Pallas*, the finder.] An iron meteorite, weighing 1,600 pounds, found in Siberia, now in St. Petersburg. It very frequently contains grains of olivin.

Pal'liser, WILLIAM, an English inventor, was born in 1830; became a major in the British army, from which he retired in 1871. He introduced valuable inventions into the military service, the most important being the system of conversion of the old smooth-bore cast-iron gun into the rifled compound pieces of ordnance known as the *Palliser Guns*. Died Feb 4, 1882.

Palmelod'icon, *n.* [Gr *pallo*, to vibrate, and *melodikon*.] A glass harmonicon; a set of musical glasses.

Pal'mer, ALICE FREEMAN, educator, was born in Cadesville, N. Y., on Feb 21, 1855; educated at Michigan University; taught in Wisconsin and Michigan until 1879, when she became professor of History in Wellesley College. In 1881 was acting president, and in 1872 was elected president of the college, and filled the office for five years; received the degree of Ph.D. from Michigan University (1882), and the degree of doctor of letters from Columbia College (1887). She resigned in 1887, and in December of that year was married to Professor George H. Palmer, of Harvard.

Palmer, BENJAMIN MORGAN, clergyman, was born in Charleston, S. C., Jan. 25, 1818; educated at the University of Georgia, and at the Columbia Theological School. He was a prominent clergyman of the Southern Presbyterian Church; was professor of Church History in the Columbia Theological School, and (1861) was moderator of the First Southern Assembly at Augusta, Georgia. He founded and edited *The Southern Presbyterian Review*, and published some theological works.

Pal'mer, EDWARD HENRY, explorer and Orientalist, was born at Cambridge, Eng., Aug. 7, 1840; entered St. John's College, Cambridge, and was elected fellow in 1867; joined the Sinai Expedition (1870); explored the Wilderness of the Wandering with Drake; in the same year published the *Desert of Exodus*. In 1871 he was appointed professor of Arabic at Cambridge; and in 1876 published a Persian dictionary. In 1882 he accompanied the government expedition to the desert of Suez, where he was murdered by Bedouins on Aug. 11, 1882. His *Life*, by Walter Besant, was published in 1883.

Palmer, ERASTUS DOW, sculptor, was born at Pompey, N. Y., April 2, 1817. In early life he was a carpenter, then a cameo-cutter; in 1852 turned his attention to sculpture, and produced some fine mythological and allegorical groups. His more notable works include: *The Indian Captive; The White Slave; The Angel at the Sepulchre; The Infant Flora; The Emigrant's Children*, and *The Landing of the Pilgrims*. All of his training was received in New York, but in 1873, after his fame was established, he visited Italy and France. He received a medal of the first class at the Centennial Exhibition (1876) for his statue of Robert Livingstone, which was placed in the Hall of Representatives in Washington, in 1875.

Palmer, JOHN MCAULEY, soldier and politician, was born in Scott co., Kentucky, Sept. 13, 1817; removed to Illinois, and was admitted to the bar in 1840; was a member of the State Senate, and served as a Republican Presidential elector in 1860. In April of 1861 he was commissioned colonel of an Illinois volunteer regiment; served at Island No. 10, Stone River and Chickamanga, and was promoted major-general of volunteers. He led the 14th Army Corps through the Atlanta campaign (1864). He was governor of Illinois from 1869 to 1873; later he became a Democrat, and in 1891 was elected to the U. S. Senate from Illinois. In 1896 he was the presidential candidate of the "Gold Democrats," who repudiated the Chicago Platform, but received no electoral votes. Died Sept. 25, 1900.

Palmer, RAY, clergyman and hymnologist, was born in Little Compton, R. I., Nov. 12, 1808; graduated at Yale (1830), and entered the Congregational ministry; was secretary of the Congregational Union in New York city (1866–78); wrote many sacred poems, among which is the hymn, *My Faith Looks up to Thee*, which is included in all church collections of hymns, and has been translated into more than twenty languages. Died March 29, 1887.

Palmer, ROUNDELL, EARL OF SELBORNE, jurist and hymnologist, was born at Mexbury, England, Nov. 27, 1812; was solicitor-general (1861–63); attorney-general (1863–66); British counsel at the Geneva court of Arbitration (1872); lord-chancellor in all the Liberal Ministries of 1872–74, and 1880–85; was created Baron Selborne in 1872, and Earl of Selborne in 1882. He published a *Book of Praise, from the Best English Hymn-writers*, in 1862.

Palmer, in *Michigan*, a post-village of Marquette co. *Pop.* (1894) 630.

Palmer-worm, *n.* A hairy caterpillar, wandering about like a *palmer* on his pilgrimage. The palmer-worm mentioned in Scripture is thought to have been a locust.

Palmet'to, in *Georgia*, a post-village of Campbell co. *Pop.* (1897) 660.

Palmi-. An initial compounding element, derived from the Lat. *palma*, palm of the hand.

Palmie'ri, LUIGI, meteorologist, was born in Talcchio, Benevento, Italy, April 22, 1807; was a professor of Mathematics and Physics, and (1854) became director of the Meteorological Observatory on Mt. Vesuvius, situated at an altitude of 1,970 feet above sea-level. There he lived for over 40 years, often incurring great risk, remaining at his post to make observations during the eruption of 1872. His ingenuity contrived many instruments for use in his observations; and his reports are of great value to science. Died Sept. 10, 1896.

Palmy'ra, in *Illinois*, a post-village of Macoupin co., 33 m. S. W. of Springfield. *Pop.* (1897) 620.

Palouse', in *Washington*, a post-town of Whitman co., 18 m. E. of Colfax; has saw mills, planing and flour mills. *Pop.* (1897) 1,350.

Pals'grave, *n.* [Dut. *palsgraaf*.] A count or earl, who has the overseeing of a prince's palace; a count palatine.

Pals'gravine, *n.* The wife or widow of a palsgrave.

Palud-, Paludi-. An initial compounding element, derived from the Lat. *palus* (gen. *paludis*), marsh.

Pam'lico, in *North Carolina*, an E. co.; *area*, 460 sq. m.; bounded E. by Pamlico Sound, and S. W. by the estuary of the Neuse river. *Surface*, low and swampy, with forests of cypress, pine, poplar, beech, oak, and holly; *soil*, sandy black loam. *Products*. Corn, sweet potatoes, rice, and pork. *Cap.* Bayboro. *Pop.* (1890) 7,146.

Pan-, Pant-, Panta-, Panto-. An initial compounding element, derived from the Gr. *pas* (gen. *pantos*), all; used to combine with words from the Greek. The form *Pan* is also used before English words, principally proper adjectives; as, *Pan*-American, *Pan*-Hellenism.

Panama', in *Iowa*, a post-town of Shelby co. *Pop.* (1895) 257.

Panama Canal'. (*Eng.*) As early as 1843 surveys for a canal across the Isthmus of Panama were made by M. Garella, a French engineer; by George M. Totten, chief engineer of the Panama Railroad, and by Commander E. P. Lull, U. S. N. In 1852 Frederick M.

Kelley, of New York, obtained a concession for a canal from the Colombian government; and he met in London, in 1875, the Count Ferdinand de Lesseps, then famous for his success in the Suez Canal. De Lesseps organized an expedition to explore the Isthmus of Panama, and proposed the International Canal Congress, which was attended in Paris, in May, 1879, by representatives of twenty-four countries. Of the several proposals made, the congress chose, nearly unanimously, a canal 46 miles long, from Panama, on the Pacific, to near the mouth of the Chagres river, following closely the route of the Panama Railroad; breadth at bottom, 22 to 24 meters; at the water surface, 28 to 50; depth 8¼ to 9; curves to have a minimum radius of 2,000 meters; deepest cutting, 340 feet. It was proposed to dam back the Chagres river and carry its floods to the sea by a canal, and at Panama, where the tides rise 18 feet, to build a tide-lock. The excavation required was 143,000,000 yards, and the cost, $120,000,000. A construction company was organized in 1880, and work was began with a capital of $60,000,000, and loans of $60,000,000. The work was wastefully carried on, and much money was spent in buying the influence of important persons. In 1886 Count de Lesseps went personally to the Isthmus, accompanied by the Hon. John Bigelow as a representative of the New York Chamber of Commerce. At the close of 1888, $200,000,000 had been expended, and a year later this was increased to $265,000,000, though it was said only $80,000,000 was honestly put into the work, which was not more than one-third, or even, by some reports, one-fifth done. In 1889 the company suspended, its failure bringing immense loss to French investors. The officers of the company were tried for fraud, and Count de Lesseps and his son convicted and sentenced to five years imprisonment. The sentence was not enforced, but the aged and depressed Count died in 1894. A new company continued the work until 1902 when its rights were offered to the United States for $40,000,000. This offer was accepted and a treaty negotiated with Colombia for the construction of the canal. In August, 1903, the Senate of Colombia rejected this treaty, and in November Panama broke out in rebellion and a new republic was established, with which a satisfactory treaty was made, under which Panama was to receive $10,000,000. Work upon the canal is now being prosecuted under the auspices of the United States.

Pan-American Congress. (*Am. Hist.*) A Congress of representatives of the nations of the Western Hemisphere, held at Washington, D. C., from Oct., 1889, to April, 1890, to discuss matters relating to the commercial intercourse and international relations of the countries concerned. Several important recommendations were made, but no definite results succeeded, other than the formation at Washington of a Bureau of American Republics. A second congress was held in Mexico in 1901, and it was decided to hold one every five years, Rio de Janeiro being chosen for 1906.

Pan-American Exposition. An international exposition, participated in by all the countries of North and South America, and intended to show the development of civilization in the Western Hemisphere during the nineteenth century, was held at Buffalo, New York, from May 1 to November 1, 1901. The site of the exposition, mainly in Delaware Park, embraced 350 acres, on which were erected buildings for the display of electric appliances, fine arts, liberal arts, graphic arts, agriculture, horticulture, ethnology, manufactures, forestry, mining, transportation, etc. The general style of the architecture was a free treatment of the Spanish Renaissance, in compliment to the Latin American countries participating, colors being freely used in their decoration. As the vicinity of Niagara Falls, with its immense electric plant, gave a remarkable opportunity for the use of electric power and display of electric effects, electricity dominated the Exposition, especially in the ornate Electric Tower, 375 feet high, and the brilliant Electric Fountain, surpassing all previous efforts in this direction. The grounds were made very handsome, with effects of winding canals, fountains, statuary and electric lights, and the usual Midway attractions were provided, offering a great variety of spectacular features. Among the exhibits were contributions from the new possessions of the United States—Porto Rico, Hawaii, and the Philippines. The total expenditures for the Exposition aggregated $10,000,000, and while on a smaller scale than the Columbian Exposition of 1893, it was in its way as beautiful, and attracted a very large number of visitors.

Panchatant'ra, *n.* A Sanskrit word meaning "having five books or sections." It is an ancient Sanskrit collection of fables and tales of ethics, didactic in purpose. The form of the teaching bears much resemblance to that of the Buddhists, as set forth in the Jataka. The substance of the work, however, is neither specifically Brahmanic nor Buddhistic, but rather, in general, Indic. The date of the extant form of the work is uncertain. Of this there was an earlier but now lost original which has had a remarkable history, and been transmitted through translations and translations of translations, sometimes under the name of the *Fables of Pilpay*, to almost all the peoples of Europe. The first English version, a translation from the Italian, was by Sir Thomas North (London, 1570), and has been lately reprinted by Joseph Jacobs (London, 1888), under the title *The Fables of Pilpay*.

Pan'coast, Joseph, surgeon, was born in Burlington co., New Jersey, in 1805; graduated from the medical department of the University of Pennsylvania 1828, and in 1831 was instructor in practical surgery in the same institution. Beginning in 1834, he was for 11 years connected with Blockley Hospital, and was also for the greater part of this period professor of Surgery in the Jefferson Medical College, exchanging this position for that of protessor of Anatomy in 1847, retaining this latter professorship until 1874. He was the author of many innovations in surgery, having succeeded in the formation of a nose, by plastic sutures, in 1841; the formation of eyebrows with strips of scalp; treatment of soft cataract with a fine bent needle; and of restoring the voice by operating on the soft palate. He was a well-known contributor to medical journals, and published *Treatise on the Structure, Functions, and Diseases of the Human Sympathetic Nerve* (1831), and *Treatise on Operative Surgery* (1844). Died March 7, 1882.

Pan'coast, William Henry, surgeon, son of Dr. Joseph Pancoast, was born in Philadelphia, October 16, 1835; graduated at the Jefferson Medical College (1856), and studied three years in Paris, Vienna, and London. He became famous for the unfailing success and the swiftness of his surgical operations. During the Civil War he was a surgeon in the army; in 1874 he took his father's place as professor of Anatomy in Jefferson Medical College. In 1886 he became professor in the Medico-Chirurgical College; and for years occupied a place of unusual eminence and repute among surgeons. Died January 5, 1897.

Pan'dean Pipes. A primitive wind instrument, in which the notes of the scale are produced by blowing across the open tops of a graduated series of hollow tubes, originally reeds, but afterward made of cane, wood, or even stone. The Greeks supposed it to have been invented by the god Pan, and that, in playing it, he originated pastoral music. Its tones are often sweet, and it has been used among primitive people in many parts of the world. Also called *Lyrinx*, in memory of a nymph beloved by Pan, and *Pan's pipes*.

Pangen'esis, *n.* (*Biol.*) A theory of reproduction put forth by Darwin in his *Animals and Plants under Domestication*, and which can be best explained in his own words: "It is universally admitted that the cells or units of the body increase by self-division or proliferation, retaining the same nature, and that they ultimately become converted into the various tissues and substances of the body. But besides this means of increase, I assume that the units throw off minute granules which are dispersed throughout the whole system; that these, when supplied with proper nutriment, multiply by self-division, and are ultimately developed into units like those from which they were originally derived. These granules may be called gemmules. They are collected from all parts of the system to constitute the sexual elements, and their development in the next generation forms a new being; but they are likewise capable of transmission in a dormant state to future generations, and may then be developed. Their development depends on their union with other partially developed or nascent cells which precede them in the regular course of growth. . . . Gemmules are supposed to be thrown off by every unit, not only during the adult state, but during each stage of development of every organism; but not necessarily during the continued existence of the same unit. Lastly I assume that the gemmules in their dormant state have a mutual affinity for each other, leading to their aggregation into buds or into sexual elements. Hence, it is not the reproductive organs or buds which generate new organisms, but the units of which each individual is composed."

Panizzi, Sir Anthony, was born at Brescello, Italy, Sept. 16, 1797; took his degree at the University of Parma and became an advocate; was implicated in the revolutionary plot of 1821; fled to England in 1823; became professor of Italian in University College, London (1828); was appointed assistant librarian in the British Museum (1831); in 1837 became keeper of the printed books, and devised the catalogue; was made chief librarian (1856), succeeding Sir Henry Ellis; the construction of the great reading-room from his designs was completed in 1857; resigned in 1866. He published critical editions of *Orlando Inamorata* (1830–34), and *Orlando Furioso* (1851); was always active in the interests of the revolution in Italy. Died April 8, 1879.

Pantag'amy, *n.* [*Panta*, and Gr. *gamos*, marriage.] A system of complex marriage, according to which all the men and women of a community are considered as being married to one another.

Pantel'egraph, *n.* (*Teleg.*) A form of telegraph invented by Abbe Casselli, for transmitting messages autographically or reproducing drawings. Isochronous vibrating pendulums were used, one of which oscillated over the message or drawing, prepared in insulating ink on a metallic paper, while the corresponding pendulum at the other end of the line carried a pencil over a paper prepared with a solution of yellow cyanide of potassium. The stylus on the receiving end was thus made to form a blue facsimile of the original. The process never came into commercial use. Compare Telautograph.

Pantel'ephone, *n.* The microphonic transmitter invented by Leon de Locht; so named when it first came out, owing to its capacity for receiving sounds from a considerable distance, or at an angle.

Pan'theon, *n.* The famous Pantheon at Romo was always supposed, until quite recently, to have been erected by Marcus Agrippa, the son-in-law of Augustus, in 27 B. C., as an inscription on the portico attests. At the same time, the edifice has always been a puzzle to historians and architects, since the portico does not fit, either in design or execution, the building behind it, which is a rotunda. Many archæologists contended that the structure was originally designed for a warm bath (*caledarium*), in connection with the adjacent baths of Agrippa, and that its use as a temple was an afterthought, whereupon the portico was added. In the year 1892, the Department of Antiquities raised a scaffold to repair the dome, which had become leaky. The rain-water had filtered in and damaged the stucco. While the scaffold was in existence, a French architect, Chedaune, got permission to examine the bricks laid bare by the repairs in progress, and found that all the bricks were stamped with the year in which they were made, which was of the time of Hadrian. This discovery led to further investigations, the result of which established beyond question that the whole structure, except the portico, dates from the reign of Hadrian, and probably from 120–124 A.D. The columns, capitals, and entablature inscribed with the name of Agrippa may be original and date from 27–25 B. C., but they were first removed and then put together again by Hadrian. The original portico had ten columns (decastyle), the present portico has but eight. The original structure of Agrippa may have been rectangular, although there is no decisive proof that it was. These discoveries have pretty nearly solved the perplexing problems about the building, which will now lose the title it bore through centuries—the Sphinx of the Campus Martius.

The Pantheon at Paris. This structure was erected by Madame de Pompadour, in 1764, as a church, to be dedicated to Ste. Geneviève. The architect, Soufflot, was ambitious of giving the building a dome which should outvie other great domes, so he placed on the church a dome reaching 190 feet above the pavement. It has been spoken of as rivalling St. Peter's at Rome, and St. Paul's in London. The Constituent Assembly converted the building into a temple dedicated to the great men of France. Napoleon III. restored the edifice to the Church, and had it rededicated to Ste. Geneviève. On the occasion of the funeral of Victor Hugo, however, in 1885, the church was reconverted, with a monument with the old inscription, "Aux grands hommes la patrie reconnaisante." In the crypt are the tombs of Voltaire, Rousseau, and Victor Hugo.

Pantom'eter, *n.* An instrument for measuring angles for the determination of distances, elevations, &c.

Pan'toscope, *n.* A photographic lens with a very wide angle.—A panoramic camera.

Pa'pias, a Christian father, of the second century, bishop of Hieropolis in Phrygia; according to Irenæus, a disciple of St. John the Apostle and a companion of Polycarp. He suffered martyrdom during the persecutions of Marcus Aurelius, about A.D. 163. He left a work entitled *Expositions of the Oracles of the Lord*, which was still in existence in the thirteenth century, but now is lost, except in fragments.

Papil'lion, in *Nebraska*, a post-village, cap. of Sarpy co., 15 m. S. W. of Omaha; has flour mills and elevators. *Pop.* (1897) 820.

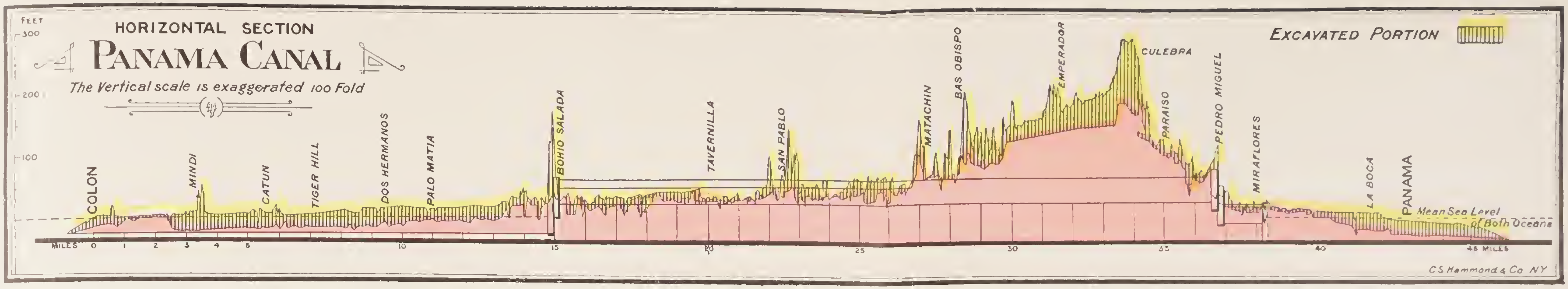
Papineau', Louis Joseph, statesman, was born in Montreal, Canada, in Oct., 1789; was a spirited leader of the radical, or French-Canadian, party; was spokesman of his party in opposing the union of Upper and Lower Canada. Upon the outbreak of rebellion in 1837, he was charged with high treason; escaped to Paris; afterward returned to Canada, and was pardoned in 1847. Died Sept. 23, 1871.

Par Excellence (*ĕk-se-lăngs'*). [Fr.] By virtue of the highest excellence; beyond comparison; preeminently.

Par'agould, in *Arkansas*, a post-town, cap. of Greene co., 160 m. N.E. of Little Rock. An important lumber-shipping point. *Pop.* (1897) 3,000.

Par'akite, *n.* See Kite.

Par'allax, *n.* [Gr. *parallaxis*, aberration.] (*Astron.*) The apparent change in the direction of an object when seen from two different points. *Lunar parallax* is a change in the direction of the moon when observed from two widely distant stations on the earth's surface. *Diurnal parallax* is the apparent change in the direction of a heavenly body when simultaneously seen from the earth's center and from its surface. *Solar parallax* is the angular semi-diameter of the earth as observed from the sun. *Annual* or *stellar parallax* is the angular semi-diameter of the earth's orbit as seen from the stars; or it is the amount of displacement of a star as observed from opposite sides of the earth's orbit, at an interval of half a year. As the sun's distance is, in round numbers, 93,000,000 miles, it follows as a natural sequence that the second observation will be made 186,000,000 miles from the first. The most difficult problem man ever attempted to grapple with is to determine the exact value of the solar parallax—or, in other words, the sun's distance from the earth. The difficulty lies in its excessive minuteness. It is certainly less than 9″, and greater than 8·75″. If we call the parallax 8·80″, the sun's distance will be 92,885,000 miles. A change of only $\frac{1}{20}$ of a second will cause a difference of half a million miles in the sun's distance. The question may be asked: Why is it necessary to get his distance so exact? The answer is: It is, as it were, the yardstick which determines the mass, distance, volume, and orbital velocity of every heavenly body except the moon. The moon is so near us that it is an easy matter to obtain her parallax; but the sun is 400 times more distant. Various indirect processes, seven in all, are resorted to by astronomers to obtain the solar parallax. The following rule will give his distance if the parallax be known: The circumference of every circle, great or small, is supposed to be divided into 360°, 21,600′, and


HORIZONTAL SECTION
PANAMA CANAL
The Vertical scale is exaggerated 100 Fold
EXCAVATED PORTION
FEET
300
200
100
COLON
MINDI
CATUN
TIGER HILL
DOS HERMANOS
PALO MATIA
BOHIO SALADA
TAVERNILLA
SAN PABLO
MATACHIN
BAS OBISPO
EMPERADOR
CULEBRA
PARAISO
PEDRO MIGUEL
MIRAFLORES
LA BOCA
PANAMA
Mean Sea Level of Both Oceans
MILES 0 1 2 3 4 5 10 15 20 25 30 35 40 46 MILES
C.S. Hammond & Co NY

CARIBBEAN SEA
MOSQUITO GULF
GULF OF DARIEN
GULF OF PANAMA
PACIFIC OCEAN
Colon
Panama
Panama Bay
Porto Bello
Chagres
ISTHMUS OF PANAMA
Chiriqui Bay
Gulf of San Blas
PEARL ISLANDS
Parita Bay
Bay of David
Gulf of Uraba
Morrosquillo Gulf
Cartagena
Sabanilla
CHIRIQUI
VERAGUA
PANAMA
DARIEN
AZUERO PENINSULA
COLOMBIA
SUBMARINE CABLE TO KINGSTON JAMAICA
SUBMARINE CABLE TO SAN JUAN DEL SUR
SUBMARINE CABLE TO BUENAVENTURA
Longitude 79 West from Greenwich
PANAMA
SCALE OF MILES
0 10 20 40 60 80
Proposed Panama Canal
Panama Railroad
Hammond's Map of Panama

PANAMA.

Area sq. m...31,571
Pop. abt....300,000

CITIES-TOWNS

Pop.	Thousands.
40	Panama....D 3
10	Colon.....D 2
1	David .....A 3

1,296,000″. Now, if 206,265 of these seconds be cut out and laid on the radius, they would just equal it. The sun's distance equals 206,265 multiplied by the earth's radius, and divided by the parallax in seconds of arc. The same rule applies to the computation of the distance of a star, only the semi-diameter of the earth's orbit is to be used—a problem, if possible, more difficult than to obtain the sun's distance. If the parallax of a star be assumed to be equal to 1″, then its distance amounts to 206,265 times that of the sun, whatever that may be. In the effort to obtain the solar parallax by the transit of Venus, it is really that of Venus and not the sun; for Kepler's third law gives not only the distance of the sun, but that of every planet also when the distance of one is known. The parallax of Venus is desired instead of the sun itself, because while the sun is 93,000,000 miles distant, Venus at her transits is only 35,000,000. Among all the seven processes for solving the problem, that obtained by using some of the asteroids when in perigee is undoubtedly the most reliable, as they are points in the telescope, instead of a disk, as in the case of Venus.

Parallelom'eter, *n.* Any instrument for determining whether two surfaces are parallel; specifically, one for determining the parallelism of plate glass.

Paramne'sia, *n.* [*Para*, and Gr. *amnesia*.] False memory, fancied remembrance of things that did not occur.

Paramorph'ism, *n.* (*Min.* and *Chem.*) The change produced in a chemical compound by the rearrangement of its atoms under the influence of light, changes of temperature, &c., by which the interior crystal structure is completely changed.

Paranoi'a, *n.* (*Path.*) Chronic mental unsoundness, whether hereditary or acquired.

Parasyn'esis, *n.* [Gr.] (*Philol.*) Misconception of a word, resulting in a faulty form.

Pard, *n.* (*Slang.*) An associate; a chum; corruption of partner.

Par'do, MANUEL, statesman, was born at Lima, Peru, August 12, 1834; was a banker and minister of the treasury under Balta (1866–68). From August 2, 1872, to August 2, 1876, he was President of Peru, the first civilian to fill the office, and one of the best presidents the country ever had; was subsequently president of the Senate. He was assassinated by an obscure fanatic, who attacked him in front of the Senate-house in Lima, November 11, 1878.

Par'doe, JULIA, historical and miscellaneous writer, was born at Beverly, Yorkshire, Eng., in 1806. She wrote poems, letters of travel, tourist's descriptions, &c. Died Nov. 26, 1862.

Par'esis, *n.* [Gr. want of strength.] (*Pathol.*) A partial paralysis, or loss of voluntary or reflex muscular motion, but not of sensation; a loss of power less marked than that to which the term paralysis is applied, but having similar causes and manifestations. The loss of motor power is progressive, and the patient rarely lives more than from one to three years after the disease begins.

Paris (*pă-re'*), COMTE DE, son of the Duc d'Orleans, and grandson of Louis Philippe, was born in Paris in 1838; was educated in England, having left France after the overthrow of the monarchy in 1848; during part of the American Civil War served with his brother, the Duc de Chartres, on the staff of General McClellan; married, in 1864, the eldest daughter of the Duc de Montpensier. After the death, in 1885, of the Comte de Chambord, the heir of the royal house of France, Comte de Paris was acknowledged by nearly all the Legitimists as his successor. In 1886, on the passing of the Expulsion Bill, the Comte de Paris once more went to England. After his return from the United States he allied himself with the Liberals and the Republicans against the Empire, and subsequently with the Legitimists against M. Thiers. He was the author of a comprehensive work, in six volumes, on English trade unions. He visited Lisbon in 1889, on the occasion of the christening of his grandson, the infant Prince of Portugal. Several years ago the Comte de Paris waived his claim to the title of Duc d'Orleans in favor of his eldest son and heir, Louis Philippe Robert, the present Duc d'Orleans. Died in England, Sept. 8, 1894.

Par'is, in *Arkansas*, a post-town, cap. of Logan co., 18 m. S. by E. of Ozark. *Pop.* (1897) 680.

Paris, in *Idaho*, a post-village, cap. of Bear Lake co., 10 m. from Montpelier. *Pop.* (1897) 1,200.

Paritium (*pa-rish'yŭm*), *n.* (*Bot.*) A genus of plants, order *Malvaceæ*, now included under *Hibiscus*, and having a false partition across the center of each one of the five cells of the fruit, through which they split open when ripe. The ten or twelve known species are tall trees or high shrubs, widely distributed throughout the tropics of both hemispheres. Their leaves are large, entire, or lobed, with prominent radiating nerves, one or three of which bear glands at the base. All species of *Paritium*, and particularly *P. tiliaceum*, found in tropical countries generally, contain more or less fiber, which is used by the natives for various weaving purposes, and *P. elatum* is the source of "Cuba bast," formerly much used in tying bundles of cigars. It is a beautiful lace-like inner bark. This latter tree, which is found only in Cuba and Jamaica, grows fifty or sixty feet high, and yields a peculiar greenish-blue timber, highly valued by the Jamaica cabinet-makers.

Park, in *Montana*, a S. co.; *area*, 5,558 sq. m.; intersected by the Yellowstone river. *Surface*, mountainous, with fertile valleys, well watered; building stone, lime and marble, fire clay, coal, lead, iron, copper, nickel, gold and silver in abundance. *Cap.* Livingston. *Pop.* (1890) 6,381.

Park Cit'y, in *Utah*, a city of Summit co., 30 m. E. of Salt Lake City; in a silver-mining region; has quartz mills. *Pop.* (1895) 4,491.

Park Ridge, in *Illinois*, a post-village of Cook co., 12 m. N.W. of, and a suburb of, Chicago. *Pop.* (1897) 1,400.

Park Riv'er, in *North Dakota*, a post-town of Walsh co., 50 m. N.W. of Grand Forks. A wheat-shipping point. *Pop.* (1900) 1,088.

Parker, Alton Brooks, jurist and presidential nominee, was born in Cortland, N. Y., May 14, 1852. He studied law at the Albany Law School; practiced in Kingston, N. Y.; was surrogate of Ulster Co., 1877–85; became judge of the State Supreme Court, 1885; member of the Court of Appeals, 1889; and chief judge of the Court of Appeals of N. Y., Jan. 1, 1898. A Democrat in politics, he was tendered the office of First Assistant Postmaster-general in 1885. In 1904, he was the Democratic candidate for President, but was defeated.

Parker, JOEL, jurist and soldier, was born near Freehold, N. J., November 24, 1816; admitted to the bar (1842); was State legislator (1847); major-general of volunteers (1861); was governor of New Jersey from 1862 to 1866, doing much to aid the national government during the Civil War; was re elected (1870); was the National Labor Party's candidate for vice-president (1872); was appointed a justice of the New Jersey Supreme Court (1880). Died in 1888.

Parker, JOSEPH, clergyman, was born in Hexham, Eng., April 9, 1830; began to preach in early youth; was ordained to the ministry of the Congregational Church (1858); is now (1897) minister at the City Temple, London; visited the United States (1888); has published several theological works, including *City Temple Sermons* (1869).

Parker, WILLARD, surgeon, was born in Lyndehoro, N. H., Sept. 2, 1800; graduated at Harvard (1826); studied medicine with Dr. John C. Warren, of Boston; filled several professorships; in 1839 became professor of Surgery in the New York College of Physicians and Surgeons, holding this position for thirty years, when (1869) he took the chair of Clinical Surgery; established the first college clinic in the U. S.; made many valuable discoveries in practical surgery, including the cure of abscess of the vermiform appendix. He became president of the New York State Inebriate Asylum in 1865; was a member of many professional societies, and author of numerous papers on practical surgery. Died April 25, 1884.

Parker, in *South Dakota*, a city, cap. of Turner co., 23 m. S. W. of Sioux Falls. Trade center of a grain and stock-raising region. *Pop.* (1895) 856.

Park'hurst, CHARLES H., clergyman and social reformer, was born in Framingham, Mass., April 17, 1842; graduated at Amherst (1866); studied theology at Halle (1869), and at Leipsic (1872–73), teaching during the interval in Massachusetts. In 1874 he became pastor of the Congregational Church at Lenox, Mass.; six years later he was called to the pulpit of the Madison Square Presbyterian Church, in New York. He succeeded Dr. Howard Crosby as president of the Society for the Prevention of Crime, and in that capacity made a vigorous campaign against evil-doers by having them prosecuted and punished, in spite of police indifference. In 1892 his exposure and denunciation of those in control of the city made him famous as the leading municipal reformer of the age in America. He opposed party politics in city affairs. His vigorous campaign resulted in the defeat (1894) of the Tammany organization, and the election of the Strong-Goff reform ticket. In theology, Dr. Parkhurst is an earnest advocate of a revised confession of faith, and is one of the foremost defenders of Dr. Charles A. Briggs. He has published sermons and essays in periodicals, religious and social; in 1895 he organized the City Vigilance League in the interests of good government.

Parks and For'est Reserves'. Of the public lands of the United States, large portions have been reserved from sale or settlement because of remarkable natural beauty, making them suitable for parks of public resort and recreation, or because their forests shelter game which it is desired to preserve, or contain the sources of streams essential to the water supply of the lands below.

The *Yosemite Valley Park* was granted by an act of Congress to the State of California, June 30, 1864. It includes the famous cleft in the Sierra Nevada Mountains after which it is named, and is situated at the headwaters of the Merced river, in Mariposa co. The valley is 15 m. long, and about 1 m. wide between the main edge of the precipices on both sides. The park also includes, by like act of Congress, the famous Mariposa grove of Big Trees (*Sequoia gigantea*). These tracts have been surveyed and mapped out by the State of California, which maintains a system of care of the park and the guiding of visitors.

The *Yellowstone National Park* is in the northwestern corner of Wyoming. It extends 65 m. N. and S., and 55 m. E. and W., and has an area of 3,575 sq. m. It contains wonderfully picturesque cañons and waterfalls, and, it is said, more hot springs and wonderful geysers than all the rest of the world. It was set apart as a national park and preserve by act of Congress, March 1, 1872. For the care of the park and the preservation of the game a detachment of troops of the regular army is detailed.

The *Pacific Forest Reservation* is in the State of Washington, and has an extent of 967,680 acres. It includes Mt. Tacoma and a great variety of beautiful scenery, and is accessible from the city of Tacoma. A bill was introduced into Congress in 1894 to set this reservation apart under the name of Washington National Park.

The *Grand Cañon Reservation* is in the northwestern quarter of Arizona. It is a square plot of 1,851,520 acres, and includes a picturesque portion of the cañon of the Colorado. This will probably be set apart as a national park.

The *Adirondack Park*, in Clinton, Essex, and Hamilton counties, N. Y., was made a State park by act of the New York Legislature in 1892. That act created a State Forest Commission which laid out the bounds of the proposed park in 1893. In 1894, they reported a plan including 2,800,000 acres. Of this 880,000 acres were held as private preserves, and 1,250,000 acres were owned by lumbermen, while the State owned 550,000 acres. The Constitution adopted by the State in 1894 prohibited the sale or lease of any of these State lands; and, though earnest efforts were made to amend this prohibition in 1896, they were unsuccessful. The legislature in 1895 appropriated $30,000 for more perfect surveys, and in April, 1897, a law was enacted directing the appointing from the Fisheries, Game, and Forest Commission a Forest Preserve Board to acquire for the State by purchase, or otherwise, land, structures, or waters, embraced within the Adirondack Park as defined by law, and appropriating for the purpose $600,000, and authorizing the borrowing of $400,000 more, the intent being to increase the State forest reserve to 3,000,000 acres. In May, 1897, the superintendent of the State Land Survey, in his annual report, declared that the land owned by the State included 796,809 acres.

The national government has also established a series of *military parks* in the preservation of famous battlefields.

The *Gettysburg Battlefield*, in Pennsylvania, was set apart soon after the battle as a national cemetery, where were buried 3,580 Union soldiers who fell in the battle. This cemetery was dedicated Nov. 19, 1863, and on this occasion President Lincoln delivered his short but immortal address. A large number of monuments have been erected there by various memorial associations, and in 1895, according to act of Congress, the tract of 800 acres was received by the national government from the Memorial Association. A commission was appointed to mark out the line of battle and survey roads, and $80,000 was appropriated for the improvement of the grounds. The act of Congress provides that adjacent lands occupied by the army during the battle shall be acquired by condemnation or purchase.

The *Chickamauga and Chattanooga Park* includes the battlefield of Chickamauga and its approaches, with an area of about 15 sq. m. The government secured by purchase the site of Bragg's headquarters on Missionary Ridge, and Orchard Knob, the headquarters of Grant, Thomas, and Granger. The road along Missionary Ridge, following Bragg's line of battle, is laid out as a wide boulevard, offering grand views of mountain, valley, and river. The park was dedicated on the thirty-second anniversary of the battle of Chickamauga, Sept. 18–20, 1895.

The *Shiloh Park*, Tenn., was established at the field of the battle of Shiloh, by act of Congress in 1895. It embraces an area of 4,000 acres, and Congress appropriated $150,000 for the purposes of the work.

The Dominion of Canada has made a similar disposition of certain parts of its domain. It joined with the State of New York in establishing the freedom to the public of the banks and islands commanding a view of Niagara Falls (*q. v.*) on both sides of the Niagara river.

The *Rocky Mountain Park* is an area 26 miles long by 16 miles wide, on the eastern slope of the Rocky Mountains, in the valley of Bow river, about 250 miles north of the international boundary line. It includes the extraordinary hot sulphur springs of Banff, Devil's Lake, and many snow-covered peaks. The government maintains a superintendent and police force here, has built roads, paths, shelters, &c., and the Canadian Pacific Railway, which traverses the park, has a large modern hotel at the springs, where also are sanitaria. "No part of the Rockies," says Ingersoll, "exhibits a greater variety of sublime and pleasing scenery; and nowhere can good sport be obtained to better advantage." *Rogers' Pass*, by which the Canadian Pacific Railway crosses the Selkirk Mountains (*q. v.*), is also reserved as a national park, including the valley of the Great Glacier. See NATIONAL PARKS. For FOREST PRESERVES, see FORESTRY.

Park'ville, in *Missouri*, a city of Platte co., 10 m. N.W. of Kansas City; has saw mills, brick yards, and machine shops. Seat of Park College. *Pop.* (1897) 965.

Park'way, *n.* A wide street or thoroughfare, adorned on the sides with grass and trees, and sometimes with a row of trees through the middle.

Parliamen'tary Law. All deliberative assemblies need imperatively some rules to govern their proceedings. These rules, among English-speaking nations, are called parliamentary law, because derived from the practice of the English Parliament, which, gradually and by slow degrees, solved the problem of how to conduct its business so as to obtain the deliberate sense of the assembly with the least possible restraint and inconvenience to its members. Parliamentary law is not absolute, but is based upon well-defined principles, from which it varies for good reasons only. In the U. S. the old English parliamentary law has been gradually modified in practice. New motions have been introduced and others so changed as to preserve their old name only. In Great Britain the previous question is demanded by those who intend to vote against it, while in the U. S. it is demanded by those who intend to vote for it. The previous question has not the same

effect all over the U. S., in certain parts of which many still hold to the ruling that ordering the previous question cuts off pending amendments, and brings the assembly to an immediate vote on the pending question. This was once sound parliamentary law, but is so no longer, the previous question being considered by the best parliamentarians merely a motion to stop debate and proceed to vote on the pending question, even though it be an amendment. A large political convention, a small debating society, and a city council need different rules to supplement ordinary parliamentary law. The practice of the House of Representatives would determine the parliamentary law of the Republic in all matters common to all deliberative bodies, if the House had continued to be essentially a deliberative assembly, like the British House of Commons, with its presiding officer abstaining from partisanship so as to retain the chair notwithstanding the change in the party in power. The House of Representatives, however, has almost ceased to be a deliberative assembly, its business being done by committees, to which are referred the bills presented, without reading.

Par'mer, in *Texas*, a N.W. co.; *area*, 850 sq. m. Unorganized.

Parnell', CHARLES STEWART, Irish politician, was born in Avondale, co. Wicklow, June 28, 1846. His family, which belonged in Cheshire, England, were for nearly a century associated with Irish Parliamentary life. He was educated at Magdalen College, Cambridge; travelled in the United States; returned to Ireland, and became high sheriff of his county (1874); entered Parliament (1875) for the county of Meath; in 1876 became prominent for stubborn opposition to certain government measures; introduced a bill (1877) to facilitate the purchase of their holdings by the tenantry of the disestablished Irish Church. The bill was defeated by a vote of 150 to 110. The history of the Home Rule party after that date was the history of Parnell, who retained the leadership of the Irish Parliamentary party until 1890, when the Parnell-O'Shea scandal caused a division of the party into Parnellites and anti-Parnellites; the latter believing that Parnell's usefulness was ended, chose for their leader Justin McCarthy, who later became the recognized head of the Nationalists. *P.* still tried to lead his faction; dissension was wide and furious, and in the midst of the tumult he died, Oct. 6, 1891.

Parrott'. ROBERT PARKER, U. S. A., inventor, was born in Lee, N. H., Oct. 5, 1804; graduated at West Point (1824), was assistant professor there for five years; filled several military posts, and became superintendent of the West Point cannon foundry at Cold Spring, N. Y. (1836). Here he invented the rifled cannon since known as the Parrott gun; resigned in 1867, and thereafter engaged in various business enterprises. Died Dec. 24, 1877.

Par'ry Is'lands. (*Geog.*) An American arctic archipelago, north of Melville Sound, including Melville, Bathurst, Prince Patrick, and other lesser islands, the northernmost point of which is Cape McClintock. They were first noted by Parry, and were given his name.

Par'sons, SAMUEL HOLDEN, soldier and jurist, was born in Lynn, Connecticut, May 14, 1737; graduated at Harvard (1756); admitted to the bar (1759); from 1762 representative in the legislature for many years; was King's attorney in 1774; soldier of the Revolution, with rank of major-general in 1780; member of the convention for the ratification of the Constitution of the United States (1788); first judge of the Northwest Territory; and Connecticut's commissioner to purchase from the Wyandotte Indians the tract known as the Western Reserve, in Ohio; published a valuable paper on the antiquities of the Western States. He was drowned Nov. 17, 1789.

Parsons. THEOPHILUS, jurist, born in Byfield, Mass., Feb. 24, 1750; educated at Harvard; admitted to the bar (1774), and settled at Newburyport, Mass.; his practice extended throughout New England; was one of the framers of the State Constitution, and a member of the ratification convention of 1788; removed to Boston (1800), and became chief justice of the Supreme Court of the State. He was famous for scholarship, wit, and judicial ability. Died Oct. 30, 1813.

Parsons. THEOPHILUS, legal and religious writer, son of Judge Theophilus Parsons, was born at Newburyport, Mass., May 17, 1797; published *Law of Contracts* (1853); *Mercantile Law* (1856); *Maritime Law* (1859); *Deus Homo* (1867); *The Infinite and the Finite* (1872), &c. Died January 26, 1882.

Parsons. in *Kansas*, a city of Labette co., 32 m. N.E. of Independence; has railroad, machine, car and bridge-building shops and other manufactures. *Pop.* (1895) 7,573.

Parsons, in *Pennsylvania*, a post-borough of Luzerne co. *Pop.* (1897) 2,634.

Parsons Col'lege. (*Educ.*) A co-educational institution founded by the Presbyterians, in 1876, at Fairfield, Iowa. It has productive funds, and, in 1896, had 12 instructors, 178 students, and 25,000 volumes in its library.

Par'thenon, *n.* [Lat.] Although a large library of books has been written about the old Greek temple, and each of its minutest details commented on and not unfrequently disputed over, there has remained one thing in the ruins of the venerable pile which no one has been able to explain satisfactorily, until quite recently. On the east front still stands complete the architrave, a smooth surface of marble, 100 feet long and 4 feet wide, stretching across the whole front just above the tops of the 8 columns. It is the surface of the great marble beams which span from pillar to pillar. Above this architrave runs a marble belt of about the same width composed of 15 three-barred triglyphs, alternating with 15 sculptured metopes. There is a triglyph over each column, and one in the middle of each of the intervening spaces. Under each metope there is a hole, 4 inches by 2, cut in the marble of the architrave, and under each of 12 of the triglyphs is a close group of smaller holes arranged with no apparent system. It has been long agreed that the large holes once served to hold great metal shields in place against the marble, and that into the smaller holes were inserted nails which served to fasten groups of metal letters. What these letters were, or what they spelled, was a riddle which had for a great while puzzled archæologists. Attempts were made to solve the riddle, and finally it was assumed that the letters spelled the message that Alexander the Great sent to Athens, 100 years after the Parthenon was completed, together with 300 suits of armor from the booty of his first Asiatic victory at the Granikos. Upon this assumption, the inscription read: "Alexander, son of Philip, and the Greeks, except the Lacedæmonians, from the Barbarians who inhabit Asia." An insuperable difficulty about this assumption is that the Alexander message contains in Greek 94 letters only, while the Parthenon inscription has evidently contained not less than 250 letters, arranged in three lines. The makers of the great model of the Parthenon in the Metropolitan Museum of Art, New York, recognized this difficulty. When they attempted to reproduce the inscription, they found that the Alexander message would fill but one-third of the space. They therefore introduced matter of their own invention, reference for the most part to other victories of Alexander, sufficient to bring the number of letters up to 335. Inscriptions long ago torn from temples at Assisi, Pergamon, Troy, and other places have been reconstructed by determining from the relative positions of the holes what the letters were. Knowledge of this fact stimulated the ambition of Eugene P. Andrews, a student from Cornell University, in the American Classical School at Athens. By an ingenious arrangement of ropes, pulleys, and a rope ladder, which he describes in a paper in the *Century* magazine, he raised himself to the level of the architrave of the Parthenon, 45 feet from the ground. He then took "squeezes" from the nail-holes. By studying these "squeezes" carefully, it was found that the inscription commemorated the erection of a statue to the Emperor Nero, probably at the entrance of the Parthenon, and ran thus: "The Council of the Areiopagus and the Council of the Six Hundred and the Athenian people erect a statue of Emperor Greatest Nero Cæsar Claudius Augustus Germanicus, son of God, while Tiberius Claudius Novius, son of Phillinos, is acting as General over the Hoplites for the eighth time, and while he is overseer and lawgiver." Nero was expected at Athens in 61 A.D., but did not come, and was never there after that date, so never saw the servile inscription intended to flatter him. After he committed suicide in 68 A.D., the letters were torn from their sockets.

Par'ticeps Crim'inis. [Lat. a sharer in the crime.] (*Law.*) One who is participator in another's guilt; an accomplice.

Parti'tion Lines. (*Her.*) Lines dividing the shield in directions corresponding to the ordinaries. According to the direction of the partition lines, a shield is said to be party or parted per fess (1), per pale (2), per

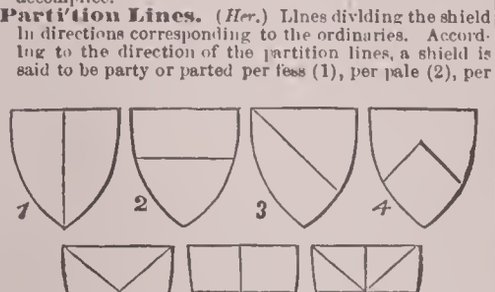


Fig. 3018.—PARTITION LINES.

bend (3), per chevron (4), per saltire (5); a shield divided by lines in the direction of a cross is said to be quartered (6); and a shield parted at once per cross and per saltire is said to be Gironné of eight (7).

Par'ton, JAMES, author, was born in Canterbury, England, February 9, 1822; removed to the U. S. at the age of five years; was educated in New York, and became a teacher; wrote extensively for current journals and published volumes from time to time, chiefly biographical sketches, among which are *Life and Times of Aaron Burr* (1857); *Life of Andrew Jackson* (1860) *Life and Times of Benjamin Franklin* (1864); *The People's Book of Biography* (1868); *Life of Thomas Jefferson* (1874); *Life of Voltaire* (1881); *Captains of Industry* (1884 and 1891). Died Dec 17, 1891.

Pasade'na, in *California*, a city of Los Angeles co. In a rich fruit-growing district, and a famous health resort. Seat of Throop University. *Pop.* (1897) 5,150.

Pas'co, in *Florida*, a W. co.; *area*, 800 sq. m.; formed from Hernando co. *Cap.* Dade City. *Pop.* (1895) 4,697.

Paso Robles, in *California*, a post-town of San Luis Obispo co., 29 m. N. of San Luis Obispo; has hot sulphur springs. *Pop.* (1897) 1,000.

Pass Chris'tian, in *Mississippi*, a post-village of Harrison co., 58 m. E.N.E. of New Orleans. A watering place. *Pop.* (1897) 1,760.

Passavant', WILLIAM ALFRED, clergyman and philanthropist, was born in Pennsylvania, Oct. 9, 1821. He was an eminent preacher, but his chief work was in organizing benevolent and Christian institutions. He founded hospitals in Pittsburg, Milwaukee, Chicago, and Jacksonville, Ill., and orphanages in Rochester, Pa.; Zelienople, Pa., and Mt. Vernon, N. Y. He was an influential organizer in the Lutheran Church in the U. S., and edited several denominational papers. Died June 3, 1894.

Passavant, WILLIAM ALFRED, JR., clergyman, was born in Pittsburg, Pa., Jan. 23, 1857; succeeded his father in the care of the established benevolent institutions.

Passé (with feminine nouns, PASSÉE), *a.* [Fr.] Worn out; past prime; old-fashioned.

Pas'sion Play. A mystery or miracle play, founded on the passion, or suffering, of Jesus Christ; a dramatic representation of the crucifixion and attendant scenes. (See MORALITIES.) The only play of this kind that has come down from mediæval times is the one still celebrated every ten years at Ober-Ammergau, in Bavaria. The performance takes about six hours and is given three times a week, from May to September. It requires over 500 actors, including many children, who are chosen from the inhabitants of the village.

Pasteur', LOUIS, chemist and biologist, was born in Dole, in the department of Jura, France, Dec. 27, 1822; received the degree of D.Sc. from the École Normale

Fig. 3019.—LOUIS PASTEUR.

(1847); was professor of Physics in the Faculty of Sciences, Strasburg, (1849); dean of the Faculty of Sciences in Lille (1854); scientific director of the École Normale, Paris (1857); professor of Geology, Physics, and Chemistry, at the École des Beaux Arts (1863); professor of Chemistry at the Sorbonne (1867). He was noted chiefly for his discoveries in the chemistry of fermentation, and in mycology. He ascertained the causes of certain deteriorations in wine, and found a preventive. His investigation of the disease of the silk-worm resulted in finding both the cause and the cure. He discovered the bacilli which cause anthrax in cattle, and a cure by inoculation; found the cause of hydrophobia to be a microbe in the nerve-centers, and its preventive and cure in the employment of an attenuated or "cultured" form of the same microbe. In 1888 he established the Pasteur Institute, in Paris, for the treatment of rabies, which was opened in the presence of President Carnot. In 1890 a hospital for the treatment of rabies by the Pasteur method was founded in New York city. In recognition of his services to science and industry he received (1872) a prize of 10,000 florins from the Austrian Ministry of Agriculture; in 1873, one of 12,000 francs from the Société d'Encouragement; and in 1874, a life-pension of 12,000 francs from the French government. He was elected a member of the London Royal Society in 1869, and of the French Academy of the Institute of France in 1881. His seventieth birthday was celebrated before a brilliant official assembly at the Sorbonne (1892). He contributed many articles to scientific periodicals, and published several volumes embodying the results of his labors. Died Sept. 28, 1895.

Patas'kala, in *Ohio*, a post-village of Licking co., 18 m. E. of Columbus. *Pop.* (1897) 700.

Pa'ter, WALTER HORATIO, literary and art critic, was born in London, Aug. 4, 1839; educated at Queen's College, Oxford; elected a fellow of Brasenose College, and was for a time dean and lecturer there; travelled on the Continent, particularly in Italy, studying the scenes of classic and mediæval history; in 1873 published a series of essays entitled, *Studies in the History of the Renaissance*. Then followed *Marius the Epicurean; His Sensations and Ideas* (1885); *Imaginary Portraits* (1887); *Appreciations* (1889); *Plato and Platonism* (1893); and after his death, appeared *Greek Studies* (1894); and

an unfinished romance, *Gaston de Latour* (1896). **Died** Jnly 30, 1894.

Pater'nalism, *n.* In general; the character of being fatherly. In particular, a term applied to that kind of government which deals with its subjects after the manner of a father with his children; the exercise of governmental control over the social and personal affairs of the people; or the public conduct of business that might otherwise be a matter of private enterprise.

Patho-. An Initial compounding element, derived from the Gr. *pathos*, suffering; used in combination with words of Greek origin relating to disease.

Pat'more, Coventry Kearsey Deighton, poet, was born in Woodford, England, July 23, 1823; published a volume of *Poems* in 1844; from 1847 till 1868 was one of the staff of librarians in the British Museum. He was a voluminous writer; his greatest work is the poem, *The Angel in the House.*

Patriot'ic Societies. See American Hereditary Societies; Grand Army of the Republic, &c.

Pat'tern Mak'ing. (*Mech.*) Articles designed to be cast or moulded in metal, as iron or brass, are first shaped in wood, these being used to form the sand mould of the founder. The patterns are cut a little larger than the finished article is to be, to allow for the shrinkage of the metal in cooling. If the wood pattern is to be replaced by an iron pattern, double shrinkage must be allowed for. In the case of iron the shrinkage is one-eighth of an inch per foot, and pattern makers use measuring rules which are graduated that much too long, to save the trouble of making the calculation with every measurement. The shrinkage for brass or other metal differs slightly from that of iron, so that the pattern maker requires to know in advance in what metal the article is to be cast. In forming patterns, it is necessary to consider first whether a certain shape can be drawn from the sand mould, and whether it will have to be made in two or more parts, so that these can be removed, and leave the mould intact for pouring in the molten metal. Those sides of a pattern which must bear against the sides of the sand mould in removal are not made of the usual square angle, which would be undesirable, but have to be slightly tapered or bevelled, so that the pattern can be removed without disturbing the sand. Pattern makers commonly use a special form of wood-lathe, a blocking-saw mounted on a table, and various small wood-working tools, and often a steam glue-heater. Many of the parts of a pattern are most conveniently made separately, and glued on. When hollow castings are required, as for cylinders, pipes, faucets &c., it is necessary to form a core to shape the internal sides. A core usually must have projecting pieces called core-prints, to support it in the core-box in forming the mould. It is properly the business of the draughtsman who designs machinery so to draw all the parts that are to be cast that the pattern maker has only to follow the drawing. To do this the draughtsman must understand all the necessities of moulding and pattern making, so as not to draw forms which it is not practical to mould.

Pat'terson, in *Louisiana*, a post-town of St. Mary parish, 87 m. from New Orleans. *Pop* (1897) 1,520.

Paul'ist Fa'thers. (*Eccles. Hist.*) Members of the American Roman Catholic missionary order of St. Paul the Apostle, which was founded in New York city in 1858 by the Rev. Isaac Thomas Hecker (*q. v.*), a convert from Protestantism, and was approved by Pius IX. Like its founder, many of the members are men who have abandoned Protestantism; they take no vows, and can leave the order at will; their aim is to adapt themselves to the needs of modern American life in parochial, missionary, and educative work. They own substantial gravstone buildings on West 51st Street, New York city, and the Church of St. Paul the Apostle, at Ninth Avenue and 60th Street. Their dress somewhat resembles that of the Jesuits, consisting of a long black cassock and biretta.—Same as Paulites.

Pauuce'fote, Sir Julian, diplomatist, was born in Munich, Bavaria, Sept. 13, 1828; educated at Paris, Geneva, and at Marlborough College; called to the bar of the Inner Temple (1852); was appointed attorney-general of Hongkong (May, 1865); since that date has been constantly in official and diplomatic service. In 1888 he was appointed ambassador at Washington; in 1892 received the grand cross of the Bath for his diplomatic services, and in 1893 was raised to the rank of ambassador extraordinary and plenipotentiary to the United States. Died May 24, 1902

Pawn'broking, *n.* The Jews first in Europe made a business of money-lending, and in England, after the Norman conquest, made many loans, and are said to have charged from 45 to 65 per cent. interest. They were forbidden to take interest by a law of 1235, and in 1290 were expelled from the kingdom. The business then fell to Italians, popularly called "Lombards." The Italian family of Medici were famous money-lenders, and their armorial bearing of three golden balls (pills) came to be the common sign of the money lender. The Lombard Street bankers are the successors of the Italian money-lenders. Later the business of private loans was mainly in the hands of the gold smiths. In 1757 the business was regulated by law of Parliament; and in the Act of 1872 all earlier laws were repealed, and the business of pawnbroking, or lending small sums upon pledges, was put under the regulations which are now in force. This law allows 2½ per cent. a month interest on loans under £2, and 1⅔ on loans from £2 to £10. The system in the United States has followed that of England. The legal rate in New York is 3 per cent. per month for the first six months on sums of $100 or less, and 2 per cent. per month for the remaining six months; but pawnbrokers are allowed to exact other charges, such as special care of a garment, or fees for affidavits where tickets are lost; and there have been instances where the 3 per cent. has been swollen to 18.

The hardships of poor debtors oppressed by money-lenders early led to charitable relief, and in many cities individual and state charity have established the *Mont de Piété*, as it is called, where loans may be secured easily by the poor. The earliest was established in Padua, Italy, in 1491, and others have been founded in France, Spain, Austria, Russia, and other countries. They are often endowed by private or state charity, and are supervised carefully, and lend upon the smallest interest practicable, the *Mont de Piété* of the city of Mexico lending to the very poor without any interest at all. The *Mont de Piété* in Paris made loans in 1891 amounting to $7,600,000, and renewed loans of $4,400,000, the number of pledges given being 2,300,000, and the average loan $6. That in Milan had, in 1883, a capital of over $150,000. That in Vienna had, in 1893, a capital of $1,575,000, and made 866,015 loans, the average loan being under $5. While making nothing from most of the borrowers, from others they have a profit which amounted, in 1893, to about $31,060.

During the hard winter of 1893–94 there were charges against the pawnbrokers of extortion, and some of the pastors of New York established loan offices in their parish houses. These were conducted so as to avoid actual loss, and a large work of parish charity was accomplished, and some parish loan-offices are still maintained. The movement led to the incorporation of the Provident Loan Society of New York, maintained by prominent citizens, in 1894, and, in 1895, to the enacting by the New York legislature of a general law for the incorporation of such societies. The Provident Loan Society loaned, from May, 1894, to December, 1895 $607,000·50, on 23,789 pledges; the interest charge was 1 per cent. a month. $406,771 of the loans were repaid during this time. From January to December, 1896, the loans were $560,403.50 on 28,218 pledges; loans repaid, $427,522.

Pawnee', in *Kansas*, a S.W. central co.; *area*, 756 sq. m. *Rivers.* Arkansas and Pawnee. *Surface*, chiefly rolling prairie; *soil*, fertile. Cattle raising is one of the chief industries. *Cap.* Larned. *Pop.*(1895) 4,797.

Pawnee, in *Oklahoma*, a N.E. co. It is bounded on the N. and E. by the Arkansas river. *Cap.* Pawnee. *Pop.* (1897) 5,000.

—A post-village, cap. of Pawnee co. *Pop.* (1897) 1,000.

Pax'ton, Sir Joseph, architect, landscape gardener, and horticulturist, was born at Milton-Bryant, Bedfordshire, England, Aug. 3, 1803; educated at the free school at Woburn; was employed as a gardener in the service of the Duke of Devonshire, where he displayed such genius for landscape-gardening that the duke made him manager of the Derbyshire estates, and commissioned him to remodel the grounds at Chatsworth. Under his care the mansion became the most renowned county seat in Great Britain, and the great conservatory proved to be the germ of an idea that culminated in the designs for the great Crystal Palace for the Exposition of 1851. For this service he was knighted, and received honors from several European sovereigns. He built the Crystal Palace at Sydenham, removing the materials from the exhibition building. He also designed the mansion of Baron Rothschild, at Ferrieres, France. In 1854, he was elected a member of Parliament for Coventry. He published several works on horticulture, botany, and floriculture. Died June 8, 1865.

Payn, James, novelist, was born at Cheltenham, England, in 1830; educated at Eton, Woolwich Academy, and Trinity College, Cambridge, graduating in 1854. In 1858, became editor of *Chambers' Journal*, and in 1882, of the *Cornhill Magazine*. His first novel, *A Family Scapegrace*, was published in *Chambers' Journal*, and a few years later was followed by *Lost Sir Massingberd*. He has written more than 100 novels.

Payne, Henry B., lawyer and politician, was born in Madison co., N. Y., Nov. 30, 1810; educated at Hamilton College; studied law; was admitted to the bar, and began practice at Cleveland, O. (1834); 12 years after, he retired from the profession, and became interested in railroads and manufacturing; was a member of the Ohio State Senate (1849); Democratic candidate for the U. S. Senatorship (1851), and for governor (1857); a prominent member of several Democratic conventions. He was elected to Congress in 1875, and was U. S. Senator, from 1885 to 1891. Died Sept. 9, 1896.

Payne, Henry C., cabinet officer, was born at Ashfield, Mass., November 23, 1843. Removing to Milwaukee in 1863, he became active in Republican politics, was postmaster 1876-86, street railway president, and in 1893-95 receiver of the Northern Pacific Railroad. He became a member of the National Republican Convention in 1880, was a delegate to the Conventions of 1888 and 1892, and in 1902 was appointed to succeed Charles Emory Smith as Postmaster-General of the United States. Died October 4, 1904.

Payne, in *Oklahoma*, a N. central co.; *area*, 600 sq. m.; intersected by the Cimarron river. *Surface*, undulating prairie; *soil*, fertile clay loam; timbered along streams. *Products.* Wheat, corn, cotton, oats, root crops, cane. *Cap.* Stillwater. *Pop.* (1897) 14,000.

Pay'son, Edward, clergyman, was born at Rindge, N. H., July 25, 1783; was pastor of a church in Portland, Me. His sermons, with memoirs, by Cummings, were published in 1846, and are said to be more read than those of any other New England divine, except Dwight. He was a man of great zeal and saintly devotion; and his personal popularity is attested by the number of his namesakes in the Eastern States. **Died** Oct. 22, 1827.

Pea'body, Andrew Preston, clergyman and author, was born in Beverly, Mass., March 19, 1811; graduated at Harvard (1826); studied divinity at Cambridge; was pastor of the South Parish (Unitarian) Church in Portsmouth, N. H., from 1833 to 1860; preacher to Harvard University and professor of Christian Morals from 1861 to 1881, when he resigned to devote his time to literary work, and retired as emeritus professor. He was actiug president in 1862, and again in 1868–69. For eleven years, from 1852, he was editor of the *North American Review*, to which and to other periodicals he contributed largely. He published several volumes of sermons, lectures, and didactic essays: a *Manual of Moral Philosophy* (1874); *Harvard Reminiscences* (1888); and *Harvard Graduates Whom I Have Known* (1890). Died March 10, 1893.

Peabody, Elizabeth Palmer, educator, was born in Billerica, Mass., May 16, 1804; a sister of Mrs. Horace Mann and Mrs. Nathaniel Hawthorne; she taught in Bronson Alcott's school; was one of the first to introduce the kindergarten system into the U. S., and published several works relative to the subject; also published *Chronological History of the United States* (1856); and edited Mrs. Mann's *Guide to the Kindergarten* (1877). Died Jan. 3, 1894.

Peabody, in *Kansas*, a city of Marion co., 18 m. N. E. of Newton; a shipping point for cattle and hogs. The Kansas silk station is located here. *Pop.* (1895) 1,361.

Peabody, in *Massachusetts*, a post-town of Essex co. This town, formerly South Danvers, was named in honor of George Peabody, who was born here. *Pop.* (1895) 10,510.

Peale, Charles Wilson, painter, was born in Chestertown, Maryland, April 16, 1741; studied art under J. S. Copley, in Boston, and Benjamin West, in London; is remembered especially for his portraits of Washington, John Hancock, Robert Morris, Alexander Hamilton, and several of the principal army officers of the Revolution. He was also active in science and manufacturing, and a clever inventor and popular lecturer. Died Feb. 22, 1827.

Peale, Rembrandt, portrait painter, son of C. W. Peale, was born in Pennsylvania, Feb. 22, 1778. He painted a portrait of Washington in 1795; afterward studied with Benjamin West, and spent the greater part of his time in Europe; painted portraits of Baron Cuvier, Thomas Jefferson, Commodore Perry, and Stephen Decatur. His portrait of Washington painted in 1823, and purchased by Congress for $2,000, is the one commonly referred to as the "Peale Portrait." Besides his portraits from life, his figure-painting included groups, historical and mythological. He wrote *Reminiscences of Art and Artists* (1845), &c. Died Oct. 3, 1860.

Peale, in *Pennsylvania*, a post-village of Clearfield co. *Pop.* (1897) 575.

Pear, *n.* (*Bot.*) *Pyrus communis;* the name is also applied, generically, to species of *Pyrus* of the group *Pyrophorum*, consisting of the Pears proper.—*P.*, Alligator, or Avocado. *Persea gratissima.*—*P.*, Anchovy. *Grias cauliflora.*—*P.*, Garlic. *Crataeva gynandra.*—*P.*, Grape. *Amelanchier Botryapium.*—*P.*, Prickly. *Opuntia vulgaris*, and *O. Tuna.*—*P.*, Strawberry. *Cereus triangularis.* *P.*, Swallow. *Pyrus torminalis.*—*P.*, Wild. A West Indian name for *Clethra tinifolia.*—*P.*, Winter. Any *P.* that keeps until winter, or ripens very late.

Pearl Riv'er, in *Mississippi*, a S. co.; *area*, 666 sq. m.; bounded on the W. by Pearl river, and intersected by Wolf river. *Cap.* Poplarville. *Pop.* (1897) 3,750.

Pear'y, Robeat Edwin, U. S. N., arctic explorer, was born in Pennsylvania, in 1854; removed to Maine, and graduated at Bowdoin College; in 1885 became a civil engineer in the U. S. N., with rank of lieutenant; in 1886, 1891, and 1893 made expeditions to the Polar regions. From the last expedition he returned with the "Peary Relief Expedition," in the steamer *Kite*, to St. John's, Newfoundland, Sept. 21, 1895; this expedition was in charge of Emil Diebitsch, brother of Mrs. Josephine Peary, who accompanied her husband on his expeditions, and published an account of the first in *My Arctic Journey* (1893). In May, 1896, Lieut. *P.* made a successful expedition to Greenland for the purpose of collecting specimens in natural history, returning to Cape Breton, Sept. 27. In 1897 Lieut. *P.* was given leave of absence by the government for the purpose of continuing his explorations in the northern seas, in pursuance of a plan which would require five or more years to carry out successfully. He proposed to establish a station, well provisioned and supplied, in the far north, and make it the basis of annual sledge journeys toward the pole. In his preliminary voyage for this purpose in 1897, he brought back an immense meteorite from Cape York, Greenland. Going north again in 1898, he remained until 1902, reaching in the latter year the latitude of 84° 17′ N. In 1904 he began preparations for another expedition, and set out in 1905 in the specially built Arctic steamer "Roosevelt." In the spring of 1906 he set out on a sledge journey northward, and, despite numerous difficulties, reached the latitude of 87° 6′ N., the highest attained to that time. In the spring of 1907 he made preparations for another effort to reach the pole.

Peat'-bog, *n.* A bed of peat is the accumulation of remains of plants grown *in situ*, deposited each year, one layer upon another, until the accumulation becomes sometimes of great thickness, and covering a wide surface of land. Two conditions are necessary for the origin and the growth of peat—water, either stagnant in basins, lakes, pools, &c., or water abundantly supplied by a boggy atmosphere, increased by dense forest

growth. Pools of stagnant water, when not exposed to periodical drying up, are invaded by a peculiar vegetation, first mostly composed of confervæ, simple thread-like plants of prodigious activity of growth, mixed with a mass of infusoria and microscopic plants, which partly decomposed, partly continuing the floating vegetation, soon fill the basins and cover the bottom with a floating of clay-like mould. So rapid is the work of these minute beings that in some cases from six to ten inches of this mud is deposited in one year. When left undisturbed this mud becomes gradually thick and solid, affording a soil for the growth of marsh plants, whose substance, more or less woody, drops annually to the bottom. When at last the basin has become filled, its surface, exposed to sunshine and air, becomes a true loam, and is gradually overgrown with meadow or forest. In this way many deposits of peat are buried underground and remain unknown until discovered by diggings or borings. Such are the immense peat deposits in the Dismal Swamp, and all along the shores of the Atlantic from Norfolk to New Orleans. In other cases, when basins of stagnant water are too deep for the vegetation of the aquatic plants, nature attains the same result by a different special process, namely, by the prolonged vegetation of certain kinds of floating mosses, especially the species known as sphagna. These floating masses grow with prodigious speed, and expanding their branches in every direction over the surface of ponds or small lakes, soon cover it entirely. Thus they form a thin floating carpet, which as it gradually increases in thickness serves as a solid soil for another kind of vegetation—that of the rushes, the sedges, and some kinds of grasses, which grow abundantly mixed with the mosses, which by their water-absorbing structure furnish a persistent humidity sufficient for the preservation of their remains against aërial decay. The floating carpet of moss becomes still more solid, and is then overspread by many species of larger swamp plants, and small arborescent shrubs, especially those of the heath family; and so in the lapse of years, by the continual vegetation of the mosses, which is never interrupted, and by the yearly deposits of plant remains, the carpet at last becomes strong enough to support trees, and is changed into a floating forest, until, becoming too heavy, it either breaks and sinks suddenly to the bottom of the basin or is slowly and gradually lowered into it and covered with water. That the breaking down of the surface vegetation of lakes is not fanciful, but a real explanation of the deep peat deposits of Denmark, is proved by a remarkable adventure of the people of the Jura Mountains in Switzerland, where a peat-bog forest once sank suddenly and now lies at the bottom of a lake, over which a fresh carpet of peat has since then grown. Lac d'Etailleres, six or seven miles from Fleurier in the Val des Ponts, is a piece of open water in one of the extensive series of peat-bogs stretching along the parallel valley of the Brevine. Previous to the year 1500 A. D., a forest occupied the site of the present lake, and covered the flat floor of the valley. Already, however, a new carpet of moss, &c., is beginning to creep outward from the shores toward the center of the lake, and another cycle of its history is beginning. This has frequently happened, and the superimposed layers observed in peat and coal beds may thus be accounted for. In the southern part of the U. S. the results of the process are differently exhibited. The bottom of Drummond Lake, of the Dismal Swamp, for example, is formed of a forest, once growing at the surface, but now prostrate and buried beneath fifteen or twenty feet of water. Beneath it probably lies a deposit of the detritus of plants, or a bed of peat; while the moss vegetation is now advancing into the lake from all around its edge, so that it is not possible to reach the open water without sinking deeply at every step into the floating carpet. In New Jersey, near the seashore, very large tree trunks are dug out from beneath a covering matter of muddy peat, from 10 to 20 feet thick. Around New Orleans borings for water have traversed, at various depths, a succession of beds of peat and forest, separated by deposits of sand. In northern countries, where a colder climate is particularly favorable to the growth of the mosses, the process is still more plainly exhibited, either as a work completed in the past, or still actively carried on and open to observation of the present generation. This subject is more extensively discussed and illustrated in the *Report of the Geological Survey of Pennsylvania for 1885.*

Pe'cos, in *Texas*, a W. co.; *area*, 6,700 sq. m.; bounded N.E. by Pecos river. *Surface*, hilly; very dry; said to contain silver ore; *soil*, in valleys adapted to grazing. *Cap.* Fort Stockton. *Pop.* (1897) 1,550.

Pedar'ian, *n.* [Lat., *pedarius.*] A Roman senator not entitled to vote, but who could express his approval of a measure by walking over to the side occupied by the party with whom he concurred.

Peel, Arthur Wellesley, Viscount, statesman, was born in 1829, the youngest son of Sir Robert Peel; was educated at Eton and Balliol College, Oxford; entered Parliament (1865), was secretary to the Poor-Law Board (1868–71); secretary to the Board of Trade (1871–73); patronage-secretary of the Treasury (1873–74); under-secretary for the Home Department (1880). He was elected Speaker of the House in 1884, and re-elected in 1886 and 1892. He was member for Warwick from 1865 to 1885; after that date for Warwick and Leamington; retired in 1895; received the thanks of the House, a peerage, and a pension of $20,000; and was presented with the freedom of the city of London in July, 1895.

Peel, Sir Robert (Junior), statesman and diplomatist, was born in London, May 4, 1822; educated at Harrow and at Christ Church, Oxford; was attaché at Madrid (1844–46); secretary of legation (1846); and *chargé d'affaires* at Berne (1846–50); a lord of the admiralty (1855–57); chief secretary for Ireland (1861–65); a Liberal member of Parliament for Tamworth (1850–80); was sworn of the Privy Council (1861); made a G. C. B. (1868); married (1856) the eighth daughter of the Marquis of Tweeddale.

Peixoto (*pā-shō'to*), Floriano, statesman, was born in Alagoas, Brazil, in 1842; received a military education; served with distinction in the war with Paraguay (1865–70); was severely wounded at the battle of Aquidaban (March 1, 1870); resigned, but returned to the army after the liberation of his slaves had impoverished him. He supported the republic; was nominated a senator; was minister of war (1890); Vice-President (1891); opposed President Fonseca, who resigned Nov. 23, 1891, when *P.* succeeded to the Presidency. He retired at the expiration of his term of office, and died June 29, 1895.

Pel'ican Rap'ids, in *Minnesota*, a post-village of Ottertail co. *Pop.* (1895) 831.

Pellestri'na, a town of Italy, near the center of an island of the same name, 12 m. S. from Venice. *Pop.* (1897) about 6,000.

Pel'ly Riv'er. (*Geog.*) A large river of Northwestern Canada, whose confluence with Lewis river (*q. v.*) forms the Yukon. It rises in Pelly lakes, on the continental divide, at the crossing of the 129th meridian with the 62d parallel of latitude, and follows a general northwesterly course for about 400 miles, measured along its windings. It was discovered by Hudson's Bay officers in 1846, who soon built trading-posts upon it—one near its source (where a trail crossed to the head of the Liard river), called Pelly Banks, and another at its mouth, called Fort Selkirk. (See Yukon.) The river is navigable for light-draft boats, and its sands yield gold in fine particles.

Pem'berton, John Clifford, soldier, was born in Philadelphia, Pa., August 10, 1814; graduated at West Point (1837); served at various points in the regular army, until 1861, when he resigned to join the Confederate forces; became a colonel of cavalry, under Gen. J. E. Johnston; was promoted to be lieut.-general of Confederate troops; was officer in command at Vicksburg, and surrendered to Gen. Grant, July 4, 1863; after the war was inspector of artillery; after 1876, resided in Philadelphia and vicinity. Died July 13, 1881.

Pem'berville, in *Ohio*, a post-village of Wood co., 18 m. S. of Toledo. *Pop.* (1897) 920.

Pem'broke, in *Kentucky*, a post-village of Christian co. *Pop.* (1897) 510.

Pen Argyl', in *Pennsylvania*, a post-borough of Northampton co., 27 m. N. of Bethlehem; in the heart of the great slate region. *Pop.* (1897) 2,420.

Pence, in *Wisconsin*, a post-village of Iron co. *Pop.* (1897) 500.

Pen'der, Sir John, was born in Scotland, in 1816. He was one of the first financial supporters of the Atlantic cable project, and was conspicuous for his unswerving faith in the scheme, and his loyal sustaining of Cyrus W. Field during the period of relapsed confidence that followed the first failure of the experiment. After the final success of the Atlantic cable, *P.* engaged extensively in gigantic cable enterprises, receiving distinguished honors from Turkey, Greece, and Portugal, as well as Great Britain. He was a member of Parliament for Totness from 1862–1866, and for Wick from 1872 to the end of his life. Died July 7, 1896.—His oldest son, J. Pender, was elected Conservative member for Northamptonshire, England, in 1895.

Pender, in *Nebraska*, a post-village, cap. of Thurston co., 40 m. W. of Sioux City. *Pop.* (1897) 600.

Pender, in *North Carolina*, a S.E. co.; *area*, 800 sq. m.; drained by the N. E. Cape Fear river. *Surface*, level, with large pine forests; *soil*, sandy. *Products* Corn, sweet potatoes, wool, pork, lumber, tar, and turpentine. *Cap.* Burgaw. *Pop.* (1890) 12,514.

Pen'dleton, George H., lawyer and politician, was born in Cincinnati, Ohio, July 25, 1825; was State senator (1854–1855); member of Congress (1856–1865); nominee for Vice-President on the Democratic ticket (1864); U. S. Senator from Ohio (1879–1885); minister to Germany (1885). Died in Belgium, Nov. 24, 1889.

Pendleton, in *Arkansas*, a post-town of Desha co. *Pop.* (1897) 556.

Pendleton, in *Oregon*, a post-town, cap. of Umatilla co., 231 m. E. of Portland; has ample water power, and two large flour mills, a paper mill, foundry, &c. *Pop.* (1897) 3,500.

Pendleton, in *South Carolina*, a post-village of Anderson co. *Pop.* (1897) 564.

Pen'ikese, a small island of the Elizabeth group, about 16 m. S. of New Bedford, Massachusetts. It was given to Prof. Louis Agassiz, in 1873, by John Anderson, a merchant of New York, together with $50,000, as a site for a summer school of natural history, which was maintained there for two seasons.

Pen'nington, in *South Dakota*, a S.W. co.; *area*, 1,521 sq. m.; bounded E. by the South Fork of Cheyenne river. *Surface*, mountainous, with broad and fertile valleys; heavily timbered and well watered. *Min.* Gold, silver, mica, and tin. Farming and stock-raising. *Cap.* Rapid City. *Pop.* (1895) 5,163.

Penns'borough, in *West Virginia*, a post-town of Ritchie co., 42 m. E. of Parkersburg. *Pop.* (1897) 650.

Penns'burg, in *Pennsylvania*, a post-borough of Montgomery co., 25 m. N.W. of Norristown; has several cigar factories and other industries. *Pop.* (1897) 680.

Pennsylva'nia Col'lege. (*Educ.*) A co-educational institution, located at Gettysburg, Pa., and founded in 1832 under Lutheran auspices. It was started without endowment, but in 1834 the State appropriated $18,000 for its support, besides furnishing it for a number of years an annual grant of $1,000. By an act of the legislature in 1830, one-third, in value, of the funds of Franklin College at Lancaster was transferred to Pennsylvania College, to enable it to found a Franklin professorship. The productive funds of the institution amount to $210,000, and its total yearly income to about $16,000. In 1897 it had 16 instructors and 236 students, with 24,000 volumes in its library.

Pennsylva'nia State Col'lege. (*Educ.*) This co-educational institution, at State College, Center co., Pa., was organized in 1859 as the Farmers' High School, its name being changed in 1862 to the Agricultural College of Pennsylvania. The legislature having appropriated to the college the income from the proceeds of the national land-grant, and the scope of the institution having been enlarged, the name of the institution was again changed to the Pennsylvania State College. The State holds the proceeds of the national land-grant in trust, for which it has given its bond for $500,000, on which it pays interest to the college at the rate of 6 per cent. per annum. It is especially an industrial school, paying particular attention to practical and scientific agriculture. The agricultural experimental station, in connection with the college, receives from the U. S. government a yearly appropriation of $15,000. In 1890 Congress passed a law appropriating to agricultural colleges $15,000 a year, to be increased annually $1,000 until it reaches $25,000. From all these sources its income in 1896 was $120,248. In that year the college had 43 instructors and 310 students, with about 10,000 volumes in its library.

Pennsylvania, Univer'sity of. (*Educ.*) This institution originated as a charity school in 1740. Through the efforts of Benjamin Franklin it was founded in 1749 as an academy, and in 1755 incorporated as a college. In 1765 the medical school was opened. Upon the outbreak of the revolution, the provost of the college, William Smith, being a loyalist, was imprisoned, but heard recitations in his cell. The charter of the college was revoked in 1779, and its franchises conferred upon a new organization called "The University of the State of Pennsylvania," being the first university created in North America. Ten years later the faculty and trustees of the college were reinstated, and in 1791 the two institutions were united under the style of the University of Pennsylvania. In 1872 the institution was removed to its present site in West Philadelphia, Pa., where it has above 52 acres, the twelve departments of the University occupying twenty-nine buildings. It has a law department, founded 1789, a dental school, a veterinary department, a department of hygiene and bacteriology, and a graduate department for women. Its entire plant is valued at $4,600,000 and its total productive fund at $4,280,000. Its annual revenue is nearly $600,000. The University museums are very large, and the University libraries contain 225,000 bound volumes and a very large number of unbound volumes and pamphlets. In 1903 it had 290 instructors and 2,550 students.

Penn'ville, in *Indiana*, a post-village of Jay co., 12 m. N. W. of Portland. *Pop.* (1897) 750.

Pen'sions, *n. pl.* In England pensions are given not only to military veterans, but by a regular system to civil officers after long service, and also to distinguished authors and artists in recognition of their eminence. But in the U. S. pensions have been mostly confined to veterans of the military and naval service, and their dependents. Pensions have been granted by special law to the widows of presidents, and the judges of the Supreme Court may retire from duty at 70 years of age with $10,000 pay, but these are exceptions to the rule. A military pension act was passed by Congress, Aug. 26, 1776, granting half their regular pay to retired and disabled soldiers of the army of Independence. According to present law, a commissioned officer of the army or navy who has served forty years, or a non-commissioned officer or private who has served 30 years, may apply and receive place on the retired list with three-fouths pay; and officers 62 years of age, or younger if disabled from the most active service, are by law retired on three-fourths pay. Soldiers, sailors, and marines who served in the War of 1812, or in the Mexican War, are also entitled to pensions; and all dependent widows are entitled to the same pension to which their husbands would be entitled if living. Besides her own pension of $12 a month, a widow has $2 for each of her husband's children under 16 years of age, and should she marry again this is paid to the children till 16 years old. The dependent parents of such soldiers may receive $12 a month, and the widows and dependent parents of commissioned officers receive a larger pension according to rank. In its pensions to the veterans of the Federal army of the Civil War the U. S. has been liberal beyond all precedent, its pension bill, 30 years after the close of the war, equalling the cost of the greatest armies of Europe. The law now regulating pensions was passed June 27, 1890. Under it every person who served 90 days in the war for the Union and was honorably discharged, and then or thereafter by reason of wounds or other disability incurred in that service, became unable to earn his own support, shall be counted an invalid pensioner, and receive from $6 to $12 per month, according to the degree of disability. This pension is to all ranks alike, and anyone already receiving a lower pension may, if entitled to it, receive its increase, though no person shall draw two pensions. Pension attorneys are limited in fee to $10, and greater charge may be punished by

Johann Heinrich Pestalozzi

1746–1827

$500 fine or two years' imprisonment or both. The passage of the law was immediately followed by the filing of 363,797 new pension claims, and the requirement of disability was very largely disregarded, so that a great increase of pensions was made, and, although the list of pensions is heavily depleted each year by death, the number has increased year by year. This increase within recent years has been due to pensioners of the Spanish war of 1898 and of the Philippine insurrection, and there is reason to hope that from this time forward there will be a somewhat rapid decrease, since the death-list of civil war pensioners is likely henceforward to be great. The numbers of pensioners on the roll at successive periods, with the amount paid, was as follows:

Years.	*Pensioners.*	*Amount.*
1892	876,068	$141,086,948
1897	976,014	140,845,772
1902	999,446	138,491,822

Pe'ony, *n.* (*Bot.*) See PÆONIA.

Peo'ple's Pal'ace. An institution suggested in 1882 by Walter Besant in his novel, *All Sorts and Conditions of Men.* The idea gained popularity at once, and the buildings were begun on the Mile End Road, in the East End of London, under the Queen's special patronage, in 1887. They provide ample rooms and facilities for all kinds of recreation, music, reading, gymnastics, &c., and for trade schools and technical training. Over 2,500,000 people took advantage of the privileges of the People's Palace from October, 1887, to 1889, while in 1890 the technical and handicraft schools alone were attended by 5,000 pupils.

Peo'ple's Par'ty, or **Pop'ulists.** A political party in the United States, which first met in national convention at Omaha, Neb., July 4, 1892. It there adopted a platform demanding a national legal-tender currency issued by the government directly, without banks; direct distribution to the people at a tax not to exceed 2 per cent. per annum, and by payments for public improvements; free coinage of gold and silver at a ratio of 16 to 1; increase of the circulating medium to $50 per capita; a graduated income tax; government ownership and operation of railroads, telegraphs, and telephones; and that land shall not be monopolized nor held by aliens, and railroad lands shall be reclaimed and held for settlers. This organization had been preceded by the Farmers' Alliance (*q. v.*), holding similar principles, and by a number of kindred movements more or less local, and the name People's Party had been given to the Greenback Party, which nominated Benjamin F. Butler for President, in 1884. The Farmers' Alliance had carried Kansas in 1890 against the Republicans, and in some Southern States the People's Party was the effective opponent of the Democrats. The Omaha convention nominated for President James B. Weaver, of Iowa, and for Vice-President James G. Field, of Virginia. In the popular election they received 1,041,028 votes, and carried the States of Colorado, Idaho, Kansas, Nevada, and North Dakota, and one elector in Oregon, securing 22 electoral votes; while 5 senators and 11 representatives were elected to Congress. The second national convention of the People's Party met in St. Louis, Mo., July 22, 1896. It reaffirmed the principles of the platform of 1892, and declared "natural money issued by the government to be a full legal tender for all debts public and private;" and denounced the sale of bonds to replenish the treasury, except by specific act of Congress. It declared also that senators should be elected by the people directly. This convention contained 1,200 delegates, including representatives of the American Railway Union and of the Knights of Labor. There was a sharp contest between the radical Populists and those favoring fusion with the Democratic and Free Silver Parties. A test vote, July 23, on conferring with the Free Silver convention then in session in St. Louis, showed 200 majority for fusion; but, July 25, the radicals nominated Thomas E. Watson, of Georgia, for Vice-President by 721 to 699 votes. Later the convention endorsed the Democratic nomination of William J. Bryan for President. In the election following, the Populists secured 114 electors in 26 States, their straight Populist vote being 150,644. In the choice of members of Congress they secured 4 senators and 16 members of the House of Representatives.

Pep'per, WILLIAM, physician, educator, and author, was born in Philadelphia, Aug. 21, 1843; graduated at the University of Pennsylvania (1862); the medical department (1864); was lecturer in the latter department from 1868–1876; professor of Clinical Medicine (1876–1887); of the Theory and Practice of Medicine (1887); became provost of the University in 1881, resigning in 1894. He was influential in extending the scope of the university; during his office many departments were added: the Wharton School of Finance and Economy; the School of Philosophy; the School of Biology; the School of American History; the department of Veterinary Medicine; the department of Archæology and Palæontology, and that of Hygiene. He was medical director of the Centennial Exposition; president of the American Association of American Physicians (1891), and of the Pan-American Medical Congress at Washington, D. C. (1893). He contributed valuable papers to current journals, and published several books, the most important being *System of Medicine by American Authors,* which he edited and published in five volumes. Died June 28, 1898.

Pep'perell, SIR WILLIAM, colonial soldier, was born in Kittery, Me., June 27, 1696; entered the army; in 1745 was commander of the New England expedition against Louisville, Cape Breton Island, and, aided by the fleet under Commander Warren, captured it. He was created a baronet in 1746; by successive promotions became lieutenant-general (1759); was acting governor of the colony (1756–58). Meanwhile, in civil life he was chief justice of the court of common pleas, having been appointed by Governor Belcher in 1730. Died July 6, 1759.

Pe'quot In'dians and the Pequot War. (*Anthrop.* and *Hist.*) An Algonkin tribe of Indians identified with the early history of New England. They dwelt along the shore of Long Island Sound between the Hudson river and Narragansett Bay, and were numerous and locally powerful at the time of the settlement of New England by the English, controlling 26 subtribes or sections, including the natives of Long Island. Their "emperor" was Sassacus, who, jealous of the predominant influence likely to be gained by his neighbors, the Mohegans on the west and the Narragansetts on the east, on account of friendship with the whites, tried to institute an allied war against the white settlements. Failing in this, the Pequots alone began raiding the feeble English villages in the Connecticut Valley. In 1637 the whites organized a retaliatory expedition, which was joined by a force of Narragansetts and other eastern tribesmen, the whole under command of Capt. John Mason. By a roundabout route they approached and attacked the principal Pequot stronghold—a palisaded fort near the Nuptic river, Connecticut—surprising the garrison just before dawn, and destroying nearly the whole band, many of the 600 killed perishing in the flames of the burning houses. Sassacus himself happened to be at another fort on Groton Heights, where, a few days later, the Pequots were again defeated, destroying their power as a ruling tribe and causing the disintegration of the loose confederacy where they had been supreme. Sassacus fled to the Mohawks, by whom he was arrested and put to death at the request of the Narragansetts. See also UNCAS.

Per Se. [Lat.] By itself; in itself considered; essentially. A thing right or wrong *per se* is so, regarded independently of its relations to anything else.

Peral'ta, in *California,* a post-town of Alameda co. *Pop.* (1897) 920.

Per'cival, JAMES GALIS, poet and geologist, was born in Kensington, Conn., Sept. 15, 1795; graduated at Yale (1815); studied medicine, but gave only desultory attention to this profession; was known chiefly as a writer of dainty and picturesque verse. His poems, complete in two volumes, were issued in 1859. In 1834 he made a special study of geology; was associated with Prof. Shepherd in the geological survey of Connecticut. In 1853 he surveyed the lead region of the American Mining Company, in Wisconsin; in 1854 was appointed State geologist. Died May 2, 1856.

Pereda (*per-ā'da*), JOSÉ MARIA DE, novelist, was born in Santander, Spain, in 1833. He has written many sketches expressive of the social life of Spain to-day, distinguished for the quality of local color. The first collection of these sketches was published in 1864, under the title, *Escenas Montañesas;* similar collections have been published at intervals since.

Perflu'ent, *a.* [Lat. *perfluens,* flowing through.] (*Elec.*) A term used to describe a battery operated by a liquid flowing through it.

Per'ham, in *Minnesota,* a post-village of Ottertail co., 67 m. E.S.E. of Moorhead. *Pop.* (1895) 846

Perianthoma'nia, *n.* (*Bot.*) An unnatural multiplication of sepals, bracts, &c. Examples are afforded by the curious Dianthus (Fig. 3020). In most cases the fertility of the plant is affected.

Fig. 3020.
DIANTHUS BARBATUS IN A STATE OF PERIANTHOMANIA.

Per'iscope, *n.* An improved form of altiscope, principally used for submarine boats, for enabling the steersman to observe the horizon. It is virtually an upright telescope, with a mirror placed angularly at the focus of the eyepiece so that the observer may look into it horizontally. At the upper and outer end is a lenticular total-reflecting prism. The *P.* is made rotatable on its axis, although fixed as to upright position.

Perka'sie, in *Pennsylvania,* a post-borough of Bucks co., 12 m. N.E. of Doylestown. *Pop.* (1897) 510.

Per'kins, CHARLES, art critic, was born in Boston, March 21, 1823; graduated at Harvard (1844); studied art in Paris and in Rome; resided in America, but visited Europe frequently; was distinguished for the originality of his researches in biography and art history, his attention being given chiefly to Italian subjects. He published *Italian Sculptors* (1868); *Art in Education* (1870); *Raphael and Michaelangelo* (1878); *Sepulchral Monuments in Italy* (1883), &c. In collaboration with J. D. Champlin, Jr., he bought out an *Encyclopædia of Painters and Painting* (4 vols., 1886–88). Died Aug. 25, 1886.

Per'kins, in *Nebraska,* a S.W. co.; *area,* 882 sq. m.; formed from Keith co. *Surface,* undulating. *Cap.* Grant. *Pop.* (1890) 4,364.

Perkins, in *Oklahoma,* a post-village of Payne co. *Pop.* (1887) 600.

Permis'sory, *a.* Of, or pertaining to, arising from, or based upon permission.

Pernet'ti, *n. pl.* [It.] (*Ceram.*) Pins or tripods to support an article in a kiln.—Marks left on a baked article of pottery by the supports.

Pernick'ety, *a.* Over-particular, or unduly precise in trifles; fastidious.

Per'pend, or **Perpend'er,** *n.* A stone going through from side to side of a wall, and acting as a binder; called also perpend-stone, through-stone, through-binder. A course of such is called a perpend-course.

Per'rotin, *n.* [*Perrot,* a French Inventor.] An intermittent machine for printing calico, in three colors, from engraved blocks.

Per'ry, MATTHEW GALBRAITH, U. S. N., was born in Rhode Island in 1794; after seeing some service in the Mexican War, commanded the expedition which, in 1852, led to official and commercial intercourse between the U. S. and Japan. Of this expedition he published a history in 3 vols. (1856). Died in 1858.

Perry, NORA, poet, was born in Webster, Mass., in 1841; was one of the popular magazine contributors of her generation; published her first volume of verses in 1874; other published works are, *The Tragedy of the Unexpected* (1880); *Book of Love Stories* (1881); *For a Woman* (1885); *A Flock of Girls* (1887); and *Lyrics and Legends* (1891). Died May 13, 1896.

Perry, THOMAS SERGEANT, critic, was born at Newport, R. I., Jan. 23, 1845; graduated at Harvard (1866), and was for a time instructor there in English and German; has resided much of the time abroad, and has studied at French and German universities. His writings are mainly contributed to literary history and criticism. From 1872 to 1874 he edited the *North American Review.*

Perry, WILLIAM STEVENS, ecclesiastic, was born in Providence, R. I., Jan. 22, 1832; graduated at Harvard (1854), and took holy orders in the Protestant Episcopal Church (1857); began as an evangelical, but in later years became a recognized champion of the highest episcopal prerogative. He was consecrated bishop of Iowa in 1876; in 1891 was conspicuous for his refusal to consent to the consecration of Phillips Brooks as bishop of Massachusetts unless the latter would sustain the dogma of apostolic succession. He has written extensively on subjects relating to the ritual, &c.

Perry, in *Oklahoma,* a post-village, cap. of Noble co. *Pop.* (1897) 3,800.

Per'sia, in *New York,* a post-town of Cattaraugus co. *Pop.* (1897) 1,550.

Pern', in *Nebraska,* a post-village of Nemaha co., 10 m. from Auburn. *Pop.* (1897) 725.

Pestalozzi (*pes-ta-lot'see*), JOHANN HEINRICH, teacher and educational reformer, was born at Zurich, Switzerland, in 1746. In 1798 he opened a school for orphans at Stanz, where he adopted a system of mutual instruction. He was driven from Stanz by the Austrians in 1799, and removed to Burgdorf, where his school acquired a wide reputation. In 1804 he removed to Yverdun, where he died in 1827. His two best known works are: *Leinhardt and Gertrud,* a popular novel designed to promote the better education of the poor; and *Inquiries into the Process of Nature for the Development of the Human Race* (1797).

Pe'ter, *v. n.* In mining, to thin out; to disappear, as a vein; used with *out;* hence, in general, to become exhausted; to fail, or disappear.

Petermann (*pā'tr-mān*), AUGUST HEINRICH, a German geographer, was born at Bleicherode in 1822; early devoted his attention to geographical science, and became an associate of Baron Humboldt. Taking great interest in African exploration, the British government, at his instance, despatched Drs. Barth, Overweg, and Vogel to Africa, and their discoveries opened out vast regions to foreign enterprise. In 1865 he edited at Goth the well-known geographical *Mittheilungen.* Died in 1878.

Petermann, JULIUS HEINRICH, Orientalist, was born at Glauchau in 1801; was a member of the principal learned societies of Europe and the United States, and as a philologer acquired a world-wide renown. He was long engaged on a voluminous edition of the Samaritan Pentateuch. Died in 1876.

Pe'termannland. (*Geog.*) An island in the Arctic Ocean, lying directly north of Nova Zembla and Franz Josef Land, in about 83° N. Lat., 70° E. Lon. It was named for the German geographer August Heinrich Petermann.

Pe'tersham, *n.* [Lord *Petersham.*] A heavy, fine cloth for men's overcoats, the face being rolled so as to present the appearance of little tufts.—A heavy overcoat made from such cloth.

Petion (*pā-ti-ông'*), ALEXANDRE, soldier and politician, was born at Port-au-Prince, Haiti, April 2, 1770; a quadroon, the son of a wealthy planter. He was educated in Paris; served with the French army in Haiti; joined the revolt of 1791, and was commandant of artillery under Toussaint L'Ouverture, but went over to Régand in 1799, and was forced to leave the island with him (1800); went to France, and was attached to Leclerc's expedition (1801–02). In 1802 he joined the revolt of those who feared that slavery was to be reëstablished; served under Dessalines, and, after his death, became President of Haiti (March 10, 1807). Christophe, leader

of the black party, had already revolted in the north, and the Island was divided into two parts, between which there was almost constant war, in which the mack party were the aggressors; their malice and ignorance defeated many of *P.'s* most enlightened measures. He protected white residents, and opened the ports to all flags. Besides the war with Christophe, there were many internal dissensions, but *P.* continued to rule until his death, March 29, 1818.

Petit (*pe-tē'*), *a.* [Fr.] Small and delicate, diminutive.

Peti'tion of Right. (*Law.*) One of the most important of English statutes. It has been called "one of the chief documents of the English Constitution." In 1628, in the third parliament of Charles I., the Commons stated their grievances in the form of a petition, refusing to vote supplies until its prayer was granted. The petition professes to be a simple corroboration and explanation of the ancient Constitution of the kingdom, and after reciting various statutes that recognize the rights contended for, and the various acts done by the king or in his name which violate these statutes, prays that these violations may cease, and "that no man be compelled to make or yield any gift, loan, benevolence, tax, or such like charge, without common consent by act of Parliament; that none be called upon to make answer for refusal so to do; that freemen be imprisoned or detained only by the law of the land, or by due process of law, and not by the king's special command, without any charge; that persons be not compelled to receive soldiers and mariners into their houses against the laws and customs of the realm; that commissions for proceeding by martial law be revoked." The king at first elided the petition, expressing in general terms his wish that right should be done according to the laws, and that his subjects should have no reason to complain of wrongs or oppressions. At length, however, on both Houses of Parliament insisting on a fuller answer, he gave, in full Parliament, on the 26th of June, his assent to the petition, indicated by the formula, *Soit droit fait comme est d'iré*—"Let right be done as prayed." The text of the Petition is in Gardiner's *Constitutional Documents of the Puritan Revolution*, 1628–60 (1889).

Pet'itory, *a.* [Lat. *petitorius.*] Petitioning, begging, supplicating, petitionary.

Pe'trie, W. M. FLINDERS, Egyptologist, was born in England, June 9, 1853. From 1875 to 1880 he was employed in exploring and measuring British earthworks, and, in 1880 published *Stonehenge.* Since 1881 he has been engaged in similar investigations among the pyramids and temples of Egypt; in this research has made many important discoveries, and within the last ten years has published extended reports of his several expeditions. In 1890 and 1891 he worked for the Palestine Exploration Fund.

Petro-. An initial compounding element, derived from the Gr. *petros*, rock.

Petrog'ale, *n.* (*Zoöl.*) A genus of kangaroos containing the agile rock kangaroos of the mountainous districts of Australia.

Pet'roglyph, *n.* A rock-carving.

Petrola'tum, *n.* (*Pharm.*) A fatty, semi-solid mixture of the paraffine hydrocarbons, obtained by distilling off the volatile parts of petroleum and purifying the residue. Used in the preparation of ointments, &c. Called, also, vaseline, cosmoline, petroline, &c.

Petro'lia, in *Pennsylvania*, a post-borough of Butler co. *Pop.* (1897) 670.

Pet'tenkofer, MAX, chemist and sanitarian, was born at Lichtenheim, Germany, Dec. 3, 1818; became professor of Chemistry at Munich (1847), and professor of Hygiene in a Bavarian university (1865). He discovered the process of obtaining illuminating gas from wood; also discovered the charactoristics of oil-colors. Among sanitarians he has been conspicuous for his researches into the nature and spread of the cholera epidemic; his theories on this subject were published in 1877, and have been sustained by later experience.

Pfen'nig, or **Pfenn'ing,** *n.* [Ger.] A small copper coin of Germany, of the value of ¼ of a cent U. S. money.

Phalange (*fa-länzh'*), *n.* [Fr.] In the system of Fourier, a socialistic community of 400 families, or about 1,800 people. The edifice they would occupy he called a *phalanstere*, or *phalanstery.*

Phal'lism, *n.* (*Compar. Relig.*) The worship of the fertilizing power of nature under the symbol of the phallus (*q. v.*). Such worship was practiced by the Phœnicians, Egyptians, Phrygians, Greeks, and even to some extent by the Jews.

Phal'lus, *n.* [Gr. *phallos.*] A figure of the male organ of generation, used in many systems of religion, as a symbol of the fertilizing power of nature.

Phantasmogen'esis, *n.* The causes or conditions of the occurrence of phantasms, or spectral illusions.

Phare, *n.* [Fr.] A lighthouse.

Pharol'ogy, *n.* [Gr., *pharos* and *logos.*] The scientific theory and management of signal-lights, lighthouses, night and fog signals.

Phelps, AUSTIN, clergyman and author, was born in West Brookfield, Mass., Jan. 7, 1820; studied at New Haven and Andover; pastor of Pine Street Congregational Church, Boston (1842–48); Bartlett professor of Sacred Rhetoric in Andover Theological Seminary (1848–69), and its president from 1869 to 1879; received the degree of D. D. from Amherst College in 1856. He published: *New Birth* (1867); *Solitude of Christ* (1868); *Theory of Preaching* (1881); *English Style in Public Discourse* (1883); *My Study* (1885), &c. Died Oct. 13, 1890.

Phelps, EDWARD JOHN, lawyer and statesman, was born in Middlebury, Vt., June 11, 1822; graduated at Middlebury College (1840); admitted to the bar (1843); was second comptroller of the U. S. Treasury (1851); professor of Law at Yale (1881); minister to Great Britain (1885); one of the counsel on the Behring Sea question (1893). During 1888 he contributed to the *Nineteenth Century* a series of articles on *The Constitution of the United States.*

Phelps, ELIZABETH STUART, author, was born in Andover, Mass., Aug. 13, 1815; daughter of Professor Moses Stuart, of Andover; married Rev. Austin Phelps in 1842. She wrote *Sunny-Side* (1851), and subsequently published other sketches of home-life. Died Nov. 30, 1852.

Phelps, ELIZABETH STUART. See WARD.

Phelps, WILLIAM WALTER, lawyer and diplomatist, was born in New York city, Aug. 24, 1839; a graduate of Yale and of Columbia Law School. In 1872 he was elected to Congress from New Jersey; voted against the Civil Rights Bill, and lost the reelection; in 1881 was sent as minister to Austria; resigned in 1882, and was at once reelected to Congress; was appointed minister to Germany in 1889, which post he held until 1893. Died June 16, 1894.

Phelps, in *Nebraska*, a S. co.; *area*, 576 sq. m.; bounded N. by the Platte river. *Surface*, nearly level; *soil*, a rich, sandy loam; timber scarce. *Products.* Wheat, corn, barley, oats, rye, broom-corn, and potatoes; live stock. *Cap.* Holdrege. *Pop.* (1890) 9,869.

Phenakis'toscope, *n.* A philosophical toy for so presenting to the vision a series of pictures representing continuous phases of motion that an impression of actual motion of the figures in the pictures is conveyed to the spectator. The pictures representing successive phases of motion are mounted concentrically on the outer portions of a disk. A larger disk is provided with radial slits. When held between the observer and a mirror, so that he can see the pictures through the slits, an impression of continuous motion is obtained by rotating the disks so that the eye catches each succeeding figure as a change of position in one stationary figure. The series of pictures is limited to the number which can be drawn on the circumference of the disk, and the representation is far more clumsy than that of the kinetoscope.

Phe'nol, *n.* [Fr. *phénol.*] Carbolic acid.

Phenol'ogy, *n.* [Contr. of *phenomenology.*] The branch of science that treats of animal or plant life and development as affected by climate.

Philat'elist, *n.* A collector of stamps; one versed in the knowledge of stamps.

Philat'ely, *n.* [Etym. in doubt. From Gr. *philos*, fond of, and possibly *telos*, a tax, impost; regarding the stamp as a tax, and, conversely, the tax as a stamp, we have *philately*, love of stamps. Others derive it from *philos* and *ateleia*, exemption from tax, perhaps regarding the stamp as a symbol of exemption.] The collection, study, and arrangement of stamps, especially postage-stamps.

Philesia (*fi-le'zhah*), *n.* (*Bot.*) The Pepino of Valdivia, *P. buxifolia*, is a small evergreen box-leaved, erect shrub, native of the extreme southern part of South America, bearing an abundance of large beautiful drooping, somewhat bell-shaped, bright rose-red, rather waxy flowers.

Fig. 3021.—PHILESIA BUXIFOLIA.

Phil'idor, FRANÇOIS ANDRÉ DANICAN, chess-player and musical composer, was born at Dreux, France, Sept. 7, 1726. He wrote an *Analysis of the Game of Chess*, which was first published in 1777. Died Aug. 31, 1795.

Philippoteaux', FELIX EMANUEL HENAI, artist, was born in Paris, April 3, 1815; was famous for his historical and battle paintings, including *The Last Banquet of the Girondins*, now at the Museum of Marseilles; *Louis XV. Visiting the Battlefield of Fontenoy*, in the Luxembourg Gallery; and *The Siege of Paris*, a cyclorama. He was also known as an illustrator. Died Nov. 8, 1884.

Philippoteaux, PAUL, son of Felix E. H. Philippoteaux, historical painter, was born in Paris in 1846; assisted his father in arranging *The Siege of Paris*, and made a similar representation of the *Battle of Gettysburg*, which was exhibited in New York, Chicago, Philadelphia, and other cities. In 1888 he exhibited a series of thirty large paintings illustrating the career of General Grant.

Phil'lips, in *Florida*, a post-town of Duval co. *Pop.* (1897) 610.

Phil'lips, ADELAINE, contralto vocalist, was born in Stratford-on-Avon, England, Oct. 25, 1833; made her début in *Semiramide* in 1853. She held first place among contralto singers of her day. Her last appearance on the public stage was in Cincinnati, in 1881. Died Oct. 2, 1882.

Phil'lips, PHILIP, composer and singer, was born in Chautauqua co., N. Y., Aug. 13, 1834, and was for many years an extremely popular singer at religious revival services in America and abroad. He published *Musical Leaves* (1862); *Song Pilgrimage Around and Throughout the World* (1880), &c. Died in 1895.

Phillips, in *Colorado*, a N.E. co.; *area*, 570 sq. m., intersected by Frenchman's creek. *Surface*, undulating; *soil*, dark sandy loam, very fertile. *Products.* Wheat, corn, oats, barley, sorghum, and sugar beets; stock raising, especially sheep. *Cap.* Holyoke. *Pop.* (1890) 2,642.

Phillips, in *Kansas*, a N. co., adjoining Nebraska; *area*, 900 sq. m.; intersected by the North Fork of Solomon river and by Prairie Dog creek. *Surface*, chiefly rolling prairie; *soil*, fertile. Produces much wheat and corn. *Cap.* Phillipsburg. *Pop.* (1895) 11,712.

Phil'lipsburg, in *Kansas*, a post-village, cap. of Phillips co., 200 m. W. N. W. of Topeka. *Pop.* (1895) 916.

Phillipsburg, in *Montana*, a post-town, cap. of Granite co., about 101 m. W. S. W. of Helena; has gold and silver mines and quartz mills. *Pop.* (1897) 1,360.

Phil'mont, in *New York*, a post-village of Columbia co., 9 m. E. of Hudson; underwear factories, paper mills, machine shops, &c. *Pop.* (1897) 2,170.

Phocis (*fo'sis*), a province of Greece proper or Hellas, bounded on the W. by the Ozalian Locri, on the N. by the ridge of Mount Cnemis and the territory of the Epicnemidian and Opuntian Locri, and on the S. by the Gulf of Corinth. It was about 792 sq. m. in extent. The greater part of the country is occupied by the famous mountain range of Parnassus.

Phœ'be-bird, Pe'wit, or **Pe'wee,** *n.* A bird (*Sayornis phœbe*), common in the eastern part of North America; so called because his note resembles these names.

Phœ'nix, in *Arizona*, a city, cap. of Maricopa co., 226 m. N. E. of Yuma. It is the Territorial capital. *Pop.* (1897) 8,250.

Phœnix Cit'y, or **Phœnix,** in *Alabama*, a post-village of Lee co., 1 m. from Columbus, Georgia. *Pop.* (1897) 3,700.

Phon-, Phono-. An initial compounding element, derived from the Gr. *phonē*, voice.

Phonautograph (*fōn-aw'to-grāf*), *n.* [From Gr. *phonē*, a sound; *autos*, self; *graphō*, I write.] (*Acoustics.*) This apparatus, invented by Leon Scott, is the predecessor of the phonograph, and registers sounds by means of a vibrating diaphragm, holding a stylus against a rotating smoked cylinder. It consists (Fig. 3022) of

Fig. 3022.—PHONAUTOGRAPH.

an ellipsoidal cask, A B, about a foot and a half long. It is made of some non-vibrating substance, as plaster of Paris. The end A is open, but the end B is closed by a solid bottom, to the middle of which is fitted a brass tube, *a*, bent at an elbow and terminated by a ring on which is fixed a flexible membrane. A second ring serves to stretch the membrane to the required length. The tube *a* can be turned so as to be inclined at different angles to the membrane. Near the center of the membrane, fixed by sealing-wax, is a very light stylus, which records on the cylinder, C, the latter being operated by a handle, *m*, and receiving endwise motion from an internal screw. The cylinder being covered with a smoked paper and rotated, receives a record or tracing of the sounds recorded in the ellipsoidal cask.

Phone, *n.* An abbreviation of telephone; much used by business men.

Phonei'doscope, *n.* An instrument for exhibiting certain phenomena of sound-vibrations by means of soap films, invented by Sedley Taylor. The sound being directed into a tube whose other end is closed by a film of soapy water, various color-bands are observed, whose arrangement varies more or less with the changes of sound.

Phonet'icism, *n.* The principle and practice of representing language phonetically; the use of written characters as symbols of articulate sounds.

Phon'ic, *a.* Pertaining or relating to sound.

Pho'nogram, *n.* A written letter, or character, representing a sound, or a modification of a sound.—The record made by the stylus of a phonograph, from which the sounds are reproduced.

Pho'nograph, *n.* In 1877 Thos. A. Edison brought out his first phonograph, or talking-machine. It con-

sisted of a cylinder, mounted on an axle, which could be turned by a hand-crank or by a pulley. The cylinder had lateral motion by means of a screw-thread, and was covered with tinfoil. Above the cylinder was placed a mouthpiece, in which was an iron diaphragm about the one-hundredth of an inch in thickness. Under the diaphragm was a point, or stylus. When the cylinder was turned, and the mouthpiece talked into, the varying pressures of air on the diaphragm were recorded by scratches of varying depth on the tinfoil. To reproduce the sounds uttered it was only necessary to bring the cylinder back to the starting point, and place a cone of tin or paper in the mouthpiece to spread the vibrations of the diaphragm, which

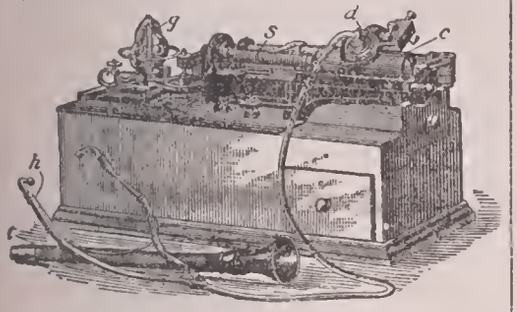


Fig. 3023.—EDISON'S IMPROVED PHONOGRAPH.

d, diaphragm; *c*, wax-coated cylinder; *s*, screw-thread on which cylinder travels; *g*, governor, electric motor being below; *h*, bifurcated hearing-tube; *t*, talking-tube that is put in place of the hearing-tube when it is desired to make a record on the wax cylinder.

were repeated by the travel of the stylus over the punctured path on the tinfoil. The arrangement of parts has since been materially improved. An electric motor is used to drive the cylinder; wax cylinder-covers replace the tinfoil to receive the record; bifurcated ear-tubes are used for listening, in place of the cone; and other minor improvements are added. Though the phonograph is now a satisfactory instrument for recording and repeating sounds, as dictation, music, &c., its use is somewhat limited, owing probably to competing mechanisms, such as the gramophone, which sell at a low price.

Pho'no-kine'tograph, *n.* The combination of Edison's phonographic and kinetographic mechanisms for reproducing synchronously both sounds and sights on a screen for public exhibition. See KINETO-PHONOGRAPH.

Pho'no-kine'toscope, *n.* The combination of Edison's phonographic and kinetoscopic mechanisms for reproducing sounds, as vocal music, &c., in conjunction with the action of the singer, as viewed in the kinetoscope.

Phonom'eter, *n.* A nautical instrument, having a dial arranged like that of a ship's compass and a pointer driven by clockwork, there being circumferential marks to indicate to a signalman the instants at which he should sound a whistle to send signals according to his code. The name is also applied to an instrument for making a record of musical vibrations with a stylus on a rotating and advancing cylinder.

Phonomo'tor, *n.* An instrument to illustrate the motive power of sound; a motophone.

Pho'nophone, *n.* A proposed name for the phonograph.

Pho'nophore, *n.* An attachment, or appendage, to a telegraph circuit, permitting the use of vibrations for harmonic multiple telegraphy. Two wires being insulated, and wound closely together, serve as a condenser, and constitute the principal feature of the appliance. The phonophore transmitter has a metal vibrating reed, and the receiver a similar reed, both of which are tuned to the same note. As the current passes through the coils of these harmonic instruments only the notes to which they are tuned affect their armatures, so that they may be used to send and receive messages by the Morse alphabet, without interfering with other messages on the wires. This mechanism was invented by Mr. Langdon-Davies, of London, who has succeeded, in private use, in sending a telegraphic message over a wire which was used for two phonophoric messages at the same time. The phonophore is in regular use on the line between London and Leicester, being shunted past six telegraphic instruments within a distance of 30 miles.

Phonor'ganon, *n.* An instrument designed to imitate vocal sounds of speech; a speaking-machine.

Pho'noscope, *n.* Several instruments have received this name. That of Henry Edmunds is a philosophical toy, producing illuminated figures by means of sound-vibrations. A rotating vacuum-tube is combined with an induction-coil and an interrupter. The diaphragm of the interrupter is placed in the primary circuit of the induction-coil, so as to constitute a contact-breaker. When sounds are uttered against the diaphragm, the vibrations break the current and cause radial flashes in the vacuum-tube, which arrange themselves according to the number of vibrations during a rotation of the tube. G. Demeny's phonoscope is a form of phenakistoscope, designed to instruct deaf-mutes in reading by observation of the lip-motions. The lips and surrounding features are pictured in the continuous positions required to utter a word, and this is exhibited for the observation of the pupil. Koenig's phonoscope is a device for testing the quality of the strings of musical instruments, and also serves to record music as performed. The name phonoscope has also been applied to the microphone.

Phonotel'emeter, *n.* An instrument for calculating distances, especially designed for use in warfare. It is a watch provided with a curve-measuring device, a compass, and a telemeter-counter. When the flash of a gun is seen the watch is started with a spring, and stopped when the sound reaches the ears of the observer, when the telemeter-counter shows the distance in meters, avoiding the necessity of a calculation. The curve-measuring device is for use in determining distances on maps.

Phormium (*fôr'me-ŭm*), *n.* (*Bot.*) A genus of *Liliaceæ*, the only species of which, *P. tenax*, is confined to New Zealand and Norfolk Island. This plant forms large tufts, and has sword-shaped leaves growing in opposite rows and clasping each other at the base, those of one variety being from 5 to 6 feet long, of a bright green above and glaucous underneath, and those of another only half as long and paler in color. Its flower-spikes, which are large and alternately branched, rise up out of the center of the leaves, those of the large-leaved variety reaching the height of 16 feet and bearing deep orange-red flowers, while those of the other are not more than 6 feet high, and have yellow flowers tinged with red. The leaves contain a large quantity of strong useful fiber, to which the name of *New Zealand flax* has been given. When Captain Cook first landed in New Zealand he found this flax in common use among the natives for making various articles of clothing, string, nets, &c.; and since the colonization of that country various attempts have from time to time been made to render it an article of export, but hitherto without much success.

Fig. 3024.—PHORMIUM TENAX.

Phos'phate-rock, *n.* Called also marl-rock and bone-phosphate. In South Carolina and Florida have been developed within the past fifty years a large number of phosphate-mines, from which phosphate-rock is obtained and ground up for use as a fertilizer. Though there are other mines of the sort in different parts of the globe, these are much the richest, yielding in 1890 a million and a quarter tons, against a production of about three-quarters of a million tons from other mines. The phosphate-rock belongs to the Eocene formation, though found in Post-pliocene basins. The largest deposits are found on the west or Gulf coast of the Florida Peninsula, extending to Leon and Gadsden counties, in the middle of the State. The rock is commonly divided into hard rock, plate rock, and composite or mixed rock. Quantities of phosphate gravel and sand are found in the same mines and utilized. Since 1892 the business of phosphate-mining has somewhat deteriorated. In 1892 Florida and the Carolinas had 137 mines in all, of which 25 were river mines, and 112 land mines. Florida contained 106 of these, South Carolina 30, and North Carolina 1. The river rock is gray to blue-black, and is preferred for exportation. The land rock is light yellow to deep brown, and is in greater demand for the home market. The method of land-mining is to lay off the ground in trenches, from which the surface-soil is removed and the rock dug out mostly by hand labor, negroes being employed. In river mining, if the water is less than three feet deep, the rock is removed by hand and shovel. If the water is deep, dredgers are employed, and the rock loaded on flat-boats and towed to a wharf. Here it is loaded on cars and transferred to drying-bins, where exposure to the air on perforated iron-pipes effects the drying. The washers have one or more long wooden shafts, bearing spiral plates. These shafts are set in a long box at a slight incline. Some form of rock-crusher is placed above the washer and breaks up the rock, which is then agitated in water in the washer, and worked up the incline by the spiral blades until it is discharged on screens at the upper end. The capital invested in the industry in the U. S. is about $20,000,000.

Phos'phene, *n.* [Gr. *phôs*, light; *phainô*, to show.] The spectrum or luminous image produced, in darkness, by pressure on the eyeball, by severe coughing or from other sources; due to mechanical excitement of the retina.

Phos'phor-bronze, *n.* (*Metall.*) An alloy much valued in the manufacture of cannon, and for wire-drawing and in machine-bearings. It is made by fusing phosphor-tin (tin, 94; phosphorus, 6) with copper or with phosphor-copper, the latter being an alloy of bone-ash and charcoal with copper. It usually contains about one per cent. of phosphorus, and is of finer grain and color than ordinary bronze. It was brought into notice about 1870 by Belgian metallurgists, and is highly valued because of its ductility, combined with extreme toughness. It possesses great homogeneity.

Phosphor'ograph, *n.* An impression obtained by throwing a luminous image, as of a spectrum, on a phosphorescent surface; used especially to obtain a representation of the non-luminous rays below the red.

Phosphor'oscope, *n.* (*Physics.*) An instrument devised by E. Becquerel for detecting slight phosphorescence in bodies. It consists of a closed cylindrical box A B (Fig. 3025), of blackened metal. Opposite sector-shaped apertures are placed on the ends. The box is fixed, but has a movable axis, to which are two circular screens, M M and P P, of blackened metal (Fig. 3026).

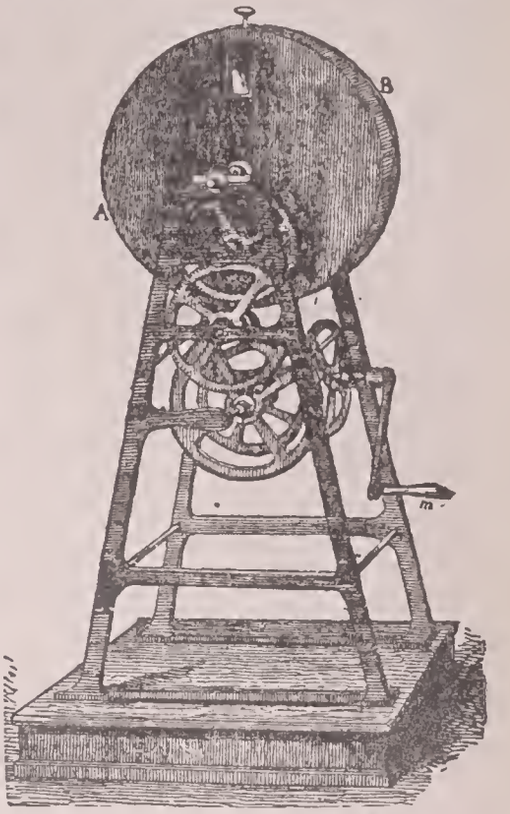


Fig. 3025.—BECQUEREL'S PHOSPHOROSCOPE.

Each of these screens is perforated so that the open parts of the one correspond to the closed parts of the other. The box and screens are rotated by multiplying wheels and handle, *m*. Observations with the phosphoroscope are made in a dark chamber, the observer being on that side on which is the wheel-work. A ray of solar or electric light is allowed to fall upon the substance *a*, and the screens being made to rotate more or

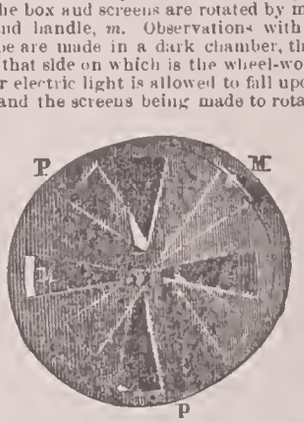


Fig. 3026.—PHOSPHOROSCOPE SCREENS.

less rapidly, the body *a* appears luminous by transparencies in a continuous manner, when the interval between insolation and observation is less than the duration of the phosphorescence of the body. By means of this instrument M. Becquerel found that many substances not previously considered phosphorescent were really so in a slight degree.

Pho'tic, *a.* [Gr. *phôs* (gen. *phôtos*), light.] Relating to light or its production.

Pho'tics, *n.* (*Physics.*) The science of light; a broader term than *optics*, which, in its strictest sense, treats of light as related to the eye. In the U. S. Patent Office, where the term originated, it is applied to the class of inventions embracing illuminating apparatus generally.

Pho'to, *n.* An abbreviation of *photograph;* used colloquially and in business parlance.

Photo-, An initial compounding element, derived from the Gr. *phôs* (gen. *phôtos*), light.

Photochromog'raphy, *n.* The reproduction on a printing-press of photographic images in several colors.

Photochro'moscope, *n.* An optical device in which a triple photograph reproduces the colors of nature with light and shade.

Photochron'ograph, *n.* Several forms of chronograph supplied with photographic apparatus are known by this name. The instrument designed by George A. Fargis and Frank H. Bigelow is of the astronomical type, for recording the time of transit of stars across

the reticle of a telescope. The photographic attachment serves to reduce the errors resulting from the uncertainty of visual observation, and makes its record without injury to the star-trails. In another form photography is used to make the chronographic record by means of a pencil of light, which is allowed to reach a sensitized surface during the period of the action timed. A third form is utilized to record the time of photographic exposures. In this a blackened disk is rotated by clockwork during the time of the exposure, and measurement of the tracing made on the disk with a spring affords an accurate means of calculating the period of the exposure.

Photocray'on, *n.* A photograph resembling a crayon sketch, or a picture finished in crayons on a photographic ground-work.

Pho'todrome, *n.* [*Photo*, and Gr. *dromos*, running.] (*Physics.*) An apparatus for regulating flashes of light so as to make a rotating wheel, or figured disk, appear either to be stationary, or to rotate at a different rate, or in the opposite direction.

Photog'rapher, *n.* One who makes a business of taking photographs; one skilled in photography.

Pho'tographs, Mo'tor. The study of animal motions has been placed on a new footing by Mr. Muybridge, an American photographer. By means of special apparatus he was enabled to take pictures of moving objects in rapid succession, each being instantaneous, so that, for instance, every phase of the motion of the limbs in a trotting horse could be observed. The result was to prove that the ideas entertained concerning the motions of animals were incorrect. The eye cannot appreciate a movement which is quicker than about $\frac{1}{5}$ of a second, on account of the retention of images by the retina. The photographic lens, on the contrary, can record a movement occurring in less than $\frac{1}{725}$ of a second, thus very greatly exceeding the eye in its powers. The Muybridge process has been applied to many animals, even to the movements of microscopic creatures, the camera replacing the eye at the microscope. The rapidity of movement of projectiles is a frequent subject for photography. A late application of the successive photographic method has been to reproduce, on a screen or otherwise, a series of photographs of motions taken with great rapidity, the result being an apparent reproduction of the motion in all its minute details, yielding a surprisingly close simulation of life. See KINEMATOSCOPE.

Photog'raphy, Astronom'ical. The application of photography to astronomy has yielded results of the highest scientific importance, and taught us a multitude of new lessons concerning the conditions of the celestial spheres. Until recently celestial photography was confined to the moon, whose size and brightness rendered it an easy object to photograph, excellent results being obtained by the old processes. Photographs of the sun have also been obtained which distinctly show the markings on its surface, and progress of some importance has been made in photographing the corona during an eclipse. But the most valuable achievements in this direction are in obtaining images of the distant stars and nebulæ, the results being such as would have been impossible but for the use of the highly sensitive dry plates now at the service of the photographer. In photographing the stars the plates are often exposed to the faint light from these distant bodies for three or four hours, the clockwork train keeping the camera steadily directed to the same point in the heavens. Thus each faint point of light has a long time in which to impress its image upon the sensitive surface of the plate, the result being that many stars make their appearance in the photograph which no telescope has yet revealed. Among the many interesting results has been the appearance of a nebulous haze around a known star in the Pleiades in which no such appearance had ever been seen. The astronomers of Paris attempted to detect this nebula with their most powerful telescopes, but failed, and the appearance was doubted until another photograph, made in America, revealed it again. Further search with the telescope showed the nebula very faintly. It thus appears that the photographic film is more sensitive to faint light than is the retina of the eye. As regards the known nebulæ, their size and appearance have been considerably changed by photography, some proving much more expanded than had been supposed. Another important result has been the detection of minute motions in some stars, a fact which has led to the discovery of a large number of planetary asteroids. Steps have been taken for photographing the entire heavens, the sky being charted out into squares, and each observatory undertaking to photograph a number of these squares. Such a complete photograph will be of the highest value to future astronomers, in enabling them to detect motions and other changes among the stars. Photographs of the spectra of the stars are also of importance, as making valuable records for future reference, and as revealing the lines in their absolutely exact location. Celestial photography, however, is not free from defects, the chief of which is that disks of light are shown, instead of the mere points that appear to the eye. This is a difficulty which may hereafter be overcome.

Photography, Col'or. For many years past efforts have been made to photograph the colors of nature, or to reproduce landscapes and objects in the hues which they present to the eye, but without effect, the camera persisting in yielding only light and shade. Many solutions of the problem have been announced, yet it remains still unsolved, except in an indirect manner. Of the several indirect solutions, one of the most satisfactory is that made by Frederic E. Ives, of Philadelphia. In this process three negatives of the object are taken, each through a glass of different color. The results are in black and white, as in ordinary photographs, but by placing lantern slides made from them in a camera so that the three images may be thrown superimposed on a screen, the result is a very close approximation to the colors of nature. The same result may be seen in an ingeniously devised stereoscopic instrument called a photochromoscope, which shows pictures of vases of flowers, fruit, and other objects with all the varied hues of the originals, and which has been adapted to commercial use to display the colors and designs of textile fabrics, to take the place of actual samples of the goods. Dr. Selle, of Brandenburg, Prussia, employs a similar process, the colors used by him being crimson, pale-yellow, and a peculiar blue-green. From the photographs taken through these shades of color positives are made on exceedingly thin films, which, when cemented or pasted together, show the colors of nature. A different process has been devised by Dr. Joly, of Dublin, and by J. W. McDonough, of Chicago. In this process parallel lines, 200 or 300 to the inch, are drawn on a glass plate in alternate colors of orange, green, yellow, and blue-violet. Through this transparent screen a photograph is taken, which, when developed, is colorless, but presents a ribbed appearance, due to the selective influence of the colored lines on the rays of light. To reproduce the colors a glass positive is made, and a second color-screen prepared, ruled now alternately with deep-red, bright-green, and blue-violet. When the two plates are placed so as to bring the lines into exact juxtaposition a colored picture is seen, which, like the above, can be shown on a screen, displaying the colors of flowers, clothing, and other objects. In 1896 another method of color photograph was announced, the invention of Villedrieu Chassagne, of Paris, which attracted much attention, since it approached more nearly to true color photography than the other methods mentioned. In this process a negative is taken on a gelatin plate, which has been prepared by treatment with a solution whose ingredients are kept secret. This, when developed and fixed in the ordinary manner, shows no trace of color. A print is now taken on glass or paper which has been treated with the same solution. Still no color appears. It is next washed over with three colored solutions—blue, green, and red—in succession, the plate taking up these tints, those parts of the picture which were blue in the object taking up the blue, and the same with the other colors, the result being a picture in the colors of the original. It must be said, however, that this result is far from satisfactory, the colors being dull, and the effect far less brilliant than that presented by the Ives photochromoscope pictures. To the above processes may be added the Lippmann, in which a ruled screen yields interference results. But it must suffice to state, in conclusion, that true color photography seems as far from discovery as ever, though the methods mentioned yield practical results of considerable interest and value. In former efforts to produce color photography some results worthy of mention have been attained, as they have given rise to practical processes. If one, for instance, seeks to photograph, in the ordinary method, a blue vase containing yellow flowers, he will obtain a picture of a white vase with black flowers. But by using what is known as an isochromatic plate he will obtain a gray vase with flowers almost white, a result which is more in accordance with the true shade relations of the original. Such a plate is prepared by adding to the gelatin emulsion with which the plate is treated a minute quantity of certain dyes, such as an ammoniacal solution of eosin. Plates prepared in this manner are now supplied commercially, and are much used in copying oil-paintings and other colored objects. They will probably play an important part in sidereal photography in the registry of colored stars.

Photogray'ure, *n.* See ENGRAVING, PHOTO-.

Photohe'liograph, *n.* A telescopic photographic instrument, for taking pictures of the sun during an eclipse, a transit of Venus, or other celestial phenomena.

Photomi'crograph, *n.* A photograph of an object as seen under a microscope.

Photoneph'ograph, *n.* An apparatus for taking simultaneously photographs of a cloud from two different points on the earth, for determining its height and motion.

Pho'tophone, *n.* An instrument for reproducing sounds through the medium of a beam of light and vibrating diaphragms. It is virtually a telephone, making use of a beam of light instead of a wire. The form devised by Alexander Graham Bell and Sumner Tainter attracted much attention about 1880. They used a thin plate of silvered mica as a vibrating mirror, and by speaking against the back of this mirror its vibrations caused a beam of light falling on the mirror to be vibrated in its reflection. At the receiving point was placed a parabolic reflector, which gathered the vibrating light of varying intensity into its focus, where was placed a selenium cell. As selenium possesses the quality of varying in its electrical resistance with the quantity of light it receives, this variation is made to operate a receiving telephone, which reproduces the original sounds. The apparatus cannot be used for long distances. Prof. Bell obtained his beam of light by interposing two thin metal plates as a screen in the path of a sunbeam. These plates were perforated with fine slits, one of them being fixed and the other attached to the diaphragm-mirror. As the light fell through opposite slits, it was partially cut off by the vibrations which agitated one of the slitted screens, so that the beam of light reflected was made to vary in intensity exactly in accordance with the vibrations of the voice against the diaphragm. Compare RADIOPHONE.

Photosculp'ture, *n.* A process of modelling by the aid of photography. The model, standing in the center of a circle of 24 cameras, is photographed by them all at the same moment. The negatives are projected in succession upon a screen, and the artist goes over the outline of each with the tracer of a pantograph, a cutting tool instead of the usual pencil acting upon a lump of clay mounted upon a turntable. After each photograph is gone over, the clay is turned through 15°, and when a complete revolution has been effected it is removed and finished by hand.

Phren'ograph, *n.* An instrument for marking the movements of the diaphragm of a person breathing.

Phthon'gal, *a.* [Gr *phthongos*, voice.] Employing the voice; vocal; souaut.

Phyllox'era, *n.* See GRAPEVINE DISEASE.

Phylog'eny, *n.* [Gr. *phylon*, tribe, and *gennaō*, to bring forth.] Tribal history, or the palæontological history of evolution; distinguished from *ontogeny*, or the history of the evolution of the individual.

Phys'ick, PHILIP SYNG, was born in Philadelphia, in 1768; became house surgeon at St. George's Hospital, London, and fellow of the Royal College of Surgeons, and in 1792 graduated in medicine at Edinburgh. He afterward practiced with signal success in his native city, becoming professor of Surgery and Anatomy in the University of Pennsylvania, and a member of the French Royal Academy of Medicine. Sometimes called "The Father of American Surgery." Died in 1837.

Phys'ics, *n.* Under this name are classed the sciences which were formerly known as natural philosophy. Physical science treats of the properties of matter, of the phenomena associated with matter, and its laws. Its divisions may be summarized as: (1) The forms assumed by matter—solid, liquid, and gaseous; the divisibility of matter into molecules and elements; the kinetic theory, showing that the smallest particles of matter are in motion. (2) Mechanics—embracing kinematics, or the science of motion and its laws; dynamics, or the laws of force and motion, including rotation, harmonic motion, equilibrium, the mechanical movements, &c. (3) Acoustics—including sound-waves, vibrations, musical notes, velocity of sound, &c. Heat—its effects and energy, resultant changes of volume, molecular volume, evaporation, transfer and flow of heat-energy, &c. (4) Thermodynamics—the application of mechanical principles and equation to the physical properties of heat-energy. (5) Electricity and magnetism—properties of electric charges, laws of electrostatic force, lines of force, potential induction, nature of conductors, electrolysis, currents, polarity, electro-magnetic force, motors, theory of the telephone, &c. (6) Light—science of optics, ether-waves, reflection and refraction, lenses, dispersion and spectra, fluorescence, color sensations, interference and diffraction, prisms, polarization, &c. Physical science has been developed from the combined knowledge of investigators into natural laws. There are some sciences, as mathematics, which, from their very nature, are fixed and exact; but physics, because of our imperfect knowledge of nature's laws, is a constantly progressing science, growing with every added fact throwing new light upon the laws that govern matter, and affording new proof of some accepted theory, or disproof of some disputed point. As human intelligence discovers the underlying truths—the laws that are fixed in the world of matter—the science of physics advances toward exactness.

Sir Isaac Newton and Herschel were among the early physicists, who laid the basis of systematic study and application of the laws governing matter. Mayer and Joule, in giving the world a determination of the mechanical equivalent of heat, made a long stride toward a correct understanding of basic laws. The development of mathematically correct theories for fixing the relations of force, work, and energy had much to do with the present advancement of the science of physics. The victory of the undulatory theory of light over the corpuscular theory and Clerk Maxwell's development of the electro-magnetic theory of light were the next marked steps in advance. Then came Fizeau's determination of the velocity of light, increased knowledge of the luminiferous ether, and the similarity of light, heat, electricity, &c. Then Helmholtz and Koenig made marked advancement in acoustic apparatus. More recently Faraday, Edison, Thompson, and others have systematized and expanded our knowledge of electricity. Spectrum analysis has given us within a few years knowledge of new elements and further information as to distant stars. The Roentgen rays and fluorescent light are among the most recent conquests in the domain of physics. The systematization of knowledge has now advanced to a point where new discoveries are made with greater frequency and certainty than ever before, and put to practical uses with a promptness consequent upon the swift distribution of information. Educated engineers and mechanics of to-day, having a proper understanding of physical science, by making their designs in strict accordance with accepted theories are able to give us improvements in machinery with a certainty of success that was impossible a half century ago. Thus the world's progress in industrial enterprises is largely the result of systematic advancement in physics.

Physioc'rasy, *n.* [*Physio* and Gr. *krateo*, to be strong.] The theory of a natural order or constitution in society, advocated by François Quesnay (1694–1774)

and his followers. They held that land and its products are the only true wealth, gold and silver being a false standard; that the proper source of revenue is the direct taxation of land; and they asserted the right of person, opinion, trade, and property. They are regarded as founders of the science of political economy.

Physiol'atry, *n.* [Gr. *physis*, nature, and *latreia*, worship.] The worship of nature, or of natural forces and phenomena.

Piassa'ba, Piassa'va, Pinca'ba, or **Par'agrass,** *n.* This fiber has become an article of large export from Brazil, and is used for making coarse brushes, such as street-sweeping brooms, &c. See LEOPOLDINA.

Pick'ering, EDWARD CHARLES, astronomer, was born in Boston, July 19, 1846; graduated at the Lawrence Scientific School of Harvard (1865); was assistant instructor in physics at the Massachusetts Institute of Technology (1866); full professor (1868–77). In 1869 he made observations of the eclipse of the sun for the *U. S. Nautical Almanac;* in 1870 had charge of the U. S. Coast Survey Expedition to Xeres, Spain, to observe the eclipse of December 22; became professor of Astronomy and Geology and director of the observatory at Harvard University (1876). Under the auspices of Harvard he established an auxiliary observatory at Arequipa, Peru, altitude 16,275 ft. He has received distinguished recognition among practical astronomers of the day, and has contributed largely to the current literature of his profession.

Pickering, TIMOTHY, was born in Salem, Mass., 1745; after graduating at Harvard and studying law, became a judge of the Common Pleas in 1775. In the War of the Revolution he was appointed adjutant-general, and participated in the battles of Germantown and Brandywine. Elected a member of Congress in 1777, he succeeded Gen. Greene as quartermaster-general in 1780, and in 1794 was appointed secretary of war, and next year secretary of state, from which he was removed in 1800. Federalist U. S. Senator from Massachusetts, 1803–11, and member of Congress, 1813–17. Died in 1829.

Pick'ett, in *Tennessee*, a N. E. co.; *area*, 240 sq. m.; drained by the Obey river. *Surface*, undulating; *soil*, very fertile on the rivers and creeks, at the base of the mountains, and in the valleys. Has building-stone of fine quality. *Products*. Corn, wheat, hay, and live stock. *Cap.* Byrdstown. *Pop.* (1890) 4,736.

Pick'thank, *n.* An officious person, who does what he is not asked to do for the sake of currying favor; a flatterer; a toady.

Pickwick'ian, *a.* Pertaining to *Mr. Pickwick*, the principal character in Dickens' *Pickwick Papers*, a stout, good-hearted, blundering sort of man. Used especially in the phrase, *a Pickwickian sense;* that is, a merely technical, constructive, or parliamentary sense.

Picro-. An initial compounding element, derived from the Gr. *pikros*, bitter.

Pic'toglyph, *n.* [Lat. *pictus*, painted, and Gr. *glyphē*, carving.] A picture carved on a hard surface, particularly on a rock, and painted, either as a work of art or as a pictograph.

Pic'tograph, *n.* [Lat. *pictus*, and *graph.*] A writing by picture, representing an idea or occurrence.

Pic'ture Rocks, in *Pennsylvania*, a post-borough of Lycoming co. *Pop.* (1897) 550.

Pic'ture-writ'ing, *n.* (*Anthrop.*) By picture-writing, or pictography, is meant the communication of intelligence by means of pictures or symbols (not phonetic) carved upon stone, wood, bone, or some other hard surface, or painted or drawn upon these substances, or upon hides, bark, cloth, papyrus, paper, or the human skin. It is the primitive forerunner of writing, and, to some extent, survives among civilized as well as savage men; and nowhere did it reach a higher degree of primitive development than among the native Americans. American pictographs have been noted by explorers and students of all parts of the continent ever since its discovery, and the scattered information has been recently collected, classified, and studied by the Bureau of Ethnology, where the late Col. Garrick Mallery and Dr. W. J. Hoffman took the lead in this direction; and the latter has lately written a *resumé* of their studies in the form of a book entitled, *The Beginnings of Writing* (New York, 1895).

Pictographs on stone, or petrographs, remain from prehistoric as well as more modern times in all parts of the world. The Hittites, early inhabitants of Asia Minor, have left many; they have been found in China, Siberia, northern Europe, and the British Islands, South Africa, the Canary Islands (showing a remarkable resemblance to Californian examples); and, most prominently of all, in ancient Egypt, where they form the earliest monumental hieroglyphic records, dating back to 4000 B. C., yet showing that the graphic art had already been well developed toward the conventionalized hieroglyphic writing it afterward became. In South America designs carved on rocks occur in Brazil, British Guiana, and in Central America and Mexico a few are known. In North America many inscribed rocks are known, those in the Eastern States (Algonkin) being usually upon some boulder in or beside a river course, such as the famous Dighton Rock near Taunton, Mass.; but in the West, where they are especially numerous on the Pacific coast, they are cut into the faces of cliffs, as a rule. Some are of very recent workmanship, and only a few have much interest artistically or historically, although the most of them undoubtedly were of importance to their makers, since they involve more labor than would be expended out of mere idleness. Much of the apparently fanciful stone-carving of the Northwest coast Indians also belongs here.

A higher order of workmanship is displayed by carvings upon wood (among the Polynesians, especially of Easter Island), upon bone or the surface of flat horns (as among our Western Indians and prehistoric cavemen of Europe), and upon walrus ivory (as is much practiced by the Alaskan Eskimo). These outline drawings represent names, scenes, historical or imaginary, drawings serving as messages, and they are scratched in with a sharp point, the line being then filled, in many cases, with pigment to make it more distinct. Hundreds of examples of Alaskan drawing and picture-writing thus drawn on strips of ivory used as the bows for their drills are possessed by the U. S. National Museum. The elaborate totem-posts of the Indians of the Northwest coast, and the crowded and carefully cut figures that decorate the walls of the ruined cities and temples in Honduras were undoubtedly meant for more than decoration, and hence must be included among graphic records of the people who made them.

Turning to picture-records made upon less enduring and more flexible materials—the precursors of civilized manuscripts and books—we find that in Egypt and Central America the fibers of plants, as the papyrus and maguey, were formed into sheets having a surface suitable for drawing or painting with a brush, and as these substances are remarkably durable, many scrolls and fragments bearing paintings by native artists have come down to us from antiquity. The larger part of our knowledge of the ancient Egyptians has been derived from an interpretation of the picture-writing upon papyri found in tombs; and the linen mummy

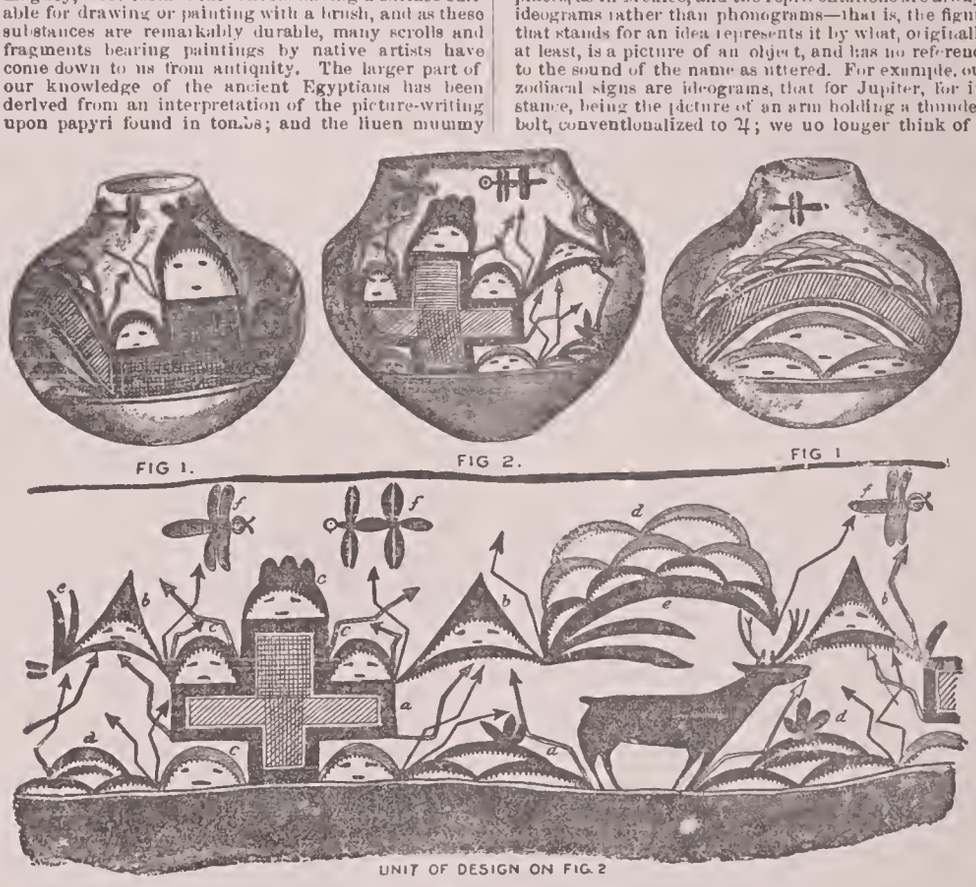


Fig. 3027.—CEREMONIAL WATER VASES.

a, a cross emblematic of the rain from the cardinal points; *b*, faces of the cloud men; *c*, faces of the cloud women; *d*, clouds and rain; *e*, vegetation; *f*, dragon-fly, symbolic of water.

wrappings themselves are often inscribed with pictures which, taken in succession, form a narrative that scholars may often read. The maguey furnished the Mexicans and Mayas, of Central America, with a similar material, upon which they painted extensive law-treatises, histories, religious rituals, &c., in pictures. Great quantities of these records, now so precious, were burned by the fanatics who came in with the Spanish conquerors, and very few have survived—only four of the Maya manuscripts. Next to these in interest, and more useful in aboriginal study, are the long birch-bark scrolls in possession of secret societies among the Ojibwa Indians of Minnesota, and declared by them to be hundreds of years old, going back to a time long before the tribe ever saw a white man. They are mostly the work and mystic records and songs of various occult societies, and can be wholly interpreted only by the shamans to whom the skill has been taught by their elders. People dwelling in skin tents, and having much to do with hides, would naturally choose their smooth surfaces for such pictography as they practiced, and we find that the nomads of Northern Europe and of the western Interior of North America at least did so. The tents of all men of consequence in a tribe bear the representation of their totem, or name-animal, which answers the purpose of a civilized citizen's door-plate; and his robes and other property are likely to be adorned with illustrations of exploits in which he has acquired distinction. They are more than simply decorations, since they are really a record. More elaborate and more exactly records are the "winter counts" made and kept by the Indians of our Great Plains—painted chronological records of tribal interest, one or sometimes more very important events being recorded by means of a picture for each year, reckoned from the end of one summer to the beginning of the next. At least six of these winter counts, says Hoffman, have been obtained from the Dakota Indians, and others are reported in existence. "The oldest counts are upon buffalo skin; the initial figure, representing the first winter, or year, being drawn in the middle, while each successive figure follows in close order spirally toward the border." In some cases an old Indian will make for himself, or with the help of more expert workmen among his acquaintances, a similar pictorial biography of himself by portraying the exploits of which he is proud. These are passed around and studied by the whole tribe. The Smithsonian Institution possesses and has published colored copies of several Dakota documents of this character.

Such, and similar to them, are the examples of picture-writing extant. Examining it as to character, we find the following distinctions: First, the pictographs of the Old World as represented by Egyptian and Oriental heiroglyphs, and the Chinese characters, had advanced into the phonetic stage long ago, and had become, to a certain extent, alphabetic; but in America this stage had only been approached in a few of the most advanced places, as in Mexico, and the representations are always ideograms rather than phonograms—that is, the figure that stands for an idea represents it by what, originally at least, is a picture of an object, and has no reference to the sound of the name as uttered. For example, our zodiacal signs are ideograms, that for Jupiter, for instance, being the picture of an arm holding a thunderbolt, conventionalized to ♃; we no longer think of it as a picture, and read it "Jupiter," but it has no sound-significance, as has the word-picture Ju-pi-ter.

The pictography of the North American Indians (and originally of all men) consisted simply in the representation of the objects themselves. If a man's name was Red Buffalo, he had simply to draw a buffalo and paint it red to sign his name, understood of all men. If he wished to record the fact that he had killed two enemies, a picture of himself (recognizable by known marks) in the act of killing or standing over two men (recognizable by their well-known marks) told the story unmistakably. A combination or series of these story-pictures enlarged the simple incident into a history. A method of increasing and intensifying the narrative-power of such story-pictures at once suggested itself to the primitive artist-historian, namely, to place his persons and objects in such attitudes, or making such gestures, as would indicate additional ideas to observant readers. If the name of the man cited above was Red Running Buffalo, the animal in his sign attire was made in the attitude of running—the simplest case, for attitudes might be made to express far more than this, and gestures still more. Among our Indians, as among all uneducated people, gestures enter very largely into communication as an assistance to uttered speech, to some extent replacing it. An Indian is capable of relating a long and complicated story, involving many abstract ideas, by gesticulation alone; and it is perfectly natural that he should make his pictures represent the ideas thus conveyed by drawing them in the attitude of gestures suitable to what he wanted to express. The simplest of these, like common actions, would be understood by anybody; many others por-

trayed in pictographs requlre a more intimate acquaintance with the sign-language for their interpretation. In addition to this, certain symbols primarily suggested by the sign-language were adopted by the savage artists to represent ideas, or a connection of ideas, such as "speech," indicated by lines or broken lines issuing from the mouth, and leading toward the representation of the thing spoken.

But pictures and accepted symbols of the objects and the ideas to be represented, even when helped out by gestures-attitudes, were not all the resources at command of the pictographer. He soon began to hasten and broaden his work by certain substitutions and indirect means—a sort of shorthand—the beginning of that process which finally leads to a mere mark representing first an idea and later a sound. Thus our number-signs, I, II, III, &c. (originally pictures of fingers), and our alphabet were developed. One of these methods is *metonymic*—representing an instrument for the thing, as a bloody tomahawk to represent a fight or homicide. This may be carried into more abstract notions, as a crescent to signify month, attached to some other symbol, as a skunk—the month of March. The well-known Egyptian hieroglyph for "writing" is an example of this. Another indirect method is by *synecdoche*, the substitution of a part for the whole.

Fig. 3028.—ESKIMO PICTOGRAPH ON A WOODEN MASK.

Thus, in many pictographs, tracks mean men or animals, and in heiroglyphs of the Old as well as the New World legs or feet in the attitude of running mean *to run*, a headdress serves as a representation of nationality, &c., &c. *Metaphor* is taken advantage of in picture writing of all nations. Thus, among the Egyptians the vulture represented the idea of motherhood, and among our Indians a picture of a buffalo's head in a *cache* signified abundance. Examples of this might be multiplied indefinitely, and would include a large part of the representations of gesture-signs, which are mainly metaphorical. A fourth method is by *enigma*—one object standing for another through some mystical or traditional connection commonly understood. This is less often exemplified in American pictographs than in those of the Old World, since it implies an advanced stage, designated by Dr. Brinton as the *ikonomatic* stage; but instances may be gathered from Mexican and Maya writings.

Such are the elements of picture-writing. It will be seen that frequent repetition and the gradual establishment of a connection between certain representations and a definite meaning would make less and less needful the detailed drawing of these representations in full, until finally only the essential outlines would serve the purpose. These would vary with the ability or care of the artist, and finally only a part would be necessary to the understanding of the reader, and thus a series of (in and by themselves) meaningless forms and symbols would take the place of finished pictures. Thus pictography as an art would degenerate into mere ideograms, out of which would arise a newly organized system of writing in ideograms like the Chinese, or syllabic characters like the Japanese, or purely phonetic symbols like our alphabet. American pictography had never reached this stage of development, but among the Mayas and Mexicans it was approaching it, and there is little doubt that had it not been interfered with, and practically ended, by the coming of Europeans to this continent, it would have steadily developed toward that outcome.

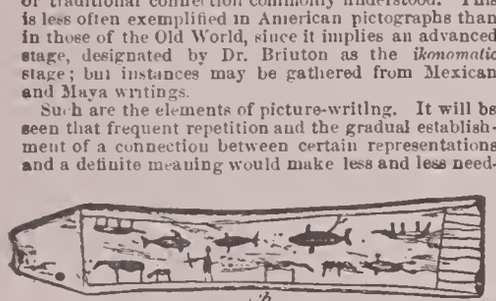


Fig. 3029.—ESKIMO HUNTING HISTORY.
Engraved on opposite side of a piece of ivory.

Pied'mont, in *Alabama*, a post-village of Calhoun co.; tin and iron mining; lumbering region. *Pop.* (1897) 920.

Piedmont, in *Missouri*, a post-village of Wayne co., 39 m. S. of Ironton. *Pop.* (1897) 900.

Pie'-plant, *n.* The garden rhubarb. See RHEUM.

Pierce, in *Nebraska*, a N. E. co.; *area*, 576 sq. m.; drained by tributaries of the Elkhorn river. *Surface*, undulating, *soil*, fertile; timber scarce. Good water-power. Stock-raising is the chief industry. *Cap.* Pierce. *Pop.* (1890) 4,864.

—A post-village, cap of above co., 15 m. N. by W. of Norfolk. *Pop.* (1897) 700.

Pierce, in *North Dakota*, a N. co.; *area*, 936 sq. m. Has many small lakes. *Surface*, rolling; *soil*, rich black loam. No timber. *Products.* Wheat, oats, barley, potatoes. *Cap.* Rugby. *Pop.* (1890) 905.

Pierce Cit'y, in *Missouri*, a city of Lawrence co., 50 m. S.W. of Springfield. *Pop.* (1897) 2,750.

Pier'-glass, *n.* A tall mirror between windows.

Pierre (*pêr*), in *South Dakota*, a city, cap. of Hughes co., and the State capital. An active business place; headquarters of the Black Hills trade; seat of Pierre University (Presbyterian). *Pop.* (1895) 1,776.

Pierre Univer'sity is a Presbyterian co-educational institution at Pierre, the capital of South Dakota. In 1896, it had 8 instructors, 76 students, and 1,600 volumes.

Pierre'pont, EDWARDS, lawyer, was born in North Haven, Conn., March 4, 1817; graduated at Yale (1837), and at the law school (1840); removed to New York (1845), and became eminent at the bar; was judge of the superior court of the city of New York (1857–60); counsel in important cases for the government (1862–66); attorney-general of the northern district of New York (1869–70); was offered, but declined, the ministry to Russia (1873); attorney-general for the U. S. (1875–76), and minister to Great Britain (1876–77); received, among other honorary degrees, that of D.C.L. from Oxford, England. Died Sept. 23, 1892.

Piers Plow'man. See LANGLAND.

Pietermar'itzburg, the capital of Natal, South Africa, is a handsome town, noted for the beauty of its churches, residences, and gardens. It is built at an altitude of 2,000 feet above the sea, on a fertile plain watered by the Umgeni. It is connected by railway, owned by the government, with Durban, 73 miles distant, the only port of Natal, and also with the Orange Free State and the Transvaal. It has a military camp which is occupied by the principal division of the British troops stationed in the colony. In 1897, its population was 21,250, two-thirds white and the remaining third natives and coolies. It gets its name from its Boer founders, Pieter Retief and Gert Maritz.

Piezom'eter, *n.* An instrument for measuring the compressibility of liquids, made in several different forms. That of Oersted has a thermometer-like apparatus set in a liquid, within a closed vessel. Pressure being applied to the water by means of a piston in the neck of the vessel, the mercury in the graduated tube of the thermometer-like apparatus descends, and its movement serves as a measure of the amount of pressure applied. A manometer may also be used in the closed vessel. Another form has an air-tube, with registering device, for use in attaching to a sounding-line and ascertaining the pressure in ocean depths. The name is also applied to a surgeon's instrument for measuring the sense of pressure on the different parts of the body. This consists of a graduated tube containing a spring-pushed disk, which is pressed against the flesh. M. Sebert's piezometer is designed for measuring the pressure within a gun after firing the charge. It consists of a movable part set in the axis of a projectile, having prongs which leave marks on the interior surfaces of the projectile, showing the extent of movement of the parts subjected to pressure.

Pig'eon-hole, *n.* A hole in a dove-cote for the birds to pass through.—One of a series of holes or openings.—A small compartment in a desk for filing papers.

(*Print.*) Extra wide space between letters.

(*Pl.*) An old game in which balls were rolled through little arches resembling the holes in a pigeon-house.

Pig'eon-wing, *n.* A fancy dance-step, or a curl in skating.—A fashion of dressing the side hair, in the shape of a pigeon's wing, adopted by men in the latter part of the 18th century.

Pike, ZEBULON MONTGOMERY, soldier and explorer, was born in Lamberton, N. J., Jan. 5, 1779; in the service of the government he explored the headwaters of the Mississippi river, and the interior of the Louisiana Territory; discovered Pike's Peak, and reached the Rio Grande; was for a time held prisoner by the Spanish authorities; served in the War of 1812; commanded the expedition against Toronto (then called York), and was killed in the assault upon that place, April 27, 1813.

Pi'lot Grove, in *Missouri*, a post-village of Cooper co., 14 m. W. S. W. of Boonville. *Pop.* (1897) 650.

Pilot Point, in *Texas*, a post-village of Denton co., 18 m. N. E. of Denton. *Pop.* (1897) 1,175.

Piloty (*pē-lō'tē*), CARL THEODOR VON, painter, founder of the modern realistic school, was born in Munich, Bavaria, Oct. 1, 1826. He has painted many intensely impressive historical scenes, and his canvases are conspicuous in the principal galleries in Germany. His *Elizabeth and Frederick Receiving News of the Loss of the Battle of Prague* (1868) is owned in Cincinnati, Ohio; his *Wise and Foolish Virgins* (1881) was exhibited in the United States (1887–88). He died July 21, 1886.

Pil'pay, Pel'pal, or **Bid'pai,** Oriental fabulist; lived several centuries B. C.; the reputed author of a collection of fables not now extant, but contained partially in the *Panchatantra*, and to a less extent in *Mahâbhârata* and the *Histopadesa*. The name Pelpay, or bidbah, is not a proper noun, but an appellative, meaning "master of sciences," and applied to the chief pundit or court scholar of an Indian prince. La Fontaine states that he owes much of his new material to Pilpay, the Indian sage. Reguier's edition of La Fontaine gives references to the Indian sources.

Pi'nal, in *Arizona*, a S. co.; *area*, 5,300 sq. m.; intersected by the Gila river. *Surface*, broad plains or mesas, broken by irregular chains of mountains abounding in precious metals; *soil*, fertile when irrigated. Extensive mining is carried on. *Cap.* Florence. *Pop.* (1897) 4,300.

Pinck'ney, CHARLES COTESWORTH, statesman, was born at Charleston, S. C., in 1746; graduated at Oxford University, England. He served as aid-de-camp to Gen. Washington during the opening campaigns of the Revolutionary War, and was taken prisoner by the British at Charleston in 1780. Later, he held a seat in the convention which met to frame the National Constitution, and declined the secretaryship of state in 1795. He was (1796) appointed minister to France, from which country he was dismissed by the Directory after a short stay. In 1798 he became a major-general; and in 1804–8, as a Federalist candidate, unsuccessfully competed for the Presidency of the U. S. Died in 1825.

Pinckney, THOMAS, brother of the above, soldier and diplomatist, was born at Charleston, in 1750. He distinguished himself in the War of Independence, became governer of South Carolina (1787), and minister to London (1792). Later, he filled the office of U. S. minister to Madrid, where he negotiated the treaty of Ildefonso; was Federalist candidate for the Presidency (1796); member of Congress from South Carolina (1797–1801.)

Pinconning, in *Michigan*, a post-village of Bay co., 21 m. N. of Bay City. *Pop.* (1894) 1,008.

Ping Pong, *n.* An indoor game which became very popular in England in 1901 and afterwards in the United States. It resembles lawn tennis, from which it differs in being played upon a table (9 x 5 ft.) instead of a lawn. The net is set up across the center of the table, small raquets and small celluloid balls being employed.—See LAWN TENNIS.

Pin'gree, HAZEN S., reformer, was born in Denmark, Me., Aug. 30, 1842. He began work in a cotton factory at 14, afterward worked in a shoe factory, and joined the army in 1862, fighting in the principal battles of the Army of the Potomac and being for some months a prisoner at Andersonville and elsewhere. After the war he engaged in the shoe business at Detroit, and in time built up the largest shoe factory in the west. Elected Mayor of Detroit in 1889 on a reform ticket, he began an active war on monopolies and corporations, and established in that city an electric railway system with 3 cent fares. He instituted the "potato patch" system for the useful employment of applicants for charity, an enterprise adopted in many other towns. In 1896 he was elected Governor of Michigan, retaining still his mayoralty until obliged to relinquish it by a Supreme Court decision. He died in London, England, June 19, 1901.

Pink'erton, ALLAN G., detective, was born in Glasgow, Scotland, August 25, 1819; removed to Canada (1840); was appointed to the detective department of the Chicago police (1850), and there originated the detective agency since associated with his name. Throughout his life he published from time to time accounts of his experiences, his last work, summing up the others, being *Thirty Years a Detective* (1884). Died July 1, 1884.

Pinkerton, *n.* A police detective; first so called from Allan Pinkerton (*q. v.*).

Pin'ocle, Pin'ochle, Pe'nuchle. A card game resembling the French game of Bezique, and now very popular in this country. This game is usually played with parts of two packs of cards, from the nines to the aces, or from the sevens, as in the more recent pinocle decks. In the ordinary two-handed game twelve cards are dealt each player and a card turned for trump, which can be lifted by the player holding the nine of the suit after making a trick. As they play, new cards are drawn from the top of the pack until it is exhausted, after which those who cannot follow suit must trump, and when trump is led must play one of higher value. The values range as follows: ace, ten, king, queen, knave, and nine. Game is counted by marriages (king and queen of a suit), by fours (aces, kings, &c.), by "pinocle" (queen of spades and knave of diamonds), and by trump sequence (knave to ace), each of these having its special value. While an ordinary marriage counts twenty points, a royal marriage (consisting of trumps) counts forty. Game is counted also from tricks taken, each ten, king, and ace counting ten points, and the last trick counting the same. *P.* can be played by three or more persons; in this case the count by marriages, &c., being made before the play begins. 1200 points constitutes the game.

Pi'nos Al'tos, in *New Mexico*, a post-village in Grant co. *Pop.* (1897) 960.

Pin-wheel, *n.* A wheel with pins instead of cogs.—A firework which, when placed on a pin or pivot and ignited, revolves rapidly, forming a wheel of flame.—A toy windmill of paper.—In tanning, a circular box, with wooden pins on the inner surface, containing water and tallow, for soaking hides.

Pinx'it, *v. a.* [Lat. (he) painted.] A word, sometimes abbreviated *pinx.*, or *pxt.*, placed at the corner of a painting with the artist's name, to show whose work it is. Thus, *Hovenden pinxit*, Hovenden painted (this).

Pioche', in *Nevada*, a post-village, cap. of Lincoln co., 125 m. S.S.E. of Hamilton. *Pop.* (1897) 550.

Pioneer', in *Ohio*, a post-village of Williams co., 14 m. N. of Bryan. *Pop.* (1897) 628.

Pipe'-mak'ing, *n.* Pipes are made of cement, iron, brass, copper, lead, &c. The methods of manufacture differ with the material and the size. Cast-iron pipe is made by molding in sand; wrought-iron, by drawing, a skelp through rollers or dies, or by bending helically

and welding. Lead and copper pipes are drawn through dies. Cement pipe is moulded. The cast-iron pipe used in water-mains, gas-mains, and for soil-pipes, &c., is moulded from wooden patterns, which are set upright in a flask. The moulding-sand being forced in all around solidly, the pattern is withdrawn, leaving a circular hole the size of the outer diameter of the pipe. A core of iron covered with clay is commonly employed to occupy the center of the mould. The clay must be baked hard and dry, as no moisture is admissible in a mould. A number of these flasks being prepared, and set in a pit, a ladle of molten iron from the cupola is swung over them, and the moulds filled. The iron shrinks in cooling, so that the cores have to be driven out. Cast-iron pipe is only suitable for large sizes, the smaller diameters of three or four inches and under being usually of wrought-iron. The Ts, Ys, and bends for small iron pipe are cast, however. Common wrought-iron pipe is formed from a skelp, or flat strip of metal, of the desired thickness, and of a width equal or exceeding the circumference of the pipe to be formed. This skelp is heated and drawn through formers and pressure-rolls that curve it into tubular form. If the edges are simply brought together, it is butt-welded; if overlaid, it is lap-welded. Electric welding has made it possible to make large sizes of wrought-iron pipe of quite thin material. In the electric welder, only a small portion of the pipe has to be heated at once, which is a considerable economy. Seamless pipes, as for bicycle tubing, are drawn through dies. Several new methods are coming into use. The Mannesmann process forms the tube from the solid bar, by working a pointed cone into the center, and rolling the exteriors as it is formed. This is suitable only for soft metals, as copper. Spirally welded pipes are made at Orange, N. J., from commercial sheet-iron, from skelps of 6, 12, 18, and 24 inches width, from which all the sizes from one to six inches may be formed. The iron or steel being twisted in a former until the edges lap about half an inch, heat is applied by means of gas furnaces within and without, along the spiral path of the weld, and the hot edges are welded between an anvil and reciprocating hammer of light weight, working very fast. A smooth weld results, which is not objectionable, notwithstanding its extra thickness. The Cartwright welder, for large sizes of steel pipe, makes use of two compound-air-and-gas furnaces, which apply the heat inside and outside, along the line of junction, in advance of pressure-rolls, which complete the weld. Lead pipe is formed by forcing the molten lead through a die by means of hydraulic pressure, the lead being chilled and solidified as it passes out. It is coiled on a large drum for marketing. Steel, brass, and copper pipes are coiled by special machines, which pass them about circular dies. Elaborate tools are manufactured for cutting and fitting pipe. The screw-threads in pipe are usually cut on a taper, so that when screwed together with force the joints are perfectly tight.

Pi'per Cit'y, in *Illinois*, a post-village of Ford co., 76 m. E. of Peoria. *Pop.* (1897) 550.

Pipe'stone, in *Minnesota*, a post-village, cap. of Pipestone co., 50 m. W. by N. of Heron Lake. *Pop.* (1895) 1,668.

Piqué (*pēkā'*), *n.* [Fr.] (*Fabrics.*) A kind of heavy cotton goods, made of two cotton threads, one thicker than the other, which are woven and united at certain points, and there made an extra thickness. The pattern is usually of a lozenge shape.—*Piqué work.* A minute kind of buhl work; usually inlaying metals in metals.

Pithecanthro'pus, *n.* (*Zoöl.*) The ape-man, *Pithecanthropus erectus*, is the name given by Dr. Eugene Dubois to the fossil remains of an anthropoid animal which may prove one of the "missing links" in the chain of human physical development. Dr. Dubois is a surgeon in the Netherlands army in Java, where the remains were discovered in 1891 and 1892 near Trinil, Madiun Province, in the central part of the island, imbedded in a stratum of volcanic tufa of Tertiary age; they consist of the upper half of a skull, a femur, and a single tooth, perhaps all belonging to the same individual, as the pieces lay within a few yards of one another. Dr. Dubois published a full description of them in 1894, and great interest was excited among scientific men everywhere. Prof. O. C. Marsh, the celebrated palæontologist of Yale College, commented extensively upon the subject in the *American Journal of Science* for Feb., 1895, pronouncing it the most important addition to the department of fossil anthropology within recent years. He agreed with their discoverer that the differentiation of these relics was sufficient to entitle the animal to family rank, under the name *Pithecanthropidæ*. While the capacity of the skull is about two-thirds less than that of the average man, it is far more capacious, proportionately, than that of any existing ape. In shape the skull is dolichocephalic, and remarkably high in the coronal region; its index is 70, and it lacks all trace of the crests characteristic of the gorilla's skull, being smooth and more like that of a gibbon's. The dentition appears to be decidedly simian, the single tooth (a last right upper molar, in good preservation) being in shape much like that of a chimpanzee, but having the grinding surface of the crown less rugose. The femur (of the left side) so closely resembles a human thigh-bone of average size as hardly to be distinguishable; it is 455 millimeters (17·83 inches) in length, slender, and nearly straight. Its shape, form of the articulating joint at the head, and other characteristics show indubitably (as the shape of the skull would suggest) that the animal maintained habitually an erect position. Prof. Marsh concludes that Dr. Dubois "has proved the existence of a new prehistoric anthropoid form, not human, indeed, but in size, brain-power, and erect posture, much nearer man than any animal hitherto discovered, living or extinct;" and he calls attention to the fact that in the time when it lived Java was not an island, but, with all the neighboring present islands, was a part of the Asiatic-European continent (Eurasia), divided from the Africa of that epoch by the Saharan Sea. "Further, there was a land connection, by England, Iceland, and Greenland, with America. We have thus a valuable aid to our understanding of the possibility of the 'new man' having been in the line of evolution or descent of with later man himself. If these conclusions are correct, the antiquity of man must be extended back into the Tertiary, and his affinities with the higher apes become much closer than hitherto supposed."

Pit'kin, in *Colorado*, a W. central co.; *area*, 950 sq. m. *Surface*, mountainous. Mining, stock-raising, lumbering, and agriculture. *Cap.* Aspen. *Pop.* (1897) 9,500.

Pit'man, Sir Isaac, educator, was born in Wiltshire, England, Jan 4, 1813. He was the inventor of the Pitman system of shorthand; his complete work on the subject was issued in 1846, under the title, *The Phonographic Reporters' Companion*. In recognition of his services two gold medals were presented to him, one by the phonographers of the U. S., and one by those of Great Britain and the Colonies. He was knighted in 1894; died Jan. 22, 1897.

Pitts'burg, in *Kansas*, a city of Crawford co., 10 m. S. E. of Girard; has coal mines and large brick works; zinc is smelted. *Pop.* (1895) 8,982.

Pittsburg, in *Kentucky*, a post-town of Laurel co. *Pop.* (1897) 620.

Pittsburg, in *Texas*, a post-town, cap. of Camp co., 293 m. N. E. of Austin. *Pop.* (1897) 1,315.

Pitts'ville, in *Wisconsin*, a city of Wood co., 20 m. W. of Grand Rapids. *Pop.* (1895) 648.

Pinte', in *Utah*, a S. central co.; *area*, 3,695 sq. m.; intersected by Sevier river. *Surface*, mountainous; Wahsatch Mountains in western part; has also treeless plains; *soil*, mostly sterile; only fertile when irrigated. *Cap.* Junction. *Pop.* (1895) 1,727.

Plain Cit'y, in *Ohio*, a post-village of Madison co., 18 m. W. N. W. of Columbus. *Pop.* (1897) 1,362.

Plaisance (*plā-zäns'*), *n.* Part of a park, or a pleasure-ground. Generally obsolete except in the phrase Midway *Plaisance*, a portion of the Columbian Exposition at Chicago, 1892–3. Same as *Pleasance*, or *Pleasaunce*.

Plan'igraph, *n.* A form of draughting-rule for copying drawings on a different scale. It has a central pivot, and a scale much larger on one end than the other. By placing a drawing at the smaller end, its measurements may be easily read therefrom, while they are copied off on another sheet from the larger end.

Plank'inton, in *South Dakota*, a city, cap. of Aurora co., 23 m. W. of Mitchell. Here is a State Reform School. *Pop.* (1895) 494.

Pla'no, in *Illinois*, a city of Kendall co., 14 m. W. S. W. of Aurora; has an agricultural implement factory. *Pop.* (1897) 2,005.

Plano, in *Texas*, a post-town of Collin co., 18 m. N. of Dallas. *Pop.* (1897) 965.

Plaque (*plăk*), *n.* [Fr. plate.] A plate, disk, or slab of metal, china, or other ware, upon which pictures are painted, and which is used for wall decoration.—A brooch; the plate of a clasp.

(*Anat.*) A small, plate-like structure.

Platt, Orville Hitchcock, lawyer, was born in Washington, Conn., July 9, 1827; filled various political offices in his State—representative, senator, secretary of state, &c.; has been U. S. Senator from Connecticut since 1879.

Platt, Thomas C., politician, was born in Oswego, N. Y., July 15, 1833; elected to Congress in 1872; re-elected in 1874; became U. S. senator, Jan. 18, 1881, but resigned in May following, with his colleague, Mr. Conkling, and retired to private life. In 1896 he was prominent as manager of Republican affairs in New York State, and succeeded David B. Hill in the U. S. Senate on March 4, 1897, having been elected for the full term of 6 years. Mr. *P.* is president of the U. S. Express Co.

Play'fair, Lord Lyon, chemist and statesman, was born in Meerut, India, May 21, 1819; studied chemistry under Graham and Liebig; held many important professorships and public appointments; was in Parliament 17 years (from 1868), and postmaster-general in 1873–4; raised to the peerage, as Baron Playfair, in 1892. He has contributed largely to the literature of chemistry, and is regarded as one of the greatest experts of that profession.

Plaza (*plä'za* or *plä'tha*), *n.* [Sp.] An open square or market-place, or a broad space about a building; especially common in Spanish or Spanish-American cities.

Pleas'ant Grove, in *Utah*, a city of Utah co. *Pop.* (1895) 2,301.

Pleasant Hill, in *Ohio*, a post-village of Miami co. *Pop.* (1897) 600.

Pleasant Lake, in *Indiana*, a post-town of Steuben co. *Pop.* (1897) 562.

Pleasant Plains, in *Illinois*, a post-village of Sangamon co., 15 m. N. W. of Springfield. *Pop.* (1897) 550.

Pleasant Ridge, in *Ohio*, a post-village of Hamilton co. *Pop.* (1897) 1,150.

Pleas'anton, Alfred, soldier, was born in the District of Columbia in 1824; graduated at West Point; served in the Mexican War, and was commissioned a major of cavalry in 1862; became brigadier-general of volunteers in July, 1862; served efficiently throughout the war as a cavalry commander, and in 1865 was brevetted brigadier-general, and major-general in the regular army; was mustered out of the volunteer army in 1866, and resigned his commission in the regular army in 1868. Retired with the rank of colonel, U. S. A., in 1888, and died Feb. 17, 1897.

Pleas'anton, in *Kansas*, a city of Linn co., 7 m. E. of Mound City; has coal mines, nurseries, flour mills, and large shipments of grain, cattle, and canned fruit. *Pop.* (1895) 990.

Plebe, *n.* [Lat. *plebs* (gen. *plebis*), the people.] The common people collectively, the populace, the mob.

(*Colloq.*) At the U. S. Military Academy, West Point, N. Y., or the U. S. Naval Academy, Annapolis, Md., a member of the lowest class, a freshman.

Plero'ma, *n.* [Gr. *plērōma*, fullness, perfection.] A condition of fullness or abundance, especially the plenitude of the divine perfections.

(*Gnostic.*) The boundless space through which God, viewed as the purest light, is diffused; the divine being, including all eons that emanate from it.

Plethys'mograph, *n.* An apparatus for studying the variations in size of some portion of the body, especially as caused by the circulation of the blood. Prof. J. M. Dogiel's plethysmograph has a horizontal glass cylinder, in which the arm of a man, the leg of a dog, &c., may be inserted, the end toward the body being made water-tight with a rubber sleeve. The cylinder is filled with water through a connecting vessel, so as to create a slight pressure, which is made to act upon a sensitive drum. Every change in the circulation of the blood in the enclosed limb in the water-filled glass cylinder has an effect on the drum, and is recorded by means of a connecting stylus on a rotating smoked cylinder. With this apparatus it has been proved that music has a marked influence on the circulation of the blood, in both man and animals.

Plev'na, A town of Bulgaria, 19 m. S. of the Danube, and near the river Vid, a tributary of the Danube. Here Osman Pasha, with a large force of Turks, defeated the Russians on July 31, 1877. Foreseeing that the Russians would return with reinforcements, Osman shut himself in Plevna, which he strongly entrenched. The Russians came back, as was expected, greatly increased in number, and early in September endeavored to take the place by storm. Unsuccessful in this, they regularly invested the city and the siege lasted until December. The Turkish commander made a desperate effort to cut his way through the investing force, but in vain. On Dec. 10, 1777, therefore, as he was running short of provisions and ammunition, he capitulated with 42,000 men and 77 guns. This was the critical event of the Russo-Turkish War. *Pop.* (1897) 15,490.

Plumb'ing, San'itary. As the name implies, the first plumbers were workers in lead. The fitting and adjusting of pipes in dwellings became their principal work, and as iron pipes came to supersede lead in many uses, the name plumbing was used to cover the fitting of pipes of all kinds. Lead being soft and easily worked, was the first metal extensively employed in fitting buildings with pipes. When machinery for making iron pipe was simplified so that such pipe became cheap and common, it supplanted lead, which is a more costly metal. The only reason why lead has continued in use at all is that it is smoother inside, and more easily and quickly adjusted to irregular shapes. Interior smoothness is of considerable importance in drain-pipes, as roughness causes the accumulation of filthy matter; hence, in Europe lead pipe is used almost wholly for such purposes. In the United States iron pipes have of late years been made so smooth inside that they are largely employed for this purpose. Plumbing in modern dwellings includes the systems of water-pipes, waste or drain-pipes, and soil-pipes. The system of steam-pipes is sometimes included, but this is more properly steam-fitting. The intelligent arrangement of the waste and soil systems in a building has a great influence upon the health of the inmates, and has been the subject of extensive municipal legislation and inspection. Zymotic and germ diseases are frequently propagated by the insanitary conditions resultant from improper plumbing. As a consequence, the contagious diseases of children, consumption, cholera, typhus and typhoid fever, cancer, &c., are disseminated. Degeneration of the liver, kidneys, and brain are other ailments which follow as the result of living in an atmosphere impregnated with sewer-gas. In planning the plumbing for a building, it is necessary to work from the ground up, as no pipes should be laid on the level, but must have an incline, so that a flow is always possible. Waste-pipes in a building should have an incline of not less than one foot in fifty, and soil-pipes considerably more. The arrangement must be such that no accidents can cause a possible impregnation of the water supply from any leaking of waste or soil-pipes. In laying out the water-supply pipes of a building, it is necessary to provide a stop-cock at the lowest point, so that all the water can be drawn off in case the building is untenanted in winter, when freezing in the pipes and bursting would result if the supply were not drawn off. Soil-pipes should be laid as directly as possible, with no sharp angles, and with an extension through the roof to carry out gases, and its top should be protected with a wire screen, to prevent choking. Soil-pipes being made of iron, the joints should be packed with oakum, molten lead being poured in, and calked. Substantial iron hangers are best for keeping the pipe in position, so that there may be no sagging of the more horizontal portions. The inside diameter of soil-pipe should not be less than 4 inches. Waste-pipes from sinks and drains are better arranged so as not to connect directly with near-by soil-pipes, but

should be carried to the main house-sewer. Traps, being the only protection against the introduction of sewer-gas into a building, should be fitted with the utmost care, and be made subject to frequent inspection. A trap is formed by a crook or bend, very often in S form, in which water is allowed to collect as a seal against the upflow of sewer-gas. To prevent siphonage it is necessary to equalize the atmospheric pressure on both sides of the trap. Air is therefore commonly admitted at the crown (back-venting); if the circulation of air is not maintained, a pressure of sewer-gas is likely to occur, and force itself through the water-seal. The trap in the main house-sewer connecting with the street-sewer

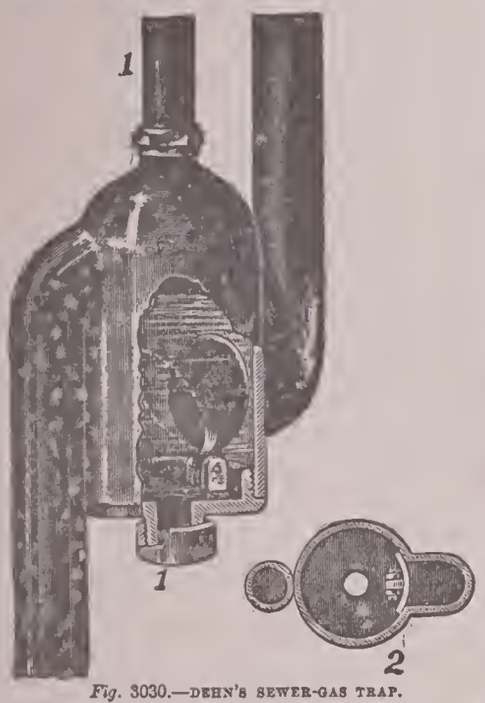


Fig. 3030.—DEHN'S SEWER-GAS TRAP.

should be provided with a hand-hole for cleaning out, and a vent-hole leading to the ground, so as to maintain an air-circulation in the drainage system. The traps of house-closets and sinks should be placed so as to be easily accessible. In fact, all plumbing is best exposed, and the old notion that such pipes and traps should be hid away in walls, or covered by woodwork, is giving way to the much more sensible plan of providing exposed plumbing, and rendering it sightly. The bases of baths and closets are much better unenclosed, and so with all the smaller pipes, since leaks are then more quickly observed and more easily repaired. A further protection from defective or leaking pipes is obtained by arranging the ventilation of a building so that the air from the vicinity of pipes tends to pass out, the fresh air being admitted from some opposite point. The water-supply pipes are made to withstand much greater pressures than formerly, 200 pounds to the inch being applied in some cases, while pressures of 100 pounds are common. Consumers in the United States receive an average supply of 100 gallons per day per capita, an excessive amount resulting from the custom of leaving open faucets to obtain cooler water in summer, and to wasteful use in closets and baths. In European cities but 34 to 40 gallons per day is the usual allowance. When a system of house-pipes has been installed, a good method of testing them is to fill with water, closing up the lower exits. If the water-level at the top be marked, any leakage is easily observed, and may be hunted up and remedied.

Plume'-bird, *n.* (*Ornith.*) The common name of

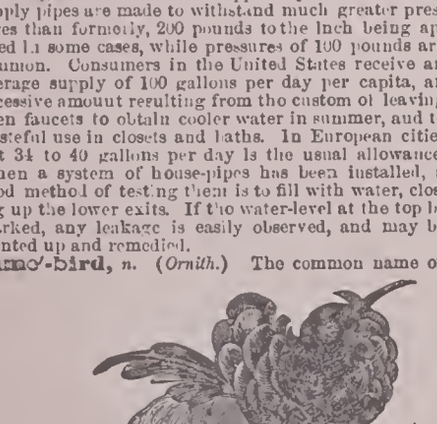


Fig. 3031.—PLUME-BIRD (*Seleucides alba*).

Epimachus, a genus typical of the Epimachinæ, or sickle-billed, group of birds-of-paradise. (See PARADISEIDÆ.) It contains many long-billed species rivalling in splendor those of other genera. Perhaps the most beautiful among them is the twelve-wired plume-bird (Fig. 3031). The softness of the feathers of its back makes it very delicate to the touch, like black velvet; and in a strong light the color of the shield-like feathers on the breast changes from green to bronze and a splendid purple. The long feathers which cover the lower part of its body are of a very delicate yellow color, shading off into white. But as though this gorgeous plumage, which some have thought made it the most beautiful of all birds, were not enough, it is further adorned by a tuft of six snowy feathers on each side of the breast which diminish into twelve very thin, long, curly, black threads, or "wires," with white tips. These birds and their congeners are natives of New Guinea and New Holland. They are variously adorned with enormously long tail-feathers, great shoulder-tufts of broad feathers, loose downy plumes, &c. They are mainly fruit-eaters, and breed in hollow trees.

Plur'ative, *a.* [Lat. *plurativus.*] (*Logic.*) Applicable to the majority of a class.

Plu'tarchy, *n.* [Gr. *ploutos*, riches; *archō*, to rule.] The rule of wealth; plutocracy.

Plutoc'racy, *n.* [Gr. *ploutos*, wealth; *krateō*, to be strong.] An aristocracy of wealth; a class controlling the government by means of their riches; colloquially, the wealthy classes.

Plu'tocrat, *n.* One who belongs to the plutocracy; one who exercises political power by reason of his riches.

Plu'viograph, *n.* A recording rain-gauge, also named *hyetometer*, *ombrometer*, and *udometer*. (Compare RAIN-GAUGE.) The most approved form has a broad-mouthed funnel at the top, resting within an open-topped perpendicular cylinder, within which it is free to rise and fall. This funnel is stopped at the lower end, and as it fills with rain, the weight of the water causes it to descend, operating a pointer, which leaves a tracing on a recording-device. It may be made to hold a half inch of water of the capacity of the cylinder, and when full to empty itself automatically.

Pluviom'eter, or **Plu'vioscope,** *n.* A rain-gauge; the name given to some of the simpler forms, as a cylindrical cup, with a graduated glass tube outside connected with the interior, so as to show the depth of water within.

Plym'outh, in *California*, a post-town of Amador co. *Pop.* (1897) 880.

Pocahon'tas, in *Virginia*, a post-town of Tazewell co., 172 m. W. of Lynchburg. Here is located one of the largest mines of bituminous coal in the State, employing several hundred miners, and large capital. *Pop.* (1897) 3,330.

Po'comoke City, in *Maryland*, a post-town of Worcester co., 24 m. S. of Salisbury. *Pop.* (1897) 2,050.

Po'la, a town near the southern extremity of the peninsula of Istria, in Austria, and 105 m. by rail S. of Trieste. It is the most important naval station in Austria-Hungary, having a harbor, deep, spacious, and almost landlocked. The town is protected by forts, and overlooked by the citadel. There is a large arsenal, which employs about 2,400 men. Pola is also a shipping port, exporting wood, fish, sand, and building stones, and importing provisions, coal, and bricks. The cathedral dates from the 15th century, and the Franciscan convent from the 13th century. There is a naval observatory, founded in 1871, where 28 asteroids were discovered (1874–80) by I. Palisa. In the suburb of San Policarpo there is a fine monument to the Emperor Maximilian, of Mexico. Pola, destroyed by Augustus, was rebuilt at the request of his daughter, Julia, and hence named Pietas Julia. That it became an important town is shown by the Roman remains still existing, a well-preserved amphitheater, capable of holding 20,000 spectators, a triumphal arch, a temple, and several ancient gates. The Venetians conquered Pola in 1148, and destroyed it in 1267. In 1379, the Genoese, after routing the Venetians in a sea-fight off the town, ravaged it. Still the Venetians kept possession of the place until 1797, when it was transferred to Austria. The population in 1890 was 39,273, of whom 10,000 belonged to the garrison.

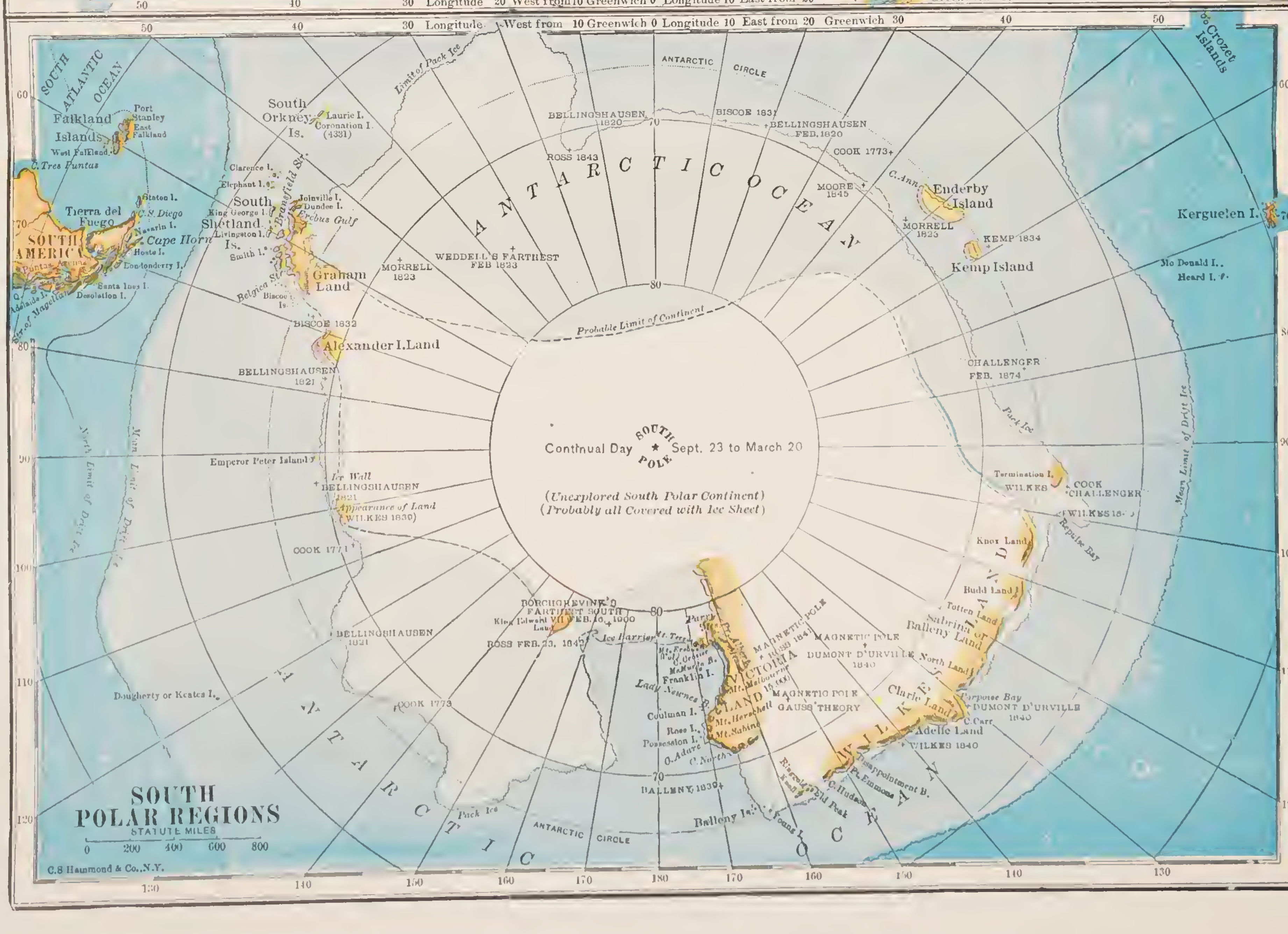
Po'lar Research'. This subject has been already treated from a historical point of view under the heading of ARCTIC EXPLORATION (*q. v.*). In that article all attempts previous to 1900 to solve the mystery of the pole were described. It is our purpose here to speak of attempts in 1900 and later and to refer to various projects devised to attain the desired end by novel means. Within recent years the old method of penetrating the polar regions by means of ships has been in a measure abandoned and new methods put in operation, of which notable results were Peary's journey across the inland ice of northern Greenland, and Jackson's long residence in Franz Josef Land, with a similar purpose in view. The intrepid explorer Jackson, after spending three years in that inhospitable arctic island, during which he had the good fortune to rescue his daring fellow-explorer, Nansen, returned to England in the ship *Windward* at the end of the summer of 1897. The results of his enterprise were mainly the exploration and mapping of Franz Josef Land, which he found to be bounded by ocean waters on the north, thus checking his ulterior purpose of proceeding north overland. A somewhat similar purpose was entertained by Lieutenant Peary, who proposed to attack the problem again by way of North Greenland and persist in it for several years. In 1897 he was granted 5 years' leave of absence by the Navy Department, and made a preparatory voyage north to obtain the assistance of the Eskimos in his projected expedition. In 1898 he set out again and remained in the Arctic region until 1902, engaged in daring efforts to reach the pole by means of sledge journeys over the ice. His plan was to establish food caches by means of supporting parties, upon which he might retire in case of necessity. In the excursions northward from his base of operations he took the lightest available equipment, teams of picked dogs, and a few of the most experienced of the Eskimos. In 1900 he reached the latitude of 83° 50′ N. and in 1902 that of 84° 17′, the highest point reached in American waters to that date. During Peary's absence on this expedition a higher latitude was attained in European waters, one surpassing that of Nansen, but an account of it must be left for a later portion of this article. Undeterred by his comparative failure, the indefatigable Peary obtained further leave of absence from the Government in 1903, and in 1904 began preparations for a return to the polar seas. For this purpose he had a new vessel built, especially adapted to force its way through the ice and to overcome the difficulties of Arctic navigation, it being considered the most powerful and best suited craft ever built for that purpose. It was a large, three-masted steamer, with auxiliary sail power, the bow being backed by 12 feet of solid wood. With this he proposed to force his way northward to a point on the north coast of Grant Land within 500 miles of the pole and from there dash northward with a small pioneer party, to be followed by reserve parties to establish caches of provisions at suitable locations. Setting out in 1905, the desired point in Grant Land was attained, and the dash for the pole began in the spring of 1906. A succession of obstacles were encountered, including ice hummocks difficult to cross, violent gales, blinding snow-storms, and finally open water and drifting ice. At noon on April 21 the unprecedented latitude of 87° 6′, less than 200 miles from the pole, was attained. Return was now absolutely necessary and the party narrowly escaped starvation before reaching the ship. They had surpassed all previous records in the polar seas. This success did not satisfy Peary, and he prepared for a return to the polar seas in 1907.

—*Andrée's Balloon.* But the most original of the

Fig. 3032.—PROF. S. A. ANDRÉE.

newly-devised methods of reaching the pole was that of S. A. Andrée (*q. v.*), a Swedish engineer, who set out in the summer of 1897 on a most singular and daring enterprise, one which, while full of hopeful and promising elements, was at the same time rendered perilous by many unknown but threatening dangers. M. Andrée was an engineer in the Patent Office of Sweden, and an aeronaut of much experience, he having made many striking ascents, in one of which he crossed the Baltic in a small balloon. The balloon intended for this purpose was constructed at Paris under the constant superintendence of M. Andrée, the expense of the enterprise—about $36,000—being defrayed by a public subscription, headed by the King of Sweden with $8,000. The plans of the aeronaut were endorsed by the Royal Swedish Academy, the French Geographical Society, Baron Nordenskjold, the famous arctic explorer, and Dr. Nils Ekholm, one of the oldest meteorologists of Europe. On the other hand, they were decried by others of experience in arctic affairs, who predicted certain failure and the inevitable death of the explorer. Undeterred by these dismal prognostications, Andrée proceeded with the construction of his balloon, which was made of double silk, so as to prevent as much as possible the escape of gas, of which it had a capacity for 6,000 cubic meters. It was intended to transport a weight of 3 tons, to be made up of the aeronaut and 2 companions, provisions for a year or more, scientific and other apparatus, and the requisite mechanism and chemical materials to manufacture a new supply of gas in the polar regions, if necessary. The balloon was enclosed with heavy cordage, so as to enable it to resist the action of the sun. An ingenious contrivance for directing the motion of the balloon was added. This consisted of a rubber sail secured to the apex of the balloon, with a rope leading to the car. In addition was a guide rope, which was intended to drag on the ground or in the water, arrangements being made to adjust it to different positions for 180° of the circumference of a ring attached to the car. This was

NORTH POLAR REGIONS
STATUTE MILES
0 200 400 600 800
C. S. Hammond & Co. N. Y.
ARCTIC OCEAN
Unexplored
Continual Day March 21 to Sept. 23
NORTH POLE
NANSEN'S FARTHEST APRIL 1895
ABRUZZI'S FARTHEST 1900
ALASKA
BRITISH COLUMBIA
DOMINION OF CANADA
HUDSON BAY
BAFFIN BAY
DAVIS STRAIT
GREENLAND
ARCTIC ARCHIPELAGO
Spitzbergen
Franz Josef Land
NOVA ZEMBLIA
KARA SEA
BARENTZ SEA
RUSSIAN EMPIRE
SIBERIA
Lapland
Finland
Lofoden Islands
ARCTIC CIRCLE
Longitude West from Greenwich 0 Longitude East from Greenwich


SOUTH POLAR REGIONS
STATUTE MILES
0 200 400 600 800
C. S. Hammond & Co., N.Y.
ANTARCTIC OCEAN
ANTARCTIC CIRCLE
Continual Day Sept. 23 to March 20
SOUTH POLE
(Unexplored South Polar Continent)
(Probably all Covered with Ice Sheet)
Probable Limit of Continent
SOUTH ATLANTIC OCEAN
Falkland Islands
Tierra del Fuego
SOUTH AMERICA
Cape Horn
South Shetland Is.
South Orkney Is.
Graham Land
Alexander I. Land
Enderby Island
Kemp Island
Kerguelen I.
Crozet Islands
VICTORIA LAND
WILKES LAND
Adelie Land
Balleny Is.
Mean Limit of Drift Ice
North Limit of Drift Ice
Longitude West from Greenwich 0 Longitude East from Greenwich

experimented with in July, 1895, and it was found that when the hook of the guide rope was attached to the central eyelet, the balloon moved in the line of the wind, but when attached to one or the other side its course was changed by a considerable number of degrees. The sail could be adjusted to aid materially in this result. The month of July, 1896, was fixed for the date of starting, the locality being one of the northwestern islands of the archipelago of Spitzbergen. The winds proving adverse in 1896 the ascent was delayed till the following year, when the balloon set out on July 11 at a promising rate of speed. From the time of its disappearance from view nothing was ever learned of the fate of Andrée and his companions, and they doubtless perished in the northern seas. A similar enterprise was projected in 1905 by Walter Wellman, an enterprising American journalist, who had made a polar expedition by the Franz Josef route in 1899. He proposed to take advantage of all the progress made in ballooning and air-ship experiment since the date of Andrée's unfortunate journey, and was hopeful of success. The air-ship planned by him, the largest ever constructed, was built in Paris and taken to Spitzbergen in 1906 as the most available starting point. It was 50 metres long, and was equipped with two motors and two propellors, and also with a complete sledging outfit and a combined boat and car, these to be used in case of accident to the balloon. It was supplied with fuel and food for 5 persons. He proposed to make the journey in the summer of 1906, hoping to reach the pole in a few days, but mechanical defects were discovered in the air-ship that threatened to render the expedition hazardous. It was therefore returned to Paris to be reconstructed, and the enterprise was deferred. The year 1900 was made notable by an expedition which established a new highest record, surpassing that of Nansen. This was led by the Duke of the Abruzzi, son of the Prince Amadeus, once King of Spain, and brother to King Humbert of Italy. Setting out in 1899 with a crew of twenty men, in the old Norwegian sealer *Jason*, which he refitted and renamed the *Polar Star*, he wintered on the coast of Crown Prince Rudolph Land. In the following summer a party of ten men was sent north with dogs and sledges. After some severe experiences, in which three of the party perished, Captain Cagni with three men continued to sledge northward over the rough ice, finally reaching the latitude of 86° 34′, about 22 miles farther north than Nansen had gone. Provisions running short they returned, reaching the ship after an absence of 104 days. The northing reached remained unsurpassed until 1906, when Peary, as above described, made the higher record of 87° 6′. To the story of these successful expeditions must be added that of the unfortunate and unsuccessful one of Fiala, the failure of which became known in 1905. This expedition spent two years in the north, wintering in Teplitz Bay, Crown Prince Rudolph Land, where the Duke of Abruzzi had wintered a few years earlier. Here the ship was partly injured by the ice, and finally drifted away and was crushed and lost, with many tons of coal and a considerable store of provisions on board. The expeditionary party of 40 men, with 218 dogs and 30 Siberian ponies, encamped on the island shore, and from that point Fiala made a resolute endeavor to reach the pole or to establish a high record. Misfortune attended his efforts, the weather being so warm for an arctic winter that the ice opened and channels of open water blocked the way. Attempts to rescue the mariners were made by Mr Ziegler, the backer of the expedition, but that of 1904 failed, and it was not until 1905 that they were reached and rescued. The party, though short of provisions, was in good health, only one man having died. —*The Northwest Passage.* While the pole was not reached during the period under discussion, a notable success was made in another field of arctic effort, a vessel being taken for the first time through the Northwest Passage, the goal of adventurers during three centuries of the past. The passage had been made by McClure in 1850–51, but this was accomplished by sledges, and it was not until 1906 that a vessel was taken through this long-sought passage. The successful navigator was Capt. Roald Amundsen, a Norwegian, who left Christiania in June, 1903, in the sloop *Gjoa*, with a crew of seven men. He spent two years in the north in an effort to locate the magnetic pole, which he finally located in King Williams Land, near where Ross had placed it in 1831. From this point he made his way westward through the ice until the open water near Bering Strait was attained. Cape Nome, Alaska, was reached by the *Gjoa* in October, 1906. Thus was performed a feat which had occupied men's minds since the early days of American discovery —*Antarctic Research.* While the attempts above mentioned are being made in the seas of the north, the antarctic seas, after years of neglect, have been lately revisited. Nothing of importance had been discovered in that region for over 50 years. For a number of years past the Royal Geographical Society of London has been endeavoring to have an antarctic expedition organized, either by the government or private persons. In 1894, the *Antarctic*, a Norwegian whaler, reached Cape Adair, in Victoria Land, an interesting report of the voyage being made by C. E. Borchgrevink, a young Norwegian who accompanied the voyage. A proposition to send him south again, at the head of a small scientific party, was made, they to be provided with ski-runners, for an expedition inland. Dr. F. A. Cook, a companion of Lieutenant Peary in 1892, proposed a similar expedition in 1894, hoping, from the experience gained in the north in the art of resisting the cold, to be able by the aid of sledges and Eskimo dogs to reach a high southern latitude. A Belgian antarctic expedition left Antwerp in the *Belgica* in 1897, under the command of Lieutenant de Gerlache, with Dr. Cook, an American arctic explorer, for one of its members. But the most important exploration in this field was that of Captain Borchgrevink, which left England in 1898. In 1900, it reached Ross' Bay, 78° 35′ south latitude, from which the captain made a sledging expedition over the icy land surface. The high and steep mountains prevented him from going more than 17 miles south, to lat. 78° 50′, the farthest south to that time attained. In 1901 an expedition was sent out by the Royal Geographical Society and the Royal Society of England, which gained a higher southing and made a new world's record in this field of effort. This achievement was performed by Captain Scott, in the *Discovery*. The expedition wintered 400 miles farther south than had ever been done before, a fact which gives great value to its meteorological and other scientific observations. It also coasted along the ice barrier 150 miles beyond the point where Sir James Ross stopped 60 years before. The front of this barrier yields the great Southern icebergs, compared with which those of the North Atlantic are of pygmy dimensions. The winter was passed in sight of Mount Erebus, the active volcano first seen by Ross in 1841. It was found to be quiet, and a sledging party ascended a glacier to the height of 9000 feet, reaching a level plain which stretched away westward to the horizon. In latitude 82° there was visible a mountain range, previously unknown, which extended southward to 83° 20′. On September 2, 1902, the beginning of the southern spring, sledging parties were sent out in several directions, Captain Scott travelling 94 miles to the south and reaching land in latitude 80° 17′, a point within 670 statute miles of the South Pole. The conditions were trying, the dogs all died, and the three men of the party had to drag the boats back to the ship. The *Discovery* returned to England in 1904. Of the many polar explorers Peary has been the most indefatigable, and has won a just reward of his exertions in making the nearest approach to the North Pole. It is to be hoped that his vast experience will enable him, in his projected expedition of 1907-8, to reach this goal and plant the American flag on the site of the pole.

Polariza'tion, *n.* (*Physics.*) Light, radiant heat, electro-magnetic radiation, and all the rays subject to undulatory wave-motion are capable of being polarized; that is to say, their properties are different in different directions when the rays pass through certain media or are reflected. In the case of light, under ordinary conditions the vibrations of the ether may take place in any plane about the line of propagation, but when reflected, as from the surface of a mirror or a sheet of water, or when passed at certain angles through transparent substances, as a series of glass plates, or Iceland spar, &c., the transverse vibrations of the ether are caused to move in a single plane, producing what is termed polarization. It is assumed that the molecular construction of polarizing substances is the cause of this change of plane of vibration, as different substances cause different kinds of polarization. Quartz, cinnabar, or saccharine solution have the effect of rotating the plane of polarization of the light passing through them. This *rotary polarization* also occurs when the light is passed through a magnetic field. Reflection from metal surfaces produces what is known as *circular* or *elliptic polarization*, the vibrations being in closed curves rather than straight lines. If polarized light be subjected to a second transmission or reflection, it is found that in some positions the light will traverse a crystal or reflect from a surface easily, in other positions partially, and in other positions not at all, being wholly extinguished. Some substances, as tourmaline and Iceland spar, are double-refracting, and may be arranged to polarize one ray of light and extinguish another ray. (See REFRACTION.)

The *polariscope* is designed to exhibit the polarization of light, and for examining substances, as saccharine solutions. These usually have polarizing prisms of Iceland spar, mounted in a tube on a stand; one prism serves to polarize the light, and the other to analyze it. The simplest form is the tourmaline-tongs, consisting of two transparent plates of tourmaline, cut parallel to the axis, and set in a cork mounting in a wire frame shaped like a spring-tongs. Solutions of sugar cause rotary polarization, some rotating the plane to the right, when it is *dextro-rotary*, and some to the left, when it is *lævo-rotary*. These qualities are of value in making quantitative estimates of the sugar in solution, as of some fruit sugar, to determine its value, and the principle of the polariscope is therefore used in the saccharimeter. The polariscope is also of utility in the examination of crystals and many organic substances, and in discovering strained conditions in glass plates, &c.

Electric polarization is of two kinds. The first is common to every magnetic field, which has two poles—a south pole, where the lines of force enter, and a north pole, where they have their exit. The cause of this is not definitely known. Ampere has suggested that it is the result of closed electric circuits in the ultimate particles of matter, while Hughes refers to it as a property inherent in all matter. This condition is most commonly named polarity, the word polarization being preferred in electricity for the second kind, which refers to certain molecular conditions. *Dielectric polarization* signifies a molecular strain undergone by a substance subjected to the action of two adjacent charges of positive and negative electricity. *Electrolytic polarization* is a condition produced when a film of gas, as hydrogen, is deposited upon a plate in a voltaic cell, or upon an electrode, thus decreasing the current.

Polk, LEONIDAS, prelate and soldier, was born at Raleigh, N. C., 1806; graduated at West Point in 1827. Taking holy orders in 1831, he became, ten years later, bishop of Louisiana. On the breaking out of the Civil War, in 1861, he abandoned the pastoral staff for the sword, by becoming a major-general in the Confederate army. In Sept. of same year he took Columbus, Ohio; commanded a division at the battle of Shiloh, 1862; held a lieutenant-general's command at that of Stone River, 1863, and commanded a corps at Chickamauga in Sept. following. In Dec. he succeeded Gen. J. E. Johnston in command of the department of Alabama, Mississippi, and East Louisiana. His command was afterward joined to that of Gen. Johnston. Killed in action at Pine Mountain, Georgia, June 14, 1864.

Polk, in *Florida*, a S. central co.; *area*, 2,060 sq. m.; bounded E. by Kissimmee river and Lake, and contains several lakes. *Surface*, generally level, with many rolling wooded ridges; *soil*, moderately fertile. *Products*, Rice, cotton, sweet potatoes, corn, fruits, &c. *Cap.* Bartow. *Pop.* (1897) 11,000.

Polk, in *Nebraska*, a S.E. central co.; *area*, 439 sq. m.; bounded N.W. by the Platte river and drained by the Blue river. *Surface*, nearly level; timber scarce; *soil*, fertile. *Products*, Wheat, corn, oats, and hay; live stock. *Cap.* Osceola. *Pop.* (1890) 10,817.

Pol'ka-dot, *n.* One of a series of spots, uniform in size and equidistant, on a textile fabric, or a piece of such fabric.

Po'lo, *n.* [E. Ind.] A game resembling "hockey," or "shinny," but played on horseback, consisting in knocking a light, wooden ball, with a mallet, from goal to goal, the goals being about 8 yards wide and 250 yards apart, at opposite sides of a level field. In the U. S., the horses used are ponies, and there are four players on a side. By the rules of the New York Club, the ponies must not be more than 14 hands high, and the mallets must be 4 ft. 4 in. in length. The game is an old one in the East, and may be the same as the "tennis" in the *Arabian Nights*. It was introduced into Europe by Anglo-Indian soldiers about 1855, and into the U. S. by James Gordon Bennett in 1876.

Roller-polo, or *Rink-polo*, is a game played on roller-skates, with a rubber-ball and with wire cages for goals.

Polo, in *Missouri*, a post-village of Caldwell co., 15 m. S. of Hamilton. *Pop.* (1897) 510.

Polyclin'ic, *n.* [Gr. *polis*, city, and *klinikos*, of a bed, attending the sick.] A general city hospital; a dispensary.

Polyc'rates (*Grecian Hist.*), known as the "tyrant" of Samos. He ruled jointly with his two brothers. Pantagnotas he put to death, and Syloson he banished, and then made himself despot. He made successful war into Asia. His fleet was perhaps the most powerful of all Greece. He had such continued good fortune that Amasis, King of Egypt, advised him to propitiate the gods by parting with something which he valued. Accordingly Polycrates threw a beautiful emerald ring into the sea, but after a few days a fish was given to him, and in its stomach he found the ring. Amasis refused further alliance with him, believing him to be doomed. A little later, Orætes, a Persian satrap of Sardis, enticed *P.* to visit him, had him seized and crucified, B. C. 522. He was a patron of literature and the fine arts, and the poet Anacreon was his friend.

Polym'eter, *n.* An instrument for measuring any angle, as a triangular or semicircular graduated frame, bearing a pointer, and sometimes a plumb-bob. The name is also given to a form of hair-hygrometer, provided with scales.

Pom'eroy, MARCUS MILLS, was born at Elmira, New York, Dec. 25, 1833; a journalist of some notoriety during the Civil War and the decade immediately following; popularly known by the sobriquet of "Brick Pomeroy." He published several books, principally on economic subjects, among others: *Gold Dust* (1872), *Brick Dust* (1872), and *Perpetual Money* (1878). Died May 30, 1896.

Pomeroy, in *Iowa*, a post-town of Calhoun co., 26 m. W. of Fort Dodge. *Pop.* (1895) 753

Pomeroy, in *Washington*, a post-town, cap. of Garfield co., 55 m. from Walla Walla. *Pop.* (1897) 850.

Pomo'na, in *California*, a city of Los Angeles co., 33 m. E. of Los Angeles. Center of trade for an agricultural and fruit-growing district. *Pop.* (1897) 4,250.

Pomona, in *Kansas*, a post-village of Franklin co., 12 m. W. of Ottawa. *Pop.* (1895) 561.

Pompa'no, *n.* (*Ichth.*) One of several excellent food-fishes of the U. S. They belong to the family *Carangidæ*, and are related to the crevallis on one side and to the bluefish on the other. They are of small size, and somewhat perch-like form, and are esteemed among the most delicate of American table-fishes. The best known is that of Florida, the Gulf Coast, and West Indies (*Trachynotus carolinus*), which is about 18 inches long, uniformly bluish above and golden or silvery on the sides. Two or three other species of this genus are also eaten. Another fish (*Gerres olisthostoma*), greenish-silvery in color, of the West Indies and northward to the west coast of Southern Florida, is called Irish pompano. (A common name on this coast for the wedge-shaped mollusks of the genus *Donax* is "pompano-shells," because the pompanos feed upon them). In California *pompano*, or *pompino*, is the name of a stromateid fish (*Stromateus simillimus*), one of the harvest fishes, which is also highly esteemed by epicures. It is numerous in summer, and is about 1 foot long.

Pon'ca City, in *Oklahoma*, a village of Kay co. Its post-office is NEW PONCA.

Ponchiel'li, AMILCARE, opera composer, was born in Cremona, Italy, Aug. 31, 1834; studied at the Conservatory of Milan (1843–54). His first opera, *I Promessi Sposi*, was produced in 1856; his latest, *Marion Delorme*, in 1885; composed many other operas, besides a cantata performed at the reception of the remains of Donizetti and Simone Mayr, at Bergamo, in 1875; was esteemed next in rank to Verdi, among Italian composers of this century. Died Jan. 16, 1886.

Pond'ereek, in *Oklahoma*, a post-village, cap. of Grant co. *Pop.* (1897) 1,000.

Pon'doland, a district of Cape Colony, Africa, 65 miles long by 30 wide. It is the most easterly coast region of Cape Colony, and bounded on the north by Natal. Its native inhabitants are the Ama-Pondo, a branch of the Kaffir family. In 1884 a portion of the country was annexed to Cape Colony, and in 1887 another portion. The remainder, known as East Pondoland (with a population of 200,000), was annexed in 1894. On the St. John's river, by which the country is chiefly watered, the British maintain a military post, and there resides a commissioner appointed by the Cape.

Poole, WILLIAM FREDERICK, librarian, was born Dec. 24, 1821, at Salem, Mass.; educated at Yale, and in his junior year published the first edition of his *Index to Periodical Literature*, which has been kept up ever since. He was chosen assistant librarian of the Boston Athenæum (1851); chief librarian (1856); librarian of the Cincinnati Public Library (1869–74); of the Chicago Public Library (1874–87), and of the Newberry Library of Chicago from 1887 until his death, March 4, 1894.

Poore, BENJAMIN PERLEY, journalist and author, was born in Newburyport, Mass., Nov. 2, 1820; prominent as an editor, correspondent, annalist, and collector of historical data for his State and for the U. S. government. He became editor of the *Congressional Directory* in 1867; compiled, for the government, *Catalogue of Government Publications of the United States, 1774–1881*. Died May 30, 1887.

Pope, JOHN, U. S. A., was born in Louisville, Ky., March 16, 1822; graduated at West Point (1842); was in active service in Florida, Mexico, and the Western Territories; attained the rank of captain in 1856. In 1861 was made brigadier-general of volunteers; served throughout the war; afterward commanded several departments successively until 1886, when he resigned, having been promoted to the rank of major-general U. S. A. in 1882. Died Sept. 23, 1892.

Popo'catepetl. A quiescent volcano of Mexico, on the confines of the States of Mexico and Puebla, and 43 miles S. E. of Mexico City. Although its Aztec name signifies "smoking mountain," and it still smokes occasionally, there is no certain record of an eruption within historical times. Its height is about 17,800 feet, or 380 feet less than Orizaba, the highest peak in Mexico. It is covered with snow from about 14,800 feet upward; below this is a broad zone of pine and oak forest. While the ascent is difficult, it has been often scaled. It has two principal craters, the upper and more recent one being nearly 1,000 feet deep and 5,165 feet in diameter. In this are large deposits of sulphur, which are regularly mined, and it is proposed to construct a railway, operated by stationary engines and cables, from the base to these mines. Such a railway would carry passengers, and facilities for the enjoyment of tourists at the summit would be provided.

Pop'ocrat, *n.* [From *Populist* and *Democrat*.] A slang term invented by the so-called "sound money" adherents in the Presidential campaign of 1896 to designate members of the allied forces of the Populists and "free-silver" Democrats.

Port Cos'ta, in *California*, a post-town of Contra Costa co. *Pop.* (1897) 725.

Port Discov'ery, in *Washington*, a post-borough of Jefferson co. *Pop.* (1897) 1,120.

Port Eliz'abeth, an important commercial seaport on the western shore of Algoa Bay, at the S.E. of Cape Colony, South Africa; it stands on a promontory overlooking the Indian Ocean, and has railway connection with Kimberley, 350 m. to the N., with Grahamstown, 85 m. to the N.E., and with Bathurst, the principal seaport of the colony. The imports of the eastern part of Cape Colony, and of the Orange River Free State, enter through this port; and its exports are valuable, consisting mainly of wool, ostrich feathers, Angora goats' hair, and diamonds.

Port Ew'en, in *New York*, a post-village of Ulster co. *Pop.* (1897) 1,235.

Port Per'ry, in *Pennsylvania*, a post-village of Allegheny co. *Pop.* (1897) 1,200.

Port Roy'al, in *South Carolina*, a post-town of Beaufort co., 4 m. S. of Beaufort, on Port Royal Island; has a fine harbor, and commerce in cotton, manganese ore, fertilizers, lumber, flour, and corn. *Pop.* (1897) 650.

Port Wash'ington, in *Wisconsin*, a city, cap. of Ozaukee co., on Lake Michigan, 26 m. N. of Milwaukee; has a large tannery, chair and wooden-ware factories, foundries, and breweries. *Pop.* (1895) 2,661.

Por'ta, GIACOMO DELLA, an Italian sculptor and architect, was born at Milan, 1525; constructed at Rome the gateway of St. John Lateran, and the College della Sapienza, and was employed in the completion of the basilica and dome of St. Peter's. Died about 1600.

Porta, GIAMBATTISTA DELLA, an Italian scientist, was born at Naples, 1543; did much to advance the progress of natural philosophy, and invented the camera obscura. He founded the Academy *Secretorum Naturæ* at Naples, and was a member of the Academy *Dei Lincei* at Rome. His principal work is *Magia Naturalis* (1569). Died 1615.

Port'age, in *Pennsylvania*, a post village of Cambria co. *Pop.* (1897) 600.

Portage Creek, in *Pennsylvania*, a post-village of McKean co. *Pop.* (1897) 770.

Portelec'tric Sys'tem. (*Engin.*) A proposed system of transportation for mails and small packages, devised by J. T. Williams. A double-pointed cylindrical car 12 feet long, and 10 inches in diameter, is mounted within the rails of a track that surrounds it. A series of magnetizable advancing spiral cords are placed in the line, and the car is utilized to switch the current temporarily into each coil, so that it carries the magnetism ahead to draw itself forward. The mechanism is theoretically correct, and would transport such a car at a rate of probably 100 to 150 miles an hour, but owing to the cost it has never come into operation. It was calculated that a line between New York and Boston would involve an outlay of $5,000,000 to $7,000,000, though the cost of power, when the plant was installed, would be but 75 cents a trip.

Por'ter, DAVID DIXON, U. S. N., son of Commodore David Porter (1780–1843), was born in Chester, Pa., June 8, 1813; entered the U. S. Navy in 1829; in 1861 commanded the steam-frigate *Powhatan;* afterward commanded the mortar flotilla; joined Farragut (1862), and bombarded the New Orleans forts; in Sept., 1862, was given command of the Mississippi squadron, and did brilliant work at the fall of Vicksburg, for which he was promoted to the rank of rear-admiral. In 1864, in command of the North Atlantic Squadron, he bombarded Fort Fisher, and aided the land forces in capturing that stronghold. He was made vice-admiral in 1866, and appointed superintendent of the Naval Academy at Annapolis; in 1870 succeeded Farragut as admiral of the navy. He wrote several books, among them, *History of the Navy in the War of the Rebellion* (1887). Died Feb. 13, 1891.

Porter, FITZ-JOHN, U. S. A., was born in Portsmouth, N. H., June 13, 1822; graduated at West Point (1845), and served throughout the Mexican War. In 1861 became colonel of a regiment of volunteers, and a few days later was made brigadier-general; took part in the peninsula campaign; in 1862 was major-general of volunteers, and attached to Gen. Pope's command in Virginia; was cashiered in 1863, on the charge of having disobeyed orders at the second battle of Bull Run. His frequent appeals for redress during many years resulted in a partial remission of the sentence; and in 1886 he was fully restored, and placed on the retired list of the army. From 1884 to 1888 he served as police commissioner in New York city. Died May 21, 1901.

Porter, HORACE, soldier and diplomat, was born in Huntingdon, Pa., April 15, 1837; graduated at West Point (1860); served throughout the Civil War, gaining the brevet of brigadier-general in 1865; was assistant secretary of war while Gen. Grant was at the head of that department, and in Grant's first administration was his private secretary. He resigned from the army, and devoted his time to developing the West Shore Railroad, of which he became president. In 1897 he was appointed minister to France.

Porter, NOAH, psychologist and lexicographer, was born at Farmington, Conn., 1811; became (1846) professor of Moral Philosophy and Metaphysics in Yale. He was editor-in-chief of the editions of *Webster's Unabridged Dictionary*, published in 1864 and 1880, and of the *International Dictionary* (1890). His work, *The Human Intellect, with an Introduction upon Psychology and the Soul*, reached a second edition in 1859, the year following its publication. Died 1892.

Por'ter's Mills, in *Wisconsin*, a post-village of Eau Claire co. *Pop.* (1897) 1,320.

Por'tersville, in *California*, a post-town of Tulare co., 30 m. S.E. of Visalia. *Pop.* (1897) 750.

Por'tia, in *Arkansas*, a post-town of Lawrence co. *Pop.* (1897) 625.

Portiere (*por-tiär'*), *n.* A curtain in a doorway, either for use or for ornament.

Port'land, in *North Dakota*, a city of Traill co., 60 m. N. by W. of Fargo. *Pop.* (1897) 550.

Portland, in *Pennsylvania*, a post-borough of Northampton co., on Delaware river, 5 m. S. of the Water Gap; has slate works, lime kilns, &c.; shipping point for the product of the great Bangor slate quarries. *Pop.* (1897) 750.

Portland Univer'sity. A Methodist Episcopal co-educational institution, located at Portland, Oregon. It was founded in 1890, and in 1896 had 26 instructors and 339 students, with a library of 2,500 volumes.

Posi'tion-find'er, *n.* See RANGE-FINDER.

Pos'tal Card. A card issued by a government, duly stamped on the address side, the other blank, and of convenient size for brief correspondence. In the U. S. the cost is one cent, or with a return-card attached two cents. The international card is sold at two cents, as is also a double card, the second one being intended for the reply.

Pos'tal Ser'vice. An historical account of the growth of postal systems will be found under POST-OFFICE, in SECTION I. Since 1826 the U. S. Post-office has been under the direction of a cabinet officer, the postmaster-general. There are 4 assistant postmasters-general, also appointed by the President, of whom the first is a general executive officer, the second has charge of the dead-letter office, the third the issue of stamps, classification of mail-matter, and bookkeeping, and the fourth of the inspection service, supervision of postmasters' bonds, and appointment of fourth-class postmasters. There are also a chief clerk and assistant, an inspector, and 4 superintendents in charge of subordinate branches of the service.

TRANSPORTATION.—The transportation of mails is performed by the railroads as far as practical, and by "star-route" service at places not reached by rail. The star routes derive their name from being marked with a star on the books of the department. The ocean steamers carry the foreign mails, and the transportation from stations and steamboat landings to post-offices is performed by messenger. The price paid the railways is prescribed by law, and includes delivery to post-offices within a fourth of a mile of stations. The railway mail service has been vastly improved within recent years by increasing the number of mail-cars, which are equipped for the distribution *en route* of all mail matter to the best advantage. These cars are fitted up with pouches for all through points, and also for local points along the line on which they run, and a mail agent and the necessary clerks are provided so that letters can be sorted promptly from station to station, as received.

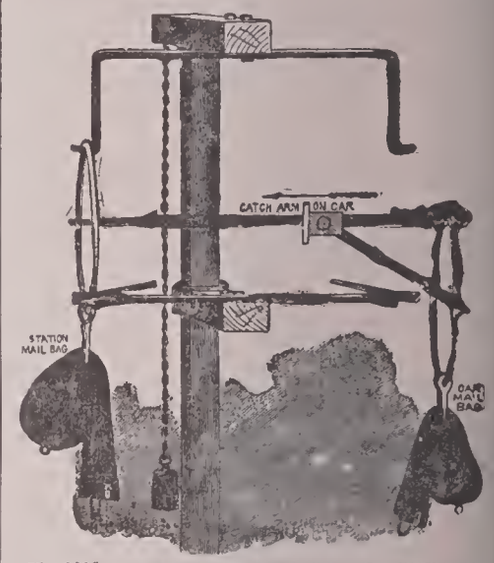


Fig. 3035.—FLEMING MAIL CATCHER AND DELIVERER.

By this means small post-offices are served as promptly as large ones, as the mail collected for them is not carried on to the next distributing post-office, but made up and dropped off from every train having a mail-car that comes through. If the train does not stop, the letter mail-bag is swung off or on by a mail-catcher. (*Fig.* 3035.) This facilitates the transportation of mails between near-by small post-offices, the letters being thus carried direct, whereas, before the establishment of mail-cars, the letters went first to the nearest large town, where they were re-sorted, and returned in the next pouch made up for the office from which they came. This service has proved so satisfactory that it has been extended to a number of street railways in the U. S. within a few years. In 1895 this street-railway service covered 573 miles, and included 82 street-railway routes, carrying daily 1,850 pouches of mail matter. The cars are fitted up as travelling post-offices, and are built to suit the lines on which they run, for cable, trolley, or other system. The Third Avenue railroad post-office in New York city is the most important of this service. On this route cars are run from the general post-office every half hour, and exchange mails with all the branch offices as far north as 157th Street, keeping employed a force of 25 postal clerks. The service is so prompt that a letter mailed at the general post-office in time to catch an up-town mail-car may be received by a resident on 60th Street, distant 4 miles, in an hour and a quarter.

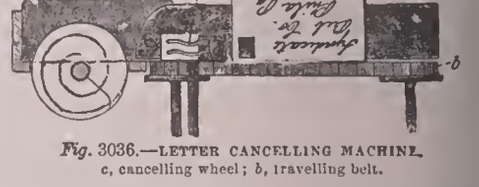


Fig. 3036.—LETTER CANCELLING MACHINE.
c, cancelling wheel; *b*, travelling belt.

The service of the Brooklyn street railway post-office is hourly, over 4 radiating lines. Compartment cars are used, only about one-third of the space in which is reserved for the mail service. On the New York lines the mail-cars do not carry any passengers, being devoted wholly to the postal service.

BRANCH POST-OFFICES.—In each of the large cities of the U. S. branch post-offices are maintained at convenient locations, under the charge of the local postmaster, who installs a superintendent, and is responsible for the business done there, the same as in the central post-office of which he has personal charge. All the railway and steamboat mail lines centering at a large city are required to make up the mail in pouches for each of the sub post-offices, so that there is no delay by transfer through the general office. Each man in charge of a railway mail route is supplied with information as to the territory covered by each branch post-office in the cities on his line, and must forward all mail bearing

a street address to the district in which it belongs. In New York city there are 24 such branch post-offices, some of which handle an enormous amount of mail-matter. Station D, for instance, reports more business annually than all the offices in St. Louis. Branch post-offices are universally equipped for money order and registry business, and are usually open for a few hours on Sunday.

Ocean Post-offices.—Regular post-offices are maintained on ocean steamers, usually under the joint control of two officials from the postal service of the countries at the termini of the route. They sort the entire mail received on starting, up to the very last letter handed in by the pilot boat, and make up the mail matter in pouches for shipment to principal points. The Transatlantic steamers, for instance, going east will make up mail-pouches for England, Germany, France, Asiatic routes, &c., while a west-bound steamer for New York will bear pouches made up *en route* for Boston, Chicago, Washington, &c. These mail-pouches are taken by the quarantine boat, and landed in New York often two hours before the steamship reaches her dock, and they are taken direct to the branch post-offices and the railway stations rather than to the New York general post-office, thus often saving 24 hours by catching a fast express for some distant point.

Pneumatic Dispatch System.—The dispatching of mail matter by blowing it through pneumatic tubes has been accomplished with success in several cities. The pneumatic transit plant connected with the Philadelphia post-office is in many respects the most complete plant of the sort in the world. It was constructed in 1892, and has been in use since Feb. 17, 1893. It connects the main post-office, at Ninth and Chestnut

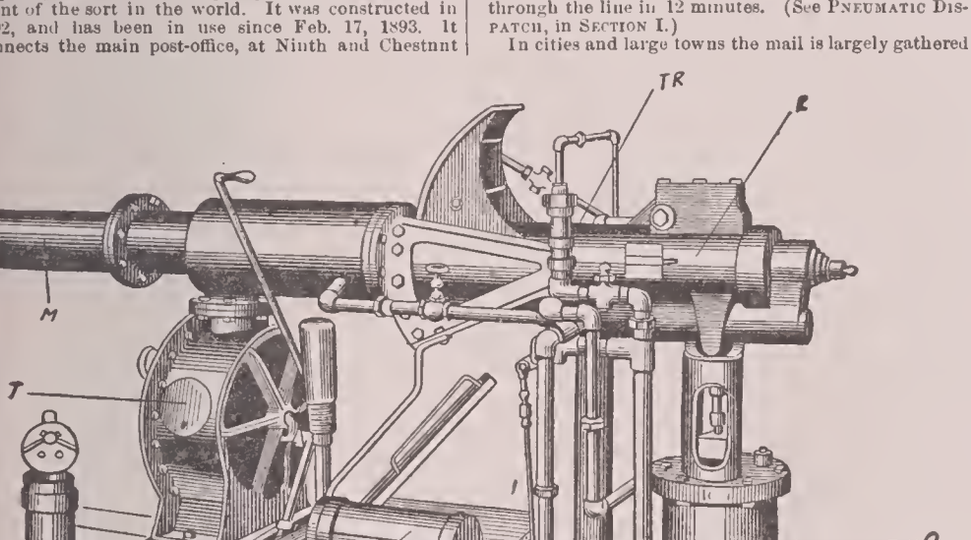


Fig. 3037.—PNEUMATIC POSTAL APPARATUS
At Philadelphia Bourse Sub-Station.

The carrier arrives through the main tube, *M*, entering the receiver, *R*, which is tilted at the trunnions, *TR*, allowing the carrier to fall out to the position *C*. The cylinder, *O*, operates the receiver, and the transmitter, *T*, is a straightway cock leading the compressed air to the return line.

Streets, with the sub-station on Chestnut Street, between Third and Fourth Streets, the distance being 2,928 feet. The diameter of the tubes is 6⅛ inches, being very much larger than that of any similar plant in America. The line is double, providing for transmission in both directions without interference. The pipes are made of common cast-iron, specially bored to insure interior smoothness. The joints are accurately turned in the lathe, and calked with oakum and lead, like ordinary water-pipes. The curves are made of brass, the radius being not less than 6 feet. The line is sunk from 4 to 13 feet below the surface, according to obstructions encountered. An air-compressor in the main post-office is used to drive the carriers, a pressure of 4 to 7 pounds being maintained in the tubes. A single compressor serves to maintain the pressure in both the sending and returning tubes, a switch-mechanism being provided at the sub-station to deliver the carriers to a receiver, while the air passes through a branch to the return line. The same air is switched in again at the starting point, provision being made for a slight increase to offset the leakage. The carriers are steel cylinders, weighing 9½ pounds, and being 18 inches long, by 5¼ inches diameter. They are provided with ring-packing at each end, of a diameter very slightly less than that of the tubes. When the rings wear down $\frac{1}{32}$ of an inch they have to be renewed. The carriers have buffers at the front end, and the doors are so locked that it is impossible for them to open during transit. The trip of a little more than half a mile between stations is accomplished in 55 to 60 seconds, and carriers may be despatched every 10 seconds, or even less, a time-lock being provided to prevent their following each other too closely. The mechanism for receiving and changing the carriers will be understood by reference to the accompanying drawing. Mail matter is transported several hundred times daily between the two stations without any hitches or delays; 150 to 200 letters may be enclosed in a single carrier. The saving of time in delivery is everything that could be expected. A similar pneumatic dispatch system has been proposed to connect the New York and Brooklyn post-offices. The London post-office has used a pneumatic dispatch system for more than 40 years, in connection with its telegraph department, and it has been extended, in radiating lines, until the system includes between 40 and 50 miles of tubes. These tubes are of lead, 2¼ inches internal diameter, and consequently the carriers are too small for ordinary letters, being but 1¼x4¾ inches inside. They are designed to carry about a dozen telegraphic dispatches each. The tubes of this system are worked like a line of railway, on the block-signalling plan, so that carriers may not come in conflict. The leaden tubes are made in lengths of 29 feet, and laid inside of cast-iron pipe for extra security. The pressure maintained in the tubes is about 10 pounds for compression and 7 pounds vacuum, and the resultant speed of the carriers is a little more than a mile in 2 minutes. In 1872 a line of D-shaped tubes was laid from the London general post-office to Euston Station, for carrying bulky mail matter. This tube is 4 feet in diameter, and the carriers are little wheeled cars, driven by air pressure a distance of 14,214 feet. A carrier loaded with 10 tons of mail matter can be sent through the line in 12 minutes. (See Pneumatic Dispatch, in Section I.)

In cities and large towns the mail is largely gathered from boxes located at convenient points. Smaller boxes are often placed in dwellings for the reception of mail.

Mail-boxes.—The preferred form of mail-box for use on street doors is made with an open side, which is brought close against the door-jamb when the door is closed, and swings open with the door when it is opened, so that the box is always closed to those who have not entrance to the house, and the trouble of maintaining a lock for the box is avoided. The U. S. mail street letter-boxes introduced within recent years have an aperture on the broad side to permit the insertion of quite large mail matter by means of a lid of L section that provides a large opening for the letter or package, and at the same time closes the passage to the box further in, so that it is impossible to extract any of the contents by means of the large opening.

Mail-catcher, &c.—Minor post-offices on railway lines in the United States often receive the mail from express trains which do not stop by means of the mail-catcher, which is a device having a movable arm, set upon a post so that the arm may catch the loop of a mail-bag projected from the side door of a mail-car. Many large buildings in cities are provided with a chute, running from the top story to a large mail-box on the ground floor. At each story are slits for the insertion of mail matter.

Letter-cancelling Machines.—Most of the post-offices of the world make use of hand-stamps for cancelling the stamps and dating the letters that pass through them. The hand-stamp, when used by a skilful operator, can be made to cancel 3,000 letters in an hour, but this is too slow for the larger offices in cities, and what is known as the Boston machine is used in that city, New York, and elsewhere. The illustration (Fig. 3036) will explain its operation. The letter is placed in the machine with the stamp downward, and is carried along by an endless belt (*b*), on which it rests, and is run between the cancelling-wheel (*c*) and the frame. After passing this it drops into a box, where it is held by a spring-follower. Other machines that have been more or less used are known as the Hey & Dolphin and Barry machines. For regular-sized mail, such as circulars, the Barry machine is superior, and will cancel 25,000 or more in an hour, if they can be supplied at that rate.

Free and Special Delivery.—The free delivery of mail was begun in the United States in 1863, but was confined to the larger cities at first, though now generally in operation in all towns of 10,000 or more population. The delivery is not, strictly speaking, free, but is so called because the bulk of matter is carried without extra charge, though in the case of drop letters there is an added charge of one cent. The special delivery of mail matter, for an extra fee of ten cents (paid by a special stamp), was authorized by Congress in 1885. The government pays the messengers 8 cents, and the remainder is profit. Great Britain has a similar service, styled an express delivery.

Money Orders and Registry.—The money-order system used in the U. S. post-office went into effect in 1864, being copied from the English system, which was begun in 1838. Only about one-fourth of the post-offices are money-order offices, and the postmasters of these issue orders on printed forms to other postmasters for sums under $100. The orders are made in duplicate, one being given to the purchaser and the other sent direct to the postmaster to whom addressed, as a safeguard. The fee is 3 cents for $2.50 or less, 5 cents for $5, 8 cents for $10, and so on up to 30 cents for $75 to $100. International orders, at a somewhat higher rate, are exchanged with foreign countries. The postal note system, payable to bearer, was authorized in 1883, but being regarded with little favor, was discontinued in 1894. The registering of letters and valuable packages as an additional safeguard was begun in the U. S. in 1855. For a fee of 8 cents the post-office undertakes to secure a receipt from every person handling the letter or package, so that in case of loss some one may be held responsible.

Dead-letter Office.—The U. S. mail service is remarkable for its accuracy, incorrectly and illegibly addressed letters being cared for with great skill. The dead-letter office department has the care of returning letters which fail of reaching their destination. All matter of any apparent value is returned, if the sender's address appears. If the sender's address is placed outside the envelope, the postmaster returns it direct, after advertising. About 5 per cent. of the dead-letter mail contains money or negotiable paper, the total value of which is from a million to a million and a half yearly. Almost all of it is restored to the senders. Nearly 400,000,000 pieces of mail matter are received annually at the dead-letter office, but only about 8 per cent. of them contain addresses which permit of the return to sender.

Savings Banks and Telegraphs.—The British post-office maintains both postal savings banks and a telegraph service. The former was established in 1861, and 2½ per cent. interest is paid, deposits being limited to not less than one shilling, not over £30 in one year, or £150 in all. Nearly 11,000 post-offices now conduct a savings bank business, and hold deposits of about £80,000,000. France adopted the postal savings banks in 1881, and their adoption has been agitated in the United States, but never accepted. The entire telegraph service of Great Britain and Ireland is under the control of the post-office, and the system has cheapened and the service improved under government control.

Postal Union.—In 1874 a convention was called by Germany for the formation of an international postal union. A system was adopted, and went into effect, between the leading countries, July 1, 1875. A year later the countries included were Austria, Belgium, Denmark, Egypt, France, Germany, Great Britain, Ireland, Greece, Italy, Luxemburg, Montenegro, Netherlands, Norway, Portugal, Roumania, Russia, Servia, Spain, Sweden, Switzerland, Turkey, United States, and several minor islands and dependencies. Since the organization, pretty much all the foreign colonies of European nations have been added, the South American States have come in, besides Japan, the principal cities of China (which has no national post-office), and about a hundred minor governments and dependencies, so that it now practically embraces all the civilized countries of the world. The rate charged by the international union is 5 cents per half ounce, and 2 cents for postals, and printed matter and merchandise 1 cent for each 2 ounces, or double these rates if not fully prepaid.

Pota'to, *n.* Next to the cereals, the Irish potato (*Solanum tuberosum*) is the most important field crop, and is universally cultivated in the temperate zones. It is supposed to have originated in the mountainous regions of South America, whence it was introduced into Spain. From the 16th to the beginning of the 18th century, it was spread through Europe more as a curiosity than as a valuable food plant. One writer speaks of it as scarcely as good as the radish, while others give recipes for cooking it with sack and sugar, marrow and spices; but these were probably intended for the sweet potato, with which the Irish potato was often confounded by the old herbalists. In 1663, the Royal Society of England advanced the idea that when the grain crop failed potatoes might be useful in saving the poorer people from famine, and that they would be

a good food for stock. The Irish were the first to cultivate the potato to any extent, and from Ireland its culture spread to England, where it became a staple field crop before the middle of the 18th century, at least 50 years earlier than it was generally grown on the continent. From that time until the present the area of its cultivation has increased, spreading from subtropical to arctic regions, and becoming so important that the failure of a potato crop has caused famines in Ireland and other countries. The failure of the potato crop in Ireland in 1846 and 1847, on account of the "potato disease," was due to long and exclusive cultivation of potatoes in the same fields, exhausting the resources of the soil and multiplying the fungoid diseases of the plant. But even under the modern system of rotation of crops there are several fungi which attack the potato. The *potato disease* is the result of a fungus (*Phytophthora infestans*) which first appears in the form of a delicate white network, accompanied by dark blotches on the leaves of the plant. In moist, calm weather it develops rapidly, spreading to the stems and the tubers, blighting the plant as it goes, and giving out an odor of decay. The germs are light and spread in the air from one potato field to another, until the disease is epidemic. In the tubers it not only produces a "black rot," but matures the spores, which live through the winter and reproduce the fungus in the following year. For a long time no remedy was known for this disease, and it was only combatted by cutting off the diseased tops before the infection spread, burning all parts of the plant which had been affected, and taking care to have the plants as hardy and well able to resist it as possible. For several years, however, the fungologists of the U. S. Agricultural Experimental Stations have been making a careful study of the life history and habits of this and other injurious fungi, and experimenting with preventives. They have found certain solutions of copper sulphate and other chemicals, used as a spray, to be useful remedies, and the results of their experiments, together with formulas for the mixtures which they recommend, have been issued in the form of bulletins which are sent out on application to the Agricultural Department. Other diseases which affect the potato crop (and which have received similar government attention) are *Dry Rot*, *Wet Rot*, *Curl*, *Scab*, and a blight caused by a fungus called *Peziza postuma*. The most dreaded insect enemy of the potato is the Colorado beetle (*Doryphora decemlineata*), which at one time destroyed whole crops in the Western and Middle sections of the U. S. It was first discovered near the Upper Missouri in 1824, and worked its way eastward, reaching the Atlantic coast about fifty years later, but never becoming established in Great Britain, Ireland, or on the continent. It is now successfully destroyed by the use of "Paris Green," either as a powder or a spray upon the plants, and other insect pests are combatted by the same means. The potato is not only valuable as a food for men and animals, but large quantities of starch are made from it, and the starch may be converted into dextrine or into sugar. In the north of Europe and in Ireland liquor is distilled from potatoes. Humboldt made the statement that an area which would produce 30 pounds of wheat would produce 1,000 pounds of potatoes; they are not so good a food as wheat, however, and it has been estimated that 107 pounds of wheat are equal in real nutrition to 613 pounds of potatoes. In the U. S. there were 2,950,750 acres planted to Irish potatoes in 1895, mostly in the Northern States, and the yield, which chanced to be unusually large per acre, was 297,237,370 bushels; yet the potato crop is not as important to the U. S. as it is to Europe, where it aggregates more than the entire wheat crop of the world. From 1881 to 1890 the crop in Germany alone averaged 891,732,040 bushels, or more than five times as much as the average of the U. S. during these same years; in France, it was 396,746,138 bushels; in Austria, 306,984,697 bushels; in Russia, 300,315,070 bushels; and in the United Kingdom, 228,093,397 bushels, against an average of 169,809,053 bushels in the U. S.

Pot'chefstroom. A province and town in the Transvaal. The province is the most thickly settled one in the republic, a fertile tract, 3,500 to 5,000 feet high, abundantly watered by the Mooi, Schoen and other streams flowing to the Vaal, and well suited for tillage and pasturage. Its capital, of like name (derived from elements in the names of Potgieter, Scherf, and Stockenstroom, three popular Boer leaders during the early migrations), is the most settled and one of the largest towns in the Transvaal. It is 150 m. S.W. of Pretoria, with a population of about 2,000.

Pot'ter, Alonzo, clergyman, was born in Dutchess co., N. Y., July 6, 1800; graduated at Union College (1818); studied theology; at the age of 21 became professor of Mathematics and Philosophy in Union College; in 1824 was ordained a priest of the Protestant Episcopal Church; in 1832 was again called to a professorship at Union College, that of Moral Philosophy; in 1838 was elected vice-president of the college, where he remained practically the head of the college until he was elected bishop of Pennsylvania (1845), in which office he displayed the same executive ability and faculty for organizing that had marked his college management. Died July 4, 1865.

Potter, Eliphalet Nott, clergyman, son of Bishop Alonzo Potter, was born in Schenectady, N. Y., Sept. 20, 1836; graduated at Union College (1861); was ordained in 1862; was rector, first at South Bethlehem, Pa., and then at Troy, N. Y., from 1862 to 1871; from 1866 to 1871 he was also professor of Ethics at Lehigh University. He became president of Union College (1871); of Hobart College (1884), and of the Cosmopolitan University in Sept., 1897.

Pot'ter, Henry Codman, clergyman, son of Bishop Alonzo Potter, was born in Schenectady, N. Y., May 25, 1835; graduated from Union College, and from the Theological Seminary of Alexandria, Va.; his first parish was in Pennsylvania; he then was rector of St. John's Church, Troy, N. Y., and later of Trinity Church, Boston, Mass. In 1868 he became rector of Grace Church, New York city. In 1883 he was consecrated assistant bishop of New York; in 1887, the death of his uncle left him the sole responsibility of the office. Besides many sermons and addresses, Bishop *P.* has published several volumes: *Sisterhoods and Deaconesses* (1872); *The Gates of the East* (1876); *Waymarks, 1870-1891* (1892), &c.

Potter, Horatio, clergyman, brother of Alonzo Potter, was born at Beekman, N. Y., Feb. 9, 1802, graduated at Union College (1826); was ordained in 1827, and officiated as rector for a short time in Saco, Me.; became professor of Mathematics in Trinity College; was rector in Albany, N. Y. (1833–54); at the latter date was consecrated bishop of New York; remained in active service until his 81st year, when the appointment of his nephew as associate bishop released him of the heavier responsibilities. Died Jan. 2, 1887.

Potter, in *South Dakota*, a N. central co.; *area*, 900 sq. m.; bounded on the W. by the Missouri river. *Surface*, rolling; *soil*, very fertile. *Products*, Corn, wheat, barley, potatoes; stock raising. *Cap.* Gettysburg. *Pop.* (1895) 2,464.

Potter, in *Texas*, a N.W. co.; *area*, 900 sq. m.; intersected by the Canadian river. *Cap.* Amarillo. *Pop.* (1890) 849.

Potter Val'ley, in *California*, a post-village in Mendocino co.

Pot'terville, in *Michigan*, a post-village in Eaton co., 12 m. S.W. of Lansing. *Pop.* (1894) 486.

Pot'tery In'dustry. The pottery industry in the United States has largely developed in the value of annual production since 1861, but its advance as to methods, workmanship, and artistic quality dates from the years between the Centennial Exposition of 1876, which gave new ideas to the potters, and the tariff act of 1883, which made the production of a finer class of wares commercially possible. Before 1861, no white ware worth mentioning was produced in the United States, the manufacture being confined to yellow and Rockingham wares, cheap earthenwares, flower-pots, drain-pipes, and stoneware, but after that date the industry began to develop, and in 1880 the output of all manufactures of clay and pottery was three times as great as in 1861, and amounted to about $8,000,000. Since 1880, in spite of many years of financial depression, the annual production has again been approximately tripled; the gain has not been in the ratio of American to foreign wares in use, for more than half the pottery sold in the United States is still imported, the proportion of foreign goods being only a few per cent. less than it was twenty years ago, although the amount of both American and foreign ware has vastly increased. The United States is very rich in fine pottery clays, but the amount of hand-labor required in the making of pottery is a permanent handicap to competition with other countries, the cost of labor being so much higher in the United States that only a very high tariff can protect it, and every tariff reduction is a serious blow to the industry. In spite of this condition, the American potteries have made such advances that their wares will now bear comparison with those of Europe in quality and design, even the Belleek, or egg-shell china, being successfully manufactured, while the Rookwood Pottery, Cincinnati, produces an artistic faience ware, with underglaze ornamentation, which has gained a name among art potteries all over the world. There are now about 700 manufactories of clay and pottery goods in the United States, the most important being at Trenton, N. J., East Liverpool, O., Wheeling, W. Va., Baltimore, New York, and Boston; and their competition with foreign potteries has in so far succeeded that it has improved the quality of the wares offered in our markets and reduced the price to a noticeable degree.

Poulard', *n.* [Fr. *poularde*.] A pullet from which the ovaries have been removed to facilitate growth and improve the quality of flesh; a fat pullet. Compare Capon.

Pound'al, *n.* (*Physics.*) The British unit of force; that force which, acting on a pound mass for one second, produces an acceleration of one foot per second.

Pourta'les, Louis François de, Count, naturalist, was born in Neufchatel, Switzerland, March 4, 1824; came to America with Louis Agassiz, with whom he was associated in the study of natural history. He made a special study of deep-sea zoölogy; served in the U. S. Coast Survey, and wrote important papers on the Gulf Stream and the Caribbean Sea. For a time he was director of the tidal division of the U. S. Geological Survey; succeeded Agassiz as custodian of the Museum of Comparative Zoölogy, Cambridge, Mass. Died July 19, 1880.

Pow'derly, Terence Vincent, labor-organizer, was born in Carbondale, Pa., Jan. 22, 1849; became widely known in 1874, when he was elected secretary of the Knights of Labor (*q. v.*). In 1877 he was elected mayor of Scranton, and re-elected in 1878; was elected general master workman of the Knights of Labor, at the convention in Chicago in 1879; in 1893 he was succeeded in this office by James R. Sovereign. *P.* was influential in persuading the Knights of Labor to abolish oaths and obligations of secrecy. He has contributed many articles to the *North American Review*, *The Arena*, and other magazines, and in 1897 was appointed Commissioner of Immigration by President McKinley.

Pow'elton, in *West Virginia*, a post-town of Fayette co. *Pop.* (1897) 620.

Poyn'ter, Edward John, artist, was born in Paris, March 20, 1836, son of Ambrose Poynter, architect, and grandson of Thomas Banks, R. A., sculptor. He began his serious work as an artist, in Rome (1854), in association with Frederick Leighton, afterward studying in Paris at the École des Beaux-Arts; was director for art and principal of the training-schools at South Kensington (1876–81). His *Diadumene*, exhibited at the Academy (1881), provoked a lively discussion as to the nude in art. In 1896 the death of Sir Frederick Leighton, and soon after of his successor, Sir John Millais, left vacant the presidency of the Academy, and early in October the honor was conferred on Mr. *P.*, who was invested with the chain of office, and knighted at Windsor, Nov. 26, 1896.

Prâ'krit Lan'guages. Prâkrit means common, vulgar, vernacular. In Sanskrit dramatic literature, the use of Sanskrit is confined to male characters of the higher classes, women and inferior male characters being invariably made to speak various local dialects. These dialects are called *Prâkrits*, and may be looked upon as the modern vernaculars of northern India. The oldest existing plays can hardly be placed earlier than the 6th century of our era. The actual use of the Prâkrits, as popularly spoken dialects, however, may go back some centuries before that time. These dialects are remotely connected with Sanskrit. Yet the source of the Prâkrit languages is not the literary Sanskrit which has been cultivated by the Brahmans as their sacred language, but popular idioms of perhaps equal antiquity, which may be regarded as constituting, together with literary Sanskrit, the Aryan dialects of ancient India. The Prâkrits are lineal descendants of these dialects, and developed under the continued influence of the Sanskrit. Many words used in the Prakrits cannot be derived from Sanskrit, or have a meaning different from their meaning in Sanskrit. These are probably derived from such Sanskrit prototypes as belonged to the vocabulary of the common people, and were therefore beyond the remodelling influence of learned authors. The oldest Prakrits are the Pali (*q. v.*). Others are Bengali; Hindi (of the Upper Provinces), with the closely allied Panjabi and Nepali (the language of the ruling class of Nepal); Sindhi (on the lower Indus); Keshmiri, and Singhalese, the language of the northern half (perhaps at one time of the whole) of the island of Ceylon. A dialect of the Hindi is Hindustani, which has become a kind of *lingua franca* for the whole of India.

Pratt, Charles, merchant and philanthropist, was born in Watertown, Mass., Oct. 2, 1830; founder of the Pratt Institute, of Brooklyn. Died May 4, 1891.

Pratt, Enoch, philanthropist, was born in North Middleboro, Mass., Sept. 10, 1808. In 1831 he removed to Baltimore; founded the House of Reformation and Instruction for Colored Children, at Cheltenham; and the Maryland School for the Deaf and Dumb, at Frederick. He endowed an academy in his native town (1867); and in January, 1882, announced his most munificent gift to Baltimore—the public library that bears his name, which, in buildings and endowment, amounts to $1,083,333. Died Sept. 17, 1896, leaving many philanthropic bequests, and $2,000,000 to the Shepherd Asylum, with the proviso that the name should be changed to the Shepherd and Enoch Pratt Hospital.

Pratt In'stitute. (*Educ.*) An educational institution in Brooklyn, N. Y., founded in 1887 and endowed by Charles Pratt (1830–91), and administered by his sons, who constitute a board of trustees. The Institute combines academic, business, and manual training. Included in the industrial training are carpentry, blacksmithing, housekeeping, cooking, and training for skilled trades of all kinds. In its high-school department the work is educational, pure and simple. Its normal department is occupied with the preparation of teachers. Each of these and the other various departments is administered by a director. Besides its educational purposes, the Institute is designed to exert a pronounced influence on the community for industry, thrift, self-culture, and good citizenship, illustrated in free lecture courses on social science, and on art, in a savings bank, a free library, with a circulating department of 45,000 volumes, large reading and reference rooms, with branches, museums, art and industrial collections. There are classes for morning, afternoon, and evening. The average number of students is 4,000. There are 115 teachers connected with the Institute. The endowment received from Mr. Pratt was $2,500,000.

Pratt, in *Kansas*, a S. co.; *area*, 720 sq. m.; drained by the Ninnescah river. *Surface*, nearly level prairie; scarcely any timber. *Products*, Corn, wheat, oats, broom-corn, sorghum, castor bean; stock raising. *Cap.* Pratt. *Pop.* (1895) 6,583.

—A post-village, cap. of above co., 6 m. S. of Inka. *Pop.* (1895) 1,330.

Pratt, in *South Dakota*, a S. co.; *area*, 1,220 sq. m.; intersected by White river and drained by the South Fork of White river and several tributaries of the Bad river. Unorganized.

Pratt City, in *Alabama*, a post-town of Jefferson co., 8 m. N.W. of Birmingham; is in an iron and coal mining region. *Pop.* (1897) 2,120.

Praxin'oscope, *n.* [Gr. *praxis* and *skopeō.*] An optical instrument so constructed that a series of figures on the inside of a rotating box are reflected from mirrors in such a manner as to give the appearance of a person or animal in motion.

Preble (*prēb'l*), Edward, U. S. N., was born in Maine in 1761; was sent in command of the naval expedition against Tripoli (1803), and received a gold medal from Congress in recognition of his valuable services. Died in 1807.

Preble, George H., U. S. N., was born in Maine in 1816, nephew of Edward Preble; he served with distinction during the Civil War, reaching the rank of commodore. Among his published works is *The History of the Flag.* Died in 1885.

Predes'ignate, *a.* (*Logic.*) Denoting a proposition that begins with a verbal or other sign or designation of quantity; opposed to *preindesignate; e. g.*, "some men are foolish" is *predesignate;* "men are foolish" is *preindesignate.*

Predesolve', *v. a.* and *v. n.* To resolve beforehand.

Prerog'ative, *n.* [Fr.; Lat. *prærogativus,* from *præ,* and *rogo,* to ask.] A prior claim or title; an exclusive or peculiar privilege or right

(*Civil Law.*) The privilege, preëminence, or advantage which a person has over another; thus, a person vested with an office is entitled to all the rights, privileges, *prerogatives,* &c., which belong to it.

—*a.* Having peculiar privileges or rights.

Prerog'atively, *adv.* By exclusive privilege.

Presage, *n.* [Fr; Lat. *præsagium,* from *præsagio,* from *præ,* and *sagio,* to perceive keenly or quickly.] Something which foreshows a future event; a present fact indicating something to come.

—*v. a.* To forebode; to betoken; to indicate, as by some present fact, what is to follow or come to pass.—To foretell: to predict; to prophesy.

—*v. n.* To form or utter a prediction. (R.)

Presage'ful, *a.* Full of presages.

Presage'ment, *n.* Forebodement; foretoken. (R.)

—Prediction; that which is foretold

Presager, *n.* One who foretells or presages.

Pres'burg, a town of Hungary, cap. of the co. of Presburg, on the Danube, 34 m. E.S.E. of Vienna. It was formerly cap. of Hungary, and the emperors of Austria still receive the crown of Hungary here. The principal public buildings are the hall of the Diet, the town-hall, and the cathedral. *Manuf.* Silks, woollens, tobacco, leather, rosoglio, and nitre.

Pres'byope, Pres'byte, *n.* (*Med.*) One who is long-sighted or affected by presbyopia. — *Dunglison.*

Presbyo'pia, Presby'opy, *n.* [Gr. *presbus,* old, and *ops, opos,* the eye.] (*Optics.*) An imperfection of vision commonly attendant upon the more advanced periods of life, in which near objects are seen less distinctly than those at a distance. It is usually caused by a change in the consistence of the crystalline lens, affected as age advances; changes also by flattening of either the lens or the cornea may produce this state of vision. The change in consistence by induration of the lens interferes with the action of those muscles which compress it in health in order to adapt it to varying distances Convex glasses must be used to remedy the defect. It often happens that one eye is more affected than the other, and in this case glasses of different foci should be used.

Presbyop'ic, *a.* Affected with presbyopia.

Presh'o, in *South Dakota,* a S. co.; *area,* 1,185 sq. m.; intersected by the White river. Unorganized. *Pop.* (1895) 628.

Presi'dio, in *Texas,* a W. co., adjoining Mexico; *area,* 3,470 sq. m.; bounded W. by the Rio Grande del Norte. *Surface,* partly mountainous; *soil,* mostly unfit for cultivation; water is scarce. *Cap.* Marfa. *Pop.* (1890) 1,698.

Pres'ton, Margaret Junkin, author, daughter of Rev. George Junkin, and wife of Col. J. T. L. Preston, of the Virginia Military Institute, was born in Philadelphia in 1835. She has written many poems and sketches, chiefly on Civil War topics; among them *Beechenbrook, a Rhyme of the War* (1866). Her translation of *Dies Iræ,* which appeared in 1855, has been highly commended.

Preston, in *Iowa,* a post-village of Jackson co., 18 m. E. of Maquoketa. *Pop.* (1895) 524.

Prest'wich, Sir Joseph, geologist, was born near London, Eng., March 12, 1812; educated at Rending and at University College; was engaged for some years in business, but made geology an avocation, and, after a time, the vocation of his life. He made an exhaustive practical study of the geology of Great Britain, with relation to water-bearing strata and the extent of coal fields. In 1874 he accepted the chair of Geology at Oxford. During the period of his incumbency he published an extensive work entitled, *Geology, Chemical, Physical, and Stratagraphical.* In 1888 he resigned his chair at Oxford, though continuing his scientific researches. He was knighted in 1896, and died June 23 of the same year.

Preto'ria, the capital of the South African Republic (or Transvaal); derives its name from Pretorius, a Boer leader. It is on the Apies, a headstream of the Limpopo, which forms the northern boundary of the Republic, and stands at an elevation of 4,500 feet on a plain surrounded by hills. Railways connect the town with Lorenço Marques on Delagoa Bay in Portugnese East Africa, and also with Cape Town, 1,040 miles away. It has become important as a place of resort for the miners of the northern gold-fields. Its population is 12,000, of whom three-fourths are whites. The trials of the Uitlander reformers took place in the Pretoria government building in 1896, and after their conclusion the Boers planned a series of fortifications to protect their capital. It was captured by the British in 1900.

Pret'zel, *n.* [Ger.] A biscuit made of wheaten flour, the dough being dipped into hot lye made from straw ashes, sprinkled with salt, and baked crisp.

Previous Question. See Parliamentary Law.

Prieu, Bonamy, economist, was born on the island of Guernsey, May 22, 1807; was professor of Political Economy at Oxford, and a voluminous writer on financial and economical subjects. He visited America in 1874, and lectured on free trade. Died Jan. 8, 1888.

Price, Sterling, soldier, was born in Virginia in 1809; removed to Missouri, and entered Congress from that State in 1845–47; was later elected governor of the State. He joined the Confederacy at the outbreak of the Civil War, and became major-general; captured Lexington, Mo., and commanded a division at Pea Ridge and at Corinth. In Sept., 1864, he conducted a raid through S. E. Missouri. Died in 1867.

Price, in *Wisconsin,* a N. co.; *area,* 1,160 sq. m.; drained by Big Elk river and the West and South Forks of Flambeau river. *Surface,* rolling, abounding in small lakes, and heavily timbered with pine and hard woods. *Products.* Potatoes and small fruits. Lumbering is the chief industry. *Cap.* Phillips. *Pop.* (1895) 7,257.

Prib'ilof Is'lands. (*Geog.*) A group of small volcanic islands in Bering Sea, about Lat. 57° N., Lon. 170° W., and about 200 miles from the mainland of Alaska, to which they belong. Their isolation makes them a favorite resort—and at present the only breeding-place—of the fur seals, and they have come into great notice through the recent disagreement between the United States and Great Britain over the seal fisheries. See Alaska.

Prim'ghar, in *Iowa,* a post-town, cap. of O'Brien co., about 50 m. N. E. of Sioux City. *Pop.* (1895) 839.

Prim'rose League. (*Eng. Polit.*) About two years and a half after the death of Lord Beaconsfield, on Nov. 17, 1883, four admirers of him—Lord Randolph Churchill, Sir John Gorst, Sir Alfred Slade, and Sir H. Drummond Wolff—founded a political organization, which they called the Primrose League, because they believed the primrose to be Beaconsfield's favorite flower, although that has been denied (*cf. Notes and Queries,* 1888, pp. 146, 416). The five-fold petal of that flower, it is claimed by the League, typifies the five principal divisions of the British Empire in Europe, Asia, Africa, America, and Australia. The professed principles of the League are conservative, but moderate and even liberal. The members are styled Knights, Dames, and Associates, and the branches are called Habitations. The first grand master of the League was the Marquis of Salisbury. It was originally intended to admit men only, but by admitting women, the numbers rose from 957 in 1884 to 963,943 in 1891, enrolled in 2,126 habitations. The League has attained great political influence. Its head office is at 64 Victoria Street, Westminster. In 1890 a branch was established at Winnipeg, Canada.

Prince'ton Theolog'ical Sem'inary. The oldest and best-endowed of the Presbyterian seminaries in the U. S. Founded at Princeton, N. J., in 1812, it is, and always has been, unconnected with the College of New Jersey, now Princeton University. Each of its professorships has an endowment of $100,000, and it has besides an endowment of about $1,500,000. In 1896 it had 11 instructors and 258 students, with 57,000 volumes in its library.

Princeton Univer'sity. (*Educ.*) This institution, originally called the College of New Jersey, was chartered by that State in 1746, being the fourth in order of founding among colleges of the U. S. It was opened at Elizabethtown in May, 1747, under the auspices of the Presbyterian Synod of New York, which then included New Jersey. Indeed, the principal object of founding the college was to make ample provision "for the thorough training of such as were candidates for the ministry" of the Presbyterian Church. A second and more liberal charter, giving equal advantages and privileges to every denomination of Christians, was granted in 1748, when the college removed to Newark. Here its president was the Rev. Aaron Burr, father of Vice-President Aaron Burr. In 1757, on the college having secured the erection at Princeton of Nassau Hall—named in memory of William III., and the oldest college building—the college was removed to Princeton. In 1812 the Presbyterian General Synod established its Theological Seminary at Princeton. (See described.) Nassau Hall, during the Revolution, was occupied alternately by British and American troops as barracks, and also as a hospital. At the battle of Princeton, Jan. 3, 1777, Washington attacked the British in the Hall, and during the engagement a shot penetrated its walls and pierced a portrait of George III. In 1783 the Continental Congress met in the Hall, and the college commencement in that year was attended by Washington and the members of the Congress. The institution took a new start upon the election to its presidency of the Rev. Dr. James C. McCosh, an able Scotchman, who had won reputation while professor at Queen's College, Belfast, Ireland. During his presidency, which lasted for 20 years, the faculty was enlarged, the number of students increased, new studies introduced, 9 large buildings erected, and the funds greatly augmented. Altogether $4,000,000 during those years were contributed to the college. Of this sum John Cleve Green and the trustees of his estate gave $2,500,000, with which a school of science was founded, a library, Dickinson Hall, Witherspoon Hall, and Chemical Hall were erected, and a number of professorships endowed. N. Norris Halsted built an observatory, in which was placed by other friends of the college one of the largest telescopes ever constructed. Mr. Marquand erected in 1882 a handsome chapel costing $125,000. William Libbey, Sr., founded a museum of geology and archæology at a cost of $100,000, and also erected the University Hotel at an expenditure of $250,000. On Oct. 21, 1896, the college celebrated its sesquicentennial, or 150th anniversary, of its foundation, when the institution assumed the title of Princeton University. In 1896 it had 80 instructors and 1,088 students, with 185,000 volumes in its libraries. Notable features of the university are the Cliosophic and American Whig societies, each of which has a fine marble building, patterned after a Grecian temple. The university athletic field is one of the best and most perfectly kept in the country, and in intercollegiate athletic contests Princeton ranks among the leaders.

Prine'ville, in *Oregon,* a post-village, cap. of Crook co., 202 m. S.E. of Portland. *Pop.* (1897) 560.

Pro Tempore (*tem'-po-ry*). [Lat.] For the time being; temporary or temporarily; used especially of one who acts as a substitute; as, a secretary *pro tempore,* or, abbreviated, *pro tem.*

Process'ional, *n.* In the R. C. Church, a book containing the prayers and hymns to be used in a religious procession.—A hymn sung during a procession.

Proclit'ic, *a.* [Gr. *proklinō,* to lean forward.] (*Gram.*) Leaning forward; applied to a monosyllable which is so closely attached to a following word as to have no independent existence and no accent.

Proc'ter, Bryan Waller, known as Barry Cornwall, was born in London, in 1787; educated at Harrow, commenced practice of law in London (1831). As a writer he is much esteemed. Among his works are *Dramatic Scenes* (1819), *Marcian Colonna* (1820), several volumes of poems, *Life of Edmund Kean* (1835), *Life of Charles Lamb* (1866), his last work. Died in 1874.

Proc'tor, Richard Anthony, astronomer, was born in Chelsea, England, March 23, 1837; graduated at St. John's College, Cambridge (1860). He was one of the most popular writers and lecturers on astronomy; his talks, charts, and handbooks have done much to make astronomy measurably familiar to the general public, as well as more attractive to the special student. His published volumes are numerous, and are all written in a readable style. Died in New York, Sept. 12, 1888.—During the season of 1896–97, his daughter successfully lectured on astronomy in the U. S.

Proctor, in *Vermont,* a post-town of Rutland co. *Pop.* (1897) 1,740.

Proc'torville, in *Ohio,* a post-village of Lawrence co. *Pop.* (1897) 550.

Profil'ograph, *n.* An instrument which records the profile of the ground that it traverses.

Prohibi'tion Par'ty. (*Am. Polit.*) A convention of temperance workers in favor of absolute prohibition of the liquor traffic met at Chicago, Sept. 1, 1869, and organized as the National Prohibition Reform Party. They held a national convention at Columbus, O., in 1872, and nominated James Black and John Russell for President and Vice-President. Their electors received 5,608 votes. In 1876 Green Clay Smith headed the ticket, and 9,522 votes were polled. In 1880 Neal Dow was nominated, and the vote was 10,305. In 1884 the party declared for woman suffrage, and nominated John P. St. John, of Kansas, and William Daniel, of Maryland. An aggressive campaign was entered into, and 150,369 votes obtained. With this campaign the party came to be recognized as holding the balance of power in many close districts, and its political efforts were commonly referred to as the "third party movement." In 1888 Gen. Clinton B. Fisk, of New Jersey, and John A. Brooks, of Missouri, were nominated, and 250,240 votes polled. In 1892, John Bidwell, of California, and James B. Cranfill, of Texas, were the nominees, and the vote increased to 279,191. The national convention in 1896 resulted in a split on the question of confining the party issue wholly to prohibition, or including other reforms. Joshua Levering, of Maryland, and Hale Johnson, of Illinois, were the regular candidates, in whose interests 130,560 votes were polled; while the holters, under the name of National Party, and leadership of Charles E. Bentley, of Nebraska, and J. H. Southgate, of North Carolina, polled 14,392 votes.

Proof'-read'ing, *n.* (*Print.*) The reading of printers' proofs is a branch of the printing industry that is maintained to secure the accuracy of printed matter. The proof-reader, or corrector of the press, as he is sometimes called, is usually a practical compositor, and necessarily an expert in spelling, punctuation, and capitalization. When a first proof of reading matter is struck off, it is customary for the reader to go over it at the same time that a copy-holder reads aloud from the copy or manuscript from which it was set. The proof-reader must mark on the margin of the proof all typographical errors, erroneous spellings, mistakes in arrangement, etc. He should also note any errors in grammar or diction, and any statements of fact, &c., as dates or names, which he may happen to know to be wrong. It is also proper for him to attach queries for the author or editor concerning points which he suspects may be inaccurate, but which come more properly under their province to correct. In marking typographical errors he makes use of a code or set of special signs, as a Greek *d* for *dele,* or "take out"; a tangential spiral mark for "turn" or "reverse," indicating letters, &c., placed wrong side up; crossed lines for indicating a space; a caret, to mark a point of insertion; an upright stroke with a line under it to indicate that a space

must be pushed down, etc. If a letter or character is to be changed, a line is drawn through the erroneous character, and the correct character written on the margin opposite the line. After this first proof has been corrected by the compositor, a second or "revise" proof is brought to the proof-reader, who notes whether all the errors marked have been corrected. A third proof is then usually printed for the author, editor, or customer, as the case may be. If this comes back marked up, another revise is taken, and, if the work is of great importance, half a dozen or more subsequent proofs and revises may be taken, until the matter is satisfactory. In the case of book-work, the last proofs are taken in the form of pages ready to be cast, or a proof of a whole form of pages may be submitted, to have the reader pass upon any final corrections, the arrangement of the pages, margins, etc.

Propel'ler, *n.* (*Marine Eng.*) The screw-propeller, whose name is usually shortened for convenience to propeller, or in marine engineering use to screw, was suggested and considered as a means of propelling vessels in the water quite as early as the paddle-wheel. In fact, Colonel John Stevens, of Hoboken, N. J., built a steamboat, fitted it with a propeller, and ran it on the Hudson, in 1804, 2 years before Fulton created a sensation with his steamboat. The mechanism of the Stevens boat is now in the possession of the Stevens Institute of Technology, in Hoboken. Its advantages were not appreciated, however, and the paddle-wheels came into general use, and continued to be used until John Ericsson, in America, and Francis P. Smith, in England, urged the use of the propeller upon shipbuilders, and demonstrated its superiority. Within the last 30 years the use of the propeller in place of side-wheels

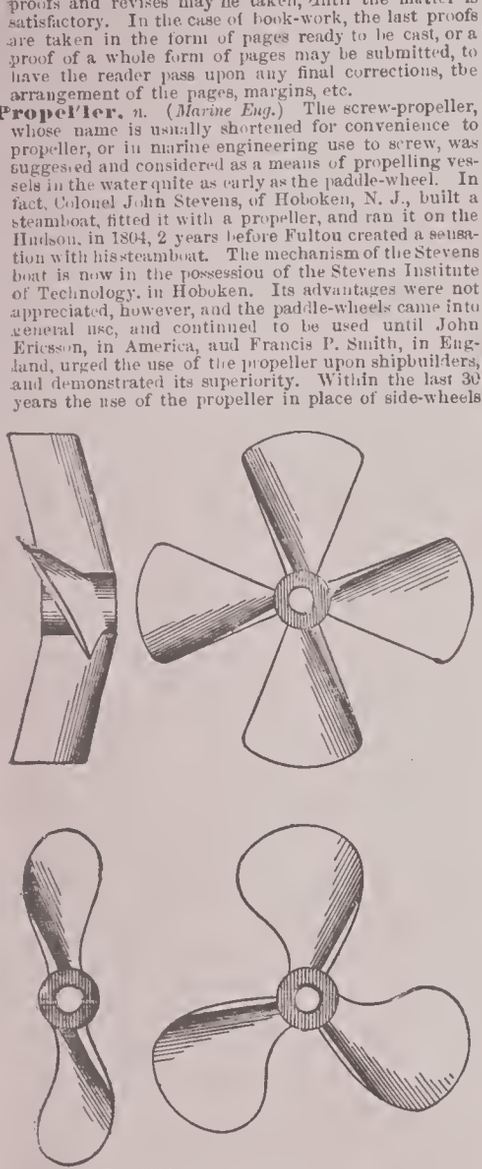


Fig. 3039.—FORMS OF PROPELLERS.

has steadily increased, and although river-boats have been slower to adopt it than ocean steamers, yet it is manifest that the propeller is considered superior, even in shallow and still water. The preferred material for propellers is bronze, steel being too subject to corrosion. Bronze blades and steel hubs are commonly used, however. The propeller is a screw in theory, rather than in form. It is made with either 2, 3 or 4 comparatively narrow blades, which are shaped on the lines of a screw-thread of a pitch varying from one to two and one-half times the diameter. The pitch is the distance a propeller would travel in one complete rotation, if there were no slip. There is always more or less slip, as is shown by the column of water driven back by the propeller. The thrust of a propeller is its pushing force on a line with its axis. Great difference exists among marine engineers as to the best forms of propeller, and the theory of their construction is yet a matter of experiment. The following, however, may be considered to be generally accepted. The slip of a propeller increases with resistance of the boat; also with the pitch; and also with the speed of rotation of the propeller. The slip decreases as the area of the blades with a fixed diameter increases. It has been lately demonstrated that great rotative speed of the propeller causes a vacuum in the water, which is of course a waste of power to maintain. A propeller must remain immersed in use, and some have contended that its axis should incline slightly downward toward the stern, so as to secure a more solid body of water to work against. The lines of a boat must be shaped so as to allow a free flow of water to the propeller. Sometimes the propeller is mounted between the stern-frame and the rudder-post, sometimes aft of the rudder. Twin screws have increased in favor within a few years, and are used by many of the Atlantic liners. In this case each screw has its appropriate shaft and set of cylinders and engines; hence they may be, and usually are, operated independently—a decided advantage in case one of the two sets of machinery becomes disabled. In a most recent form of torpedo-boat three sets of propeller-blades have been mounted on one axis with good results. Triple screws on separate shafts have also been constructed, but their utility remains to be proven.

Prosper'ity, in *South Carolina*, a post-town of Newberry co., 8 m. E. of Newberry; has cotton mill and gin, sash and door factory, and cannery. *Pop.* (1897) 680.

Protect'ory, *n.* An institution for the care of destitute or depraved children.

Provec'tion, *n.* [Lat. *provectio*, a carrying forward.] The carrying of a final consonant of one word to the beginning of the next word; as in *a nickname* for *an ekename*.

Prow'ers, in *Colorado*, a S.W. co.; *area*, 1,650 sq. m.; intersected by the Arkansas river. *Cap.* Lamar. *Pop.* (1897) 3,130.

Pry'or, ROGER A., soldier and jurist, was born in Virginia, July 19, 1828; graduated at the University of Virginia (1848); was admitted to the bar; engaged variously in editorial work until 1859; entered the Confederate army as colonel; was made a brigadier-general; taker prisoner in 1864, and detained for four months at Ft. Lafayette. In 1865 practiced law in New York city, attaining success as a criminal lawyer; was appointed judge of the Court of Common Pleas in 1890, and elected to the same office in 1891; became justice of the Supreme Court in 1896.

Pschutt (*pshŭt*), *a.* (*Slang.*) Ultra fashionable: living and dressing in a style that is extravagant and not dictated by good taste or the demands of fashionable society.

Pseud-, Pseudo-. An initial compounding element, derived from the Gr. *pseudēs*, false; *pseudos*, falsehood.

Psy'chic, Psy'chical, *a.* [Gr. *psychikos.*] Pertaining to the soul or mind; mental, as distinguished from physical or physiological.—Pertaining to unusual mental operations, or to occult phenomena attributed to the mind.—Pertaining to the animal soul, or to the human passions; natural, as distinguished from spiritual.

Psycho-. An initial compounding element, derived from the Gr. *psychē*, soul, mind.

Psychol'ogy, *n.* [Gr. *psyche*, soul, and *logos*, doctrine.] The science of the mind. It aims to find out all about the mind, just as the other sciences aim to find out all about the subjects of which they treat—astronomy, of the stars; geology, of the earth; physiology, of the body. And when we come to trace out the story of the mind as psychology is doing it, we find that there are certain general truths with which we must first acquaint ourselves; truths which the science has been a very long time finding out, but which we can now realize without a great deal of explanation. These general truths, we may say, are preliminary or introductory; they deal rather with the need of defining, first of all, the subject or topic with which the science deals.

(1) The first such truth is that *the mind is not alone the possession of man.* Other creatures have minds. Psychology no longer limits itself, as it formerly did, to the human soul, denying to the animals a place in this highest of all the sciences. It finds itself unable to find any test or touchstone of the presence of mind, or any place at which the history of the mind can begin, which does not go down to the very beginnings of life. For as soon as we ask how much mind is necessary to start with, we have to answer, any mind at all; and all the animals are possessed of some of the actions which we associate with mind. Of course the ascertainment of the truth of this belongs—as the ascertainment of all truth belongs—to scientific investigation itself. It is the scientist's rule not to assume anything except as he finds facts to support the assumption. So we find a great department of psychology devoted to just this question: *i. e.*, that of tracing mind in the animals and in the child, and noting the stages of what is called its "development," both in the ascending scale of animal life, and in the rapid development which every child goes through in the nursery. This gives us *one chapter* of the science of the mind; it is called *genetic psychology*, and it has two divisions—*animal* or *comparative psychology*, and *child psychology*.

(2) Another general truth to note at the outset is this: that we are able to get real knowledge about the mind. This may seem at first sight a useless question to raise, seeing that our minds are, in the thought of many, about the only things we are really sure of. But that sort of sureness is not what science has to have. Every science requires some means of investigation and some method of procedure which is more exact than the mere "say-so" of common sense; and which can be used over and over by different investigators and under different conditions, in order to give the required degree of control and verification to the results once obtained. The chemist has his acids, and reagents, and blow-pipe; they constitute his instruments, and by using them under certain constant rules he keeps to a consistent method. So with the physiologist; he has his microscope, his staining fluids, means of stimulating the tissues of the body, &c. And the physicist makes much of his lenses, and membranes, and electrical batteries, and X-ray apparatus. And it is necessary that the psychologist have a recognized way of investigating the mind, which he can lay before anybody and say: "There you see my results; you can get them for yourself by the same method that I use."

In fulfilling this requirement, the psychologist resorts to two methods of investigation. He is able to experiment with the mind in two ways, which are of such general application that anybody of sufficient training to make scientific observations at all can repeat them and confirm the results. One of these is what is called *introspection*. It consists in experimenting with one's own mind, by producing in it changes, such as emotions, voluntary memories, recalling associations of events now gone, &c., &c., and describing what takes place in the mind when this or that particular thing is done. Others can then repeat the experiments with their own minds, and see that what the first investigator reports is true. This results in a body of knowledge which is put together and called *introspective psychology*.

Then the other way that we have of experimenting is to work on some one else's mind. We can act on our friends and neighbors in various ways, making them feel, think, accept, refuse, this and that, and then observe how they act. The difference in their action will show the difference in their feeling, &c., which we have produced. In pursuing this method the psychologist takes the person—called the "subject" or the "reagent"—into his laboratory, asks him to be willing to follow certain directions carefully—such as holding an electric handle, blowing into a tube, pushing a button, &c., when he feels, sees, or hears certain things; this done with sufficient care, the results are found recorded in the ways which the psychologist has arranged beforehand. This second way of proceeding gives results which are gathered together under the phrase *experimental* or *physiological psychology*.

(3) There is also another truth which the psychologist nowadays finds very fruitful for his knowledge of the mind; this is the fact that *minds vary much in different individuals, or classes of individuals.* First, there is the great difference between healthy minds and diseased minds. The differences are so great that we have to pursue practically different methods of treating the diseased, not only as a great class apart from the well minds—putting them into institutions—but also as differing from one another. Just as the different forms of bodily disease teach us a great deal about the body—its degree of strength, its forms of organization and function, its limitations, its heredity, the interconnection of its parts—so mental diseases teach us much about the normal mind. This then gives another great sphere of information, which constitutes *abnormal psychology* or *mental pathology*. A special division of this is *criminology*.

And there are variations between individuals which are very striking even within normal life; well people are very different from one another. All that is commonly meant by character, or temperament, as distinguishing one person from another, is evidence of such differences. But really to know all about the mind we should see what its variations are, and endeavor to find out why the variations exist. This gives, then, another great topic, *individual* or *variational psychology*. Here we have the interesting question of the *genius*.

(4) Besides all these great undertakings of the psychologist, there is one other department of fact which he must in the future find very fruitful, although as yet he has not been able to investigate it fully; that is the place of the mind in the world at large. If we ask what the mind has done in the world, what a wealth of story comes to us in reply, from the beginnings of history! Mind has done all that has been done. It has built human institutions, indited literature, made science, discovered the laws of nature, used the forces of the material world, embodied itself in all the monuments which stand to testify to the presence of man! What could tell us more of what mind is than this record of what mind has done? The ethnologists are patiently tracing the records left by early man in the utensils, weapons, clothing, religious rites, architectural remains, &c., and the anthropologists are seeking to distinguish the general and essential from the accidental and temporary in all the history of culture and civilization. They are making progress very slowly, and it is only here and there that principles are being discovered which reveal to the psychologist the necessary modes of action and development of the mind.

(5) And, besides all this, another great line of inquiry leads into the investigation of the action of many minds together in various forms of social organization. This is *social psychology*, or the psychological basis of *science of society*.

We now have, in all this, a fairly complete idea of what the *science* of the mind includes. Different men are spending their lives each at one or two of these great questions, but it is only as the results are all brought together in a consistent view of that wonderful thing, mind, that we find all that it is. We must think of it as a growing, developing thing, showing its stages of evolution in the ascending animal scale, and also in the unfolding of the child; as revealing its nature in every change of our daily lives which we experience or tell to one another, or find ourselves unable to tell; as allowing itself to be discovered in the laboratory, and as willing to leave the marks of activity on the scientist's blackened drum, and on the dial of the chronoscope; as subject to the limitations of health and disease, needing to be handled with all the resources of the asylum, the reformatory, the jail, as well

as with the delicacy needed to rear the sensitive girl, or win the love of the bashful maid; and which has manifested itself in all the development of humanity, from the first rude contrivances for the use of fire, the first organizations for defence, and the first inscriptions of picture-writing, up to the modern inventions in electricity, the complex arrangements of industry, and the classic productions of literary art; and from the crude organizations of men for defence and conquest up to the refined social organization of our modern institutions of civilization.

Of all the sources now indicated from which the psychologist may draw, that of so-called *introspective psychology*—the actual reports of what we find going on in our own minds from time to time—is the most important. This is true for two great reasons, which make this science different from all others. The first claim which the introspective method has upon us arises from the fact that it is the only sphere in which we examine the mind directly and get its events in their purity. Each of us knows himself better than he knows any one else. So this department in which we deal each with his own consciousness at first hand is more reliable, if free from error, than any of those other spheres in which we examine other persons or inquire into the results which other persons have left us. The other reason that this method of procedure is more important is found in the fact that all the other departments of psychology—and with them all the other sciences—have to use introspection to make sure of the results which they get by other methods. For example, the natural scientist—the botanist, let us say—or the physical scientist—the electrician, say—cannot observe the plants or the electric sparks without really using his introspection to find out what is before him. The light or the plant stirs up his brain and has a certain effect in his mind, and then he has to use introspection, after all, to report this. The astronomer with bad eyes cannot observe the stars well, nor discover the facts about them, because his introspection, in reporting what he sees, proceeds on the imperfect and distorted images coming in through his defective eyesight. So a man given to exaggeration, who is not able to report what he remembers truthfully, cannot be a good botanist, say; since his defect in introspection renders his observation of the plants unreliable.

Practically, also, the use of the introspective method has been most important, and the development of psychology has been mainly, until in recent years, due to it. As a consequence, there are many general principles of mental action and many laws of mental growth already discovered which should, in the first instance, engage our attention.

The great results of "introspective," or as it is very often called, "general" psychology, may be stated in a few leading principles.

The facts of experience, the actual events which we find taking place in our minds, fall naturally into two great divisions, which are so evidently distinguished from each other that they are covered by the popular distinction between "thought" and "conduct." On the one hand, the mind is looked at as receiving, taking in, learning, and, on the other hand, as acting, willing, doing this or that. General psychology finds certain great laws on each of these two sides of the mental life.

On the side of reception, we have, first, differences according to the avenues through which we receive our experiences: these are the senses—a great number, not simply the five special senses of which we were taught in our childhood. Besides sight, hearing, taste, smell, and touch, we now know of certain others very definitely. There are muscle-sensations coming from the moving of our limbs, and organic sensations from the inner vital organs; heat and cold-sensations, which are distinct from each other, each having in the skin nerve-endings peculiar to it; pain-sensations, probably also having its own physical apparatus; sensations from the joints, sensations of pressure, of equilibrium of the body, and a host of peculiar sensational conditions which may be separate and distinct or may arise from combinations of these. Such, for example, as the sensations which are felt when a current of electricity is sent through the arm.

All these give the mind its material to work upon; and it gets no material from any other source, in the first instance. All the things we know, all our opinions, knowledges, beliefs, are absolutely dependent at the start upon this supply of material from our senses—although the mind gets a long way from its first subjection to this avalanche of sensations which come constantly pouring in upon it from the external world. But this is the essential and capital function of *sensation*—this supply of the material on which the mind does the work of all thought and action.

Then there is the process by which the mind holds its material for future use, the process of *memory*. And the way it combines its material together in various useful forms—whereby we get things and persons made up out of the material which has been received and remembered—known as *association of ideas, thinking, reasoning*, &c. All these processes were formerly considered as separate "faculties" of the mind and as doing different things. But that doctrine is now completely given up. Psychology now treats the activity of the mind in a much more simple way. It says: "Mind only does one thing; in all these so-called faculties we only have the mind doing this one thing on the different materials which come and go in it. This one thing is the combining, the holding together, of the elements which it first gets in the shape of sensations, so that it can act on a group of them as if they were only one, and only represented one external thing." We may illustrate this one sort of process as it goes on in the mind.

Let us ask how the child knows an orange there on the table before him. It cannot be said that the orange gets note in the child's mind by any one of its senses. By sight it gets only the color and shape of the orange, by smell it gets only its odor, by taste its sweetness, and by touch its smoothness, rotundity, &c. And then by none of these senses as such does it get the name of the orange or distinguish it from other things which involve the same sorts of sensation—say an apple. It is easy to see that when each of the senses has sent in its report something more is still necessary: the combining of them all together in the same place and at the same time, and then the bringing up of a name, and of a sort of relation or distinction of this group of sensations from those of the apple; only then is there the knowledge that "here is an orange." Now, this is the way the mind has of acting, this combining of all the sensations and groups of sensations into ever larger and more fruitful combinations. This is called *apperception*. The mind, we say, *apperceives* the orange when it is able to treat all these separate sensations together as standing for one thing. And the various circumstances under which the mind does this give occasion for the different names which the earlier psychology used to mark off different "faculties."

These names are still convenient, and it may serve to make the subject plainer, as well as to inform the reader of the meaning of these terms, to show how they all refer to this one kind of mental action.

The case of the orange illustrates what is usually called *perception*. It is the case in which the result is an *actual object* in the world outside. When the same process goes on *without any such actual object* it is *memory*. When it goes on in a way which *could not be controlled by reference to such an outside object*—usually it is a little fantastic, as in dreams, or fancy, but often is useful as being so valuable as to anticipate what is really true in the outside world—then it is *imagination*. If it is *actually untrue to reality*, it is *illusion*, or *hallucination*. When it *uses mere symbols*, such as words, or gestures, writing, &c., to stand for whole groups of things, it is *thinking* or *reasoning*. And what the mind arrives at through this way of acting, no matter which of these forms it takes, provided it be *true in its results to realities*, is *knowledge*. So we see that all the terms and faculties of the "old psychology" can be arranged under this doctrine of apperception, without the necessity of thinking of the mind as doing more than one thing—grouping and combining its material in different combinations, and at different stages.

So we may put down apperception as the one great principle of mental activity on the side of its reception and treatment of its materials.

There is, however, another great term current in psychology by which the same process is sometimes represented, and that is *association of ideas*. This means that when two things have been perceived, or thought of together, they tend to come up together in the mind in the future; and when a thing has been perceived which resembles another—or is contrasted with it—then they tend to recall each other in the same way. It is plain, however, that this phrase is applied to the different thoughts or sensations, or other mental materials as regards their behavior with reference to one another. They are said to be "associated" with one another. This way of speaking of the mental materials, instead of speaking of the mind's activity, is convenient; and it is quite right to do so, since it is no contradiction to say that the thoughts, &c., which the mind apperceives remain then associated together. From this explanation it is evident that the "association of ideas" also comes under the one sort of mental process of which we have been speaking.

There is one further tendency of the mind in its treatment of its material; a tendency which shows us the activity of which we have now become familiar in actual operation. When we come to look at any particular case of "apperception," or "association," we find that the process must go on from the platform of attainment which the mind has already reached. The course of our mental states has been likened to a stream which flows on from moment to moment, with no breaks. It is so continuous that we can never say: "I will start afresh, forget the past, and be uninfluenced by my history." However we may say this, we can never do it; for the oncoming current of the stream is just what we speak of as ourselves, and we cannot avoid bringing the memories, imaginations, expectations, disappointments, &c., up to the present. So the effect which any new event or experience, happening for the first time, is to have upon us depends upon the way that it fits into the current of these onflowing influences. The man I see for the first time may be so neutral to me that I pass him unremarked. But once let him return after I have once remarked him, or let him resemble a man whom I know, or let him give me some reason to fear, revere, think of him in any way, then he becomes a very positive factor in my mental stream. He has then been taken up into the flow of my mental life, and he henceforth contributes something to it. For example, a little child, after learning to draw a man's face, putting into it two eyes, the nose, and mouth, and one ear on each side, when told to draw a profile will still put in two eyes, and affix an ear to each side. The new copy from which he draws is then said to be "assimilated" to the old customary figure. Now, this tendency is universal. The mind must *assimilate* its new material to the old as much as possible, making the old stand for the new. Otherwise there would be no containing the fragmentary details which we should have to remember and describe. And it is the outcome of this tendency that we form great classes of objects, such as man, animal, virtue, &c., into which numbers of similar cases are made to go. We can, therefore, understand by "assimilation" the general tendency of new material to be treated in the ways in which similar material has been treated before, with the result that the mind proceeds from the particular case to the general class. This is, therefore, what was called "conception" by the old psychology, and that word is still used for certain special cases or processes of assimilation.

We may say therefore—as to our outcome so far—that general psychology has reached three great principles in its consideration of the receptive side of the mind's working. *First*, we have the great combining tendency of the mind, the grouping and relating together of mental states and the things which they denote, called *apperception*. Then, *second*, there are the links of the particular elements, states, &c., which are combined, called the *associations of ideas*. And, *third*, there is the tendency of the mind to use its old experiences as general patterns or uets for the sorting out and using of all the new details of experience: this is *assimilation*.

Now let us look at the other great aspect of the mind, as general or introspective psychology considers it; the aspect which presents itself when we find the person in action or conduct. The fact that we act is, of course, as important as the fact that we think or feel; and the distinction which separates thought and action should not be made too sharp. Yet there is a distinction which comes out as soon as we ask how we get our knowledge of the actions of others. Of course we say at once that we see them. And that is true; we do see them, while as to their thoughts, we only infer them from what we see of their action. But, on the other hand, we may ask, how do they come to infer this or that thought from this or that action of another. And the only reply is: because when *we* act in the same way, this is the way we feel. So we get back in any case to our own consciousness, and must ask how action is related to thought in our own mind. In answer to this question psychology has now a general answer: our action is always the result of our thought or of the elements of thought which are at the time present in the mind. Of course there are actions which we do from purely nervous reasons; but these we may neglect, as not being in any psychological sense "our" actions. Apart from these, therefore, the principle holds that whatever the action which issues in what we call conduct, there is something thought of, or some sensation then in mind, or some feeling swelling within our breast, which prompts to the action.

This general principle is called *suggestion*. It simply means that we are unable to have any thought or feeling whatever, whether it comes from the senses, from memory, from the words, conduct, or command of others, which does not have a direct influence upon our conduct. We are quite unable to avoid these influences of our own thoughts; and often the most trivial occurrences of our daily lives act as suggestion to deeds of very great importance to ourselves and to others. For example, the influence of the newspaper reports of crime stimulate other individuals to perform the same crimes just by this principle of suggestion; for the mere reading of the report causes them to entertain the thoughts, and these thoughts tend to arouse their corresponding trains of action.

The most interesting and striking sphere of operation of the principle of suggestion is that of *hypnotic suggestion*, or what is commonly known simply as *hypnotism* (*q. v.*).

We are able, however, to see a little more in detail how the principle of suggestion works by asking what sort of action is prompted in each case of thought or feeling at these different levels of the mind's activity which have been distinguished above as illustrating apperception; *e. g.*, the stages known as perception, imagination, reasoning, &c.

We act, of course, on our perceptions constantly; most of our routine life is made up of such action on the perceptions of objects about us. The position of things in the house, in the streets, in the office or the store, are so well known that we carry out a series of actions with reference to these objects with very little supervision from consciousness. Here the principle of suggestion works along under the guidance of perception, memory, and the association of ideas. Then we find also in much of our action an element due to the exercise of the imagination. We fill in the gaps in the world of perception by imagining appropriate connections; and we act as if we knew that these imaginations were reality. This is especially true in our intercourse with our fellow-men. We really never know what they will do from time to time. Their action is still future and uncertain; but from our familiarity with their character we surmise or imagine what they expect or think, and then we act so as to make our conduct fit into theirs. Here there is suggestion of a personal kind with the appropriate action, all depending upon our reconstruction of the character of others. This is the sphere of the most important affairs of our lives, especially when we consider its connection with the great sort of action from suggestion, to be mentioned next in order.

This next and highest sphere is action from the general or abstract thoughts which we have been able to work up by the apperceiving activity of the mind. In this sphere we have a special name for the thoughts

which influence us directly and lead us out into action; we call such thoughts *motives*. And we also have a special name for the sort of action which is prompted by clearly thought-out motives—*will*. But in spite of this emphasis given to certain actions of ours as springing from what is called will, we must be careful to see that will is not a new faculty or capacity added to mind, and which is different from the ways of action which the mind had before this. Will is only a name for action upon the suggestions of conduct which are so clear in our minds that we can deliberate upon them, act after some reflection, and so have a sense that the action springs from our own choice. The reasons for action, however, in this case are thoughts, just as in the earlier cases; but in this case we distinguish them more closely as motives. But we cannot act without motives; nor can we fail to act on what motives we have; just as in the earlier cases we could not act without some sort of perceptions or imaginations or memories, and could not fail to act on the perceptions or other mental states which we had, except as this higher-type action interfered with the lower. So we may say that "voluntary action" or "will" is only a complex and very highly conscious case of the general-principle action from suggestion; the form which suggestion-stimulated action takes on when apperception is in the higher level of construction which is called *conception* and *reasoning*.

Finally, introspection finds another great class of elements in experience—elements which show us that the mind is not the mere theater of indifferent changes; but is the vitally interested and warmly intimate thing which the word "our" in each case denotes. This is the sphere of *feeling*. We may say, without more ado, that while we receive sensations and thoughts and suggestions, and act upon them in the variety of ways already pointed out, we ourselves are not indifferent spectators of this play of this come-and-go of processes. We are directly implicated; indeed the very sense of a self, an ego, a me and a mine, in each consciousness arises from the fact that all this come-and-go is a personal growth, not a mere machine doing what the laws of its nature prescribe. We find that nothing happens which does not affect the mind itself "for better or for worse, for richer or for poorer," for pleasure or for pain; and there springs up a series of attitudes of the mind itself, according as it is experiencing or expecting to experience the good or the bad. This is, then, the great meaning of feeling; that the mind is itself in some way influenced for good or for bad by what goes on within it; and that there is excitement, positive attitude, high pleasure or pain, richly toned emotion indicating the various phases of its fortune and growth.

And here, again, psychology distinguishes the stages which arise in feeling, as go from the lower to the higher, from the life of sensation and perception up to that of thought. This is our method, it will be remembered, in both of the other phases of mental life—that of apperception, and that of action. Doing this, therefore, also in the case of feeling, we find different terms applied to the different phases of feeling, as well as special differences at each stage. In the lowest sort of mental life, as we may suppose the new-born child to have it, and as we also think it exists in very low forms of animal life, feeling is not much more than pleasures and pains depending largely upon the physical conditions under which the life processes proceed. It is likely that these lower pleasures and pains have special nerves of their own. But with them there are also states of comfortable and uncomfortable, or pleasant and unpleasant, feeling, due to the way the mind is immediately affected, even by its own pains. Then, when we come up to the life of memory and imagination, we find the great classes of *emotions* testifying to the attitudes which the mind takes to word these experiences. These are remarkably rich and varied—these emotions. Hope gives place to its opposite, despair, joy to sorrow, and regret succeeds expectation. No one can enumerate the actual phases of the emotional life. The actual differences which are most pronounced—such as hope and fear, joy and sorrow, anger and love—have special names. And their stimulating causes are so constant that they have also certain fixed ways of showing themselves in the body: the so-called *emotional expressions*, which enable us to see and sympathize with the emotional states of other persons. The most that we have room here to say is that there is a constant ebb and flow, and that we rarely attain a state of relative freedom from the influence of emotion.

The final and highest manifestation of the life of feeling is seen in what is called *sentiment*. Sentiment is aroused in response to certain so-called ideal states of thought. The trend of mental growth toward constantly greater adequacy in its knowledge leads it to anticipate conditions when its attainments will be made complete. And there are certain sorts of reality whose ideal completeness arouses in us emotional states of the greatest power and value. The thought of God gives rise to the *religious sentiment;* that of the good, to the *ethical* or *moral sentiment;* that of the beautiful, to the *æsthetic sentiment*. These sentiments represent the most refined and noble fruitage of the life of feeling, as the thoughts which they accompany refer to the most elevated and ideal objects. And it is equally true that the conduct which is performed under the inspiration of sentiment is the noblest and most useful in which man can engage.

For details over the whole field of psychology, the reader may be referred to the following works of the present writer, in which exhaustive references to other authors will also be found: *Elements of Psychology*, 1 vol., elementary (Holt & Co., New York); *Handbook of Psychology*, 2 vols. (Holt & Co.); *Mental Development in the Child and the Race*, 1 vol., genetic (The Macmillan Co., New York, second edition); *Social Interpretations of the Principles of Mental Development*, 1 vol. (The Macmillan Co.); and a series of articles in the new edition of *Johnson's Cyclopædia* (Appleton & Co., New York).

J. MARK BALDWIN.

Psycho'sis, *n.* [Gr.] (*Psychol.*) Any state of consciousness or tendency to such state, as distinguished from *neurosis*, the corresponding change in its physical basis.

(*Pathol.*) Any form of mental derangement, especially that due to disorder of the nervous system without lesion of parts.

Pter-, Ptero-. An initial compounding element, derived from the Gr. *pteron*, wing, feather.

Pterylo'sis, *n.* (*Ornith.*) Plumage, considered with reference to its distribution in growth over the bird's body. In all but a few birds the feathers sprout only on certain restricted patches, as may be seen by examining the body of a plucked fowl. These tracts of plumage-growth are called *pteryl*æ, and the naked inter-spaces *apteria*. Their relative distribution is always the same in individuals of the same species, and approximately similar in races of the same group; but there is a wide difference in this respect between otherwise unrelated groups. The pterylosis, then, is one of the characters by which birds may be, and are, classified. The principal authorities on the subject are the German ornithologists Nitzsch and Fürbringer.

Pto'main, or -ine, *n.* [Gr. *ptōma*, a corpse.] An alkaloid, usually poisonous, derived from putrefying animal matter, or from disease germs in the living body.

Pud'gy, *a.* (*Colloq.*) Fat and short, thick, dumpy.

Pueblo (*pwā'-blō*), *n.* [Sp.] A large dwelling-house, sometimes accommodating a whole tribe, peculiar to the aborigines of New Mexico and vicinity. It is built of adobe or sun-dried bricks, having from two to five stories, arranged in terraces. Access is had to the interior by way of the roof, which is reached by ladders.—A town or settlement of Indians inhabiting *pueblos;* hence, a *Pueblo* Indian, as distinguished from a *nomadic* Indian.

Pueb'lo, in *Colorado*, a city, cap. of Pueblo co., 45 m. S. of Colorado Springs; the commercial center and leading city of southern Colorado; is surrounded by abundant deposits of coal, iron ore, and limestone. Here are several silver smelting works, one of which is the largest in the world. *Pop.* (1897) 30,000.

Pulas'ki, or **Pulas'ki City,** in *Virginia*, a post-village, cap. of Pulaski co., located on the Norfolk & Western Railroad, 60 m. W. of Roanoke; in a coal, zinc, and iron mining region. The industries include several zinc and iron works, foundries, lumber mills, &c. *Pop.* (1897) 3,400.

Pu'litzer, JOSEPH, journalist, was born in Budapesth, Hungary, April 10, 1847; came to America in youth, and began his career as a reporter on the *Westliche Post*, St. Louis, of which he became managing editor and finally controlling proprietor. He figured in Missouri politics, as member of legislature, of various Democratic conventions, and as congressman. In 1878 he assumed control of the St. Louis *Post-Dispatch*, and in 1883 purchased the New York *World*, then on the verge of failure, and made of it one of the strongest daily papers in New York.

Pulsatil'la, *n.* [Lat., from *pulso*, to beat.] The pasque-flower, *Anemone pulsatilla*.—A medicinal preparation from several species of a former genus *Pulsatilla*, now included in *Anemone*. It is used as an emmenagogue, and also employed in the treatment of bronchitis, catarrhal troubles, &c.

Pulsim'eter, *n.* A physician's instrument for noting the frequency, force, and variations of the pulse.

Pulsom'eter, *n.* (*Mech.*) A form of pumping-device operating by the causing of a partial vacuum by the sudden condensation of steam in twin chambers. The chambers are pear-shaped, and lie close together, with their necks, or inlets, at a common point, where there is a ball-valve. Steam is admitted to the first chamber, while the other is shut off by the ball-valve, and immediately begins to condense, owing to the cold water it meets in the chamber. The vacuum caused by condensation draws the ball-valve over to one side, closing the first chamber to the steam, and admitting it to the second. The continued condensation of steam in the first chamber opens a valve below and draws in a volume of water, which is forced upward, and held there by a valve. In the meantime the steam in the second chamber has caused a like action there, drawing up more water. And so the pumping goes on alternately between these chambers, with a pulse-like action that suggested the name for the pump. Called also *pulsometer-pump*.

Pupillom'eter, *n.* [Lat. *pupilla*, pupil of the eye, and *meter*.] An instrument for measuring the distance between the centers of the eye-pupils, or for measuring the dilatation of the pupil.

Purse'-crab, *n.* (*Zoöl.*) An East Indian land-crab (*Birgus latro*), and one of the largest of the crustaceans, sometimes growing two or three feet long. It lives near the sea, in the sand or under the roots of trees, in holes which it lines with the fibrous husks of the cocoanut, its principal food. It inserts a claw into one of the eyes or holes in the end of the cocoanut, and, by working the claw back and forth, manages to scoop out the meat; or, according to other observers, it strikes the nut upon a stone until the shell breaks. It was once supposed to climb the cocoanut trees after the nuts and throw them down to break them on the stones, but this is no longer believed. The natives steal the fibrous lining from its burrows to use as junk. Also called *palm-crab*, *cocoanut-crab*, and *robber-crab*.

Pu'seyism, *n.* See OXFORD MOVEMENT.

Put'nam Val'ley, in *New York*, a post-town of Putnam co. *Pop.* (1897) 1,225.

Puyall'up, in *Washington*, a post-village of Pierce co., 9 m. S.E. of Tacoma; has sawmills, shingle mill, &c. *Pop.* (1897) 2,500.

Py'lon, *n.* [Gr. *pylōn*, gateway.] A monumental structure constituting an entrance to a temple or other large edifice, consisting of a central gateway with two flanking towers.

Pyr-, Pyro-. An initial compounding element, derived from the Gr. *pyr*, fire.

Pyrol'eter, *n.* [Gr., *pyr*, fire, and *oleter*, destroyer.] An apparatus for extinguishing fire, particularly on shipboard. Hydrochloric acid and carbonate of soda, partly dissolved and partly suspended in water, are pumped into a cylinder, and the carbonic acid generated is projected into the fire.

Pyrom'eter, *n.* (*Physics.*) An instrument for measuring high temperatures. One of the earliest was Daniell's, which consists of two distinct parts, the *register* and the scale. The register is a solid bar of black-lead earthenware, 8 inches long, cut out of a common black-lead crucible. In the axis of this a hole is drilled, and in this cylindrical cavity a bar of metal (as of platinum or iron) is placed. A cylindrical piece of porcelain, sufficiently long to project beyond the extremity of the black-lead bar, is placed on the top of the metallic bar. This is termed the index, and it is kept firmly in its position by a ring of platinum, which is tightened by a wedge of porcelain. When the register is exposed to a high temperature, the expansion of the metallic rod forces the index forward; and when the register has afterward cooled, the tension of the strap will retain the index at the furthest point to which it has been protruded. The scale consists of a frame composed of two rectangular plates of brass, joined together by their edges at a right angle, and fitting square upon two sides of the register. Near the end of this frame is a small brass plate which projects at a right angle. To the extremity of the frame nearest the brass plate is attached a movable arm, turning round a fixed center, and at its free end carrying the arc of a circle, the radius of which is 5 inches, and which is accurately graduated into degrees and thirds of a degree. Upon this arm, at the center, another lighter arm is made to turn, carrying at its longer part a vernier, which moves on the face of the arc, and divides it into minutes, together with an eye-glass to assist the reading, while the shorter part terminates in the knife-edge, turned inward at a right angle. To use the instrument, two readings are taken to determine the expansion of the metallic bar above that of the black-lead. The pyrometer of M. Lamy is based on the fact that carbonate of lime, when heated in a vacuo to 860° C., decomposes itself, the disengaged carbonic acid having a tension of 85 mm., and when heated to 1040° a pressure of 520 mm. He encloses pure marble in a tube of porcelain, attached to a glass tube containing mercury. When exposed to fire, dissociation takes place, and the temperature is indicated by the pressure; removed from the fire, the carbonic acid is again absorbed, and the instrument is again ready for use. Other pyrometers have been built operating by a change of color in metal, by a change in the velocity of sound, by the reduction of certain chemical compounds, by variation in electric resistance, and by the generation of thermo-electric currents.

Pyroso'ma, *n.* (*Zoöl.*) A singular genus of composite tunicated mollusks, characteristic of a family and sub-order. The individuals are very small, but are closely aggregated, and so combined as to form transparent cylinders from an inch to 4 feet or more in length, and hollowed out at one extremity (Fig. 3040). Such a colony may be compared to the detached finger of a glove, the external surface being, however, covered with minute tubercles. Each of these tubercles represents the anterior end of an individual animal (*ascidiozooid*), and each receives its nourishment from the water which circulates through the interior of the colony-cylinder (*ascidiarium*), but breathes through the outward end. The colony increases by successive buddings.

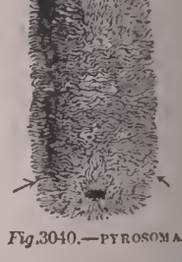


Fig. 3040.—PYROSOMA.

These beautiful creatures swim, by a pulsating movement of the whole, near the surface of tropical seas, and are extremely phosphorescent.

Pythogeu'esis, *n.* [Gr., *pytho*, to rot, and *genesis*.] (*Hygiene.*) Generation from, because of, or by means of filth.

Q is the 17th letter and the 13th consonant of the English alphabet. *Q* is never sounded alone, but in conjunction with *u*, and most grammarians are disposed to regard it as a superfluous letter, whose place could be supplied by *k*. It corresponds with the Hebrew and Phœnician *koph*, but it has no place in the Greek, old Latin, or Saxon alphabets. *Q.* is used as an abbreviation for *question*; *Qy.* for *query*; *Q. E. D.* for *quod erat demonstrandum*, i. e., which was to be demonstrated. By medical men, *Q. P.* are used for *quantum placet* (as much as you please), and *Q. S.* for *quantum sufficit*, (as much as is necessary.) As a numeral, Q stands for 500, and with a dash over it (thus, $\bar{Q}$), for 500,000.

Quab', *n.* A young half-fledged bird;—hence, something crude or immature.

Quack, *v. n.* [D. *kwaken*; Ger. *quaken*; formed from the sound.] To cry like the common domestic duck. —To boast; to bounce; to talk noisily and osteutatiously. —To practise arts of quackery.

—*n.* The cry of the common domestic duck. —A boastful pretender to medical skill which he does not possess; an ignorant practitioner; an empiric; a mountebank. —Hence, one who pretends to skill or knowledge which he does not possess; a charlatan; a humbug; as, "*quacks* in the art of teaching." — *Felton.*

—*a.* Pertaining or relating to quackery; boastfully and falsely pretending to cure diseases; used by quacks; as, *quack* medicines, a *quack* doctor.

Quack'ered, *a.* Almost choked or stifled.

Quack'ery, *n.* Character and practices of a quack; the boastful pretentions or mean practice of an ignoramus, particularly in medicine; charlatanry; empiricism; mountebankery.

Quack'ish, *a.* Like a quack; tricksh; boasting of skill not possessed.

Quack'ism, *n.* Practice of quackery; empiricism.

Quack'le, *v. n.* To choke; to be nearly stifled.

Quack'salver, *n.* [Du. *kwakzalver* — *kwaken*, to quack, and *zalf*, salve, ointment.] A quack or charletan who deals in salves and ointments.

Quad'ra, *n.*; *pl.* QUADRÆ. [Lat., a square.] (*Arch.*) A socle, used to support the pedestals of statues, vases, and other ornaments. — The band or fillet of the Ionic base. — The plinth, or lower member of the podium.

Quadragena'rius, *a.* [Lat., from *quadraginta*, forty.] Consisting of forty; forty years old.

Quadragene, (*-jēn,*) *n.* [L. Lat.] (*Eccl.*) In the Roman Catholic Church, an indulgence granted for 40 days.

Quadragesima, (*-jĕs-,*) *n.* [Lat. *quadragesimus*, the fortieth, *quadragesima*, the fortieth part.] (*Eccl.*) Lent; —so called because it consists of forty days.

Quadragesima Sunday, the first Sunday in Lent.

Quadrages'imal, *a.* Belonging to Lent; used in Lent.

Quadrages'imals, *n.* (*Eccl.*) An offering formerly made to the Church in Mid-Lent Sunday.

Quadrangle, (*kwŏd-răng-gl,*) *n.* [Lat. *quatuor*, four, *angulus*, angle.] (*Geom.*) A plane figure, having four corners or angles, and consequently four sides.

(*Arch.*) A four-cornered space inclosed by buildings; the inner square or rectangular court of a building.

Quadran'gular, *a.* Four-cornered; having four angles, and consequently four sides.

Quadran'gularly, *adv.* With four sides and four angles.

Quad rans, *n.* [Lat.] Among the ancient Romans, the fourth part of an *as*.

Quad'rant, *n.* [Lat. *quadrans*, from *quatuor*.] (*Geom.*) The fourth part of a circle: an arc of 90 degrees. — A mathematical instrument, formerly much used in astronomy and navigation. The instrument is variously contrived and fitted up, according to the purpose for which it is intended; but it consists essentially of a limb or arc of a circle equal to the fourth of the circumference, and divided into 90° with subdivisions. The mural quadrant is of considerable size (6 or 8 feet radius for example), the axis of which moves in a wall or solid piece of masonry. The *Q.* has, of late years, been superseded by the MURAL CIRCLE, *q. v.*

(*Gun.*) An instrument occasionally used for regulating the elevation of pieces of ordnance. It consists of two bars of wood or brass, at right angles to each other, with an arc between them divided into degrees. A plumb-line hangs from the angle at which the bars meet. One of the bars being placed in the bore of the piece, the degree on the arc intersected by the plumb-line shows the elevation.

Hadley's Quadrant. See OCTANT. — *Quadrant of altitude*, an appendix to an artificial globe, consisting of a thin pliable slip of brass, which is applied to the globe, and used as a scale for measuring the distances between points in degrees.

Quadrant'al, *a.* [Lat. *quadrantalis.*] Containing the fourth part of any measure; pertaining to a quadrant; included in the fourth part of a circle.

Quadrantal triangle. (*Trigon.*) A spherical triangle which has one side equal to a quarter of a circle, or 90°.

—*n.* A cube. (R.) — A cubical vessel used by the Romans.

Quad'rat, *n.* [Fr.] (*Print.*) A piece of metal of the depth of the body of the respective sizes of types, and lower than the types themselves, so that a blank space is left on the paper when printed. AN *en* quadrat is in thickness half the depth, an *em* equal in thickness and depth, a *two-em* quadrat twice the width, &c. They are used to fill out short lines, form white lines, &c.

—A mathematical instrument chiefly used in taking heights or depths.

Quad'rate, *n.* [Lat. *quadratus*, from *quadro*, to make square, from *quatuor*.] Square; having four equal sides and four right-angles. — Divisible into four equal parts. —Square, in a figurative sense; exact; even; equal. — Suited; agreeing; applicable; correspondent; as, a *quadrate* description.

—*n.* [Lat. *quadratum*.] A square; a surface having four equal and parallel sides.

(*Astrol.*) See QUARTILE.

—*v. n.* [Lat. *quadrare*, to make square.] To suit; to correspond; to agree: to be even; — preceding *with*.

"Rules which cannot be supposed to *quadrate* exactly *with* heroic poems." — *Addison.*

Quadrat'ic, *a.* [Lat. *quadratus.*] Square; denoting a square, or pertaining to it.

(*Crystallog.*) Dimetric.

Quadratic equation. (*Math.*) In algebra, an equation which involves the second, but no higher power of the unknown quantity.

Quad'ratrix, *n.* (*Geom.*) A transcendental curve, by means of which the quadrature of curvilinear spaces can be determined mechanically.

Quad'rature, *n.* [Lat. *quadratura*, from *quadro.*] Act of squaring; the reducing of a figure to a square. — A square; a quadrate.

(*Astron.*) A term denoting the position of the moon when she is 90° from the sun, or at one of the two points of her orbit equally distant from the conjunction and opposition.

Quadrature of the circle. (*Math.*) A speculative problem of great celebrity in the annals of mathematical science. As the whole area of a circle is equal to the rectangle contained by the radius and a straight line equal to half the circumference, the quadrature could be obtained if the length of the circumference were assigned. In attempting to square the circle, therefore, the particular object aimed at, is the determination of the ratio of the circumference to the diameter. From the earliest period this problem attracted the attention of philosophy, and at the present day, even, there are persons who spend their time and their energies in attempting to overcome the difficulty. The truth is that such persons do not comprehend the difficulty of the subject. Archimedes, in his book on the *Mensuration of the Circle*, is the first of the ancients who made any approach even to a practical determination of the question. By inscribing and circumscribing a polygon of 96 sides in and about a circle, he shows that the excess of the circumference over three times the diameter must be less than 10·70 parts, and greater than 10·71 parts. This statement is correct, and pretty accurate; for, according to his calculations, a circle of 4,970 feet diameter would have a circumference lying between 15,610 and 15,620 feet; the truth being, that such a circle would have a circumference of 15,613¾ feet, very nearly. Among the Hindoos, the calculation was made much more correctly than by Archimedes.

Quad'rel, *n.* [L. Lat. *quadrellus.*] (*Arch.*) A kind of artificial stone made of chalky earth and dried in the shade for two years; —so called from being square.

Quad'relle, *n.* A mace having a cross head of four serrated projections.

Quadren'nial, Quadrien'nial, *a.* [Lat. *quadriennis* — *quatuor*, four, and *annus*, a year.] Comprising four years; occurring once in four years.

Quadren'nially, *adv.* Once in four years.

Quadribasic, *a.* [Lat. *quatuor*, four, and Eng. *base.*] (*Chem.*) With four parts of base to one of acid.

Quad'rible, *a.* [From Lat. *quadrare.*] That may be squared.

Quad'ric, *n.* See QUANTIC.

Quadricap'sular, *a.* [Lat. *quatuor*, and *capsula*, a capsule.] (*Bot.*) Possessing four capsules.

Quadricor'nous, *a.* [Lat. *quatuor*, and *cornu*, a horn.] Four-horned.

Quadridec'imal, *a.* [Lat. *quatuor*, four, and *decem*, ten.] (*Crystallog.*) Having four faces on the prism; — said of certain crystals.

Quadriden'tate, *a.* [Lat. *quatuor*, and *dentis*, tooth.] (*Bot.*) Edged with four teeth.

Quadrien'nial, *a.* See QUADRENNIAL.

Quadrifa'rious, *a.* [Lat. *quadrifarius*, four-fold.] Set in four rows.

Quad'rifid, *a.* [Lat. *quatuor*, and *findere*, *fidi*, to cleave.] Cleft into four deep parts.

(*Bot.*) Cleft into four parts; as, a *quadrifid* leaf.

Quad'rifoil, Quadrifo'liate, *a.* [Lat. *quatuor*, and *folium*, leaf.] (*Bot.*) Four-leaved.

Quadrifur'cated, *a.* [Lat. *quatuor*, and *furca*, fork.] Four-forked.

Quadri'ga, *n.* [Lat.] Among the ancients, a car drawn by four horses abreast, used chiefly in triumphal processions.

Quadrigena'rious, *a.* Consisting of four hundred.

Quadriju'gate, Quadrij'ugous, *a.* [Lat. *quatuor*, and *jugum*, yoke.] (*Bot.*) Pinnate, with four pairs of leaflets, as a certain leaf.

Quadrilat'eral, *a.* [Lat. *quatuor*, and *latus*, *lateris*, a side.] Having four sides, and necessarily four angles.

—*n.* (*Geom.*) A plane figure contained by four straight lines. Such a figure has four angles or corners, and is consequently also a *quadrangle.*

Quadrilat'eralness, *n.* State or property of being quadrilateral.

Quadrillit'eral, *a.* [Lat. *quadra*, and *litera.*] Consisting of four letters.

Quadrille, (*ka-drĭl',*) *n.* [Fr., from It. *quadriglia*, a troop of men formed into a square, from Lat. *quadrula*, dimin. of *quadra*, a square.] (*Dancing.*) A kind of dance, resembling the cotilliou, made up of sets of dancers, four in each set; — also, a piece of music composed as an accompaniment to such dance.

(*Games.*) A game at cards by four persons, having some resemblance to whist.

—*v. a.* To play at quadrille.

Quadrillion, (*-rĭl'yun,*) *n.* According to English notation, the number represented by a unit with 24 ciphers attached; according to French notation, a unit with 15 ciphers attached.

Quadrilo'bate, Quad'rilobed, *a.* [Lat. *quatuor*, four, and Gr. *lobos*, to be.] Four-lobed, as a certain leaf.

Quadriloc'ular, *a.* [Lat. *quatuor*, and *loculus*, cell.] (*Bot.*) Four-celled.

Quadrimem'bral, *a.* [Lat. *quatuor*, and *membrum*, member.] With four members or parts.

Quadrino'mial, *a.* [Lat. *quadra*, or *quatuor*, and *nomen*, *nominis*, name.] Consisting of four terms, as an algebraic quantity.

—*n.* (*Math.*) An algebraic quantity consisting of four terms.

Quadrinom'ical, *a.* Consisting of four denominations.

Quadrinom'inal, *a.* Having four terms.

Quadri'partite, *a.* [Lat. *quatuor*, and *partite*, to divide.] Divided into four parts.

(*Bot.*) Divided into four parts to the base.

Quadri'partitely, *adv.* In four divisions.

Quadripartition, (*-tish'un,*) *n.* [Lat. *quadripartitis.*] A division into four equal parts.

Quadriphyllous, (*-rĭf'il-lus,*) *a.* [Lat. *quatuor*, and Gr. *phyllon*, leaf.] Quadrifoliate; four-leaved.

Quadrireme, *n.* [Lat. *quatuor*, and *remus*, oar.] Among the Romans, a war-galley propelled by four banks of oars on each of its sides.

Quadrisection, (*-sĕk'shun.*) *n.* [Lat. *quatuor*, and *sectio*, cutting.] A subdivision into four parts.

Quadrisyllab'ic, Quadrisyllabic'al, *a.* Foursyllabled.

Quadrisyl'lable, *n.* [Lat. *quatuor*, and Eng. *syllable.*] A word consisting of four syllables.

Quad'rivalve, *a.* [Lat. *quatuor*, and *valva*, valve.] (*Bot.*) Four-valved, as a pericarp.

—*n.* One of four valves serving for a door.

Quadrival'vular, *a.* Having four valves.

Quadriv'ial, *a.* [Lat. *quadrivium* — *quatuor*, and *via*, a way.] With four ways meeting in a point or focus.

—*n.* One of the four lesser arts forming the quadrivium.

Quadriv'ium, *n.* [Lat.] In the language of the schools; the four lesser arts — *arithmetic*, *music*, *geometry*, and *astronomy.*

Quadroon', *n.* [Fr. *quarteron*; Sp. *cuarteron*, from Lat. *quatuor.*] The offspring of a mulatto and a white; a person of quarter-blood. (Also written *quarteron*, *quarteroon*, and *quateron.*)

Quadrox'ide, *n.* (*Chem.*) An oxide containing a combination of four equivalents of oxygen with one of some other element.

Quadru'mana, *n. pl.* [Lat. *quadra*, *quatuor*, four, *manus*, a hand.] (*Zoöl.*) In the zoological system of Cuvier, an order of mammalia which he placed next below Bimana, and which contained the animals anatomically nearest man, the monkey and lemur families. As divided by him the *Q.* comprised three families, namely: 1. *Simiadæ*, or monkeys of the Old World; 2. *Cebidæ*, or monkeys of the New World; 3. *Lemuridæ*, or the Lemur tribe. The zoological relation of man to the lower animals has been differently considered by various scientists. Linnæus included man, the monkeys, the lemurs, and the bats in his order of Primates. Cuvier separated the bats and man as distinct orders, and Owen went farther in classing man as one of four primary divisions or subclasses of the mammalia. The tendency of later naturalists, on the other hand, is to revert toward the Linnæan classification, it being claimed by Huxley, for example, that man in his anatomical structure differs no more from the higher apes than the latter differ from other members of their order. The basis of classification accepted by Cuvier, which was the apparent four-handed characteristic of the apes, as contrasted with the two-handed characteristic of man, does not seem to be well founded structurally. It is established on the external fact that the apes have free or opposable thumbs on the hind feet. This character is also met with in the opossums, a widely separated animal, and is therefore looked upon as of secondary importance, while the anatomy of the foot in man and the apes shows no marked difference in position in the lone of the hallux, or great toe. The *Q.* of Cuvier display in some instances a strong resemblance to man in general conformation, in structure, gait, and aspect, while others differ widely and are but slightly removed from the ordinary mammalia. The opposable thumb, while of great advantage in their arboreal life, renders walking in an erect attitude difficult.

Quad'ruped, *a.* [Lat. *quadrupes* — *quatuor*, and *pes*, *pedis*, a foot.] Having four legs and feet.

—*n.* (*Zoöl.*) All vertebrate animals with four extremities fitted for terrestrial progression were formerly so called, the scaly reptiles being distinguished, as oviparous quadrupeds, from the hairy, warm-blooded viviparous four-footed mammals. But as there are both reptiles and mammalia which have only two legs, and of

those of both classes which agree in having four legs, differ essentially in the important characters on which classificatory distiuctions are now founded, the term *quadruped* is no longer used in a strict zoölogical sense as indicative of a particular group of animals.

Quadru'pedal, *a.* Four-footed; going on four feet.

Quad'ruple, *a.* [Lat. *quadruplus* — *quadra*, or *quatuor*, and *plico*, to fold.] Fourfold; four times told.

—*n.* Four times the sum or number; the product of any quantity multiplied by 4.

—*v. a.* To make fourfold; to multiply by four.

—*v. n.* To becoms fourfold, or four times as many.

Quadru'plicate, *v. a.* [Lat. *quadruplicare*, from *quadruplex*, fourfold.] To quadruple; to make fourfold.

Quadruplica'tion, *n.* [Lat. *quadruplicatio.*] Act of making fourfold, or the taking four times the simple sum or amount.

Quad'ruply, *adv.* Fourfold; so as to be quadruple; as, to be *quadruply* paid.

Quære, (*kwe're,*) *v. n.* [Lat.] Inquire; question; look into; — employed only in the imperative sense as a memorandum luplyiug a doubt, and suggestive of au investigation.

Quæstor, (*kwēs'lor,*) *n.* (*Roman Hist.*) Two *quæstores parricidii*, who acted as public prosecutors in cases of murder, or any capital offence, existed in Rome during the period of the kings. Two *quæstores classici*, who had charge of the public money, were first appointed about B. C. 485. The number was doubled B. C. 421, and it was decided that they should be chosen from tbe patricians and the plebeians. It was not, however, till B. C. 409 that a plebeian was elected, and then the choics fell on three plebeians and ons patrician. They also had charge of the funds of the army, to which tbey were paymasters. The number of quæstors was increased to eight, B. C. 265. Sylla raised the number to 20, and Julius Cæsar to 40. During the time of the emperors their number varied; and from the reign of Claudius I. (41–54) it became customary for quæstors, on entering office, to give gladiatorial spectacles to the people: so that none but the wealthiest Romans could aspire to the office. (Also written *questor.*)

Quaff, (*kwaf,*) *v. a.* (*imp.* and *pp.* QUAFFED (*kwaft.*) [Gael. *cuaiche*, a drinking-cup; Ger. *kauch*; Gr. *kyathos*, from *kuō*, to contain.] To drink in large quantities; to swallow in copious draughts; to imbibe deeply. — To driuk largely, royally; to indulge in deep potations.

"We . . . *quaff* carouses to our mistress' health." — *Shaks.*

Quaff'er, *n.* One who quaffs or drinks largely and luxuriously.

Quagga, (*kwăg'ga,*) *n.* [Hottentot.] (*Zoöl.*) The *Egnus quagga*, an animal of the family *Equidæ*, which inhabits the southern parts of Africa, and bears a great resemblance to the zebra. It is less, however, than the zebra, with the hinder parts higber, and the ears shorter. The head, neck, mane, and shoulders are blackish-brown, banded with white; the ground colors gradually becoming paler, and the bands less distinct and diffused, as we proceed along the back towards the rump, which is grayish; the hind parts being rather spotted than striped. The dorsal line is black, margiued on each side with a white line; belly, tail, and legs whitish; ears with two irregular black bands and white tip. The quagga is a social animal, living in large troops, is much more tractable than the zebra, and is said to be occasionally used at the Cape of Good Hope for domestic purposes.

Fig. 2197. — QUAGGA.

Quaggy, (*kwăg'gy,*) *a.* Quaking, like a quagmire; yielding to the feet, or trembling under the foot, as soft, wet earth.

Quag'mire, *n.* Quakemire; soft, wet earth, possessing a surface firm enough to bear a person, but which quakes, or trembles, or yields under the feet.

Quaich, Quaigh, (*kwā,*) *n.* [Scot.; Gael. *cuach.*] In Scotland, a drinking-cup.

Quail, (*kwāl,*) *v. n.* [O. Ger. *quelan*, to languish.] To fail in spirits; to languish; to sink into dejection; to give way; to quake; to ecwer; to become cast down.

"At this the errant's courage *quails.*" — *Cleveland.*

Quail, *n.* [It. *quaglia*; Fr. *caille*; L. Lat. *qualea*, probably from the sound it utters.] (*Zoöl.*) See ORTYX.

Quail'-call, Quail'-pipe, *n.* A call or pipe for enticing quails into a net.

Quaint, (*kwānt,*) *a.* [O. Fr. *coint*, from Lat. *comptus*, trim, from *como*, *compius*, to comb.] Scrupulously and superfluously exact; having petty elegance; fine-spun; spruce; nice; subtle; recondite; as, a *quaint* phrase, a *quaint* orator. — Artfully framed; affected; far-fetched; odd: whimsical; as, a *quaint* answer, a *quaint* joke. — Fanciful; singular; old-fashioned; odd and antique; as, a *quaint* carving, a *quaint* costume.

Quaint'ly, *adv.* Nicely; exactly; with petty neatness or spruceness; oddly; fancifully; singularly.

Quaint'ness, *n.* Quality of being quaint; niceness; petty trimness or elegance; oddness; peculiarity; as, *quaintness* of wit.

Quak'ake Creek, in *Pennsylvania*, enters the Lehigh River in Carbon co.

Quake, (*kwāk,*) *v. n.* [A. S. *cwacian*; Ger. *quackeln*, another form of *waekeln.*] To shake, tremble, shudder, or quiver; to be agitated with quick, spasmodic motions, continually repeated; as, *quaking* with fear. — To shake with violent convulsions as well us with trembling; to move or be agitated, as the earth under the feet; as, a *quaking* bog.

—*n.* A shake; a shudder; a quivering; a trembling, or tremulous or spasmodic agitation.

Quaker, (*kwāk'r,*) *n.* One who quakes. — One of the religious sect called the *Society of Friends.* See FRIENDS.

Quak'er Hill, in *New York*, a post-village of Dutchess co., abt. 90 m. S. of Albany.

Quak'erish, *a.* Like a Quaker; puritanical; belonging or relating to a Quaker, or to the Society of Frieuds.

Quak'erism, *n.* Tbe peculiar mauners, teuets, or worship of the Society of Friends. Ses FRIENDS.

Quak'erly, *a.* Resembling Quakers.

Quak'er Springs, in *Georgia*, a village of Columbia co., abt. 80 m. N.E. by E. of Milledgeville.

Quak'ertown, or FAIRVIEW, in *New Jersey*, a post-village of Hunterdon co., abt. 7 m. W. by N. of Flemington.

Quak'ertown, in *Pennsylvania*, a post-borough of Bucks co., about 38 m. N. of Philadelphia.

Quak'iness, *n.* The stats ot quaking, shaking, or trembling; as, the *quakiness* of a quagmire.

Quak'ing-bog, *n.* Peat-bog in a growing state, and so saturated with water that a considerable extent of surface will quake or shaks, when pressed on by ths foot, or by any other body. Such bogs ars unfit for any useful purpose until they are drained.

Quak'ing-grass, *n.* (*Bot.*) Ses BRIZA.

Quak'ingly, *adv.* Iu a quaking manner; tremblingly.

Quak'y, *a.* Shaky; tremulous.

Quallū'able, *a.* Modifiable; that may be qualified.

Qualifica'tion, *n.* [Fr., from L. Lat. *qualificatio.*] Act of qualifying, or state of being qualified; adaptation. — Any natural endowment, or any acquirement which fits a person for a place, office, or employment, or enables him to sustain any character with credit and success; legal power or requisite. — Act of limiting, or state or condition of being limited; limitation; restriction; modification; abatement; diminution; as, to speak one's mind without *qualification* of words.

Quali'ficative, *n.* That which qualifies, modifies, or limits; a qualifying phrase or condition.

Quali'ficator, *n.* [L. Lat.] (*Eccl.*) In the ecclesiastical courts of the Roman Catholic Church, an officer appointed to examine and prepare causes for trial.

Qualified, (*kwăl'i-fīd,*) *a.* Having qualification; fitted or adapted by accomplishments or endowments; competent; as, a *qualified* person; — also, limited; modified; as, a *qualified* statement.

Quali'fiedly, *adv.* In the way of qualification; with modification.

Qual'ifiedness, *n.* State or quality of being qualified, or adapted.

Qual'ifier, *n.* The person who, or thing which, qualifies; — also, that which restricts, modifies, abates, or restrains.

Quali'fy, *v. a.* [Fr. *qualifier*; Lat. *qualis*, of what kind or sort, and *facio*, to make.] To give proper and suitable qualities to; to fit, equip, prepare, or adapt for anything; to furnish with the knowledge, skill, or other accomplishment, necessary for any place, character, or purpose; to make capable of any employment or privilege; to furnish with legal power or capacity; as, to *qualify* for the Church, a *qualified* lawyer, voter, &c. — To invest with individual quality; to modulate; to vary; as, to *qualify* the sound of the voice. — To abate; to soften; to diminish; to ease; to assuage to make less strong, as liquors; as, to *qualify* heat, to *qualify* pain. — To modify; to regulate; to limit by exceptions or restrictions; as, to *qualify* a statement or argument.

—*v. n.* To become qualified or fit; to be adapted, as for an office or employment. — To take the necessary steps for rendering one's self capable of holding any office or enjoying auy privilege. — To establish a claim or right to exercise the elective franchise.

Quali'tative, *a.* Relating to quality; estimahle accordiug to quality.

Qualitative analysis. (*Chem.*) See ANALYSIS.

Qual'ity, *n.* [Fr. *qualité*; Lat. *qualitas*, from *qualis*, of such a kind, sort, or uature, such as.] Property; attribute; that which belongs to a body or substance, or can be predicated of it; peculiar power, capacity, or virtue; distinguishing trait; moral charaeteristic, good or bad; as, a man of noble or base *qualities.* — Comparative rank; condition in relation to otbers; character; as, a person of good *quality.* — Assumed or asserted rank, part, standing, or position. — Acquirement; accomplishment; acquisition; special qualification. — Superior rank or distinction; elevation of birth, station, or character; as, a man of *quality.*

"To *quality* belongs the highest place." — *Young.*

The quality. Persons of high rank or station, in a collective sense, as distinguished from the *commonalty*; as, the fashions were set by *the quality.*

"He entertained *the quality* with his surprising wit." — *Thackeray.*

Qual'ity-binding, *n.* A kind of worsted tape used for binding carpets and the like.

Qual'ly, *n.* An iron pan used in the East Indies in the manufacture of sago.

Qualm, (*kwawm,*) *n.* [A. S. *cwalm*, death, slaughter, from *cwellan*, to slay.] A sinking, as if in death; a sudden throe of suffering, pain, or agony; a sudden attack of illness, faintness, or distress. — Particularly, a rising in the stomach; a sudden fit of nausea, or a disposition or effort of the stomach to eject its contents. — A scruple of conscienee, or uneasiness of mind.

"Some sudden *qualm* has struck me to the heart." — *Shaks.*

Qualm'ish, *a.* Sick at the stomach; having a disposition to vomit; affected with nausea or sickly languor.

Qualm'ishly, *adv.* In a qualmish or nauseating manner.

Qualm'ishness, *n.* Nausea; sickly langnor.

Quam'ash, *n.* [Ind.] (*Bot.*) See CAMASSIA.

Quam'oclit, *n.* [From Gr. *kyamos*, a beam.] (*Bot.*) A genus of plants, order *Convolvulaceæ. Q. vulgaris*, the Jasmine, Bindweed, or Cyprus Vine, is an exceedingly delicate vine, found from Penna. down to the Gulf, and generally cultivated. Stems glabrous, very slender, twining and climbing to the height of 5–10 ft. Flowers much smaller than those of the common morning-glory, scarlet, varying to crimson and rose-color. Trained upon twine it forms a most delicate and beautiful awning.

Quan, *n.* A suppositions coin of Coehin China, worth abt. 85 cents.

Quan'dary, *n.* [A corruption from Fr. *qu'en dirai-je?* what shall I say of it?] A state of puzzle, perplexity, or bewilderment; mystification; doubt; uncertainty.

Quant, (*kwānt,*) *n.* A bargeman's pole.

Quan'tic, *n.* [Lat. *quantitas*, quantity.] (*Math.*) In its widest sense, the term denotes a rational and integral algebraical function. As, however, all such functions may be supposed to have resulted from the substitution of unity in place of one of the variables of a homogeneous function, a *quantic* is usually understood to denote any rational, integral, homogeneous function.

Quan'tico, in *Maryland*, a post-village of Wicomico co., abt. 90 m. S.E. of Annapolis.

Quantifica'tion, *n.* [Lat. *quantus*, how much, and *facere*, to make.] The introduction of the element of quantity.

Quan'tify, *v. a.* To rate; to qualify with respect to quantity; to fix or determine the quantity of.

Quan'titative, *a.* [Lat. *quantitativus.*] Relating to quantity.

Quantitative analysis. (*Chem.*) See ANALYSIS.

Quan'titive, *a.* Estimable according to quantity.

Quan'titively, *adv.* Measurably in relatiou to quantity.

Quan'tity, *n.* [Fr. *quantité*; Lat. *quantitas*, from *quantus*, how much, from *quam*, to what a degree.] Bulk, weight, or number; whatever admits of increase or diminution; whatever can be numbered or measured; that property of anything which may be increased or diminished; a mass or aggregate of matter of indeterminate dimensions or weight; size; measure.

(*Logic.*) The extent to which the predicate in a proposition is asscrted of the subject. If it be asserted of the whole (all, none), the proposition is *universal.* If it be asserted of part only (some), the proposition is *particular.* A singular proposition is *universal.*

(*Gram.*) Seo PROSODY.

(*Mus.*) The relative duration of a tone.

(*Math.*) That to which mathematical processes are applicable. Quantity is distinguished into *continued* and *discrete.* It is *continued* when the parts are connected together, and is then called *magnitude*, which is the object of geometry. It is *discrete* when the parts have an unconnected and independent existence, forming *multitude* or *number*, which is the object of arithmetic. The quantity of matter in a body is termed its *mass*; the quantity of motion it possesses, its *momentum.*

—A certaiu portion, amount, or part; a considerable bulk or sum; a determiuate or estimated measure or number; as, a *quantity* of money, a *quantity* of facts. — A large portion; as, drink taken in *quantities*, that is to say, in *large quantities.*

Quantity of estate. (*Law.*) Its duration of continuance, occupation, or degree of interest, whether in fee or for life, or for years.

Unknown quantities. (*Math.*) Quantities whose values require seeking. — *Known quantities.* (*Math.*) Quantities whose values are demonstrated.

Quan'tum, *n.* [Lat., from *quantus*, how much.] Amount; quantity. (R.)

Quantum sufficit. (Abbreviated *quantum suff.*) [Lat., as much as will suffice.] (*Med.*) A quantity that will suffice.

Quaquaver'sal, *a.* [Lat. *quaqua*, whithersoever, and *versus*, from *vertere*, to turn.] Dipping in any direction.

(*Geol.*) Dipping in all directious rouud a common centre, said of strata.

Quarantine, (*kwor-an-teen',*) *n.* [It. *quaranta*, forty.] A regulation to prevent the introduction of infectious diseases into a city or couutry, by obliging ships, goods, or persons leaving a place suffering from infectious diseases, to remain a certain time before entering another place. Quarantines are said to have been first adopted in Italy, in the 15th century; and the name is derived from the period of deteution having been fixed at forty days. The period is now regulated according to circumstances, and special laws are prescribed regarding it. Ships ordered on quarantine must repair to the place appointed, and continue there during the time prescribed, carrying a yellow flag at the main, and having no interconrse with the shores, except for necessary provisions, which are conveyed with every possible precaution. When the time expires, and the goods have been opened and exposed to the air as directed, they are admitted to port. A ship arriving in port, and suspected of being infected with a malignant contagious disease, is obliged to forbear all intercourse with the land.

(*Law.*) The period of forty days permitted to the widow to retain residence in the dwelling-house of which her husband died seized.

—*v. a.* To cause to perform quarantine; to compel to remain at a distance from shore for some limited period.

on account of real or supposed infection; to prohibit from intercourse with a city or its inhabitants.

Quarles, in *Wisconsin*, a village of Racine co., abt. 90 m. S.E. of Madison.

Quarrel, (*kwŏr'r'l,*) *n.* [W. *cwarel.*] A dart discharged by a cross-bow; — so called from the heads, which were square pyramids of iron.

"Twang'd the string, out flew the *quarrel* long." — *Fairfax.*

—A diamond-shaped pane of glass, or a square pane placed diagonally.—A paviug-brick, or stone of similar shape.—A glazier's diamond.

—*n.* [Fr. *querelle*, from L. Lat. *querelor*, from Lat. *querēla*, a complaint, from *queror*, to complain.] A brawl; an affray; a contest; an altercation; a feud; a contention or disputed cause; breach of friendship or concord; open variance between parties; cause of dispute; ground of ill-will or objection.

"Thrice is he armed that hath his *quarrel* just." — *Shaks.*

To pick a quarrel, to forco an altercation or contest; to seek wilfully to bring about contention or ill-will.

—*v. n.* [Fr. *quereller.*] To complain; to cavil; to carp; to find fault. — To dispute violently, or with loud and angry words; to wrangle; to altercatc; to scold; to fight; to scuffle; to contend; to squabble; to fall into variance; — said of two, or a small mmber of persons. —To be at variance; to disagree; not to be in accordauce with in form or essence.

—*v. a.* To quarrel with.—To enforce by a quarrel; as, to *quarrel* one out of one's rights.

Quar'reller, *n.* One who quarrels, wrangles, or squabbles.

Quar'rellet, *n.* A small diamond-shaped square or lozenge; as, "*quarrellets* of pearl." —*Herrick.*

Quar'rellingly, *adv.* Contentiously; wranglingly.

Quarrelsome, (*kwŏr'rel-sum,*) *a.* Apt or disposed to quarrel or wrangle; given to brawls and contention; inclined to squabbling or petty fighting; easily irritated or provoked to contest; contentious; irascible; choleric; hot-tempered; as, a *quarrelsame* woman, a *quarrelsome* disposition or mood.

Quar'relsomely, *adv.* In a quarrelsome manner; contentiously.

Quar'relsomeness, *n.* Quality of being quarrelsome; petulance; disposition to engage in squabbling, contention, or brawls.

Quar'rier, *n.* A quarry-man; a worker in a quarry.

Quarry, (*kwŏr'rў,*) *n.* [O. Fr. *quarre.*] A square-headed arrow. — A lozenge-shaped pane of glass. — A glazier's diamond.

—[Fr. *querir*, from Lat. *quæro*, to search after.] The game which a hawk is seeking, pursuing, or has killed; a part of the entrails of the beast taken iu hunting given to the hounds; also, a heap of killed game.

—*v. n.* To prey upon, as a vulture or harpy.

Quar'ry, *n.* [O. Fr. *quarriere*, from L. Lat. *quadraria*, a place where stones are excavated and cut, from Lat. *quadro*, to square.] A place, hole, cavern, or pit where stones are dug from the earth, or separated from a large mass of rocks, and hewed or squared; an excavation; a stoue pit.

—*v. a.* To dig or take from a quarry; to excavate; as, to *quarry* slate.

Quarry'-man, *n.* A quarrier; one who works in a quarry.

Quart, (*kwort,*) *n.* [It. *quarta*; Fr. *quarte*; Lat. *quartus*, the fourth, from *quatuor*, four.] Two pints, or the fourth of a gallon; as, a *quart* of ale. — A vessel holding the fourth of a gallon.

Quart, (*kârt,*) *n.* (*Games.*) Four sequent cards of the same suit in the game of piquet.

Quar'tan, *a.* [It. and Lat. *quartana*; Fr. *quartain.*] Pertaining or relating to the fourth day; happening every fourth day; as, a *quartan* ague.

—*n.* A measure containing the fourth part of some other measure.

(*Med.*) An ague, or intermittent fever, whose paroxysms occur every *fourth* day, or after an interval of seventy-two hours. A *double quartan ague* is a fever that returns twice in succession, — first on the fourth or proper day, and again on the fifth day also, thus making a double quartan return on every third day.

Quarta'tion, *n.* [Fr., from Lat. *quartus* — *quatuor*, four.] (*Chem. and Metall.*) A term formerly applied to the separation of silver from gold by meaus of nitric acid. To extract the whole of the silver from gold by meaus of nitric acid, it is necessary that there should be at least three parts of silver to one of gold, otherwise the gold protects the silver from the action of the acid; so that, in thus separating these metals, it was customary where gold greatly predominated, to add silver till it constituted at least three-fourths of the alloy. This separation of gold from silver is now effected by sulphuric acid.

Quar'ter, *n.* [Fr. *quart, quartier*; Ger. *quartier*; Lat. *quartus.*] The fourth part of anything; — hence, specifically, the fourth part of 112 lbs. avoirdupois, that is 28 or 25 lbs., according as the hundred-weight is reckoned at 112 or 100 lbs. The fourth part of a ton in weight, or 8 bushels of grain; as, a *quarter* of wheat; also, the fourth part of a chaldron of coal. — In cloth-measure, the fourth part of a yard. — A particular region or division of a city, town, or country; as, the fashionable *quarter* of London. — A term of scholastic or collegiato study, properly, the fourth part of a year; as, he leaves school next *quarter*. — That part of a shoe which forms the side, from the heel to the vamp.

—One limb of a quadruped with the adjoining parts; one-fourth part of the carcass of an animal, including a limb; as, a *quarter* of an ox; — often used in composition: as, a *fore-quarter* of lamb.—(*Fur.*) That part of a horse's foot between the toe and the heel.—A fourth part of the year, or three months; as, a *quarter's* salary. — (*Naut.*) The afterpart of a ship's top-sides, comprising about one-fourth of her total length; as, the starboard *quarter*. — *pl.* (*Building.*) Slight upright pieces of timber placed between the puncheons and posts, used to lathe upon. These are of two sorts, *single* and *double:* the single quarters are sawn to 2 inches thick and 4 inches broad; the double quarters are sawn to 4 inches square. — *pl.* (*Mil.*) The encampment on one of the principal passages round a place besieged, to prevent relief and intercept convoys. — (*Nav.*) The fourth part of the distance from one point to another, being tho fourth part of 11° 15′, or, otherwise, about 2° 49′; — called also *quarter-point.*

—Proper station or assigned location or position; specific place or situation;—specifically, place of lodging or temporary residence; as, bachelor *quarters*. — Shelter; entertainment; as, to live at free *quarters*. — *pl.* (*Naut.*) Stations assigned to officers and men in a naval action; as, to beat to *quarters*. — (*Mil.*) Military stations, lodgings, or cantonments; as, officers' *quarters*.—Hence, the remission or sparing of the life of a captive or an enemy when in one's power; mercy granted by a conqueror to his foe or opponent, when no longer able to defend himself.

"He offered them *quarter* for their lives, if they gave up the castle." — *Clarendon.*

(*Astron.*) The fourth part of the moon's period, or monthly revolution; as, the first *quarter* after the full. A region iu the hemisphere or great circle; one of the large divisions of the globe. — A point of the compass; primarily, one of the four cardinal points.

(*Her.*) An ordinary of quadrangular form, resembling a banner, and laid as a charge upon the field, of which it coutains one-fourth part, as the term implies (Fig. 2198). In the corrupt Latin of ancient times it was rendered *quartera*, and by Uredus *pars*, which might apply to any other part; but the latter author also uses the word *quadrans*. The quarter is formed by two lines, one drawn from the side of the shield in traverse, to the centre, and the other perpendicularly from the chief to meet it in the same place.

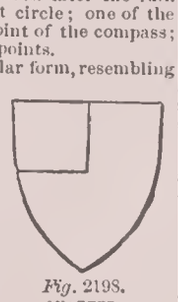


Fig. 2198.
QUARTER.

Head-quarters. (*Mil.*) See HEAD-QUARTERS. — *On the quarter.* (*Naut.*) The bearing or position of an object seen between aft and abeam; as, a sail *on the* port *quarter*. — *Quarter-aspect.* (*Astrol.*) See ASPECT. — *Quarter-badge.* (*Naut.*) An ornamental part of a ship's stern-frame, generally presenting the appearance of a window. — *Quarter-bill.* A list of the stations to which officers and men are told off, preparatory to a ship-of-war going into actiou.—*Quarter-block.* A block fitted under a yard, on each side of the sliugs, to reeve the clew-lines and sheets through. — *Quarter-cloths.* Long cloths of painted canvas, extending on the exterior side of the quarter-netting from the upper part of the galley of a ship to the gangway. — *Quarter-face.* A faco turned sideways, so that one quarter only is visible. —*Quarter-gallery.* (*Naut.*) The projecting convenience and ornament of the top-side, which is connected with the stern of a ship. — *Quarter-pieces.* The carved figures at the after part of the quarter-gallery adjoining the taffrail, and forming the boundary of the stern. — *Quarter-rails.* Narrow rails or planks, reaching from the taffrail to the ship'a gangway, serving as a fence to the quarter-deck. — *To give* or *show quarter to.* (*Mil.*) To forbear to kill, or to admit to surrender, as a conquered enemy.

Quar'ter, *v. a.* To divide Into four equal parts. — To divide; to separate into parts or partitions; to parcel into distinct regious or compartments. — To lodge; to fix on a temporary dwelling; — especially, to station soldiers for lodging.—To deal out; to apportion; to allot.

"This isle . . . he *quarters* to his blue-haired deities."—*Milton.*

—To punish by tearing in pieces by four horses, one attached to each limb of a criminal; — also, to slay by cutting the body into four quarters.

(*Her.*) To bear as an adjunct to the hereditary achievement. — See QUARTERING.

To quarter arms. (*Her.*) To place the armorial bearlngs of other families in the compartments of a shield or escutcheon. — See QUARTERING.

—*v. n.* To place one's self in quarters; to lodge; to have a temporary shelter or residence; as, ho is comfortably *quartered* ou a rich aunt. — To drive a carriage along a road in a manner to evade the ruts.

Quar'terage, *n.* A quarterly payment or allowance.

Quar'ter-boat, *n.* (*Naut.*) A large boat suspeuded from tho davits on a ship's quarter.

Quar'ter-day, *n.* A day considered as ending a quarter of tho year; — hence, usually one on which rent falls due. — The days most generally regarded as quarter-days are (1) *Lady-day* (March 25), (2) *Midsummer-duy* (Juno 24), (3) *Michaelmas-day* (Sept. 29), aud (4) *Christmas-day* (Dec. 25).

Quar'ter-deck, *n.* (*Naul.*) That portion of the uppermost deck of a ship between the main- and mizzen-masts. when there is a *poop*; but when there is no poop, extending from the mainmast to the stern. On ships-of-war, this forms the *parade.*

Quar'ter-e'vil, or **Black'-quarter,** *n.* (*Far.*) An apoplectic disease peculiar to cattle, being a form of carbuncular disease, or anthrax. It is not spread by contagion, but is attended, especially In warm climates, with the development of a blood-poison destructive to man and the lower animals.

Quar'ter-foil, *n.* (*Arch.*) See FOIL, and Fig. 1042.

Quar'ter-gun'ner, *n.* (*Naval.*) An assistant gunner.

Quar'tering, *a.* (*Naut.*) Sailiug large, but not before the wiud. — Being on the quarter; as, a *quartering* breeze.

—*n.* Act of dividing into quarters.

(*Mil.*) Assignuient of quarters or billets for soldiers.

(*Arch.*) Au assemblage of quarters. — See QUARTER.

(*Her.*) The marshalling, or regular arrangement or disposal of various coats in one shield, thereby to denote the several alliances of one family with the heiresses of others. Tho earliest instance of quarteriug in England is found in the paternal arms of Eleanor, daughter of Frederick III., king of Castile and Leon, and first wife of Edward I., as represented on her tomb in Westminster Abbey (Fig. 2199), — the castle of Castile occupying the first and fourth quarters, and the lion of Leon the second and third.

Fig. 2199.

Quar'tering-block, *n.* A block on which the body of a person condemned to be quartered was cut into pieces.

Quar'terly, *a.* Containing, or consisting of, a fourth part; as, the moon's *quarterly* seasous. — Recurring at the end of each quarter of the year; as, *quarterly* payments.

—*n.* A periodical magazine or review published four times a year; as, the London *Quarterly.*

—*adv.* By quarters; once every quarter of a year; as, his dividends aro paid *quarterly.*

Quar'termaster, *n.* (*Mil.*) An officer whose duty is to provide quarters, provisions, forage, and ammunition for the troops, and superintend the supplies and means of transportation.

(*Naut.*) A petty officer in a ship-of-war, who attends to the helm, binnacle, siguals, &c., under the directions of the sailing-master. He has also superintendence of the storage of provisions, ballast, &c.

Quartermaster-general. (*Mil.*) One of the chief staff-officers of an army. His department is charged with all orders relating to the marching, embarking, disembarking, quartering, billeting, and cantouing of troops, encampments, aud camp-equipage.

Quar'teru, *n.* [Fr. *quarteron.*] A gill; the fourth part of a pint; as, a *quartern* of gin. — The fourth part of a peck. — A loaf of bread weighiug about 4 lbs; — usually termed *quartern-loaf.*

Quar'teron, *n.* [Fr.] A quarter of a pound. — A tale of goods. — A quadroon. See QUADROON.

Quar'ter-round, *n.* (*Arch.*) Same as ECHINUS, or OVOLO, *q. v.*

Quar'ter-sessions, (*-sèsh'unz,*) *n. pl.* (*Eng. Law.*) A court, or meeting of justices of the peace, who assemble every quarter of the year, for judicial as well as miscellaneous business. They are mostly connected with the trial of criminals.

Quar'ter-sight, *n.* (*Ord.*) In gunnery, one of a series of sights on the side of a smooth-bore gun, consisting of notches on the base-ring, the lowest of which forms, with a notch on the side of the swell of the muzzle, a line parallel to the axis; the others forming liues inclined to the first at angles of from 15′ to 3°.

Quar'ter-staff, *n.* A weapon of defence, so called from the manuer of using it. It is a stout pole, of heavy wood, about 6½ feet long, shod with iron at both ends. It is grasped in the middle by one hand, and the attack is made by giving it a rapid circular motion, which brings the loaded ends on the adversary at unexpected points. It was formerly a favorite weapou with the English for hand-to-hand encounters.

Quartet', Quartette', *n.* [It. *quartetto*, from Lat. *quartus* — *quatuor*, four.] (*Mus.*) A musical composition of four parts, for either four voices, with or without an accompaniment, or instruments, generally of the stringed kind; *i. e.*, two violins, one viola, and one violincello. Some splendid specimens of instrumental *Q.* may be seen in the works of Haydn, Mozart, Beethoven, the two Rombergs, Spohr, Ries, Onslow, Feska, and Mendelssohn.

(*Poet.*) A stanza containing four lines.

—A small lounge, sofa, or ottoman.

Quar'tic, *n.* (*Math.*) See QUANTIC.

Quar'tile, *n.* [Fr., from Lat. *quartus*, the fourth.] (*Astrol.*) The aspect or appearance of two planets, whose positions are at a distance of 90° on the zodiac.

Quar'tine, *n.* [Fr., from Lat. *quartus.*] (*Bot.*) The fourth envelope of the vegetable ovule, beginning to count from the outside.

Quar'to, *n.*; *pl.* QUARTOS. [Lat. *quartus.*] A book of the size of a fourth of a sheet; a size made by twice folding a sheet, which then makes four leaves. (Abbreviated *4to.*)

—*a.* Denoting the size of a book in which a sheet makes four leaves.

Quarto, (*kwar'to.*) a town of the island of Sardinia, 4 m. E.N.E. of Cagliarl; *pop.* 5,406.

Quartz, (*kwortz,*) *n.* [Ger.] (*Min.*) Crystallized silica. As a mineral, it is properly colorless; but it occurs also in various shades of color, forming the amethyst when purple, topaz when yellow, cairngormwhen smoke-color, and passing, by mixture with other silicious minerals, into jasper, hornstone, chert, flint, chalcedony, agate, and numerous others. *Q.* crystallizes in hexagonal prisms with pyramidal summits.

Quartz'burg, in *California*, a village of Mariposa co., abt. 40 m. S.E. of Sonora.

Quartziferous, *a.* [Eng. *quartz*, and Lat. *ferre*, to

bear.] (*Min.*) Quartz-bearing; consisting chiefly of quartz, as certain ores.

Quartz'ite, Quartz'-rock, *n.* (*Min.*) An aggregated rock consisting of quartz not absolutely crystalline. It sometimes appears in strata, and differs from sandstone in being more closely compacted, and having a finer grain. It passes into sandstone on one hand, and crystalline quartz on the other.

Quartz'oid, *n.* [Eng. *quartz*, and Gr. *eidos*, form.] (*Crystallog.*) A double six-sided pyramid.

Quartz'ose, Quartz'ous, Quartz'y, *a.* Containing or resembling quartz; partaking of the nature or characteristics of quartz.

Quas, *n.* See QUASS.

Quash, (*kwosh,*) *v. a.* [A. S. *cwysun;* Fr. *casser;* Lat. *quasso*, frequent. of *quatio*, to shake.] To crush; to batter; to break down or in pieces.

—Hence, by implication, to subdue suddenly or completely; to quell; to suppress; as, to *quash* a revolt.

(*Law.*) To abate, annul, overthrow, or make void; as, to *quash* an indictment.

—*v. n.* To be shaken with a noise.

Quash, *n.* Same as SQUASH, *q. v.*

Quash'ee, *n.* A cant appellation for a negro.

Qua'si. [Lat.] As if; in a certain sense or degree; having the appearance or resemblance of something; — used as a prefix or first member of a compound; as, a *quasi*-agreement, or an agreement obliging a party in favor of another, without any real obligation between them; a *quasi*-government, a government that has some, but not all the peculiar attributes of a government; *quasi*-historical, seemingly or apparently historical.

Quasimo'do, *n.* [Lat. *quasi modo.*] (*Eccl.*) In the Roman Catholic Church, the first Sunday after Easter; so called because the *Introit* for that day begins with the words *Quasi modo geniti infantes.* (1 *Pet.* ii. 1.)

Quas'queton, in *Iowa*, a beautifully situated and thriving town of Buchanan co., 10 m. S.E. of Independence, on the E. bank of Wapsipinicon River.

Quass, Quas, *n.* [Pol. *kwass.*] A thin, sour beer drunk by the Russians, made by pouring hot water on rye meal.

Quassa'tion, *n.* [Lat. *quassatio*, from *quassare*, to shake.] Act of shaking: also, state of being shaken.

Quassin, (*kwosh'ya,*) *n.* [From *Quassi*, a slave who first used it as a remedy for malignant fever at Surinam.] (*Bot.*) A gen. of plants, ord *Simarubaceæ*. The wood of *Q. amara*, a native of Surinam, is intensely bitter, and was formerly much used as a febrifuge and tonic. It is the original quassia of the shops; but it is no longer imported, having been replaced by the wood of *Picrasma excelsa*, a native of Jamaica. The two products are sometimes distinguished as *Surinam quassia* and *Jamaica quassia*. The flowers of *Q. amara* are stomachic. See PICRASMA.

Quat, *n.* [D. *quetsen;* A. S. *cwysan*, to crush.] A pustule or pimple.

Quater'nary, *a.* [Lat. *quaternarius*, from *quaterni*, by fours.] Consisting of fours; by fours.

(*Geol.*) Previous to the tertiary; — a term applied to strata supposed to be more ancient than the upper tertiary.

—*n.* The number four.

Quater nate, *a.* Arranged in sets of four.

(*Bot.*) Having the verticillate appendages arranged by fours.

Quater'nate-pinnate, *a.* (*Bot.*) Pinnate, with the pinnæ disposed in fours; as, a *quaternate-pinnate* leaf.

Quaternion, *n.* [Lat. *quaternio.*] The number four; — used poetically.

—A file of four soldiers. — Four things taken collectively; a set of four parts, objects, or individuals; as, *quaternions* of consonants. (*Holder.*) — A quadrisyllable.

(*Math.*) The *metrographic* relation which exists between any two right lines having definite lengths and directions in space.

—*v. a.* To divide into files or companies.

Quateron, *n.* See QUADROON.

Quatorze, (*ka-tôrz',*) *n.* [Fr., fourteen.] (*Games.*) In piquet, the four aces, kings, queens, and tens; — so called because each *quatorze* counts fourteen points.

Quatrain, (*kât'ran,*) *n.* [Fr., from *quatre*, from Lat. *quatrion.*] (*Poet.*) A piece consisting of four verses, the rhymes being usually alternate, but sometimes, especially in French poetry, intermixed, the first and fourth, second and third, rhyming together.

Quatre Bras, (*katr bra'.*) a village of Belgium, prov. of S. Brabant, 3 m. S.S.E of Genappe, and 7 m. from Ligny, where four roads meet, a place celebrated in history as the spot where the English and French armies first met in the campaign of 1815, the day previous to the battle of Waterloo, and where fell the Duke of Brunswick.

Quatre'feuille, Quatre'foil, *n.* (*Arch.*) Same as quarterfoil. See FOIL.

Quattrocen'tismo, *n.* [It. *quattrocento.*] (*Fine Arts.*) A term expressing the peculiar or characteristic taste or so-called *purism* in art, prevailing in Italy in the 15th century. Hard and rigid in its manner, positive in its coloring, but predominating in sentiment; yet æsthetically very imperfect, it is the triumph of the Cinque-cento to have supplied the æsthetic qualities wanting in the art of this period, and to have reformed its technical deficiencies, the sensuous being made coordinate with the sentimental. See CINQUE-CENTO.

Quat uor, *n.* [Lat., four.] (*Mus.*) A quartette for instruments.

Quaver, (*kwā'ver,*) *v. a.* [Sp. *quiébro*, a quaver; allied to *quiver*, *waver*, and *vibrate.*] To tremble; to vibrate; as, a *quavering* motion. — To cause one's voice to move or shake; to sing with tremulous modulations of voice; to produce a shake on a musical instrument.

—*n.* A shake or rapid vibration of the voice, or a shake on a musical instrument.

(*Mus.*) A character, , whose measure is equal to half a crotchet, or ⅛ of a semibreve.

Qua'verer, *n.* A warbler.

Quay, (*kē,*) *n.* [D. *kaai;* Fr. *quai*, from Armor. *kae*, a fence; W. *cae*, from *cau*, to shut up.] A mole or bank formed on the side of a river; an artificial bank or pier for the purpose of loading and unloading vessels; a wharf; a jetty.

—*v. a.* To furnish with quays.

Quayage, (*kē'āj,*) *n.* Money paid for the use of a quay; wharfage.

Quay'-berth, *n.* A berth for loading and unloading ships in a public dock.

Queachy, (*kwē'che,*) *a.* Shaking; trembling or yielding under the pressure of the feet; as, *queachy* sands.

Queau, (*kwēn,*) *n.* [A. S. *cwêne*, harlot.] A young woman; a girl.

"Oh, the fickle, faithless *queau.*" — *Scott.*

—A worthless woman; a strumpet; as, "a scolding *queau.*" — *Shaks.*

Queasiness, *n.* State of being queasy; qualmishness; nausea; inclination to vomit; sickness of the stomach.

Queasy, (*kwē'zy,*) *a.* [A. S. *cwysan*, to crush, bruise; Goth. *qvaisv*, pain.] Sick at the stomach; affected with nausea; inclined to nausea; — hence, squeamish; fastidious; over-nice. — Causing nausea; producing discomfort of mind; as, a *queasy* question.

Quebec, a prov. of the Domin. of Canada, *q. v.*, formerly called Lower Canada.

Quebec, (*que-bek',*) a city of N. America, and cap. of prov. of Quebec, on a promontory of the St. Lawrence, formed by that river and the St. Charles, 400 m. from the Gulf of St. Lawrence; Lat. 46° 49′ 1″ N., Lon. 71° 13′ W. The ridge of land on which it stands is from one to two miles broad. It has Cape Diamond, a bold promontory, on the N.; and across it, at the N.E. or lower end, the town of Quebec is built. The fortifications, extending across the breadth of the peninsula, have a circuit of abt. 2¾ m., and are divided into two parts, namely, the *Upper* and *Lower*. The upper town may be said to stand on Cape Diamond, at least upon the side of it which slopes towards the St. Charles; the lower is situate immediately under Cape Diamond. The peculiar situation of the city occasions great irregularity and unevenness in the streets. The principal public buildings are the castle of St Louis, on the summit of the rock (Fig. 494), the court-house, the Protestant cathedral, the Catholic cathedral, a lofty, spacious, plain, stone edifice; the Ursuline convent,

Fig. 2200. — QUEBEC.

the jail, the barrack, which has an ordnance office, armory, storehouses, and workshop; a reading-room, royal institution, French grammar-school, medical school, mechanics' institute, city library, and several benevolent institutions. There are two market-places, a *place d'armes*, a parade, and an esplanade. *Manuf.* Soap, candles, tobacco; and there are distilleries, breweries, and shipbuilding-yards. Its harbor admits ships of the line, and it is the great entrepôt for the trade of Canada with Great Britain, the U. States, &c. *Q.* was founded by the French in 1608. In 1629 it was taken by the English, but afterwards restored. It was again taken in 1759, by the English, under the command of Gen. Wolfe, who, together with the French commander, fell in the engagement; and by the peace in 1763 it was ceded, with the rest of Canada, to Great Britain. *Pop.* (1891) 63,090.

Quebrobo, or CABROBO, (*ka-bro'bo,*) a village of Brazil, abt. 275 m. W.N.W. of Porto Seguro; *pop.* 2,000.

Que'chee, OTTA QUECHEE, or WATER QUECHEE, in *Vermont*, a small river flowing into the Connecticut from Windsor. — A post-village of Windsor co., abt. 50 m. S by E. of Montpelier.

Que'dah, or **Que'da,** a state of the Malay Peninsula, between Lat. 5° 40′ and 7° N., Lon. 99° 40′ and 101 E.; *area*, 4,500 sq. m. It is densely wooded, well-watered, and produces tin, gold, tortoise-shells, rice, rattans, dammar, and hides. *Cap.* Quedah. *Pop.* Estimated at 70,000.

Quedlinburg, a town of Prussian Saxony, on the Bode, 30 m. S.W. of Magdeburg. *Manuf.* Woollen fabrics. *Pop.* 14,200.

Queen, (*kwēn,*) *n.* [A. S. *cwen*, a woman; O. Ger. *quena;* Gr. *gunê;* Celt. *coinore.*] The wife or consort of a king. A female sovereign reigning alone; as, Victoria, *Queen* of Great Britain. — A female who is chief or preëminent among others; as, a *queen* of May. — The sovereign of a swarm of bees, or the female of the hive; — called also *queen-bee.*

(*Games.*) In chess, one of the pieces ranking next after the king in importance. — A card bearing the effigy of a queen; as, the *queen* of diamonds.

Queen-consort, the wife of a reigning king. — *Queen-dowager*, the widow of a king. — *Queen of May.* See MAY-QUEEN. — *Queen of the meadows.* (*Bot.*) See SPIRÆA.

Queen-regent, *Queen-regnant*, a queen reigning in her own right. — *Queen's Bench.* (Eng.) See BENCH.

Queen's-metal, an alloy intermediate between Britannia-metal and pewter, used for the manufacture of common spoons, tea-pots, &c. It consists of nine parts of tin, one of lead, one of antimony, and one of bismuth.

Queen's-ware, a fine description of earthenware of a cream color, manufactured in the Staffordshire Potteries, England.

Queen's-yellow, a color formed from the subsulphate of mercury.

Queen, *v. n.* To play the queen; to act the part, or assume the character, of queen.

—*v. a.* In chess, to make a queen or other piece of, as a pawn when moved to the eighth square.

Queen Anne, (*ann,*) in *Maryland*, an E. co., having Delaware on the E., and Chesapeake Bay on the W.; *area*, abt 400 sq. m. *Rivers.* Chester, Tuckahoe, and Choptauk rivers. *Surface*, slightly undulating; *soil*, fertile. *Cap.* Centerville. *Pop.* (1897) 18,960.

—A village of Prince George co.

Queen'-apple, *n.* A particular kind of apple, so called.

Queen Charlotte Islands, a group in the N. Pacific Ocean, off the W. coast of British Columbia. The principal island is about 165 miles long.

Queen Charlotte's Islands, a group in the S. Pacific Ocean, between Lat. 9° 50′ and 11° 20′ S., Lon. 163° 30′ and 165° 10′ E. It was discovered in 1767 by Capt. Carteret.

Queen Charlotte Sound, an arm of the Pacific Ocean, forming the N. portion of the sound which separates Vancouver's Island from the mainland.

Queen Charlotte's Sound, a bay at the N. end of the S. island of New Zealand.

Queen City, in *Iowa*, a post-village and township of Adams co., abt. 26 m. N. of Bedford.

Queen'-craft, *n.* Skill in state-craft on the part of a queen.

Queen'-gold, *n.* A royal donation formerly accruing to every English queen during her marriage to the king.

Queen'ly, *a.* Like a queen; becoming a queen; suitable to a queen; as, *queenly* dignity.

Queen'-mother, *n.* A queen-dowager who is also mother of the reigning sovereign.

Queen'-post, *n.* (*Arch.*) A post rising from the tie-beam which passes across the room of a house, and supports the ornamental, open timber roof; it is similar to the king-post in form and use, but differs from that in never being placed in the centre, or rising to the point of the gable, but midway between the centre of the wall and the gable. Thus queen-posts are always in couples, and at their junction with the sloping roof are braced together by a transverse beam, termed a *collar.*

Queen's, a S.W. co. of Nova Scotia, bordering on the Atlantic Ocean; *area*, nbt. 1,000 sq. m. *River.* Mersey. Lake Rossignol is in the central part of the co. *Surface*, finely diversified in the interior, but rugged along the coast; *soil*, very fertile. *Cap.* Liverpool.

Queen's, a S. central co. of New Brunswick; *area*, abt. 1,500 sq. m. *Rivers.* Salmon, St. John, and Wasbadamoak rivers. *Cap.* Gagetown.

Queen's, a central co. of Prince Edward Island. *Cap.* Charlotte Town.

Queen's, in *New York*, a S.E. co., forming the extreme W. portion of Long Island, and having Long Island Sound on the N., and the Atlantic Ocean on the S.; *area*, about 250 sq. m. *Rivers.* Hudson and East rivers. The coasts are indented with numerous bays and inlets, some of them affording good harbors. *Surface*, somewhat uneven; *soil*, very fertile, producing large quantities of fruits and vegetables. *Cap.* Jamaica. *Pop.* (1890) 128,059.

Queens'borough, in *South Carolina*, a village of Anderson district, about 110 m. W.N.W. of Columbia.

Queens'bury, in *New York*, a post-township of Warren co.

Queen's County, an inland county of Ireland, prov. of Leinster, having N. King's co., E. Kildare and Carlow, S. Kilkenny, and W. Tipperary and King's cos.; *area*, 664 sq. m. The soil is fertile. *Rivers.* The Barrow and Nore. *Products.* Wheat, oats, and potatoes. *Min.* Coal and limestone. *Manuf.* Woollen, linen, and cotton stuffs. This co. and its chief town were named for Queen Mary. *Cap.* Maryborough. *Pop.* (1897) 63,800.

Queen'ship, *n.* State, dignity, or condition of a queen.

Queen's River, in *Rhode Island*, enters Charles river from Washington co.

Queen's River, in *Penna.*, a village of Clinton co.

Queens'town, a town of Ireland. See COVE OF CORK.

Queenstown, a town of Niagara co., prov. of Ontario, about 5 m. N. of Clifton. Here, Oct. 13, 1812, a body of Americans were defeated by the English. The town was occupied by an U. S. force, May, 1813, and taken a second time by the Americans, June, 1814.

Queenstown, in *Maryland*, a post-village of Queen Anne co., about 30 m. E. of Annapolis.

Queenstown, in *Pennsylvania*, a post-borough of Armstrong co., about 18 miles N.N.W. of Kittanning.

Queensville, in *Indiana*, a post-village of Jennings co., about 28 m. N.W. of Madison.

Queen'-truss, *n.* (*Arch.*) A truss framed with queen-posts.

Queer, (*kweer,*) *a.* [A. S. *thweor;* Ger. *zwerch, quer,* across, athwart.] Odd; singular; cross-grained; perverse; whimsical; as, he is a *queer* fellow, she gave me a *queer* look, &c.

Queer'ish, *a.* Oddish; rather queer; somewhat singular or whimsical.

Queer'ly, *adv.* In an odd or singular manner.

Queer'ness, *n.* State or quality of being queer; oddity; singularity; whimsicalness; particularity.

Queima'da, two islands of Brazil, abt. 40 m. S.W. of Santos: Lat. 24° 28′ S., Lon. 46° 40′ W.

Quell, *v. a.* [A. S. *cwellum,* to kill, slay; Ger. *quälen.*] To subdue; to crush; to suppress; as, to *quell* an insurrection. — To calm; to quiet; to allay; to check; to abate, reduce, or bring down; as, to *quell* pride, to *quell* sorrow.

Quell'or, *n.* One who crushes or subdues.

Quelpaerts, (*quel-parts',*) an island at the entrance of the Yellow Sea, 60 m. S. of the Corea; Lat. 33° 9′ N., Lon. 126° 56′ E. *Ext.* 45 m. long, and 12 m. broad.

Quelque-chose, (*kĕlk-chōz',*) *n.* [Fr., something.] A trifle: a bagatelle; a kickshaw; a thing of no moment or value.

Queluz, a town of Brazil, abt. 20 m. S.S.W. of Ouro Preto.

Quemahou'ing, in *Pennsylvania,* a creek flowing into Stony Creek from Somerset co. — A township of Somereet co.

Quench, *v. a.* [A. S. *cwencan, acwencan.*] To put out; to extinguish; as, to *quench* fire. — To allay or extinguish; to destroy; to repress; to check; to stifle; as, to *quench* thirst.

—*v. n.* To cool; to become extinguished. (R.)

Quench'able, *a.* That may be quenched, allayed, or extinguished.

Quench'er, *n.* One who, or that which quenches; an extinguisher.

Quench'less, *a.* That cannot be quenched or repressed; inextinguishable.

"He fills a burning throne of *quenchless* fire." — *Crashaw.*

Quench'lessly, *adv.* In a quenchless or irrepressible manner.

Quench'lessness, *n.* State or quality of being quenchless.

Quenouille-training, (*ke-nōō'y-,*) *n.* (*Arboriculture.*) A method of training trees in a distaff-like shape, with the boughs bent downward.

Quen'tin, (St.,) a town of France, dept. of Aisne, on the Somme, 80 m. N.E. of Paris. *Manuf.* Thread, linen, and cotton fabrics, lace, leather, soap, and sulphuric acid. *Pop.* 32,690.

Queun, (*ka-noo',*) an island of Chili, N.E. of Chiloe; Lat. 41° 46′ S., Lon. 73° 10′ W.

Que'qua, a river of Urnguay, flowing into the Urugnay River, abt. 26 m. N. of Concepcion de la Chlna; *length,* abt. 100 m.

Quer'cetine, *n.* (*Chem.*) A yellow cryetalline body obtained when *quercitrine* is decomposed by boiling with acids. *Form.* $C_{24}H_8O_{10}$.

Quer'citrin, *n.* (*Chem.*) The yellow coloring matter which is extracted by alcohol from the bark of the *quercitron.*

Quer'citron, *n.* [From Lat. *quercus,* and *citrus,* citron.] See QUERCUS.

Quercus, (*kwoer'kus,*) *n.* [Lat., the oak.] (*Bot.*) A genus of trees, order *Corylaceæ,* having male flowers in a long pendulous catkin, with 5–10 stamens, and peri-

Fig. 2201. — BRANCHLET AND ACORN OF THE QUERCITRON, (*Quercus tinctoria.*)

anth 5–7-cleft; female flowers solitary, with a cup-shaped scaly involucre, 3 stigmas, and a 3-celled ovary. Nut 1-celled, 1-seeded, surrounded at the base by the enlarged cup-shaped involucre. The timber of *Q. alba,* the White-oak, found in woods throughout the U. S., is extensively employed for ship-building and for other important purposes. Besides the White-oak, there are the important timber-yielding trees *Q. cerris,* the Turkey or Adriatic oak; *Q. robur,* the European oak; *Q. ilex,* the holm; *Q. virens,* the Live-oak, common in the Southern States; *Q. rubra,* the Red-oak, the most common species in the Northern States; *Q. tinctoria,* the Black oak, or Yellow-bark oak (Fig. 2201), one of the loftiest trees of our forests; and *Q. virens,* the Live-oak. The bark of several species is astringent and largely employed for tanning purposes, and to some extent in medicine: that of *Q. pedunculata* is most esteemed. The outer bark of *Q. suber,* the Cork-oak (Fig. 686), constitutes the *cork* of commerce, an invaluable article, for which there is no fitting substitute. The bark obtained from the younger branches of the same tree is exported from Spain, and employed in tanning, under the name of *European alcornoque bark.* The inner bark of older stems is also exported as *cork-tree bark,* and employed for similar purposes. The acorn-cups of *Quercus Ægylops* are called *valonia;* the dried, half-matured acorns, *camata;* and the very young ones, *camatina.* These three articles are very valuable for their tanning properties, and are imported in large quantities from the Levant. The bark of *Q. tinctoria,* the Black-oak, is called *quercitron bark,* and is much used for tanning; its inner portion is also extensively employed for dyeing yellow. *Q. coccifera,* the Kermes oak, has its young branches attacked by a species of *coccus,* which forms little reddish balls upon their surface. These were formerly much used as a crimson dye. Oak-trees are especially liable to be attacked by insects, and the excrescences which are produced are commonly called *galls.* The more important galls are the *nut-galls* of commerce, and the large *Mecca* or *Bussora galls,* called also *Dead-Sea apples, Mad apples,* and *apples of Sodom.* The latter are produced by the *Cynips insana* on the *Q. infectoria.* The former are also produced on the branches of the same tree by the *Cynips gallæ tinctoriæ,* or gall-insect. They are extensively employed in tanning, for making ink, and for other purposes in the arts. Two kinds are specially distinguished — the *blue* and the *white.* The dark-colored imperforate galls are the most valuable. The acorns of some species of *Quercus,* as *Q. ballota, esculenta,* and *Hindsii,* are edible.

Quereta'ro, an E. central state of Mexico; *area,* abt. 3,556 sq. m. *River.* Tula river. *Surface,* elevated tableland, in some places 8,000 feet above sea-level; *soil,* fertile, producing corn, cotton, with most European grains and fruits. *Min.* Silver, copper, lead, and iron. *Pop.* (1897) 232,230.

QUERETARO, cap. of the above state, abt. 110 m. N.W. of Mexico; Lat. 20° 36′ 39″ N., Lon. 100° 10′ 15″ W. It is generally well-built, and contains some elegant edifices. In 1848 the peace between the U. States and Mexico was here ratified by the Mexican Congress. In 1867 the Emperor Maximilian was shot at this place.

Querim'ba, a group of islands extending along the E. coast of Africa, S. of Delgado, and comprised in the Portuguese territory of Mozambique. The principal island, in Lat. 12° 20′ S., Lon. 40° 58′ E., is abt. 5 m. long.

Querimo'nious, *a.* [From Lat. *querimonia,* from *queror,* to complain.] Apt to grumble; complaining; querulous.

Querimo'niously, *adv.* In a querimonious manner; querulously; with complaining or grumbling.

Querimo'niousness, *n.* Inclination to grumble; querulousness.

Quer'ist, *n.* [Lat. *quæro,* to search for.] One who inquires or asks questions; an interrogator.

Querk, *n.* See QUIRK.

Querk'en, *v. a.* [Icel. *qverk.*] To choke; — used as provincial English.

Querl, *v. a.* [N. H. Ger. *querlen,* to twirl.] To coil, twirl, or wind around; as, to *querl* a rope. (Used as a local Americanism.)

Quern, *n.* [A. S. *cweorn;* D. *kweern;* Dan. *qvern;* Sans. *cwrm,* to grind.] A hand-mill (Fig. 1790) for grinding grain; a mill, the stone of which was turned by hand, used before the invention of wind-mills and water-mills.

Quer'nales, *n. pl.* (*Bot.*) An alliance of plants, subclass *Declinous exogens.* DIAG. Amentaceous monochlamydeous flowers, an inferior fruit, and an amygdaloid embryo without albumen. The alliance is divided into 2 orders, — CORYLACEÆ, and JUGLANDACEÆ, *q. v.*

Quer'quedule, *n.* [Lat. *querquedula,* from Gr. *kerkoulous,* a boat.] (*Zoöl.*) The Teal, a species of duck, *Anas crecca.*

Quer'ulous, *a.* [Lat. *querulus.*] Disposed to murmur or grumble; much given to uttering complaint; as, a *querulous* person. — Grumbling; murmuring; expressing complaint; as, a *querulous* utterance.

Quer'ulously, *adv.* In a complaining manner; grumblingly.

Quer'ulousness, *n.* State or quality of being querulous; disposition to complain, or the habit or practice of murmuring or grumbling.

Query, (*kwē'rĭ,*) *n.* [Lat. *quære,* imper. of *quæro,* to search for.] A question; an interrogatory; an inquiry to be answered or resolved.

—*v. n.* To interrogate; to ask a question or questions.

"Each prompt to *query,* answer, and debate." — *Pope.*

—*v. a.* To inquire; to examine by questions; as, to *query* a person's motives. — To doubt of; — abbreviated *qu.* or *qy.* — To elicit by questioning.

Quesada, (*kai-sa'da,*) a town of Spain, prov. of Jaen, 40 m. N.E. of Jaen; *pop.* 4,500.

Quesaltepeque, (*ka-sal-ta-pa'ka,*) a town of Guatemala, abt. 83 m. E.N.E. of the city of Guatemala; *pop.* 5,000.

Quest, (*kwĕst,*) *n.* [Fr. *quête,* for *queste;* Lat. *quæstus,* from *quæro.*] Act of seeking; search; pursuit.

"We see them active and vigilant in *quest* of delight." — *Spectator.*

—Request; desire; solicitation.

"Gad not abroad at every *quest* and call." — *Herbert.*

Question, (*kwest'yun,*) *n.* [Fr.; Lat. *quæstio,* from *quæro, quæsitus,* to seek.] Act of asking; inquiry; examination; interrogation; as, the matter was put to *question.* — That which is asked; something proposed which is to be solved by answer; an interrogatory; an inquiry; a query.

"Ask me no *questions,* and I'll tell you no fibs." — *Goldsmith.*

—Subject of discussion; dispute or theme of investigation or inquiry.

"To be, or not to be, that is the *question.*" — *Shaks.*

—Judicial trial or inquiry; formal or official investigation with reference to a decisive result; as, to be in *question.* —Disquisition; discussion; debate; — hence, verbal dispute or controversy; as, his integrity was called in *question.* — Examination by torture. See TORTURE.

In question, in the course of argument, debate, discussion, or examination; as, the matter *in question.* — *Leading question,* a question suggestive to the person asked of the answer he should make. — *Out of the question,* inadmissible; quite impossible; not to be noticed or entertained; as, affinity between us is *out of the question.* — *Past question,* unquestionably; certainly; beyond doubt or question. — *Previous question.* (*Pol.*) The question put to a legislative assembly before the putting of the principal question. Moving the *previous question* stops further debate till, and unless it be, negatived.

—*v. n.* To ask a question; to make a query; to inquire by interrogatory or proposition to be answered.

"He that *questioneth* much shall learn much." — *Bacon.*

—To debate by interrogatories.

"I pray you think you *question* with a Jew." — *Shaks.*

—*v. a.* To inquire of by asking questions; to interrogate; to examine for eliciting answers; as, to *question* a witness. — To doubt; to be uncertain of; to query. — To have no confidence in; to treat as doubtful, or unworthy of implicit confidence; to call in question; as, his veracity is *questioned.* — *To fence a question,* to evade giving a prompt or direct answer.

Questionable, (*kwĕst'yun-a-bl,*) *a.* That may be questioned; admitting or inviting inquiry. (R.) — Liable to be doubted or disputed; open to suspicion; controvertible; uncertain; apt to be called in question; as, it is *questionable* whether it be a fact or not.

Ques'tionableness, *n.* The quality or state of being questionable, doubtful, or suspicious.

Ques'tionably, *adv.* Doubtfully; in a questionable manner.

Ques'tionary, *a.* Inquiring; putting questions; as, a *questionary* letter.

—*n.* A relic-hunter, who collects and sells curiosities.

Ques'tioner, *n.* One who asks questions; an inquirer; an interrogator.

Ques'tionist, *n.* A term given in the English universities, to a student who is in the last term of his college course, and is shortly to be examined for honors or degrees.

Ques'tionless, *a.* Not admitting of doubt or question; certainly. (R.)

Quest'man, Quest'monger, (*-mŭng-,*) *n.* One who makes it his business to lay informations, and so encourage petty law-suits.

Ques'tor, *n.* See QUÆSTOR.

Ques'tuary, *a.* Studious of profit. (R.)

—*n.* A person employed to collect profits.

Queue, (*kū,*) *n.* [Fr.] The tail or twisted pendant of a wig.

Quevedo Y Villegas, FRANCISCO GOMEZ DE, (*ka-vā'-do e vil-lā'gas,*) an eminent Spanish author, b. at Madrid, 1570. He cultivated both poetry and prose, and his works were much esteemed; but some of them gave such offence, that the author was thrown into prison, where he remained. His works were published at Madrid in 1772, under the title of *Parnasso Espagnolo.* His *Visions of Hell* have been translated into English. D. 1647.

Quey, (*kwā,*) *n.* In Scotland, a young heifer.

Quezaltenan'go, a city of Guatemala, abt. 115 m. W.N.W. of the city of Guatemala; *pop.* 1,600.

Quib, *n.* A quip; a gibe; a bitter sarcasm.

Quibble, (*kwib'bl,*) *n.* [Probably from Lat. *quilibet, quodlibet,* a subtlety, a nicety, used in scholastic philosophy.] A slight or contemptible cavil; an unworthy evasion; a pretence; a quirk; a start or turn from the point in question, or from plain truth. — A pun; a low conceit.

—*v. n.* To evade the point in question, or plain truth, by artifice, play upon words, cavilling, or any conceit; to trifle in argument or conversation. — To pun; to play upon words.

Quib'bler, *n.* One who quibbles; one who evades plain truth, or the point in question, by trifling artifices, play upon words, or cavils. — A punster.

Quib'blingly, *adv.* In a quibbling manner; evasively; triflingly.

Quiberon, (*ke'be-rawng,*) a town of France, dept. of Morbihan, on a long and narrow peninsula of the same name, which, with some islands, forms one of the largest bays in Europe, 24 miles from L'Orient. In 1795 a body of French emigrants landed here, and were overpowered by the republican troops, and dispersed. Those who were taken were shot. *Pop.* 4,000.

Quibo, (*kee'bo,*) sometimes written QUIBDO, an island of the Republic of Colombia at the entrance of Montijo Bay; Lat. 7° 25′ N., Lon. 81° 54′ W.

Quicama'ō, a town of Brazil, about 21 m. S. of Campos. *Pop.* 2,800.

Quicara, or HICARA (*ke-ka'ra*), a group of islands of the Republic of Colombia, in the Pacific Ocean, S. of Quibo; Lat. 7° 10′ 50″ N., Lon. 81° 46′ 18″ W.

Quicat'lan, a town of Mexico, abt. 45 m. N. of Oajaca.

Quiche (*kē'che*), a town of Guatemala, about 25 m. N.W. of the city of Guatemala. *Pop.* 3,000.

Quick (*kwik*), *a.* [A. S. *cwic;* D. *kwik;* Ger. *queck.*]

Alive; animate; having life and motion; — opposed to *dead*.

"Glory and pow'r to judge both *quick* and dead."—*Milton.*

—Characterized by activity, promptitude, intelligence, or readiness; nimble; sprightly; agile; brisk; as, a *quick* scholar, a *quick* sense of humor. — Moving with rapidity or celerity; expeditious; — opposed to *slow*; as, a *quick* runner, a *quick* writer. — Hasty; sharp; without softness or ceremony; as, he acted *quick* by me.

Quick with child, with a living child in the womb.

—*adv.* In a quick manner; nimbly; with celerity or dispatch; with haste or expedition; speedily; without delay; as, be *quick*, go *quick*. — Soon; in a short space of time; promptly; as, come home *quick*.

—*n.* The living flesh, the sensible part or point of anything; as, his answer cut me to the *quick*. — The hawthorn; as, a hedge planted with *quicks*.

Quick'-beam, *n.* (*Bot.*) Same as QUICKEN-TREE.

Quicken, (*kwik'n,*) *v. a.* [A. S. *cwiccan*.] Primarily: to make alive; to vivify; to revive or resuscitate, as from death or a state of inanimation; to reinvigorate. — To accelerate; to increase the speed or velocity of; to hasten; to give rapidity to; as, the engine *quickened* its speed. — To sharpen; to give keener perception or appreciation to; to stimulate; to incite; to refresh; to impart increased activity, energy, or vivacity to; to cheer; as, to *quicken* the appetite, he *quickened* his wit with wine.

—*v. n.* To become quick, alive, or reinvigorated; as, a woman *quickens* with child. — To move with celerity, rapidity, or activity; as, to *quicken* one's pace.

Quicken'er, *n.* One who vivifies, revives, and communicates life; that which reinvigorates; that which accelerates motion or increases activity.

Quick'ening, *n.* Act or process of making or becoming quick.

(*Physiol.*) The first motion of the fœtus in the womb felt by the mother.

Quick'eus, *n.* (*Bot.*) The dog's cough-grass. See TRITICUM.

Quick'lime, *n.* (*Chem.*) Lime unslaked; any carbonate of lime deprived of its carbonic acid.

Quick'ly, *adv.* Speedily; soon; with haste or celerity; without delay.

Quick'-match, *n.* (*Gun.*) See MATCH.

Quick'ness, *n.* Quality of being quick; speed, or the state of being rapid; celerity; velocity; swiftness; briskness; as, *quickness* of motion. — Activity or readiness of intellect; activity of mind; promptness; as, *quickness* of wit, or of the imagination. — Acuteness of perception; keen sensibility; penetration; shrewdness; as, *quickness* of feeling or sensation. — Pungency of taste; sharpness.

"Thy gen'rous fruits still shewed a *quickness*."—*Dryden.*

Quick'sand, *n.* Sand easily moved or readily yielding to pressure; loose sand abounding with water; unsolid ground.

Quick'set, *n.* A living plant set to grow, particularly for a hedge; — a term applied particularly to the hawthorn.

—*a.* Composed of living or young plants; as, a *quickset* hedge.

—*v. a.* To plant with living shrubs or trees for a hedge or fence.

Quick'-sighted, *a.* Having quick sight or acute discernment; penetrating; shrewd; keen to observe.

Quick'-sightedness, *n.* Quality of being quick-sighted; readiness to discern.

Quick'silver, *n.* (*Min.*) See MERCURY.

Quick'silvered, (*-verd,*) *a.* Overlaid with an amalgam of quicksilver and tin-foil.

Quick'silvering, *n.* The mercury and foil covering the back of a mirror or looking-glass.

Quick'step, *n.* (*Mus.*) A quick, spirited march, generally played by military bands.

Quick'-witted, *a.* Having a lively and ready wit.

Quick'-wittedness, *n.* Liveliness and promptitude of wit.

Quid, (*kwid.*) *n.* A cud; a morsel for chewing; as, a *quid* of tobacco.

—*v. a.* (*Man.*) To allow to drop from the mouth, as hay when partially masticated; — said of horses.

Qui'dam. [Lat.] Somebody.

Quid'dany, *n.* [Lat. *cudoneum*, the juice of a quince.] A syrupy confection of quinces.

Quid'dative, Quiddita'tive, *a.* Constituting the essence of a thing.

Quid'dity, *n.* [Fr. *quiddité*, from Lat. *quid*, what.] A term used in scholastic philosophy for *essence*; the nature or essence ascribed to anything when the question is put, "What is it?" (*quid est?*) — A trifling nicety; a cavil; a captious question.

Quid'dle, *v. n.* [From Lat. *quid*, what.] To dawdle; to waste time unprofitably.

Quid'dle, Quid'dler, *n.* A dawdler.

Quid'nunc, *n.* [Lat., what now?] A sarcastic term applied to one who is curious to know everything that passes; one who knows, or pretends to know, all things.

Quieppe, (*ke-ep'pa,*) a fortified island of Brazil, at the entrance of the Bay of Camamu, abt. 70 m. S.S.W. of Bahia.

Quiesce, (*kwe'es,*) *v. n.* To have no sound, as a letter.

Quiescence, Quiescency, (*-es'sens,*) *n.* [Lat. *quiescentia*, from *quiesco*, to rest.] State of being quiescent; rest; repose; state of a thing without motion. — A state of the mind free from agitation or emotion.

(*Gram.*) Absence of sound, as of a letter.

Quies'cent, *a.* [Fr.] Resting; being in a state or condition of rest or repose; still; not moving; as, a *quiescent* object. — Not ruffled with passion or emotion; unagitated; quiet; dormant; as, *quiescent* patriotism.

(*Gram.*) Mute; not sounded; having no sound; as, *p* is *quiescent* in *psalm*.

—*n.* (*Gram.*) A mute letter.

Quies'cently, *adv.* In a calm or quiescent manner, silently.

Quiet, (*kwi'et,*) *a.* [Fr.; Lat. *quietus*, from *quiesco* — *quies, quietis*, rest.] At rest; quiescent; calm; still; being in a state of rest; not moving; without stir, motion, or agitation; as, *quiet* as the dead of night. — Tranquil; free from alarm or disturbance; unruffled; unmolested; as, a *quiet* life. — Placid; mild; meek; peaceable; not exciting controversy, disorder, or trouble; not turbulent or offensive; as, a *quiet* spirit, his wife's tongue is *quiet* for once. — Not agitated by wind; characterized by smoothness; as, a *quiet* sea.

—*n.* State of being quiet; rest; repose; stillness; calm; absence of motion or agitation.—Tranquillity; freedom from disorder or alarm; civil or political repose; peace; security.

"*Quiet* to quick bosoms is a hell."—*Byron.*

At quiet. Still; peaceful; in repose.

In quiet. Quietly; peaceably; as, rest *in quiet*.

—*v. a.* (From the noun.) To still; to stop the motion of; to bring or reduce to a state of rest; as, "*quieting* corporeal motion." — *Locke.*

—To calm; to lull; to pacify; to appease; to tranquillize; to allay; to suppress; as, to *quiet* the public; to *quiet* grief; to *quiet* the mind.

Qui'eter, *n.* The person who, or thing which, quiets.

Quiet'ism, *n.* [Fr. *quiétisme.*] Peace or tranquillity of mind; apathy; inaction; freedom from agitation or disturbance.

(*Eccl. Hist.*) A term applied to certain religious sects, who held the doctrine that the essence of religion consisted in the devout contemplation of the being and attributes of God, so as to absorb all human passions and sentiments. A sect of this class existed under the name of Hesychasts, among the religions of Mount Athos, in the 14th century; but the term is more generally applied to the doctrines advocated by the Spanish priest, M. Molinos, 1675, in his work entitled *The Spiritual Guide*. See MOLINISM.

Quiet'ist, *n.* [Fr. *quiétiste.*] (*Eccl. Hist.*) One of a sect of mystics who indoctrinated the principles of Quietism.

Quiet'istic, *a.* Pertaining to Quietism; having reference to Quietists.

Qui'etly, *adv.* In a quiet state or manner; in a state of rest or repose; without motion; as, to sit *quietly*. — Without tumult, disorder, alarm, dispute, disquiet, or disturbance; tranquilly; peaceably; as, to live *quietly*. — Calmly; patiently; placable; without agitation or violent emotion; as, to speak *quietly*. — Noiselessly; silently; without violent speech or movement; as, he went *quietly* about his business.

Quiet'ness, *n.* State or quality of being quiet; state of rest or repose; stillness; calm; tranquillity; freedom from agitation or emotion; absence of disturbance, disorder, or commotion; peace.

"I would have peace and *quietness*."—*Milton.*

Quie'tude, *n.* [Fr., from L. Lat. *quietudo*, from Lat. *quies.*] Rest; repose; quiet; tranquillity.

Quie'tus, *n.* [Lat.] Rest; repose; — hence, death; that which acts as a final discharge of all claims.

"He might his *quietus* make with a bare bodkin."—*Shaks.*

Quilimane, (*ke-le-ma'nai,*) a seaport-town of Mozambique, in E. Africa, at the mouth of the river Quilimane; Lat. 17° 51′ 8″ N., Lon. 37° 51′ E. It has a trade in gold and ivory. *Pop.* Estimated at 15,000.

Quill, (*kwil,*) *n.* [Ger. *kiel*; Dan. *kiol*; Lat. *culmus*; Gr. *kalamos*, a reed.] The large, strong feather of a goose, or other large bird; — used for writing-pens, &c. Hence, the instrument of writing; a pen. — The spine or prickle of a porcupine. — A piece of small reed or other hollow plant, on which weavers wind the thread which forms the woof of cloth.

(*Mus.*) The implement with which musicians strike the strings of certain instruments.

"His flying fingers and harmonious *quill*."—*Dryden.*

—Something formed like a quill, as the plait of a ruffle.

To carry a good quill, to write well.

—*v. a.* To plait, or to form with small ridges; as, to *quill* a ruff. — To wind on a quill, as yarn.

Quillaia, (*kwil-lai-yă,*) a genus of plants, order *Rosaceæ*. The bark of *Q. saponaria* and other species contains a large proportion of *Saponine*, and is sometimes employed as a substitute for soap. It has lately been used as a detergent in cases of scurfiness and baldness of the head.

Quill'-bit, *n.* (*Carp.*) Same as GOUGE-BIT, *q. v.*

Quill'-driver, *n.* A cant term for one who habitually uses a pen, particularly a clerk.

Quilled, (*kwild,*) *a.* Having quills; — used in composition.

Quil let, *n.* [Lat. *quodlibet*, what you please.] A quibble; a subtle distinction; as, "nice, sharp *quillets* of the law." — *Shaks.*

Quill'ing, *n.* A narrow border of lace or edging, plaited in a manner to resemble a row of quills; as, the *quilling* of a woman's cap.

Quill'-wort, (*-wurt,*) *n.* (*Bot.*) See ISOETES.

Qui'loa, a seaport of E. Africa, formerly cap. of the Portuguese settlements in that country; Lat. 8° 41′ S., Lon. 39° 47′ E.

Quilon, (*ke-lon',*) a seaport-town of S. India, on the Malabar coast, 37 m. N.W. of Tivandrum. It has an active trade in cotton and pepper. *Pop.* 20,000.

Quilt, (*kwilt,*) *n.* [It. *coltre*; Lat. *culcita*, from *calco*, to press close together.] A bed-cover made by stitching one cloth over another with some soft substance between them; a counterpane; a cover made by putting wool, cotton, or other substance, between two cloths, and sowing them together.

—*v. a.* To form into a quilt; to stitch together two pieces of cloth, with some soft and warm substance between them; as, a *quilted* coat. — To sew in the manner of a quilt. — *Quilted doublet.* See POURPOINT.

Quilt'er, *n.* One who quilts.

Quilt'ing, *n.* The act of forming a quilt. — In the U. States, the act or operation of making a quilt or quilts by a party of ladies, especially for some charitable purpose. (*Webster.*) — The material used in making quilts; a figured stuff used for bed-covers, and the like.

Quemper, (*kan-per',*) a town of France, cap. of the dept. of Finistère, on the Odet, 35 m. S.E. of Brest. *Manuf.* Porcelain, linen, hemp, and hats. *Pop.* 11,000.

Quimperlé, (*kan-perl',*) a town of France, dept. of Finistère, 27 m. S.E. of Quimper. *Manuf.* Paper. *Pop.* 6,500.

Qui'na, Qui'nia, *n.* See QUININE.

Qui'nary, *a.* [Lat. *quinarius*, from *quinque*, five.] Consisting of fives; arranged by fives; as, a *quinary* number.

Qui'nate, *a.* [Fr. *quiné*, from Lat. *quinque.*] (*Bot.*) With five leaflets on the petiole.

Quince, Quince-tree, (*kwins,*) *n.* [Fr. *coing.*] (*Bot.*) See CYDONIA.

Quincuncial, (*-kun'shal,*) *a.* [Lat. *quincuncialis*, from *quincunx.*] Possessing the form of a quincunx.

(*Bot.*) Arranged in a quincunx, as the parts of a flower.

Quincunc'ially, *adv.* In the manner or order of a quincunx.

Quincunx, (*kwin'kunks,*) *n.* [Lat., from *quinque*, five, and *uncia*, an ounce.] The Latin term properly for that disposition of five objects in which they are made to occupy the four corners and point of intersection of the diagonals of a square; but the word is extended to any number of things so arranged in lines that the members of each succeeding line stand behind the spaces between those of the preceding one. Troops were frequently drawn up in this order, which was also a favorite arrangement for plantations of vines.

(*Bot.*) A term applied to parts of the flower in æstivation, or of the foliage in vernation when the pieces are five in number, of which two are exterior, two interior, and the fifth covers the interior with one margin and has its other margin covered by the exterior, as in the genus *Rosa*.

Quin'cy, JOSIAH, an American author and orator, b. at Boston, 1772, was a son of Josiah Quincy, himself a distinguished orator and political writer of the period just preceding the Revolution. He graduated at Harvard College, 1790, studied the profession of law, and entered Congress in 1805, where he distinguished himself as a favorite orator in opposition to the policy of Jefferson and Madison, and was one of the earliest to denounce slavery, declaring that the purchase of Louisiana was a sufficient cause for the dissolution of the Union. In 1813 he declined a reëlection, and devoted his attention to scientific agriculture. He became, however, a member of the senate of Massachusetts, and in 1822, judge of the Municipal Court of Boston. In 1823, he was elected Mayor of Boston; and in 1829 accepted the post of President of Harvard College, which he held until 1845. Among his published works are a *Memoir of his Father*, 1825; *History of Harvard University*, 1840; *History of the Boston Athenæum*, 1851; *The Municipal History of the Town and City of Boston*, 1852; *Life of John Quincy Adams*, 1858; *Essays on the Soiling of Cattle*, 1859. D. 1864.

Quincy, in *California*, a post-town, cap. of Plumas co., about 250 m. N.N.E. of San Francisco.

Quincy, in *Florida*, a post-town, cap. of Gadsden co., about 22 m. N.N.W. of Tallahassee.

Quincy, in *Illinois*, a city, cap. of Adams co., on the Mississippi River, abt. 109 m. W. of Springfield, 269 m. S.W. of Chicago, and 160 m. N. of St. Louis. It is situated on a beautiful elevation, abt. 125 feet above the

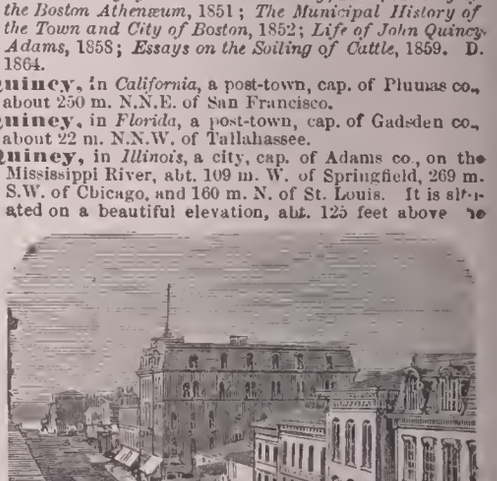


Fig. 2202. — QUINCY.

river, and commands a fine view for many miles in each direction. The streets cross at right angles, and the city, which is well lighted with gas, and has a line of street-cars, contains many costly and handsome edifices, and a large public square. Quincy has several

banks, numerous extensive flouring and other mills, manufactories of various kinds, and iron-foundries. Flour is exported to a large extent, and great quantities of provisions are packed. The bluffs in front of the city are one vast limestone quarry. Here is the termini of the *Chicago and Burlington, and Quincy;* the *Toledo, Wabash, and Western;* the *Hannibal and St. Joseph;* the *La Fayette, Bloomington, and Mississippi;* the *Carthage, Warsaw, and Quincy;* the *Mississippi and Missouri Air Line;* and the *Quincy, Missouri, and Pacific Railroads.*—The river at this point is spanned by a magnificent railroad bridge, over one mile long. Quincy was laid out in 1825 by John Wood, and named in honor of John Quincy Adams. *Pop.* (1897) 33,850.

Quin'cy, in *Indiana*, a post-village of Owen co., about 25 m. N.N. W. of Bloomington.

Quincy, in *Iowa*, a post-village and township, former cap. of Adams co., about 90 m. S.W. of Des Moines.

Quincy, in *Kentucky*, a post-village of Lewis co., about 10 m. W. of Portsmouth, Ohio.

Quincy, in *Massachusetts* an important city of Norfolk co., about 8 m. S. by E. of Boston. In this vicinity are the celebrated Quincy granite quarries. The first railroad in the U. S. was here constructed. This township is also celebrated as being the birthplace of John Hancock, Josiah Quincy, Jr., the two Adamses, and many other eminent American statesmen. *Pop.* (1895) 20,712.

Quincy, in *Michigan*, a post-township and village of Branch co., on the Lake Shore and Michigan S. R.R. *Manf.* Staves, sash doors, &c.

Quincy, in *Minnesota*, a post-village and township of Olmstead co., abt. 20 m. E. of Rochester.

Quincy, in *Mississippi*, a village of Monroe co., abt. 12 m. N.E. of Aberdeen.

Quincy, in *Missouri*, a post-village of Hickory co., abt. 20 m. S.W. of Warsaw.

Quincy, in *Ohio*, a post-village of Logan co., abt. 68 m. W.N.W. of Columbus.

Quincy, in *Pennsylvania*, a post-village and township of Franklin county, about 12 miles south-east of Chambersburg.

Quincy, in *Tennessee*, a post-village of Gibson co., abt. 145 m. W.S.W. of Nashville.

Quincy, in *Wisconsin*, a post-village of Adams co., abt. 70 m. N.N.W. of Madison.

Quincy Point, in *Massachusetts*, a post-village of Norfolk co., abt. 2 m. E. of Quincy.

Quin'daro, in *Kansas*, a post-village and township of Wyandot co., abt. 6 m. N.W. of Kansas City; *pop.* abt. 800.

Quindec'agon, *n.* [Lat. *quinque*, five; Gr. *deka*, ten, and *gōnia*, an angle.] (*Geom.*) A plane figure bounded by fifteen sides.—The regular quindecagon is inscribable in a circle by elementary geometry.

Quindecem'vir, *n.*; *pl.* QUINDECEMVIRI. [Lat. *quinque*, *decem*, and *vir*, a man.] (*Rom. Hist.*) One of a body of Roman magistrates, whose duty it was to take care of and to consult the Sibylline books.

Quindecem'virate, *n.* The body or office of the quindecemviri.

Quinebaug', in *Connecticut*, a village of Windham co., abt. 45 m. N.E. by E. of Hartford.

Quinebaug River, rises in Tolland co., Connecticut, and flowing N. into Massachusetts, returns again into Connecticut, and joins the Shetucket River in New London co., to form the Thames River.

Quinepiack', in *Connecticut*, a river which rises in Hartford co., and flows S. into Long Island Sound from New Haven co.

Qui'nic Acid, *n.* (*Chem.*) See KINIC ACID.

Qui'nidine, Quinoid'ine, *n.* (*Chem.*) One of the cinchona alkaloids. It is an isomer of quinine, which it much resembles; but it more readily crystallizes. A much larger quantity of it is required to be taken into the system before an effect is produced equal to that obtained by a given amount of quinine; and, finally, its solutions have an opposite action on a ray of polarized light.

Quinine, QUINIA, QUININA, (*kwī'nīn,*) *n.* [Fr., from Sp. *quinaquina*, Peruvian bark.] (*Chem.*) An alkaloid found in the bark of trees belonging to the Cinchona or Peruvian-bark family. Besides quinine, these barks yield five other similar alkaloids; but as they are not used to any extent either in medicine or manufactures, it will be necessary only to enumerate them. They are *cinchonine, cinchonidine, cinchonicine, quinidine,* and *quinovine.* Besides these, the bark of the *Cinchona ovata* yields *aricine,* or *cinchovatine.* Quinine occurs most in the yellow bark, or *Cinchona cordifolia*, in which it occurs with cinchonine, in combination with kinic and kinotannic acid. The quantity varies, in different specimens of bark, from 3 to 5 per cent. The bases are extracted by boiling the pulverized bark in 8 or 10 parts of water, acidulated with 1 part of oil of vitriol, and 1 of hydrochloric acid. The liquor is strained through a cloth, and again treated with acidulated water. As soon as the liquors are cold, milk of lime, or carbonate of soda, is added, the precipitates formed being submitted to pressure, and treated with hot alcohol. If cinchonine be present in any quantity, it crystallizes as the liquid cools; and the two alkaloids are further separated by the addition of dilute sulphuric acid and crystallization, the sulphate of quinine crystallizing out first. The alkaloid is thrown down by the addition of ammonia, and may be formed into the different salts at will. Quinine being very insoluble in water, it is generally used in medicine in the form of disulphate, which dissolves readily in alcohol and water. *Q.* is a valuable febrifuge and anti-periodic. The sulphates of cinchonidine and cinchonine are also used in medicine. They produce results similar to those of *Q.*, but are very much less used. See CINCHONA.

Qui'ninism, *n.* (*Med.*) The aggregate of encephalic or neuropathic phenomena induced by over-doses of quinine.

Qui'noa, *n.* See CHENOPODIUM.

Quinquagesima, (*-jes'-,*) *a.* [Lat., from *quinquaginta*, fifty.] Fiftieth.

Quinquagesima-Sunday. Shrove-Sunday; the Sunday which is about the fiftieth day before Easter.

Quinquangular, (*kwin-kwăng'gular,*) *a.* [Lat. *quinque*, five, and *angulus*, an angle.] With five angles or corners.

Quinqueau'gled, *a.* Quinquangular.

Quinquedeu'tate, Quinquedeu'tated, *a.* [Lat. *quinque*, five, and *dens, dentis*, tooth.] (*Bot.*) Five-toothed.

Quinquefa'rious, *a.* [From Lat. *quinque.*] (*Bot.*) Opening into five parts.

Quin'quefid, *a.* [Lat. *quinque*, and *findere, fidi*, to cleave.] (*Bot.*) Five-cleft, as a leaf.

Quinquefo'liate, Quinquefo'liated, *a.* [Lat. *quinque*, and *folium*, leaf.] (*Bot.*) Bearing five leaves, or leaflets.

Quinquelit'eral, *a.* [Lat. *quinque*, and *litera*, letter.] Consisting of five letters.

Quinquelo'bate, Quin'quelobed, *a.* [Lat. *quinque*, and Gr. *lobos*, lobe.] (*Bot.*) Five-lobed.

Quinqueloc'ular, *a.* [Lat. *quinque*, five, and *loculus*, cell.] (*Bot.*) Five-celled, as a pericarp.

Quinquenerved, (*-nervd,*) *a.* [Lat. *quinque*, and *nervus*, nerve.] (*Bot.*) Having five nerves; — said of certain leaves.

Quinquen'nial, *a.* [Lat. *quinquennalis* — *quinque*, five, and *annus*, year.] Occurring once in five years; continuing for five years.

Quinquen'nium, *n.* [Lat.] A period of five years.

Quinque'partite, *a.* [Lat. *quinque*, and *partitis*, from *pars, partis*, part.] Consisting of five parts. (*Bot.*) Separated into five parts almost to the base.

Quin'quereme, *n.* [Lat. *quinque*, and *remus*, oar.] Among the ancients, a galley with five sets of oars.

Quin'quesyllable, *n.* [Lat. *quinque*, and Gr. *syllabē.*] A word of five syllables.

Quin'quevalve, Quinqueval'vular, *a.* [Lat. *quinque*, and *valva*, valve.] (*Bot.*) Five-valved, as a pericarp.

Quin'quevir, *n.*; *pl.* QUINQUEVIRI. [Lat., from *quinque*, and *vir*, man.] Among the ancient Romans, one of five commissioners frequently appointed under the republic as extraordinary magistrates to carry any measure into effect.

Quinqui'na, *n.* See CINCHONA.

Quinsy, Quinsey, (*kwin'zy,*) *n.* [Fr. *esquinancie*; Lat. *cynanche*; Gr. *kynangche—kyōn*, a dog, *angchē*, from *angchō*, to throttle.] (*Med.*) An inflammation of the throat. Medical men distinguish it into different kinds, according to the nature of the inflammation, or the part chiefly affected, as *croup, diphtheria, pharyngitis, tonsilitis,* &c. The two former are noticed under their proper heads, the latter are those that commonly come under the head of *quinsy.* They do not differ materially from each other in character, or in the mode of treatment, but in the one case the *pharynx* is the principal or sole seat of the disease, in the other, the *tonsils.* The inflammation is brought on by cold, and it usually commences with cold chills and other febrile symptoms. There is fulness, heat, and dryness of the throat, with a hoarse voice, difficulty of swallowing, and shooting pains towards the ear. The inflammation may be confined to the pharynx, or it may spread from it over the soft palate and the tonsils, and into the cavities of the nose. On examination, the back of the mouth and fauces will be found unnaturally red and swollen, and often covered with a tough mucus. In general, a common sore throat does not require much treatment, the inhaling of the vapor of hot water, or a large poultice round the throat, with gentle purgatives, and the avoidance of stimulating food, being usually all that is necessary for its removal. Frequently, however, the swelling continues for some time, and occasionally the disease takes the form of relaxed sore throat, which requires to be treated with stimulating gargles, as hot wine, very diluted mineral acids, &c., and tonics, if the general health be not good. In more severe cases, the difficulty of swallowing is much increased, and to avoid the pain the patient usually allows the saliva to flow from his mouth, and liquids attempted to be swallowed return through the nose. The inflammation may also extend to the eustachian tube, producing deafness, and to the parts around the larynx, occasioning difficulty of breathing. With these symptoms there is usually a considerable degree of fever, with headache, loss of appetite, &c. In such cases, strong purgatives are required, with a blister outside the throat, and warm poultices, the inhaling the steam of hot water, stimulating gargles, and, if the throat be much swollen, leeches applied to the sides. Sometimes an abscess is formed in one or both tonsils, from which the patient suffers greatly. This will in time burst; but it will materially shorten the patient's sufferings if it be opened as soon as the matter is distinctly formed. After the inflammatory symptoms have subsided, a generous diet and tonic medicines are necessary. When the tonsils have become permanently enlarged, or where other means fail, it is sometimes necessary to reduce them by cutting to their natural dimensions. In malignant or putrid sore throat, there is great prostration of strength, accompanied with a low typhoid state, requiring the remedies used in low typhus, with astringent gargles, leeches, and nutritive diet, &c.

Quint', *n.* [Fr. *quinte*, from Lat. *quintus*, from *quinque*, five.] A sequence of five, as in piquet.

Quin'tain, *n.* [Fr. *quintaine*; Lat. *quintana.*] A wooden post formerly set up for military exercises; it sometimes was a mere rough block, which the soldier used in sword practice; at other times it took the form of a man, and turned on a pivot, striking the assailant who planted a blow badly by the rapidity with which it revolved when struck out of its centre. Mounted soldiers practised on a *quintain* formed of an upright post with a transverse bar above, to one end of which a broad, flat board was affixed, and to the other a bag of sand or heavy piece of wood, which knocked the rider off his horse if he was not careful in avoiding the blow, or did not strike the board properly, as it turned on its pivot. (Also written *quintel* and *quintin.*)

Quin'tal, *n.* The French denomination for a weight of 100 kilogrammes. See METRIC SYSTEM.

Quin'tan, *a.* [Lat. *quintanus*, from *quinque.*] Happening as the fifth, after four others; also, occurring every fifth day; as, a *quintan* fever.

—*n.* (*Med.*) A fever the paroxysms of which return every fifth day.

Quintanar de la Orden, (*keen-ta'nar.*) a town of Spain, prov. of Toledo, 17 m. from Belmonte. *Manuf.* Woollen stuffs. *Pop.* 6,000.

Quin'tel, *n.* Same as QUINTAIN, *q. v.*

Quin'teron, *n.* See QUINTROON.

Quintes'sence, *n.* [Lat. *quinta essentia*, the fifth essence.] According to the old alchemists, the fifth, or last and highest essence, of power in a natural body; — hence, an extract from anything, containing its virtues or most essential part in a small quantity; the pure, essential part of a thing.

Quintessential, (*-sen'shal,*) *a.* Consisting of quintessence.

Quintet', Quintette', Quintet'to, *n.* [It. *quintetto*, dimin. of *quinto*, from Lat. *quintus.*] (*Mus.*) A musical piece adapted to five voices or instruments, each of which is *obligato.* The most remarkable quintets for stringed instruments are those of Boccherini, Mozart, Beethoven, and Onslow; and for wind instruments (the flute, oboe, clarionet, horn, and bassoon), those of Reicha.

Quin'tic, *n.* (*Math.*) Same as QUANTIC, *q. v.*

Quin'tile, *n.* [From Lat. *quintus.*] (*Astron.*) An aspect of two planets distant from each other the fifth of the zodiac, or 72°.

Quintil'ian, (QUINTILIANUS MARCUS FABIUS,) a celebrated Roman rhetorician, was a native of Spain. In his early youth he was at Rome, and heard the lectures of Domitius Afer, who died A. D. 59. He accompanied Galba to Rome, in the year 68, became an eminent pleader, and still more eminent as a teacher of rhetoric. He taught at Rome for 20 years, was named preceptor to the grand-nephews of Domitian, had also Pliny the younger among his scholars, and had a salary from the public exchequer. He retired from his public duties in 89, and is supposed to have lived about 30 years longer. His great work is entitled, *De Institutione Oratoria*, and was written after his retirement, but during the reign of Domitian. It is the most complete course of rhetoric handed down from ancient times, and is distinguished for its elegance of style, as well as for sound judgment, cultivated taste, and various knowledge. The first complete copy of this work was discovered by Poggio, in the abbey of St. Gall, about 1419, and the first printed edition appeared at Rome, in 1470.

Quin'tilius, AURELIUS CLAUDIUS, brother to Claudius II., was, on his death, invested with the purple by the army in Aquitaine, A. D. 270, but, being deserted by his troops on the approach of the rival Emperor Aurelian, who had been proclaimed by the Italian army, he bled himself to death in a bath seventeen days after assuming the sceptre.

Quintillion, (*kwin-til'yun,*) *n.* [Lat. *quintus.*] According to English notation, a unit with 30 ciphers attached; according to French notation, a unit with 18 ciphers attached.

Quin'tiu, *n.* Same as QUINTAIN, *q. v.*

Quintin, (*kan'ta.*) a town of France, dept. of Côtes-du-Nord, on the Gouet, 9 m. S. of St. Brieuc. *Manuf.* Linens and cambrics. *Pop.* 4,000.

Quin'tine, *n.* [Fr., from Lat. *quintus.*] (*Bot.*) The fifth coat (when there are so many) of the nucleus of a seed.

Quin'troon, Quin'teron, *n.* [Sp. *quinteron*, from Lat. *quintus.*] In the W. Indies, the child of a woman having one-sixteenth part of negro blood, and a white father.

Quin'tuple, *n.* [Lat. *quintuplex* — *quintus*, and *plico*, to fold.] Fivefold; containing five times the number or amount; multiplied by five.

(*Mus.*) Having five crotchets, &c., in a bar.

(*Bot.*) With arrangement as a multiple of five.

—*v. a.* To make fivefold.

Quin'tuple-nerved, Quin'tuple-ribbed, (*-ribd,*) *n.* (*Bot.*) Said of leaves, the midrib of which gives off two strong primary veins or branches on each side above the base.

Quin'tus Cur'tius Ru'fus. See CURTIUS RUFUS.

Quin'zaine, Quin'zain, *n.* [Fr., from *quinze*, fifteen.] (*Chron.*) The fourteenth day after a festival, or the fifteenth, if the day of the feast be included.

Quio'tepec, or CERRO DE LAS JUNTAS, a village of Mexico, abt. 90 m. N. of Oajaca.

Quip, (*kwip,*) *n.* [From *whip.*] A smart cut, as with a whip; — hence, by analogy, a smart, sarcastic turn; a taunt; a bitter gibe; a severe, scathing retort; a jeer.

—*v. n.* To taunt; to administer a biting retort or gibe; to treat with pungent sarcasm.

—*v. n.* To scoff; to revile.

Quipo, Quipoo, (*kī'po, kē'pōō.*) *n.*; *pl.* QUIPOS. QUIPUS. [Peruv., a knot.] A cord about two feet long, com-

posed of different-colored threads tightly twisted together, from which a quantity of smaller threads were suspended in the manner of a fringe; — used for recording events and the like, among the ancient Peruvians, Mexicans, &c.

Quire, (*kwir,*) *n.* [Fr. *choeur;* Gr. *choros.*] A chorus; a choir; a body of singers. — That part of a church where the service is sung; the choir.

—*v. n.* To sing in concert. (R.)

"Still *quiring* to the young-eyed cherubim." — *Shak.*

Quire, *n.* [Fr. *cahier,* a copy-book; O. Fr. *cuyer;* O. Eng. *quayre,* a book.] A collection of paper consisting of 24 sheets, each having a single fold.

Quiriquina, (*ke-re-kee'na,*) an island of Chili, abt. 10 m. N. of Concepcion.

Quiri'tes, *n. pl.* (*Roman Hist.*) A name which occurs in the expression *Populus Romanus Quirites.* It is supposed the name *Roman* denoted the people in its relation to foreign nations, while by *Quirites* were signified the citizens as individuals, and in their social relations.

Quirk, (*kwirk,*) *n.* [A. S. *thweor;* Ger. *zwerch.*] A twist or turn from the right or straight course; — hence, an artful turn for evasion or subterfuge; a shift. — A smart taunt; a pungent retort; a quibble; a slight conceit or fancy; as, "odd *quirks* and remnants of wit." (*Shaks.*) —An irregular melody; as, "*quirks* of music."—*Pope.*

(*Building.*) A piece of ground taken out of any regular ground-plot or floor; — thus, if the ground-plot be oblong or square, a piece taken out of a corner to make a court or yard, &c., is called a *quirk.*

(*Arch.*) A small acute channel or recess, much used between mouldings in Gothic architecture.

Quirked, (*kwerkt,*) *a.* Possessing a quirk.

Quirk'ish, *a.* Consisting of quirks, turns, quibbles, or artful evasions; resembling a quirk.

Quir'pon, an island of British N. America, at the entrance of Belleisle Strait, Newfoundland; Lat. 52° 40′ N., Lon. 55° 10′ W.

Quis'calus, *a.* (*Zoöl.*) A genus of birds, family *Corvidæ,* indigenous to America, and distinguished by having the bill as long as the head; the tail long, graduated; color, lustrous-black. The most common and most beautiful species, *Q. versicolor,* the Crow Blackbird, is described under its common name. *Q. major,* the Boat-tailed Grakle or Juckdaw, of the Southern Atlantic and Gulf States, is 15 inches long, and the wing 7 inches; the general color lustrous-black, head and forward parts glazed with purple.

Quish, *n.* See CUISH.

Quit, (*kwit,*) *v. a.* (*imp.* and *pp.* QUIT, or QUITTED.) [Fr. *quitter;* It. *quitare;* Lat. *quietare,* to send away, to dismiss, from *quies — etio,* rest, quiet, repose.] To set free; to release, to relieve. — To discharge from; to acquit; to absolve.

"Guiltless I *quit;* guilty I set them free." — *Fairfax.*

—To repay; to requite; to make payment for, or of; to discharge, as an obligation or duty; as, to *quit* a debt. —To meet the claims upon, or expectations entertained of; to acquit; — employed reflexively. — To give up; to resign; to relinquish; to forsake; to leave or depart from: as, to *quit* work. — To carry through; to discharge or perform completely.

To quit cost, to reimburse.—*To quit scores,* to make even; to cause to balance; to be tantamount.

"Still I shall bear, and never *quit* the *score.*" — *Dryden.*

—*a.* Discharged from; free; clear; even; absolved; as, I am *quit* of obligation. (Frequently used in the form *quits,* colloquially; as, to be *quits* with a person, *i. e.,* to be even with him; — hence, in an exclamatory sense, Let us cry *quits!*)

Qui tam, *n.* [Lat., who as well.] (*Law.*) An action under a statute which imposes a penalty for the doing or not doing an act, and gives that penalty in part to whosoever will sue for the same, and the other part to the commonwealth, or some charitable, literary, or other institution, and makes it recoverable by action. The plaintiff describes himself as suing *as well* for the commonwealth, for example, as for himself.

Quit'claim, *v. a.* [Eng. *quit,* and *claim.*] (*Law.*) To release or yield up by quitclaim.

Quit claim, *n.* [L. Lat. *quieta clamantia.*] (*Law.*) A form of deed of the nature of a release, containing words of grant as well as release. The term is in constant and general use in American law, to denote a deed substantially the same as a release in English law. It presupposes a previous or precedent conveyance, or a subsisting estate and possession. It is a conveyance at common law, but differs from a release in that it is regarded as an original conveyance in American law, at least in some States.

Quite, (*kwīt,*) *adv.* [Fr. *quitté,* discharged.] Clean; completely; wholly; entirely; totally; perfectly; as, the work is *quite* finished. — Very; to a great extent or degree; as, he looks *quite* young again.

Quit'man, JOHN ANTHONY, an American general and politician, b. in Dutchess co., New York, in 1799. He began his career by teaching school from his 16th to his 19th year, when he commenced the study of law. Removing to Mississippi in 1821, he entered the political arena, filling successively the offices of member of the legislature, State chancellor, member of the convention for revising the State constitution, State senator, and governor, which latter he entered upon through a vacancy in 1836. He soon after withdrew from political life, and joined the Texans in their struggle for independence. In 1846, he was appointed brigadier-general of the U. S. army in the war with Mexico, distinguishing himself at Monterey, Vera Cruz, and Cerro Gordo, after which latter engagement he was brevetted major-general, and was voted a sword by Congress for gallantry. He participated in the attack on Chapultepec, and was foremost in the assault on the City of Mexico, which city he governed until order was established. He was elected governor of Mississippi soon afterwards, but resigned in consequence of accusations of complicity with the Lopez-Cuban expedition, of which charge, however, he was acquitted. In 1855 and 1857, he was elected to Congress by large majorities. D. in Natchez, Miss., in 1858.

Quit'man, in *Georgia,* a S.W. co., adjoining Alabama; *area,* abt. 175 sq. m. *Rivers.* Chattahoochee River, and Pataula Creek. *Surface,* mostly level; *soil,* not very fertile. *Cap.* Georgetown.

Quitman, in *Mississippi,* a post-village, cap. of Clarke co., abt. 140 m. E. by S. of Jackson.

Quitman, in *Missouri,* a post-village of Nodaway co., abt. 46 m. N.W. of St. Joseph.

Quitman, in *Texas,* a post-village, cap. of Wood co., abt. 275 m. N.E. of Austin.

Quit'quioc, in *Wisconsin,* a village of Sheboygan co., abt. 85 m. N.E. of Madison.

Quito, (*ke'to,*) the capital of the republic of Ecuador, stands on the eastern slope of the western branch of the equatorial Andes, 150 m. from Guayaquil; Lat. 0° 13′ 27″ S., Lon. 78° 50′ W. The volcanic mountain of Pichincha is the basis on which it rests; and owing to the inequalities of the ground, the streets are very irregular and uneven. On one side of the principal square stands the cathedral, and on the opposite the episcopal palace; the third side is taken up with the town-house, and the fourth by the palace of the Audience. It is very spacious, and has in the centre an elegant fountain. In these the greatest part of the convents are situate, and make a handsome appearance. *Manuf.* Coarse cotton and woollen goods, hosiery, lace, jewelry, and confectionery. It has a trade in agricultural produce, and exports iron, steel, and indigo. The great danger of Quito is from earthquakes, and from the vicinity of burning mountains, which often break out into the most tremendous eruptions. On the 4th of February, 1797, the country was shaken by a most dreadful concussion, and, in the space of a second, 40,000 persons were hurled into eternity. Since this period violent shocks of earthquake have been frequently experienced. The height of Quito above the level of the sea is 9,534 ft. Eleven summits of mountains capped with snow are to be seen from it. *Pop.* abt. 60,000.

Quit'-rent, *n.* [Lat. *quietus reditus.*] (*Law.*) A rent, reserved in grants of land, by the payment of which the tenant is quit from all other service.

Quits. See QUIT.

Quit'table, *a.* That may be quitted or vacated.

Quit'tance, *n.* [Fr.] Act of quitting; acquittance; discharged from a debt or other obligation. — Return; repayment; recompense.

Quit'ter, *n.* One who quits.

Quit'tor, *n.* (*Farriery.*) An ulcer formed between the hair and hoof, on the inside quarter of a horse's foot.

Quit'tor-bone, *n.* (*Farriery.*) A hard, round swelling on the coronet of a horse's foot, between the heel and the quarter.

Quiver, (*kwiv'r,*) *n.* [Fr. *couvrir,* to cover.] A cover, case, or sheath for arrows.

—*v. n.* [A. S. *cwiferlice,* anxiously; D. *kuiveren,* to tremble; W. *chwyf,* motion, action.] To shake or tremble; to be in motion or agitation; to quake; to shudder; to shiver; to didder; as, a *quivering* voice, *quivering* leaves.

Quiv'ered, *a.* Furnished with a quiver; as, *quivered* nymph. (*Milton.*) — Sheathed, as in a quiver.

Quiv'ering, *n.* Act of trembling or shaking; agitation.

Quiv'eringly, *adv.* With quivering.

Qui vive, (*ke vēv.*) [Fr., from *qui,* who, and *vive* — *vivre,* to live.] The challenge of a French sentinel — equivalent to, Who goes there? — Hence, *to be on the qui vive,* to be on the alert, by a sentinel or vidette.

Quixot'ic, *a.* Like Don Quixote; romantically extravagant; as, a *quixotic* enterprise.

Quixot'ically, *adv.* In a mad, or absurdly romantic manner.

Quix'otism, Quix'otry, *n.* Absurd and romantic notions; knight-errantry; enterprises, designs, or actions resembling those of Don Quixote in the novel of *Cervantes;* visionary scheme.

Quiz, (*kwiz,*) *n.* A conundrum; an enigma; a puzzling question. — A person who quizzes others. — An odd or singular fellow; an eccentric.

—*v. a.* To puzzle; to ridicule or make sport of; to banter; to chaff; as, the ladies *quizzed* him severely. — Also, applied to the preparation of students for passing degrees; as, a medical *quiz.*

Quiz'zer, *n.* One who quizzes or puzzles others.

Quiz'zically, *a.* Funny; ludicrous; comical. (Colloq.)

Quiz'zism, *n.* Act or practice of quizzing.

Quob, Quab, *v. n.* [Icel. *quapa,* to shake with loose fat.] To throb; to quiver. (Vulgar.)

Quod, (*kwŏd,*) *n.* A slang term for a jail or place of confinement.

Quod'dy, *n.* A kind of scaled herrings cured in North America by smoking or salting.

Quod'libet, *n.* [Lat., what you please.] A nice point or distinction; a quiblet; a quibble; a subtlety.

(*Mus.*) An improvised medley performed by several persons.

Quo'gue, in *New York,* a post-village of Suffolk co., abt. 75 m. E. of New York city.

Quoif, (*koif,*) *n.* [Fr. *coiffe.*] A coif; a cap or hood.

—*v. a.* To cover or dress with a coif.

Quoiffure, *n.* Same as COIFFURE, *q. v.*

Quoin, *n.* [Fr. *coin;* Gr. *gonia.*] (*Arch.*) The corner, or the internal and external angle of a building, or of any part of a building. It is generally applied to the stones that form the angles. These are spoken of as the *quoin* stones, to distinguish them from the rest of the ashlar.

(*Gun.*) A wedge of wood put below the breech of a cannon, for the purpose of adjusting its elevation.

(*Printing.*) One of the wooden wedges used for fastening the types in the forms.

Quoit, (*koit,*) *n.* [Etymol. uncertain. See KOIT.] A circular ring or piece of iron, or a plain flat stone to be pitched or thrown at a fixed object in play, as a trial of dexterity.

(*Games.*) An out-door game somewhat resembling the ancient pastime of throwing the discus. The game is played with *quoits,* which are round flat metal rings, varying in internal diameter from two or three inches to a foot. Two iron pins, or hobs, as they are called, are placed in the ground, which is generally puddled with clay, at a distance of about fifteen or twenty yards. The game is usually played by two or four persons, who choose sides, and play in regular succession. The endeavor of the player is to throw his quoits from one hob over the other, or as near to it as possible. The quoits nearest to the hob score to the player, and the game is won by the side which makes a given score first.

—*v. n.* To throw quoits; to play at quoits.

—*v. a.* To drive away by throwing stones at.

Quon'dam, *a.* [Lat., formerly.] Former; having been formerly.

"My *quondam* barber, but his worship now." — *Dryden.*

—*n.* A person once holding an office or position. (R.)

Quo'rum, *n.* [Lat. *gen.* pl. of *qui,* "of whom," with reference to a complete body of persons, of whom those who are assembled are legally sufficient to the business of the whole.] Used substantively, *quorum* signifies the number of persons belonging to a legislative assembly, a corporation society, or other body, required to transact business. There is a difference between an act done by a definite number of persons, and one performed by an indefinite number; in the first case a majority is required to constitute a quorum, unless the law expressly directs that another number may make one; in the latter case any number who may be present may act, the majority of those present having, as in other cases, the right to act. Sometimes the law requires a greater number than a bare majority to form a quorum; in such case no quorum is present until such a number convene. When an authority is confided to several persons for a private purpose, all must join in the act unless otherwise authorized.

Quo'ta, *n.* [Lat. *quotas,* which number in the series? from *quot,* how many?] A proportional part or share, or the share, part, or proportion assigned to each; as, each pays his *quota* of money.

Quot'able, *a.* That may be quoted or cited.

Quotation, (*-ta'shun,*) *n.* Act of quoting or citing. The passage quoted or cited; the part or sentence of a book or writing named, repeated, or adduced as evidence or illustration.

(*Com.*) The current price of an article specified; as, at last *quotations.*

(*Printing.*) A piece of hollow type-metal, lower than type, employed in the blank spaces at the beginning and end of chapters, &c.

Quotation marks. See GUILLEMET.

Quota'tionist, *n.* One who cites, or makes frequent quotations.

Quote, (*kwōt,*) *v. a.* [O. Fr. *quoter,* now *coter,* to mark according to the order of the letters or numbers: L. Lat. *quotare,* from *quotus.*] To mark the number of a chapter, of an article, of a verse, &c.; to mark on the margin: to cite, as a passage from some author: to name, repeat, or adduce a passage from an author or speaker by way of authority, evidence, or illustration; as, to *quote* some lines from Byron.

(*Com.*) To name, as the current price of an article; as, to *quote* the market-value of palm-oil.

Quot'er, *n.* One who quotes or cites the words of an author or speaker.

Quoth, (*kwōth,*) *v. n.* [A. S. *cwœthan,* to say, to speak.] To say; to speak. This verb is defective, being used only in the first and third persons in the present and past tenses, as *quoth I, quoth he;* and the nominative always follows the verb.

Quotha', *interj.* [For *quoth 'a,* said he, '*a* being an old barbarism for *he.*] Indeed!

Quotid'ian, *a.* [Lat. *quotidianus — quotus,* and *dies,* a day.] Daily; occurring or returning daily; as, a *quotidian* fever.

—*n.* Anything occurring or returning daily.

(*Med.*) A fever whose paroxysms return every day.

Quotient, (*kwō'shent,*) *n.* [Fr. Lat. *quoties,* and *quotiens,* how often, from *quot,* how many.] (*Arith.*) The number resulting from the division of one number by another, and showing how often a less number is contained in a greater; thus the *quotient* of twenty divided by four is five; applied also to a fraction used to denote division; as, ¾, ⅜, &c.

Quot'less, *a.* That may not be, or is not worthy of being, quoted.

Quo'tum, *n.* [Lat. *quotus,* how many.] Share; part; quota. (R.)

Quo Warranto. [Lat. *quo,* abl. of *qui,* who, which, and L. Lat. *warrantus,* a guarantee.] (*Law.*) The name of a writ by which the government commences an action to recover an office or franchise from the person or corporation in possession of it. This writ has given place to an *information in the nature of quo warranto.* This, though *in form* a criminal, is *in substance* a civil, proceeding, to try the mere right to the franchise or office.

Q.—SECTION II.

QUAR — QUEE

Quad-, Quadri-. An initial componnding element, derived from the Lat. *quattuor*, four.

Quadrilat'eral, The. That territory in Italy at whose angles are the four towns, Legnago, Mantua, Peschiera, and Verona. The Mincio forms its western and most important defensive line, the Adige its eastern. From Legnago to Mantua is 21 miles, and from Peschiera to Verona 15 miles. For nearly a thousand years, this "quadrilateral" has been the base of all military operations against Italy. The possessor of it has been supposed to have the control of Italy. Austria's possession of it was a constant menace to the unification of Italy, especially inasmuch as Austria spent enormous sums on the fortifications of the territory. When, however, Italy became the ally of Prussia, in the war between that power and Austria, which ended in the disastrous defeat of Sadowa (1866), Austria was obliged to withdraw from the Quadrilateral, with the result that Venetia became a part of the kingdom of Italy.—Another quadrilateral, formed by Rustchuk, Silistria, Shumla, and Varna, was considered the main defence of Constantinople and the Turkish possessions in Europe until the Russo-Turkish war of 1877, when the quadrilateral was flanked and the Ottoman Empire conquered, although the Russians had been unable to reduce either of the four strongholds.—The four towns, Ardahan, Baiezid, Batoum, and Kars, at the northeast of the Ottoman possessions in Asia, are sometimes spoken of as a quadrilateral, but they are, in fact, a defensive line of fortresses. In the war of 1877 the Russians took all but Batoum. By the Treaty of Berlin, Ardahan, Batoum, and Kars were ceded to the Russians, leaving to the Turks Baiezid only.

Quadriv'alent, *a.* Having a valence or combining power of four.

Qua'hang, *n.* [Am. Ind. *poquahock.*] (*Zoöl.*) The common round or hard clam (*Venus mercenaria*); a bivalve having its inside tipped with purple, found along the Atlantic coast of North America, and highly esteemed as food.

Quahk, *v. n.* (*Bee-keeping.*) To make a sound as a young queen-bee in her cell.

Quain, Sir Richard, physician, was born at Mallow, Ireland, Oct. 30, 1816; graduated with honors at the University of London (1842); became a member of the Royal College of Physicians of London (1846), and (1871) a fellow of the Royal Society. In 1885 he was made physician-extraordinary to the Queen; in 1889 received the degree of LL.D. from Edinburgh; in 1891 was created a baronet, and elected president of the General Medical Council. He has contributed largely to the *Transactions* of learned societies.

Qua'ker City. in *Ohio*, a post-village of Guernsey co., 17 m. E. by S. of Cambridge. *Pop.* (1897) 920.

Qua'nah, in *Texas*, a post-town, cap. of Hardeman co., 191 m. N.W. of Ft. Worth. *Pop.* (1897) 1,860.

Quang-nam (*koo-ăng'näm*), a seaport of Anam, S.E. Asia, at the head of a gulf of same name, 75 m. S.E. of Hué, the cap. of the empire. It carries on an extensive trade.

Quarl, *n.* A fire-brick used in making supports for melting-pots for use in zinc desilverization, for retort-covers, &c.

Quar'rying Machin'ery. The channelling method of getting out the stone in quarries has come into very wide use within a dozen years. The rock is cut out in a series of great steps or benches, each about 6 feet high, a channelling-machine being used to separate the blocks. The cutting mechanism of a channelling-machine consists of a gang of drills or chisel-pointed bits, shaped according to the nature of the stone. Three drills in a gang are sufficient for very soft stone, and 4 or 5 drills are used in channelling harder stone. An efficient channeller will cut 100 feet of marble in a working day, and three or four times as great a quantity of soft stone. The design of the bar form of channeller is borrowed from the rock-drill. One, or more commonly two, stout tubular bars are supported on spreading legs, the latter being weighted to prevent them from jumping. A traversing-saddle is mounted on the bars in such manner as to carry a gang of reciprocating drills, and feed them along either for horizontal or perpendicular cutting. The power is supplied by a tube leading to a source of compressed air. The track channelling-machine resembles a little locomotive. It is usually a frame mounted on 4 wheels, and bearing an upright boiler and engine. Connected with the piston-rue. banism, and overhanging the rails, is a gang of cutters, so arranged that they may be fed down for deeper and deeper cutting until the channel reaches the desired depth. As the grades of the quarry are often steep, friction-clutches are provided to prevent the car from rolling away from its work. The track-channeller is run on a track on one shelf, while the channelling is done on the adjoining shelves. The Sullivan, Bryant, and Wardwell are well-known machines of this type. Another form of track-channeller is made to work along a toothed rail, so that the machine may be advanced the exact distance of one tooth at each cut. This machine makes use of diamond bits, and bores a series of holes on the line of the cut. The Saunders track-channeller is driven by compressed air, instead of a portable steam-engine. The cutting-stroke of the gang of drills is delivered by the direct thrust of the piston, as with a rock-drill, and the car is fed along with the up-stroke of the piston. This machine is particularly suited for side-hill work.

The rock-drill is also used for quarrying, drilling a series of holes on set lines, the work being finished by means of plugs and feathers. When mounted on a quarry-bar, or bars, the rock-drill is called a gadder; and when operated from a car it is a gadding-machine, or gadding-car. In getting out rock by this means there is some loss, because the rock may not fracture evenly between the holes when wedged out. This is largely overcome by the Knox method of reaming, which consists in driving a reamer down the holes and cutting a groove on either side toward the adjoining holes, in order to start the fractures in a true line. Another method of getting out dimension stone in the quarry is used to some extent in Belgium. It consists in sawing out the stone with a reciprocating steel wire. The surface operated upon is so small that the work is said to be done quite rapidly. Broken stone is produced at quarries as desired from the refuse. For this purpose any good rock-breaker may be used, but the rotary type is commonly preferred, in which the stones are worked down against the corrugated sides of an upright, rotating cone, and fall out at the base reduced to the size to which the breaker has been set. Conveyors, or buckets mounted on a pair of endless chains, are usually provided for carrying away the stone to the screens, and thence to storage bins, or pockets, or to cars for transportation. In hoisting stone blocks from the quarry a system of telpherage is often used, the stone being first raised by a hoist, and then slung on the ropeway, and carried to its destination. Where the stone in a quarry is mixed with dirt, hydraulic washing is sometimes resorted to, after a method similar to that used in hydraulic mining. Heavy streams of water, thrown from great nozzles forcibly against a bank of earth and stone, speedily drive out the earth, leaving the stone uncovered, and easy to work.

Quar'ter Sec'tion. In the system of surveying adopted by the United States and Canada, a tract of land half a mile square, containing one-quarter of a square mile, or 160 acres.

Quar'ter-back, *n.* See Foot-ball.

Quar'ter-pierced, *a.* (*Her.*) A charge perforated with a square opening so as to show the center of the

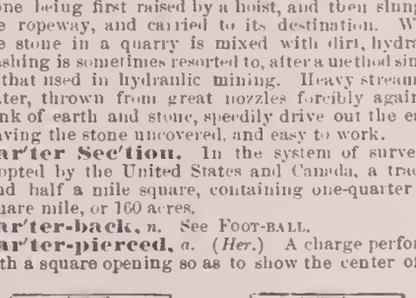


Fig. 3041.

field. A cross quarter-pierced is a common charge or bearing.

Quart'ley. Arthur, painter, was born in Paris, France, May 24, 1839. In 1851 he came to the U. S.; was apprenticed to a sign-painter, and followed his trade until 1862. For the next ten years he lived in Baltimore, attending to business, but giving his leisure to artistic study. In 1873 he opened a studio in New York city, and soon became known as one of the leading Americau marine painters. Died May 19, 1886.

Quartz'-mill, *n.* See Ore-crushing and Dressing Machinery.

Quay, Matthew Stanley, politician, was born at Dillsburg, Pennsylvania, Sept. 30, 1833; graduated at Jefferson College (1850); studied law and was admitted to the bar (1854); immediately gave his attention to politics, and became prothonotary of Beaver co. in 1856, to which office he was re-elected in 1859; during the Civil War period was colonel of the 134th Penna. Vols., and military secretary to the governor of his State (1861–63); member of the legislature (1865–67); secretary of state (1872–78, and 1879–82); state treasurer (1885); U. S. Senator since 1885. He became a member of the Republican National Committee in 1885, and as chairman in 1888 took a prominent part in the election of Harrison and Morton. He was tried in 1898 for misappropriation of public funds, but was acquitted. He has for years been the controlling figure in Pennsylvania politics. Failing of election to the Senate in 1899, after a long and exciting contest in the legislature he was appointed by the Governor *ad interim* for the term of 1899–1905. Died May 28, 1904.

Quebra'cho, *n.* (*Bot.*) Any one of several trees of which the bark is used medicinally, especially the *White Q.*, of Chile, belonging to the dogbane family (see Apocinum). The bark is used as a substitute for cinchona. *Red Q.* is a tree of the cashew family (see Anacardiaceæ), found in Mexico, the bark of which is thought to have similar properties.

Queen City. In *Texas*, a post-town of Cass co. *Pop.* (1897) 775.

Queen's Col'lege and Univer'sity. (*Educ.*) This institution was founded by royal charter in 1841, at Kingston, Ontario, Can., in the interest of the Presbyterian Church in Canada, in connection with the Church of Scotland. The early development of Queen's was greatly hindered by the separation which took place in the Presbyterian Church in Canada, consequent on the disruption of 1844 in Scotland. On the reunion of the Presbyterian bodies in Canada in 1874, however, an improvement took place, and it has become, under Principal George M. Grant, one of the most successful and well-conducted institutions of learning in Canada. The University has faculties of Theology, of Medicine, of Law, and of Practical Science. During the year ending April 28, 1897, the institution had 567 students, not including those in the affiliated "School of Mining and Agriculture," or in the Veterinary School, or in the Dairy School, now controlled by the Provincial government; nor are there included those in classes connected with the various forms of University Extension. There is also a post-graduate course. During the year above mentioned the University had 65 instructors, besides those officiating in the School of Mining, and its revenues were in excess of $52,000. The library contains about 35,000 volumes. The buildings of Queen's are the chief architectural ornament of Kingston. The city is also the seat of the Women's Medical College, which is affiliated with the University.

Queens'land. (*Geog.*) The territory which now constitutes Queensland was scarcely known until 1823, when Brisbane river was discovered, named, and taken possession of by the British. The land through which it flowed seemed to be habitable, and accordingly a penal settlement was established in 1824, on Moreton Bay, near the present dividing line between Queensland and New South Wales. Four years later, the Darling Downs, a fine pasture region lying inland from Moreton Bay, was discovered by Alan Cunningham, the explorer, and soon attracted farmers, who came in great numbers, bringing police guards with them to protect them from the convicts. These squatters, the convicts, and the aborigines made up an ill-assorted population, in which there was constant violence and lawlessness until 1842, when the territory was formally opened to colonization. This step, though bitterly opposed by the squatters, brought in a better class of settlers in such numbers that in 1859 the new colony was separated from New South Wales and received a government of its own, consisting of a governor appointed by the crown, and two houses of parliament. The first governor was Sir George Bowen, during whose rule, from 1859 to 1868, a broad and practical government policy was established, which has been followed by succeeding governors. Queensland has an area of 670,000 sq. m., five and a half times the area of the United Kingdom; it extends from New South Wales on the South, at about the 29° S. latitude, to the 10° S. latitude, and includes the Torres Straits Islands; its length is 1,300 m. from N. to S.; its greatest breadth is

800 m.; and it has a coast line of 2,250 m. in extent. Its most settled region is the fertile, well-watered, agricultural belt lying between the eastern coast and the Great Dividing Range of mountains, which run in a general way parallel to the coast and are of the same system as the Australian Alps in Victoria and the Blue Mountains of New South Wales. To the west of the Dividing Range is a region of dry inland plateaus, known as the "Never Never Country," where the soil is rich, but too poorly watered to produce much except low, open, forest growth and grasses; but as these grasses, even when dry, are very nutritious, this is one of the finest stock countries in the world, and is occupied by shepherds with herds of sheep and cattle. Much of this country is still under the control of the crown, which leases it for grazing purposes in large tracts at a low rental. In a similar way, smaller farms in agricultural districts may be rented from the government and finally purchased at prices fixed by the Land Board. As two-thirds of Queensland lies within the tropics, the colony as a whole has a wide range of climate, products, and resources; the low-lying coast lands are suited to tropical and semi-tropical agriculture, while the higher inland country, by the aid of irrigation, is available for most of the crops of the temperate zones. Indian corn is the staple grain, but there is much good wheat land, especially on Darling Downs. Jute and other fiber-producing plants are cultivated, and potatoes grow well. The staple garden crops of the lower countries are sweet potatoes and pumpkins. Arrowroot, tobacco, cotton, rice, sugar, coffee, ginger, pepper, nutmeg, and all sorts of tropical fruits find themselves at home. The sugar industry was very important at one time, but has somewhat declined owing to the stringent laws regulating the importation of cheap Chinese and South Sea Island labor. Naturally the chief exports of the colony are raw products, the most important being wool, meat, skins, tallow, gold, silver, copper, lead, pearl, tortoise-shell, arrowroot, and timber; manufactories are developing, however, and metal foundries, tanneries, sugar refineries, flour-mills, distilleries, sawmills, establishments for canning meats, and tweed factories may be numbered among them. The mineral resources are rich; from 1868 to 1895 the gold mines yielded 9,926,923 ounces of gold, and new gold fields have been recently discovered. Copper probably stands next to gold in importance, although the fall of prices has lessened the amount of copper-mining in the last decade. The deposits of tin are also valuable, and silver, mercury, cobalt, bismuth, zinc, antimony, and manganese are found; extensive coal mines are also worked; there are valuable quarries of many building-stones, and various precious stones occur, particularly in the tin-streams. The climate of Queensland for most of the year is dry and warm, but free from the hot winds so common in other parts of Australia. The temperature does not exceed 108° nor fall below 34°, and the air has a tonic quality which is recommended for all lung troubles. The population is increasing rapidly, partly owing to the government policy of assisting immigration. The total population in 1891 had reached 393,718, of whom there are about 22,000 aborigines, mostly in the wilder regions. The transportation facilities of the colony are very good; there is a direct line of steamers between Brisbane, the capital, and London; there are coast lines to the other colonies, and a rapidly extending railway system exists, which, like the telegraphic and postal services, is under government control. Besides Brisbane, the principal towns are Rockhampton, Ipswich, Townsville, Cooktown, Maryborough, Gympie, Gladstone, Toowoomba, Dalby, Roma, and Bowen. The schools are free, and attendance is compulsory. There is a very small standing army, but all men between 18 and 60 years old are liable for military service in case of need.

Que'zal, or **Que'sal,** *n.* (*Ornith.*) The most splendid of American trogons, adopted as the national bird of Guatemala. The name is from the Maya language, and refers to the glittering metallic green that predominates in the plumage of the male. It is also called hoatzin, in reference to its place as the bird of royalty; and its book-name is the queen trogon—*Pharomacrus mocinno*. This trogon is about the size of a dove. "The whole upper surface, breast, neck, and head, including the curious rounded and compressed crest, are rich golden green, and so are the smaller wing-coverts, some of which are lengthened into gracefully drooping plumes overhanging the wing; four upper tail-coverts, of a similarly brilliant green, are enormously lengthened, especially the two central ones, which, in perfect specimens, may reach a length of nearly three feet; the true tail-feathers are black and white, and the posterior part of the under side is rich vermilion, inclining to crimson. Only the males are adorned with the long, floating train; the females, as in most trogons, being much plainer." These gorgeous tail-plumes, which the living bird moves back and forth, like scissor blades, and vibrates in the sunshine, were so highly prized by the natives of Central America, at the time of the Spanish conquest, that no one was allowed to kill the bird when taken, but only to divest it of its feathers, which were worn by the chiefs alone. That this was an ancient custom appears from representations in ancient carvings, as well as prehistoric pictographic manuscripts. It was this tradition that caused it to become the representative bird of Guatemala, and find a place in its national coat of arms, on its postage-stamps, &c. It dwells in the forests, feeds chiefly upon fruit, which it snatches on the wing "with a degree of elegance that defies description." The bird's feet are small, weak, and useful only in perching; but its wing-power is good. "Its flight," says Osbert Salvin, who has written most fully about this species, "is rapid and straight; the long tail-feathers, which never seem to be in his way, stream after him. . . . The cries of the quezal are various. They consist principally of a low, double note, '*whe-oo, whe-oo,*' which the bird repeats, whistling it softly at first, and then gradually swelling it into a loud but not unmelodious cry. . . . The bird's other cries are harsh and discordant." It breeds in accidental crannies in tree-trunks, abandoned woodpeckers' holes, and lays pure white eggs. This bird is not found outside of Costa Rica and Guatemala, but several allied species occur in South America and the West Indies, and one other throughout Mexico. See TROGONINÆ.

Quezaltenango (*ka-sāl-ta-nāng'go*), a thriving town of Guatemala, capital of a department of same name, and ranking next after Guatemala, the capital, as a trading center. It is near the site of the aboriginal city of Xelahub, and was founded by the Spanish conqueror Alvarado in 1524. *Pop.* about 24,000.

Quid pro quo (*kwĭd pro kwō'*). [L., one thing for another.] An equivalent, or the mutual consideration and reciprocal performance of both parties to a contract or agreement.

Quien Sabe (*kē'en-sā'be*). [Sp. Who knows?] An expression used in the southwestern part of the United States, in replying to a question, implying, "I do not know," or "I do not care to say."

Quil'ler-Couch, ARTHUR T., writer, was born in England, Nov. 21, 1863; graduated at Trinity College, Oxford; began a literary career in London on the staff of *The Speaker*, in which many of his stories and criticisms have appeared. He has written many sketches; and among his latest volumes are: *Ia, a Love Story* (1895); *Wandering Heath* (1896); and a series of articles entitled *Adventures in Criticism* (1896).

Quillota (*kēl-lo'tah*), a town of Chile, province and 22 m. N. E. of the city of Valparaiso, on the Aconcagua river. Rich copper mines in its vicinity give it a considerable importance. *Pop.* 10,000.

Quincen'tenary, *a.* Pertaining to five hundred; coming at the end of five hundred years; pertaining to a five-hundredth anniversary.

—*n.* A five-hundredth anniversary or its celebration.

Quin'cy Meth'ods. A system of primary education, especially developed by Colonel Parker, which lays particular stress upon the development of the natural activities of the child.

Quinc'uio, in *Kansas*, a post-village of Osage co., 30 m. S. S. W. of Lawrence. *Pop.* (1895) 608.

Quinet (*ke-nā'*), EDGARD, a French philologist, was born at Bourg, in 1803; became a member of the scientific commission sent in 1828 by the French government to the Morea, where he collected the materials for his *Modern Greece in Relation to Ancient Greece*, published in 1830. He wrote from time to time for the *Revue des Deux Mondes* valuable articles on historical and philosophical subjects; and produced several works strongly marked by liberalism; among them *La Génie des Religions* (1842). In 1846 he was removed from his chair on account of his extreme political opinions; became a deputy in 1847; took an active part in the revolution of 1848; and was expelled from France in 1852. In Nov., 1870, he was restored to his professorship in the College of France. Collected editions of his works appeared in 1856 and 1859. Died in 1875.

Quinqu-, Quinqua-, Quinque-. An initial compounding element, derived from Lat. *quinque*, five.

Quinquenna'lia, *n.* [From L., *quinquennium*, a term of 5 years.] (*Roman Antiq.*) Public games celebrated every five years, instituted by the emperors to commemorate notable events in their respective reigns.

Quinta'na, in *Texas*, a post-town of Brazoria co. *Pop.* (1897) 666.

Quit'man, in *Mississippi*, a N. W. co.; *area*, 400 sq. m.; drained by Coldwater river and its affluents. *Surface*, nearly level; *soil*, fertile; well suited for stock raising. *Cap.* Belen. *Pop.* (1897) 4,150.

Quo'rum, *n.* (*Par. Law.*) The number of members in a deliberative body that must be present for the legal transaction of business. When this number is not specified by rule, common usage has made it a majority of the members; but a body may, by its rules, make a larger or smaller number constitute a *Q.* In the British House of Lords 3 is a *Q.*, though the members number 450. In the House of Commons 40 is a *Q.* In the Congress of the U. S., in the absence of specific rule, a majority has constituted a *Q.*, and the same usage has obtained in the committees, including the "Committee of the Whole of the House," until 1890, when the House adopted a rule that 100 should be a *Q.* in Committee of the Whole. In a contested election case in the U. S. House of Representatives, Jan. 29, 1890, objection was made that no *Q.* was present. But the Speaker of the House, Hon. Thomas B. Reed, decided that a *Q.* was present, although a *Q.* did not vote, as he could see members present who refused to vote; and he therefore directed their names to be counted to make the *Q.* full. This decision was hotly contested as being without precedent and unconstitutional; but the House sustained the ruling of the Speaker, who continued to "count a quorum" whether members refused to vote or not. On Feb. 14, 1890, the House adopted new rules, of which Section 3 of Rule XV. is as follows: "On the demand of any member, or at the suggestion of the Speaker, the names of members sufficient to make a quorum in the hall of the House who do not vote shall be noted by the clerk and recorded in the journal, and reported to the Speaker with the names of the members voting, and be counted and announced in determining the presence of a quorum to do business." In 1892 these rules were modified, but they were substantially restored in 1894.

R is the 18th letter in the English and other Western alphabets, and of the group of liquids or semivowels. Of all the consonants, *R.* approaches most nearly to the vowels. The normal orthoëpy of *r* in English and the Romanic tongues (also in Latin) is a tremulous sound produced by applying the tip of the tongue near the roots of the upper fore-teeth. *R* is one of the most difficult articulatiou, and is sometimes called the *canine letter*, from some supposed resemblance in sound to the growl of a snarling dog. This letter is susceptible of numerous interchanges, the most common of which is with *l*. The Chinese, who cannot pronounce *r*, use *l* in lieu of it, as do also some of the Polyuesian tribes. At the beginning of English words derived from the Greek through the medium of the Latin, *r* is usually followed by *h* to represent the force of *ῥ*, as in *rhetoric, rhapsody*, as also when it occurs in the middle of an English word derived from a Greek compound, as in *diarrhœa*, from *διά* and *ῥέω*. In modern English, an affectation largely prevails which, as it were, emasculates the force of *r*, and tones down its vibratory "burr" into something like a nondescript vowel, as in *very, bore*, into *vewy, boaw*. As an abbreviation, *R* stands for *rex* or *regina*; *R. P.* for *respublica*, &c. In medical prescriptions *r* (thus ℞) stands for *recipe* or *take*. As a Roman numeral R stands for 80, and with a dash over it (thus R̄) for 80,000.

R. A. Abbreviation of *Royal Academy, Royal Academician, Rear-admiral*, and *Royal Artillery*.

Ra. An inseparable prefix, from the Lat. *re* and *ad* in combination, introduced into English through the French and Italian.

Raab, a navigable river of Hungary, rising in Styria, and after a N.E. course of 180 m. falling into the Danube near the town of Raab.

Raab, (*rab,*) a town of Hungary, cap. of a district of same name, at the junction of the Raab and Little Danube, 67 m. W.N.W. of Buda. *Manuf.* Cutlery and tobacco.

Raalte, (*ralt',*) a town of Holland, prov. of Overyssel, 11 m. N.N.E. of Deventer; *pop.* 6,000

Raam'ses. (*Script.*) A city built by the Hebrews during their servitude in Egypt, abt. 35 m. N.W. of Luz.

Rab, *n.* A stick used by masons in mixing hair with mortar.

Rabagh, (El,) (*ra'ba,*) a town of Arabia, in Hêjaz, on the Red Sea, 100 m. N.W. of Mecca, where pilgrims perform their ablutions.

Ra'hastens, a town of France, dept. of Tarn, on the Tarn, 21 m. E. of Toulouse; *pop.* 6,000.

Rabat', a fortified seaport-town of Morocco, in Fez, at the mouth of the Bu-Regreb, 135 m. S.S.W. of the entrance of the Straits of Gibraltar. *Manuf.* Carpets, silk, linen, and woollen fabrics, saddlery, &c. It has a considerable export trade.

Rab'ba, an important town of Central Africa, in Nigritia, on the Niger, Lat. 9° 15′ N., Lon. 5° 20′ E. It has an extensive trade in ivory, and goods of both foreign and native manufacture.

Rab'bet, *v. a.* [Perhaps from Fr. *raboter*, to plane.] To cut, as the edge of a board, in a sloping manner, in order that it may form a joint, by lapping with another board similarly cut; — also, to cut a rectangular groove, longitudinally, in the edge of a board, &c., to fit a corresponding projection upon the edge of another board, &c., so as to compose a joint.

—To lap, and join the edges of, as boards, timber, &c., by a *rabbet*.

—*n.* A cut made aslope upon the edge of a board, to form a joint with another board similarly cut, by lapping; also, a rectangular groove cut in the edge of a board longitudinally to admit a corresponding projection made upon the edge of another board, &c., adapted to fit into it.

Rabbet of the keel. (*Ship-building.*) That part of the keel, stern, and stern-post of a ship which is cut for the plank of the bottom to fit into.

Rab'beting, *n.* (*Joinery.*) Forming or cutting rabbets.

Rab'bet-joint, *n.* A rabbet.

Rab'bet-point, *n.* A particular kind of plane used by joiners for cutting a rabbet.

Rabb'i, Rab'bin, *n.* [Heb., my teacher, lord, or master.] A title of respect given by the Jews to the teachers of their law, and which seems to have been introduced only shortly before the time of Christ by his disciples. It was originally used in three forms. — *rab*, or master; *rabbi*, or my master; and *rabbun*, great master, or *rabboni*, my great master. *Rab* is still used by the Jews of eastern Europe and others, both in conversation and writing, in the sense of *Mr.*; and the title *rabbi*, or *rabbin*, is given to the modern religious heads of Jewish communities or congregations. The term *rabbinical* is applied to all the Jewish writings composed after the Christian æra. (See HEBREW LANGUAGE AND LITERATURE.)

Rabbin'ic, Rabbin'ical, *a.* [Fr. *rabbinique.*] Pertaining or having reference to the Jewish rabbins, or to their opinions, learning, and language.

Rabbin'ic, *n.* The later Hebrew language.

Rab'binism, *n.* [Fr. *rabbinisme.*] A particularity or peculiarity of the language of the rabbins.

Rab'binist, Rab'binite, *n.* Among the Jews, one who adhered to the Talmud and the traditions of the rabbins, in opposition to the *Caraites*, q. v.

Rab'bit, *n.* [Formerly *rabbet*, most probably corrupted from *rough-feet*, the fact of the animal being adapted to scratching and burrowing.] (*Zoöl.*) An animal of the same genus with the hare. The *Lepus cuniculus*, the Common Rabbit of Europe, very much resembles the hare in structure, but may be readily distinguished from it by its smaller size, its shorter ears and hind legs, and the absence of the black tip to the ears. In its habits it is extremely different from that animal; being unable to outstrip its enemies in the chase, it seeks its safety and finds shelter by burrowing in the ground; and instead of leading a solitary life, its manners are eminently social. The fecundity of *R.* is truly astonishing: they will breed seven times in one year, an p. haps bring forth eight each time; and, on a supposition that this happens regularly for four years, a

Fig. 2203. — TAME RABBITS

single pair would in that time multiply to 1,274,840. We should, however, add that although this is *possible*, such extraordinary fertility is not very probable. When the time of parturition draws near, the female forms a separate burrow, more intricate than the ordinary one, and lines it at the bottom with a part of her own fur; the young are born blind, and very scantily covered with hair; and for nearly six weeks she continues to suckle them. During this period the female is seldom visited by the male; but as soon as the little progeny are capable of going abroad, he seems anxious to acknowledge and caress them. The Gray *R.*, *Lepus sylvaticus* of the United States, is the most plentiful species of the genus *Lepus* in New Jersey, Pennsylvania, and the more southern States; but although it somewhat resembles the common *R.* in color, and is rather inferior to it in size, its habits are intermediate between those of the *R.* and the hare. It does not burrow, although when hard pressed by a pursuer, it retreats into any accessible hole, and sometimes digs, in order to escape from or enter an enclosure.

Angora rabbit, a variety of rabbit having long, soft fur.

Rabbit-burrow, a hole for habitation, made in the earth by rabbits. — *Rabbit-hutch*, a box or pen for confining rabbits. — *Rabbit-warren*, a tract of land set apart for the propagation and preservation of rabbits.

Rab'bit River, in *Michigan*, enters the Kalamazoo River from Allegan co.

Rab'bitry, *n.* A collection of hntches for keeping tame rabbits.

Rabble, (*rab'l,*) *n.* [A. S. *reafl*, greedy, mad, from *reafian*, to spoil; Lat. *rapio*, to seize and carry off; W. *rhail*, a raveniug.] A mob; a tumultuous crowd of vulgar, noisy people; a confused, disorderly crowd. — The mob; the canaille; the dregs of the people; the lowest class of the populace, without reference to an assembly; as, "the low and ignorant *rabble*." — *Addison.*

—A rake-shaped tool used in metallurgy.

—*v. a.* To mob; to coerce or expel by a mob or tumultuous crowd; as, to *rabble* an unpopular minister.

—*a.* Belonging to, or befitting, a rabble; tumultuous; noisy; low; vulga ; as, *rabble* proceedings.

Rabdoid'al, Rhabdoid'al, *a.* [Gr. *rabdos*, a rod, and *eidos*, shape.] (*Anat.*) Belonging or relating to the sagittal suture.

Rabdol'ogy, Rhabdol'ogy, *n.* [Fr. *rabdologie*, from Gr. *rabdos*, stick, and *logos*, doctrine.] The method of operating in arithmetic by means of NAPIER'S-BONES, *q. v.*

Rabdoman'cy, Rhabdoman'cy *n.* [Gr. *rabdos*, and *manteia*, prophecy.] Divination by means of wands, practised by the ancients.

Ra'belais, FRANÇOIS, a celebrated French wit and satirist, was B. at Chinon, in Touraine, about 1483. He was at first a monk, but in consequence of having been punished for some indecorous behavior, he quitted the Benedictine order, studied medicine at Montpelier, and for a time practised as a physician. He subsequently obtained, through the influence of his patron, Cardinal du Bellay, whom he accompanied to the court of Rome, the rectory of Meudon; and D. in 1553. He was author of several books; but the only one by which he is known is the romance called *The Lives, Heroic Deeds, and Sayings of Gargantua and Pantagruel*, an extravagant satire upon monks, priests, popes, and pedants, in which much obscenity and absurdity are blended with learning, wit, and humor. *R.* was a conscientious teacher of his flock, and it was his pleasure to instruct the children of his parish in sacred music. His house was the resort of the learned, his purse always open to the needy, and his medical skill was employed in the service of his parish.

Rab'id, *a.* [Lat. *rabidus*, from *rabies*, madness, from *rabo*, to rave.] Raging mad; furious; as, a *rabid* dog. — Pertaining or relating to rabies or hydrophobia; as *rabid* virus.

Rab'idly, *adv.* In a rabid manner; furiously.

Rab'idness, *n.* State or quality of being rabid; rage; madness; furiousness.

Ra'bies, *n.* [Lat.] Madness, as that of dogs; hydrophobia.

Rab'inal, a town of Guatemala, Central America, abt. 50 m. S.W. of Vera Paz.

Rab'inet, Rab'anet, *n.* A kind of smaller ordnance.

Ra'bun, in *Georgia*, an extreme N.E. co., adjoining N Carolina and S. Carolina; *area*, abt. 330 sq. m. *Rivers.* Chattooga, Little Tennessee, and Tugaloo rivers. *Surface*, mountainous, the Blue Ridge traversing the N. part; *soil*, in some parts fertile. *Min.* Iron in abundance, and some gold. *Cap.* Clayton.

Ra'butin, ROGER, COUNT DE **Bus'sy-,** a French wit and satirist, was B. in 1618, at Epiry, in Nivernois. He entered the army at the age of 12, under his father, and would probably have obtained a high rank but for the offence he gave to persons in power by his scandalous lampoons. In 1665 he was sent to the Bastile for writing a libel, entitled *Histoire Amoureuse des Gaules*; and on his release he was banished to his estate, where he remained till 1681, when he returned to court. His other works are, *Mémoires*, 2 vols.; and *Lettres*, 7 vols. D. 1693.

Ra'ca, *a.* [Heb. *râkâ.*] An ancient Syriac word, signifying vain, worthless, or foolish. As pronounced by the Jews it included a strong idea of contempt. Christ says, (*Matt.* v. 22,) "Whoever shall say to his brother, *raca*, shall be condemned by the council, or Sanhedrim."

Rac'ca, or **Rak'ka,** a town of Asiatic Turkey, on the Euphrates, Lat. 30° 5′ N., Lon. 38° 50′ E.; *pop.* 8,000.

Racconigi, (*rak-ko-ne'je,*) a town of Italy, prov of Turin, on the Maira, 20 m. S. of Turin. *Manuf.* Silk and woollen fabrics. *Pop.* 11,000.

Raccoon', *n.* (*Zoöl.*) The common name of the genus *Procyon*, family *Ursidæ*, characterized by a stout body, pointed muzzle, and moderately long tail. The common Raccoon, *P. lotor*, of the United States, is less than two feet long to the tail, which is about a foot; the general color light-gray, tinged with pale-rusty across the shoulders, and much overlaid with black-tipped hairs. The under parts are of a similar gray, but without the black tips; and over the whole body the dull-sooty under-fur shows through. The tail has five distinct black rings, and a tip of the same color, the interspaces being grayish-white. The end of the muzzle is whitish, and there is a black patch upon the cheek and another behind the ear. The *R.* is nocturnal in its habits, and feeds upon roots, birds, and other small animals. It is easily tamed, and is said to dip its food in water before eating it.

Race, (*rās,*) *n.* [Fr.; It. *razza*, from Lat. *radix, radicis*, the root.] The continued series of descendants from a parent, who is called the *stock*; a breed; a lineage; an extraction: a kindred family, tribe, people, or nation. — A particular breed, sort, or variety; as, the *races* of mankind.

—Company; herd.

"A *race* of youthful and unhandled colts." — *Shaks.*

(*Bot.*) A marked variety which may be propagated by seed.

—A root; as, a *race* of ginger. — *Shaks.*

—A particular strength, flavor, or taste of wine, indicating its race, stock, origin, &c.; — hence, characteristic flavor; bouquet; smack; as, "Canary of the right *race*."

Massinger.

—Peculiarity of disposition; characteristic quality; salient feature; as, "a generous *race*." — *Savage.*

Race, *n.* [A. S. *rus*, a rush, *ræsan*, to rush; Icel. *rása*, to run; Swed. Gothl. *resa*, a way.] A progress: a course or career; a movement or progression of any kind.

"My *race* of glory run, and *race* of shame." — *Milton.*

—A rapid course or motion, whether on the feet, on horseback, or in a carriage, &c.; a running; swift progress.

—Particularly, a contest in running; a running in competition for a stake or prize; any running with speed; — plurally, a meeting for contests in the running of horses. See HORSE-RACING.

—A strong or rapid current of water, or the channel or passage for such a current; as, the *Race* of Alderney.

—A small artificial canal or water-course, leading from the dam of a stream to the machinery which it drives; a mill race.

—*v. a.* (*imp.* and *pp.* RACED, (*rāst.*) To run, as in a *race*; to run swiftly; to run or contend in running for; as, the horses *raced* at their best speed.

—*v. a.* To drive swiftly; to cause to run with speed, as a horse in a race.

Race'-course, *n.* The ground or path on which races are run; as, Epsom *race-course.* — A cut or course for water.

Race'-cup, *n.* A gold cup to be run for in a race.

Race'-ginger, (*jin'jr,*) *n.* Ginger in the root.

Race'-horse, *n.* A horse bred or kept for running in contest or competition; a racer; a thoroughbred horse, trained to speed. — See HORSE-RACING.

Race'land, in *Louisiana*, a post-village of La Fourche parish, abt. 40 m. W.S.W. of New Orleans.

Race'mic Acid, *n.* [Lat. *racemus*, a bunch or cluster.] (*Chem.*) A peculiar modification of tartaric acid, found in certain species of grapes growing in the Vosges moun-

tains, and in one or two other localities. It differs from tartaric acid in certain minor particulars, although its composition is precisely similar.

Racemose, (*-rās-,*) *a.* (*Bot.*) Resembling a raceme; racemous.

Racemous, (*-sē'mus,*) *a.* [Lat., *racemosus.*] (*Bot.*) Growing in the form of racemes; racemose.

Racemulose, (*-sēm'u-lōz,*) *a.* (*Bot.*) Having very small racemes.

Racer, (*rā'ser,*) *n.* One who races, or competes in a race. — A race-horse; as, a crack *racer.*

Rachel, (*rai'chel.*) (*Script.*) The second daughter of Laban, the dearly beloved of Jacob, who, to obtain her, devoted seven years to the flocks and herds of her father. But, at the end of that period, he found in his veiled bride not Rachel, but Leah, her elder sister, whom he did not love, and was obliged to labor during seven more years in order to gain her. She was the mother of Joseph and Benjamin.

Rachel, (Eliza Rachel Felix,) (*ra'shel,*) a celebrated French actress, who was the daughter of a Jew pedlar. The family gained a livelihood by periodically visiting various towns in Germany and Switzerland, and at length settled at Lyons, and in 1830 went to reside at Paris. Sarah, her elder sister, used to sing at the various cafés, to the accompaniment of an old guitar, while Rachel went from table to table to collect the offerings of the spectators. In 1832, the voices of the two sisters having attracted notice, they were placed, by the kindness of some connoisseurs, under Choron, a celebrated singing-master; and in 1833, the elder sister Rachel, having shown great tragic power, entered the *Conservatoire* at Paris, where she was carefully trained by Saint-Aulaire and Samson, and in 1838 made her first appearance at the Theatre Français, in the character of "Camille," in *Les Horaces,* where her début was not anspicious. But the coldness of her reception was not of long duration. The sharp critical eye of M. Jules Janin soon discovered in her a worthy interpreter of the *chefs-d'œuvre* of Racine and Corneille; and his brilliant criticisms on her performances soon roused the public sentiment in her favor, which was fully justified by the result. In the course of a few months Mademoiselle Rachel completely revived the classic school of tragedy which had fallen into decay, though her crowning triumph was gained in 1843, in her representation of *Phèdre.* Soon after this she made a provincial tour, visited the chief European cities, and at last came to London, in 1846, reaping large harvests both of fame and wealth wherever she appeared. In 1855 she made a professional visit to the U. States, but she was interrupted in the middle of great success by the failure of her health, returned to France, and D. of consumption at Cannes, near Toulon, 1858.

Rachil'la, *n.* [Gr.] (*Bot.*) A branch of inflorescence; the zigzag centre upon which the florets are arranged in the spikelets of grasses.

Rachis, (*rā'kis,*) *n.* [Gr., the spine] (*Anat.*) The vertebral column of mammals and birds.

(*Bot.*) The axis of several varieties of inflorescence.

Rachitic, (*ra-kit'ik,*) *a.* [Fr. *rachitique.*] (*Med.*) Belonging to, or affected by, rachitis; rickety.

Rachitis, (*-kī'tis,*) *n.* [Fr. and Gr., from *rachis,* the spine.] (*Med.*) The Rickets, *q. v.*

(*Bot.*) A disease in fruit producing abortion.

Racily, (*-rā'si'ly, adv.* In a racy or piquant manner.

Racine, Jean, (*ra-seen',*) an eminent French dramatic poet, was B. at La Ferté Milon in 1639, and was educated at Port Royal. He commenced his poetical career in 1660, by an ode on the king's marriage, for which he was handsomely rewarded. In 1664 he produced his tragedy of *la Thébaide,* which was followed in 1666 by *Alexandre.* In 1668 appeared his *Andromaque,* which placed him far above all his contemporaries except Corneille; and his fame was still further increased

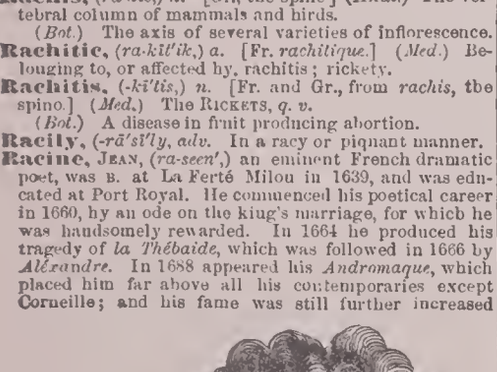


Fig. 2204. — Jean Racine.

by the production of *Britannicus, Bérénice,* and other tragedies. In 1677 appeared his tragedy of *Phèdre,* which was opposed by one on the same subject written by Pradon which gave him great uneasiness; and owing to a base cabal that was formed against him, he was induced to desist from writing for the stage. After a lapse of 12 years he wrote, by desire of Louis XIV. and Madame de Mainteuon, the sacred dramas of *Esther* and *Athalie,* which were performed by the young ladies of the institution of St. Cyr. Besides his dramatic works, he wrote *Canticles and Hymns for the use of St. Cyr,* the *History of Port Royal,* &c. In 1673 he was received into the Academy, and continued to enjoy the highest favor at court; but having offended the king by a too free use of his pen in drawing up a memorial on the distresses of the people, he D. of chagrin, in 1699. Submitting implicitly to the code of laws laid down by the critics of his time, he did much towards making the regular or classical school of the drama acceptable and permanent, by imparting to his tragedies all the perfection which it is possible to conceive genius as giving to works constructed on so narrow a model. He is not equal to Corneille in vigor and genius, but his grace and melody of diction are exquisite; and his refined tenderness of feeling, often melting into profound pathos, breaks out through all the barriers imposed by the unities, and the simple plots, and the monotony of the rhymed Alexandrine verses.

Racine, (*ras-seen',*) in *Minnesota,* a township of Mower co.

Racine, in *Ohio,* a post-village of Meigs co., abt. 8 m. S.E. of Pomeroy.

Racine, in *Pennsylvania,* a township of Beaver co.

Racine, in *Wisconsin,* a S.E. county, bordering on Lake Michigan; *area,* about 350 square miles. *Rivers.* Root and Pishtaka rivers. *Surface,* nearly level; *soil,* very fertile, producing large crops of wheat, corn, oats and hay. *Pop.* (1895) 41,110.—A handsome and thriving city, cap. of the above county, on Lake Michigan, about 25 miles S. by E. of Milwaukee. It has numerous manufactures, and a large trade is conducted on the Lakes. In May, 1882, *R.* suffered terrible loss by fire, but has since been rebuilt more handsomely than before. *Pop.* (1895) 24,889.

Ra'ciness, *n.* State or quality of being racy; peculiar flavor; piquancy; pungency; as, *raciness* of wit or literary style.

Rack, *v. a.* [A. S. *ræcan,* to extend; Ger. *recken.*] To stretch or strain with effort or violence; to extend by force; — hence, to wrest; to submit to harsh or violent treatment. — Specifically, to stretch on the rack or wheel for the infliction of torture by straining the limbs and dislocating the joints.—To affect with extreme pain or anguish; to torture; to torment. — To distress by exaction; to exhaust; to screw. — To strain or draw off from the lees; as, to *rack* wine; to cleanse from dross or impurities; as, to *rack* ores.

(*Naut.*) To seize two ropes together with cross turns.

—*n.* [D. *rek.*] Something used for stretching, extending, or straining.—Specifically, an instrument of torture for stretching, extending, or bending in an arch direction the body of the victim. The rack consisted of a large

Fig. 2205. — The Rack.

frame furnished with pulleys, cords, and other appliances, upon which the body of the person under examination, or "question," as it was called, was first extended, and then gradually stretched, until all the joints of the body and the extremities were dragged from their sockets, and kept in that position for several minutes, often to the laceration of the capsules and ligaments, and then, by a sudden removal of the strain, allowed to retract in their sockets, causing an amount of agony often beyond the endurance of human patience.

—Any instrument used for stretching anything; as, a *rack* for bending a bow. — A grate on which bacon is laid. — A wooden framework in which hay is placed for horses and cattle in feeding. — A framework or stand of wood, metal, or earthenware on which articles are put, placed, spread out, or deposited; as, a hat-*rack,* a clothes-*rack,* a toast-*rack,* a card-*rack,* a bottle-*rack,* &c. — A distaff.

(*Mining.*) An inclined plane on which the ore and slime are washed and separated.

(*Naut.*) A strong wooden frame-work, supplied with several sheaves for receiving the running rigging; a rack-block.

(*Man.*) The quick amble of a horse.

(*Mech.*) A flat bar with teeth on one side, to work into those of a pinion.

To put to the rack, to put to the torture; to torment.

"A fit of the stone *puts* a king *to the rack.*" — *Temple.*

—*v. n.* [Ger. *recken.*] To move with a quick, ambling motion, as a horse.

Rack, *n.* [A. S *recreccan.*] Thin, flying, broken clouds, or any portions of floating vapor in the sky.

—[A. S. *hracca, wahac*; Scot. *craig.*] The neck and spine of a fore-quarter of veal or mutton.

—Same as Arrack, *q. v.*

—Ruin; wreck; destruction. (Colloq.)

To go to rack, to perish. (Colloq.) — *Rack and ruin,* utter destruction; total ruin. (Colloq.)

Rack'-block, *n.* (*Naut.*) See Rack.

Rack'er, *n.* One who racks or tortures; that which torments. — A horse that moves with a racking pace.

Rack'et, *n.* [Fr. *raquette;* Icel. *hreckia,* to propel.] The instrument with which players at tennis strike the ball; also, the game itself. — An irregular, chattering noise; din; clamor; confused or noisy talk. — In Canada, a kind of snow-shoe. — A broad, wooden patten for a horse, to enable him to step on soft or oozy ground.

—*v. n.* To frolic; to make a shindy; to kick up a row; to make a confused noise or clamor.

—*v. a.* To strike, as with a *racket.*

Rack'eting, *n.* Noisy or tumultuous mirth or frolic.

Rack'et River, in *New York,* rises in Long Lake in Hamilton co., and flowing an irregular N. course, enters the St. Lawrence River from St. Lawrence co.

Rack'etville, or North Potsdam, in *New York,* a post-village of St. Lawrence co., abt. 5 m. N. by E. of Potsdam.

Rack'ety, *a.* Frolicsome; making a clattering, clamorous noise.

Rack'ing, *a.* Excruciating; torturing; as, a *racking* tooth-ache.

—*n.* (*Mining.*) A process of separating small ores from the earthy particles, by means of an inclined wooden frame; the impurities being washed off, the ore remaining near the head of the rack is taken from thence, and undergoes tossing.

Rack'ing-can, *n.* A vessel for clearing wine from the lees. — A utensil for holding sour beer, in which iron-wire is steeped for drawing.

Rack'-lashing, *n.* (*Mil.*) A lasbing tightened by means of a stick of wood twisted around.

Rack'-punch, *n.* Punch made with arrack, lemons, and sugar.

Rack'-rent, *n.* (*Law.*) An annual rent raised to the utmost, or to the full annual value of the premises, or near it.

Rack'-rented, *a.* Subjected to the payment of rack-rent.

Rack'-renter, *n.* One who is obliged to pay rack-rent.

Rack'-saw, *n.* A wide-toothed saw.

Rack'-stick, *n.* (*Mil.*) The stick used in a rack-lashing.

Racoon', *n.* (*Zoöl.*) See Raccoon.

Racoon', in *Indiana,* a township of Parke county.

Racoon, in *Ohio,* a twp. of Gallia co.

Racoon' Creek, or **Racoon' River,** in *Indiana,* formed by the union of the Big Racoon and Little Racoon creeks, and enters the Wabash River.

Racoon Creek, in *New Jersey,* enters the Delaware River from Gloucester co.

Racoon Creek, in *Ohio,* enters the Ohio River from Gallia co.

Racoon Creek, in *Pennsylvania,* enters the Ohio River from Beaver co.

Racoon Creek, in *Wisconsin,* enters the Mississippi River from La Crosse co.

Racoon' Ford, in *Virginia,* a post-village of Culpepper co., abt. 90 m. N.N.W. of Richmond.

Racoon' River, in *Iowa,* rises in Buena Vista co., and flowing S.E. enters the Des Moines River from Polk co.

Racoon River, in *Wisconsin,* enters the Mississippi River from Vernon co.

Racy, (*rā'sy.*) *a.* [Sp. *raiz,* root. See Race.] Having a race or strong flavor indicating its origin; tasting of the soil;—hence, fresh; rich; toothsome; as, *racy* cider. — Hence, by implication, exciting to the mental taste by a strong distinctive character of thought or expression; peculiar; piquant; as, *racy* language, a *racy* anecdote, *racy* humor.

Rad'cliffe, Ann, an English novelist, whose maiden name was Ward, was B. in London, 1764; and in her 23d year was married to Mr. W. Radcliffe, proprietor and editor of the "English Chronicle." Her first performance was a romantic tale, entitled *The Castles of Athlin and Dunbayne;* which was succeeded by *The Sicilian Romance* and *The Romance of the Forest;* but that which made her reputation was the *Mysteries of Udolpho,* in 4 vols. Mrs. Radcliffe possessed the art of exciting a high degree of interest in her narrative; her descriptive powers were of a superior order, especially in the delineation of scenes of terror, and in those aspects of nature which excite sentiment, and suggest melancholy associations. D. 1823.

Rad'dle, *v. a.* [L. Ger. *reiten.*] To twist together.

—*n.* A long pole used in hedging. — A hedge formed by twisting together the boughs of trees and shrubs.

—In New England, an instrument consisting of a wooden bar, with a row of upright pegs set in it, employed by domestic weavers to keep the warp of a proper width, and prevent it from becoming entangled, when it is wound upon the beam of the loom.

Radeau, (*ra-dō',*) *n.* [Fr., from Lat. *ratis,* a raft.] (*Naut.*) A raft; a float.

Radetz'ky, Joseph Wenzel, Count, an Austrian general, B. at the castle of Trebnicz, in Bohemia, 1766. Called to participate in the long struggle against Napoleon, and having won his way to the rank of major-general, he fought at Agram and Erlingen; distinguished himself in the battles of 1813, '14, and '15; and at Kulm, Leipsic, and Brienne, exhibited great skill and bravery; but afterwards he became nothing more than the able executioner of a despotic government. Having been successively governor of Ofen in Hungary, and Lemberg in Poland, he was, in 1822, appointed commander-general of the Lombardo-Venetian kingdom. In 1848 the people of Milan rose against their Austrian oppressors, and after a gallant struggle drove them out

of the city: *R.* retreated upon Verona, to await the arrival of reinforcements. Shortly afterward, Charles Albert, king of Sardinia, joined the popular cause, and crossing the Adige, placed his army between the Austrian commander and the troops which were marching to his aid. In the end, however, the old marshal proved too skilful a strategist for the Piedmontese king, and after many severely contested battles, Charles Albert was signally defeated at Novara. This battle decided the fate of the Italian cause, and Austrian tyranny was again triumphant in Lombardo-Venetia. After 73 years of service in the Austrian armies, he was permitted to resign at the commencement of the year 1857. D. 1858.

Ra'dial, *a.* [From Lat. *radius.*] Relating or pertaining to a radius, or ray; shooting out from a centre, as rays; having rays. — Pertaining or having reference to the radius of the fore-arm of the human body; as, the *radial* nerve.

Ra'dially, *adv.* In the manner of a radius, or of rays.

Ra'diance, Ra'diancy, *n.* [Formed from *radiant.*] State or quality of being radiant; brilliant, sparkling, or vivid brightness; effulgence; splendor.

"Life . . . stains the white *radiance* of eternity." — *Shelley.*

Ra'diant, *a.* [Fr., from Lat. *radians*, from *radio*, to emit rays.] Radiate: radiating; proceeding from a centre. — Emitting rays or beams of light or heat; issuing in rays or beams; with vivid or effulgent brightness; with lustrous splendor; as, *radiant* light.

Radiant heat. (*Physics.*) When a hot body is freely suspended in air, it cools down to the temperature of surrounding objects; when suspended in a space void of air, it cools down. The chilling — in part in the former case, entirely in the latter — is caused by a process termed *radiation:* the investigation of the phenomena which attends the emission, transference, and stoppage of these rays forms the science of *radiant heat.*

—*n.* The point of meeting, in the heavens, of the apparent paths of shooting-stars, or from whence they seem to radiate.

(*Geom.*) A straight line of unlimited length proceeding from a point.

(*Opt.*) The luminous point of issue of rays of light. —That which radiates.

Ra'diantly, *adv.* In a radiant manner; with radiance or beaming brightness; with effulgence or lustrous splendor.

Ra'diary, *n.* (*Zoöl.*) One of the RADIATA, *q. v.*

Radia'ta, RA'DIATES, *n. pl.* [From Lat. *radius*, a ray.] (*Zoöl.*) The name given by Cuvier to the lowest organized of the primary division of the animal kingdom, because certain of the animals therein included have a radiated form of a part or the whole of their body. The *R.* are all aquatic, mainly marine. There are at least 10,000 living species distributed among 3 classes, — *Echinodermata*, or Echinoderms, *Acalephs*, or Jelly-fishes, and *Polypi*, or Polyps.

Ra'diate, *v. n.* [Lat. *radio, radiatus*, from *radius*, ray.] To emit rays or beams of light; to beam; to be radiant. — To shine; to issue or emanate in rays, as light; to dart, as flashes or beams of brightness. — To issue and proceed in direct lines or pencils from a point or surface, as heat.

—*v. a.* To irradiate; to send forth or emit beams or rays of light upon; to illuminate; to enlighten. (R.) — To emit or send out in direct lines from a point or surface, as heat.

—*a.* Composed of rays diverging from a focus or centre; as, a *radiate* mineral. —With the structural members arranged radiately about a centre; as, a *radiate* animal.

(*Bot.*) Possessing large ray-florets in a flower distinct from disc-florets, as in the daisy.

(*Zoöl.*) Pertaining to the *Radiata.*

Ra'diated, *a.* (*Min.*) With crystals diverging from a centre.

(*Zoöl.*) Belonging to the sub-kingdom *Radiata.*

Ra'diated-veined, (*-vānd,*) *a.* (*Bot.*) With the chief veins diverging from the apex of the petiole, as certain reticulate leaves.

Ra'diately, *adv.* With radiation or divergence from a centre.

Radia'tion, *n.* [Lat. *radiatio.*] (*Physics.*) The emission of light or heat from a luminous or heated body. The principal laws of radiation are given under HEAT, and LIGHT, *q. v.*

Ra'diator, *n.* That which radiates; — especially, that part of a heating apparatus the use of which is to radiate heat. — A body from which rays emanate.

Rad'ical, *a.* [Fr.; Lat. *radicalis*, from *radix*, a root.] Pertaining to the root; issuing directly from the root. — Original; fundamental; native; primitive; constitutional; — hence, thorough-going; uncompromising; extreme; as, a *radical* truth

(*Bot.*) Proceeding immediately from the root, as a leaf. — Pertaining to the root of a plant; as, *radical* hairs.

(*Gram.*) Having reference, or belonging, to the etymological root.

R. pitch. The tone with which the utterance of a syllable commences. — *R. quantity.* (*Math.*) An algebraic quantity which is not a perfect power of the degree indicated by the radical sign. — *R. sign.* (*Math.*) In algebra, the symbol ($\surd$) denoting the extraction of a root. It is a modification of the letter *r*, the initial letter of *radix*, or root. To distinguish the particular root which is to be extracted, a number is prefixed to the symbol. Thus $^2\surd$, $^3\surd$, $^4\surd$ &c., denote respectively the *square root, cube root, fourth root,* &c. But as the square root, or second, was the first considered, the number is usually omitted and merely the symbol ($\surd$) written. Fractional exponents are frequently used instead of the radical sign. — *R. stress.* In elocution, forcible utterance falling on the initial part of a sound or syllable.

—*n.* One who advocates a *radical* reform, or extreme measures in reformation.

(*Eng. Pol.*) One of a political party in England that desires to have the abuses, which from lapse of time or other cause may have crept into the government, completely *rooted out* (as the term implies), and a larger portion of the democratic spirit infused into the constitution; an ultra-liberal.

(*Philol.*) A radix; a root; a primitive word; a simple, underived, uncompounded word. — A primitive letter; a letter that belongs to the root of a word.

(*Chem.*) An element, or a simple constituent part of a chemical substance, which is incapable of decomposition.

Rad'icalism, *n.* Advocacy of radical reform; the principles of radicals in politics; ultra-liberalism.

Radical'ity, *n.* State or quality of being a radical; relation to a root in essential nature.

Rad'ically, *adv.* In a radical manner; originally; essentially; primarily; without derivation. (R.) — Fundamentally; at the origin or root; as, that system is *radically* wrong.

Rad'icalness, *n.* State or quality of being a radical; radicality.

Rad'ical The'ory. (*Chem.*) The theory of compound radicals in organic chemistry, first proposed by Liebig, may be best illustrated and explained by considering the composition of the alcohols. Thus, in the case of ordinary vinic alcohol, C_2H_6O, Liebig assumed that it was a derivative of a radical C_2H_5, which he named *ethyl.* In like manner, he considered ether, $2(C_2H_5)O$, also to be derived from the same radical. Upon this theory, which, as soon as it was started, received the fullest confirmation from thousands of experimenters, the compound group ethyl, C_2H_5, performed a similar function to potassium, silver, or any of the other elements. Taking potassium as an example, the compounds of the two radicals would run as follows:

Potassium, oxide of.... K_2O	Ethyl, oxide of... $(C_2H_5)_2O$
Chloride of ..... KCl	Chloride of..... $(C_2H_5)Cl$
Iodide of..... KI	Iodide of..... $(C_2H_5)I$
Sulphide of..... K_2S	Sulphide of.... $(C_2H_5)_2S$
Hydrated oxide of, ... $K_2O.H_2O$	Hydrated oxide of, ... $(C_2H_5)_2O.H_2O$

The theory was at first strongly objected to by many eminent chemists, from the circumstance of the assumed radicals being hypothetical; but as experiment went on, first one and then another of these radicals was isolated, until at last a very respectable list was shown. Similarly, the theory was extended to the organic acids, acetic acid having been shown to be a hydrated oxide of the radical, thus assimilating them to the inorganic acids, as shown below:

Formic acid, $H_2O(CH)O_3$, or hydrated teroxide of formyl (C_2H).

Acetic acid, $H_2O(C_2H_3)O_3$, or hydrated teroxide of acetyl.

Sulphuric acid, $H_2O.SO_3$, is hydrated teroxide of sulphur.

Rad'icant, *a.* [Lat. *radicans.*] (*Bot.*) Rooting from the stem.

Rad'icate, *v. a.* [Lat. *radicatus*, from *radix, radicis.*] To root; to plant or establish deeply and firmly; as, to *radicate* a belief.

—*a.* Radicated; deeply and firmly rooted; profoundly fixed or established; as, *radicate* prejudice.

Radica'tion, *n.* [Fr.] Act or process of becoming firmly or deeply rooted or implanted; as, the *radication* of habits.

(*Bot.*) The tendency of the root of a plant in so far as affects the ascending and descending candex.

Rad'icel (*-sel*), *n.* A rootlet.

Rad'icle, Rad'icule, *n.* [Lat. *radicula*, dimin. of *radix.*] (*Bot.*) That part of the seed of a plant which upon vegetation becomes the root; the stem of the embryo.

Ra'diolite, *n.* [Lat. *radius*, ray, and Gr. *lithos*, stone.] (*Zoöl.*) A genus of fossil shells, the inferior valve of which is in the shape of a reversed cone, the superior valve being convex.

(*Min.*) A variety of natrolite, especially that which comes from southern Norway.

Ra'dious, *a.* Consisting of rays, as of light. (R.)

Rad'ish, *n.* [A. S. *rædic;* Lat. *radix.*] (*Bot.*) See RAPHANUS.

Ra'dius, *n.;* Eng. *pl.* RADIUSES; Lat. *pl.* RADII. [Lat.; Gr. *rabdos*, from *rassō;* Sans. *radh*, to smite.] (*Geom.*) The semi-diameter of a circle, or a right line drawn from the centre to the line of circumference.

(*Anat.*) A bone of the fore-arm, which accompanies the ulna from the elbow to the waist.

(*Fortif.*) A line drawn from the centre of the polygon to the extremity of the exterior side — in other words, an *oblique radius;* a line drawn from the same centre perpendicular to the exterior side; — or, *right radius.*

(*Bot.*) The ray of a compound radiate flower.

Radius of curvature. (*Geom.*) See CURVATURE.

Ra'dius-rods, *n. pl.* (*Mach.*) The guiding-rods in a parallel motion joined to the connecting-links, to counteract the vibratory motion communicated by the beam, by guiding the links so that there is no point.

Ra'dius-vec'tor, *n.* [Lat. *radius*, and *vector*, a bearer.] (*Geom.*) The line joining a fixed point or pole to any other point in space. The length of the *radius-vector* is one of the polar coördinates of the point.

(*Astron.*) The imaginary line joining the centre of the sun and the centre of a planet or a comet, or the centre of a planet and that of its satellite.

Ra'dix, *n.* [Lat.; Gr. *radix*, root.] A root.

(*Philol.*) A primitive word from which springs other words; a radical; an etymon.

(*Bot.*) The root of a plant.

(*Math.*) The fundamental member of any system, a base; — thus 10 is the *radix* of the decimal system of numeration.

Rad'nor, an inland co. of England, in S. Wales, having N. the cos. of Montgomery and Salop, E. Hereford, S. Brecknock, and W. Cardigan; *area*, 426 sq. m. The surface is mountainous, except in the S.E., which is level and fertile. *Rivers.* Wye, Ithon, Elan, Teme, and Lug. *Chief towns.* Presteign, New Radnor, and Knighton. *Pop.* (1897) 22,355.

Radnor, in *Illinois*, a twp. of Peoria co.

Radnor, in *Ohio*, a post-township of Delaware county.

Radnor, in *Pennsylvania*, a post-township of Delaware co.

Radon', a town of Russian Poland, on the Radomka, 56 m. S.S.E. of Warsaw; *pop.* 10,231.

Rad'zivil, or RADZIWILL, the name of an ancient Polish family of Lithuania, which commenced to figure in history in the 14th century. Nicholas Radzivil, the first of the name, was created by Jagellon, grand-duke of Lithuania, palatine of Wilna. The most celebrated of his descendants were, — NICHOLAS, palatine of Wilna and governor of Livonia, under Sigismund Augustus, king of Poland. He signalized himself by his valor against the Teutonic order in 1557, and against the Russians, whom, in 1565, he completely defeated. He abjured the Catholic for the Protestant religion, which he propagated zealously, and at his own expense produced a Polish translation of the Bible, which was condemned at Rome. B. about 1500; D. 1567. His descendants reverted to the Roman Catholic faith. — CHARLES RADZIVIL, palatine of Wilna, distinguished himself by his opposition to the Russians, and was the great rival of the powerful Czartoryski family. Nominated, in 1762, governor of Lithuania, by Augustus III., king of Poland, he energetically combated Russian influence; but, not succeeding in preventing the dismemberment of his native country, he went into exile, but returned to Poland shortly before his death, which took place in 1790.

Raff, *n.* A contused heap; a jumble; as, a *raff* of errors. (*Barrow.*) — Rags; refuse.

Raffler, *n.* One engaged in a raffle; the promoter of a raffle.

Raffish, *a.* Low; vulgar; slangy; as, a *raffish* fellow.

Raffle, (*raf'l,*) *n.* [Fr. *rafle.*] A game of chance or lottery, in which the winner sweeps all the stakes away.

—*v. n.* [Fr. *rafler;* Icel. *hrafla*, to sweep with the hand; Ger. *raffin.*] To cast dice for a prize, in which each person concerned in the game lays down a stake, or hazards a part of the value, while the winner sweeps all the stakes away; as, to *raffle* for a watch.

Raffle-net, *n.* A sort of fishing-net.

Raffael'lo Sanzio. See RAPHAEL.

Rafflesia'ceæ, *n. pl.* (*Bot.*) A small order of plants, class *Rhizogens.* DIAG. Stemless and stalkless; flowers 5-parted, sessile on the branches of trees, solitary, with anthers opening by pores, and innumerable ovules growing over parietal placentæ. — They are parasitic plants, which consist merely of a flower, and are natives partly of the Indian Islands and partly of South America. The plants of the typical genus *Rafflesia* have neither stalk nor leaves, but are mere flowers seated upon the roots of species of *Cissus*, making their appearance at first as a hemispherical swelling of the

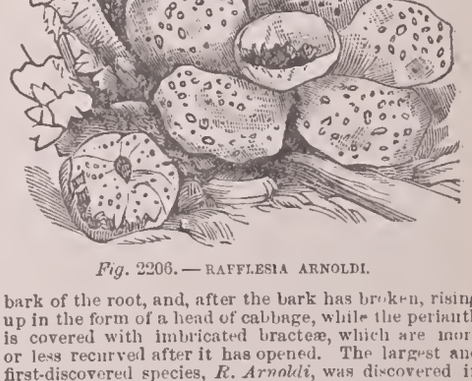


Fig. 2206. — RAFFLESIA ARNOLDI.

bark of the root, and, after the bark has broken, rising up in the form of a head of cabbage, while the perianth is covered with imbricated bracteæ, which are more or less recurved after it has opened. The largest and first-discovered species, *R. Arnoldi*, was discovered in 1818 in Sumatra, by Dr. Arnold, and was sent to the eminent botanist, Robert Brown, by Sir Thomas Stamford Raffles, the British governor of Sumatra. Its flower measures fully three feet in diameter, is capable of containing almost two gallons of fluid, sometimes weighs ten pounds, and is the largest of all known flowers.

Raff-merchant, *n.* A local Anglicism for a lumber-dealer.

Raft, *n.* [Dan.] An assemblage of logs, boards, planks, or pieces of timber, fastened together horizontally and floated down a stream; a float.

—*v. a.* To carry on, or in, a raft.

Raft-bridge, *n.* A bridge supported on rafts.

Raft'er, *n.* [A. S. *ræfter;* Ger. *raff, rafen.*] A beam; a log; especially, a roof-timber. See ROOF.

Raft'er, *v. a.* To form into rafters; to furnish with rafters, as a building.
(*Agric.*) In England, to ridge a furrow.
Raft'ing, *n.* Act or business of floating a raft, or rafts.
Rafts'man, *n.*; *pl.* RAFTSMEN. One who manages or steers a raft.
Raft'y, *n.* Damp; musty; fusty; mouldy. (Eng. Prov.)
Rag, *n.* [A. S. *hracod*, ragged.] Any piece of cloth torn, or rent from the rest; a tattered cloth, torn or worn till its texture is destroyed; a shred; a tatter;—hence, a bit; a patch; a fragment; as, he has not a *rag* of generosity in his nature.
—*pl.* Hence, worn-out garments; mean dress or attire.
(*Geol.*) A stone of coarse texture; applied indifferently to aqueous and igneous rocks.
—*v. a.* To scold; to rail at; to rate; to revile. (Used as an English provincialism.)
Rag'abash, Rag'abrash, *n.* A vagrant; an idle, ragged person.
Rag'amuffin, *n.* [Eng. *rag*, and Prov. Ger. *muffen*, to smell fusty.] A paltry, mean fellow; a low, degraded wretch.
Rag and Fam'ish, *n.* A slang appellation given to the Junior United Service Club, London, in burlesque allusion to the brilliant uniforms of its habitués, and the excellence of its cellar and cuisine;—abbreviated, simply the *Rag*.
Rag'-bolt, *n.* An iron pin with a barbed shank.
Rag'-dust, *n.* Triturated particles of rags, used in the manufacture of papier-maché.
Rage, (*rāj*,) *n.* [Fr.; It. *rabbia;* Lat. *rabies*, from *rabo*, to rave.] Extreme violence of excitement; vehemence of passion or emotion.
—Particularly, anger; fury; violent wrath accompanied with furious words, gestures, or agitation; vehement choler; as, he flew into a *rage*.
—Vehemence or violent exacerbation of anything painful or injurious; uncontrollable violence or fury.
"On me let Death wreak all his *rage*."—*Milton.*
—Enthusiasm; prestige; extreme passion or eagerness directed to some object; that which is sought after as a novelty; as, her beauty became the *rage* among men.
—*v. n.* To be exasperated to fury; to be overpowered with anger; to be violently moved with passion; as, he *raged* like a madman.
—To be violently driven or agitated; to act or move with violence or tumultuous action; to be driven with impetuosity; as, the *raging* sea.
—To ravage; to exercise fury without restraint, or with fatal effect; as, the yellow-fever *raged* in New Orleans.
Rag'-fair, *n.* In London, a market for old clothes, rags, and the like;—applied to a locality in the Jewish quarter of the city.
Rag'ged, *a.* [From *rag*.] Rent or worn into shreds or tatters, or till its texture is broken; as, a *ragged* coat.—Uneven; broken with rough edges.—Having the appearance of being broken or torn.—Jagged; rough with sharp, projecting, or irregular points.—Dissonant; harsh in sound. (R.)—Dressed in rags; wearing clothes in shreds and tatters; as, a *ragged* beggar.—Rough; rugged.
"What shepherd owns those *ragged* sheep?"—*Dryden.*
Ragged-school, in England, a free school for poor children, city arabs, &c., where they are taught, and in part clothed and fed;—so called, at first, because they came in their common clothing.
Rag'gedly, *adv.* In a ragged or tattered condition.
Rag'ged Mountain, in *New Hampshire*, a ridge dividing Merrimack and Grafton cos.; *height*, abt. 2,000 ft.
Rag'gedness, *n.* State of being ragged, or dressed in tattered clothes.
—State of being rough or broken irregularly; as, the *raggedness* of a precipice.
Rag'ingly, *adv.* With vehement fury or violent impetuosity.
Rag'lan, *n.* [Called from Lord *Raglan*, commander-in-chief of the British army in the Crimean war.] A loose overcoat with large sleeves.
Raglan, in *Iowa*, a township of Harrison co.
Rag'lan, FITZROY SOMERSET, LORD, a British field-marshal, b. 1788, was the son of the 5th Duke of Beaufort. He joined the 4th Light Dragoons at the age of sixteen, went with the troops to Portugal, and fought in all the great Peninsular battles, winning the notice and strong regard of the Duke of Wellington, who made him first his aide-de-camp, and then his military secretary—a singular honor for a man under two-and-twenty. At Waterloo he lost his right arm. Upon the death of the Duke of Wellington, *R.* was appointed Master-General of the Ordnance, and, at the outbreak of the war between France, England, and Russia, he was selected to take the command of the forces ordered to proceed to the Crimea, commanded at the battles of the Alma, Balaclava, and Inkermann, was promoted to the rank of field-marshal, and during the protracted siege of Sebastopol which followed, in the midst of winter, in a severe climate, and surrounded by difficulties, maintained a calmness, dignity, and fortitude, which nothing could surpass. Grief at the unsuccessful attack on the Malakoff and the Redan upon the fatal 18th of June, and the loss of life which it entailed, preyed upon his mind, and he succumbed to an attack of diarrhœa, June 28, 1855.
Rag'land, or RAGLAN, the name of a magnificent baronial castle in the co. of Monmouth, Eng., now in ruins, and memorable for the long and desperate siege it sustained in the Civil War, when it was defended by its owner, the Marquis of Worcester, against the forces of the Parliament. The subject of the preceding article, a descendant of the marquis, took his title from this place.

Fig. 2207.—RAGLAND CASTLE, (from a photograph.)

Rag'man, *n.*; *pl.* RAGMEN. A dealer in rags.
Ra'go, one of the Cape de Verd Islands, lying S. of Braaco, in the Atlantic.
Ragout, (*ra-gōō'*,) *n.* [Fr.; Lat. *re*, again, and *gustus*, a tasting.] (*Cookery.*) A sauce, seasoning, or relish for exciting a languid appetite; or, a high seasoned dish, or *plat*, prepared with fish, flesh, vegetables, and the like, stewed with spices and other condiments; a stew; a hash; an olla-podrida.
Raguled', *a.* (*Her.*) Applied to an ordinary whose boundary lines are furnished with serrated projections.

Fig. 2208. RAGULED.

Ragusa, AUGUSTE FAÉDÉRIC LOUIS VIESSE DE MARMONT, DUKE OF, (*ra-goo'sa.*) a marshal of France, b. at Châtillon sur Seine, 1774. He entered the army at an early age, and attracted, at Toulon, the favorable notice of Bonaparte, who made him his aide-de-camp. He accompanied that general to Italy in 1796, and fought in almost every subsequent engagement, winning high honor for his great skill, bravery, and readiness of resource, till, at length, he was selected by Bonaparte to carry to Paris the twenty-two colors captured from the enemy. In the Egyptian campaign he was a general of brigade, and, in 1799, he was one of the officers that accompanied Bonaparte in his perilous flight from Egypt. Between the years 1805–1814 he was one of the most conspicuously skilful and courageous of all Napoleon's subordinates. At Ulm, during the conquest of the province of Styria; at Wagram; as the successor to Massena in Portugal; and at Bautzen, Dresden, and Leipsic, he bore a distinguished part. Against an allied force of Austrians, Russians, and Prussians, numerically four times greater than his own, he obstinately defended Paris, in 1814. But when the enemy's artillery began to sweep the city from the heights of Montmartre, he received instructions from Joseph Bonaparte which permitted him to evacuate the French capital. He then went over to the allies with his entire force, thus deserting the cause of the Emperor forever. He was subsequently employed by Louis XVIII. and Charles X., the latter of whom commanded him to repress the revolt of 1830; he was, however, defeated by the people, and became an object of odium with his countrymen. His name was struck off the rolls of the French army, and he was banished from his native country. He spent the remainder of his life away from France, and devoted his leisure to the composition of some excellent treatises upon military science. His *Memoirs* appeared at Paris in 1856. D. at Venice, 1852.
Ragu'sa, a fortified seaport-town of Austria, in Dalmatia, formerly an independent republic, on a peninsula in the Adriatic, 38 m. W.N.W. of Cattaro; Lat. 42° 38′ 9″ N., Lon. 18° 7′ E. *Manuf.* Silk, leather, tobacco, and wine. *R.*, said to be founded in 656, by refugees from old Ragusa, the anc. *Epidaurus*, became independent in 1414. It was seized by Napoleon in 1806, and came into the possession of Austria in 1814. *Pop.* 9,000.
Ragu'sa, a town of Sicily, in the Val di Noto, on the Ragusa, 3 m. from Modica. *Manuf.* Woollens and silks. In its vicinity, vines, olives, and other fruit are produced. It is noted, also, for its breed of horses and mules.
Rag'-wheel, *n.* (*Mech.*) Same as SPROCKET-WHEEL, *q. v.*
Rag'-work, *n.* A kind of rubble-work formed of ragstones.
Rag'-wort, *n.* (*Bot.*) See SENECIO.
Rahdunpore, (*rad-un-por'*,) a town of Hindostan, prov. of Guzerat, 150 m. N.W. of Baroda; Lat. 24° N., Lon. 71° 45′ E. *Manuf.* Woollen cloth. *Pop.* 15,000.
Rahmanie, (*ra-ma-ne'*,) a town of Lower Egypt, prov. of Bahari, at the junction of the Nile and the Alexandria Canal, 25 m. S.S.E. of Rosetta.
Rahoon', a town of Hindostan, prov. of Lahore, 12 m. N.E. of Loodianah. *Manuf.* Cotton goods.
Rah'way, in *New Jersey*, a small river flowing into Staten Island Sound between Union and Middlesex cos.—A city of Union co., about 10 m. S.S.W. of Newark. It contains several extensive manufactories, and is a place of much business activity. *Pop.* (1895) 7,945.
Raiatea, (*ri-a-ta'a*,) one of the Society Islands, in the Pacific, 130 m. N.W. of Tahiti; Lat. 16° 50′ S., Lon. 151° 24′ W. It is 40 m. in circumference, and its surface is mountainous. *Prod.* Arrowroot and cocoa-nuts.
Raid, (*rād*,) *n.* [A. S. *râd*, a riding; Ger. *ritt*.] A foray; a hostile or predatory incursion;—specifically, an inroad made by mounted men, with intent to pillage or ravage; a sudden and rapid invasion by a force of cavalry; as, "the moonlight *raid*."—*Sir W. Scott.*
Rail'road, *n.* (*Civil Engin.*) The tramroad or tramway was the forerunner of the railroad. These were at first constructed of wood, often from oak scantling, with cross-ties at short distances, and side strips to guide the wheels. This form was in common use about English collieries from 1700 to 1800. The first iron rails are believed to have been laid in England by the Coalbrookdale Iron Company, in 1767. They were of cast-iron, in 5-foot lengths, and 4 x 1¼ section. Later, iron rails were cast with flanges to keep the wheels on the track, and a few years later the flanges were transferred to the wheels, the rails being made flat and raised above the surface of the ground. In 1814, George Stephenson constructed, for the Killingworth Colliery, in Northumberland, a steam-engine having two cylinders seated on a boiler mounted on wheels, and arranged to drive them by means of chains connected with the axles. This first locomotive, made upon Stephenson's principles, was not held in much estimation, and a considerable time elapsed before they came into general use. The first railroad opened for conveying passengers was the Stockton & Darlington road, in 1825, and this was worked with horse-power. A French engineer, M. Seguin, in 1826, successfully introduced locomotives upon the railways from Roanne to St. Etienne, and from St. Etienne to Lyons. In these he first introduced small tubes passing from the fire-box to the chimney. He also increased the draught of the fire by means of a ventilator, an effect which Robert Stephenson better accomplished in 1829 by the action of steam. The Liverpool & Manchester road was commenced in 1825, and the intention of the projectors being to run the carriages upon it at high rates of speed, they offered a premium for the best engine which should fulfil certain conditions; which premium was won in 1829 by the *Rocket* engine of Messrs. Stephenson and Booth. The next year steam-carriages were in regular operation upon this road. The weight of the *Rocket* was only 4 tons, 5 cwt.; it had 4 wheels, not coupled. With a gross load of 17 tons it attained an average speed of 14 miles, and in some instances of 17 miles. In the U. S., before the application of steam to railway purposes was established, a horse-railroad was completed in 1827, from the granite quarries of Quincy, Mass., a distance of 3 miles, to the Neponset river. A second road was laid out in January, 1827, from the coal mines of Mauch Chunk, Penna., to the Lehigh river, a distance of 9 miles, and with various ramifications, the whole length exceeded 13 miles.

The Baltimore & Ohio Railway was the first passenger railway built in America. It was begun July 4, 1828, and was completed as far as Ellicott's Mills, 44 miles, in 1830. Horses were at first made use of for motive power, but an engine, built in York, Pa., was placed in service in 1830. The Delaware & Hudson Canal Co. built a short line of railway at Honesdale, Pa., in 1828–9, and in the latter year imported the *Stourbridge Lion*, which made its first trip August 8, 1829, but proved too heavy for the track, and was discarded. The Charleston & Hamburg road, now a part of the South Carolina & Georgia system, was begun in Jan., 1830, and used the *Best Friend* locomotive, built at the West Point foundry, and which made its trial trip Nov. 2, 1830, and went into regular service the following January. This road had 137 miles of track laid by Oct. 1, 1833, making it the longest road in the world at that date. The Mohawk & Hudson Railway, from Albany to Schenectady, came next, in 1830–31, with 15 miles of road, and used the *De Witt Clinton* locomotive, built at West Point. The first permanent railroad constructed in each of the States follows: Alabama, Tuscumbia & Decatur, 1843; Arizona, Southern Pacific of Arizona, 1879; Arkansas, Memphis & Little Rock, 1857; California, Sacramento Valley, 1856; Colorado, Kansas Pacific, 1870; Connecticut, New York, Providence & Boston, 1837; Delaware, Newcastle & Frenchtown, 1832; District of Columbia, Washington Branch, 1835; Florida, St. Joseph & Iola, 1836; Georgia, Central, 1837; Idaho, Utah Northern, 1874; Indian Territory, Atlantic & Pacific, 1870; Iowa, Mississippi & Missouri, 1855; Indiana, Madison & Indianapolis, 1842; Illinois, Northern Cross, 1839; Kansas, Union Pacific, 1864; Kentucky, Lexington & Kentucky, 1835; Louisiana, Lake Ponchartrain, 1831; Maine, Bangor & Piscataquis, 1836; Maryland, Baltimore & Ohio, 1830; Michigan, Erie & Kalamazoo, 1836; Massachusetts, Boston & Lowell, 1835; Minnesota, St. Paul & Pacific, 1862; Mississippi, Vicksburg &

Jackson, 1841; Missouri, Pacific, 1852; Montana, Utah & Northern, 1869; Nebraska, Union Pacific, 1864; New Hampshire, Nashua & Lowell, 1838; New Jersey, Camden & Amboy, 1832; New Mexico, New Mexico & Southern Pacific, 1878; New York, Mohawk & Hudson, 1831; North Carolina, Petersburg, 1833; North Dakota, Northern Pacific, 1873; Ohio, Mad River & Lake Erie, 1838; Oklahoma, Atchison, Topeka & Santa Fé, 1886; Oregon, Oregon & California, 1870; Pennsylvania, Manch Chunk & Summit Hill, 1827; Rhode Island, New York, Providence & Boston, 1837; South Carolina, South Carolina Canal & Railroad, 1830; South Dakota, Dakota & Northwestern, 1873; Tennessee, Nashville & Chattanooga, 1851; Texas, Buffalo Bayou, Brazos & Colorado, 1854; Utah, Union Pacific, 1869; Vermont, Vermont Central, 1848; Virginia, Chesterfield, 1831; Washington, Dalles & Des Chutes, 1862; West Virginia, Baltimore & Ohio, 1842; Wisconsin, Milwaukee & Waukesha, 1852; Wyoming, Deuver Pacific, 1870.

The Monksland Railway was the first opened in Scotland, in 1826. A number of tramways were built in France prior to 1833. In that year the government began a survey, and organized a scheme of railways for the whole country. The Belgian government also inaugurated a system in 1831–33. The first German railway was opened in 1835, and a number of private lines were built between that date and 1848, when the Prussian government began building railways and obtaining control of those under private ownership. The first railway of Holland was built by private enterprise, in 1840. In Austria the first tramway was opened in 1828, and in 1838 the government took up the matter of railways, building and granting charters to private companies. The first railway in Spain was opened in 1848, and the government assisted the construction of others by granting subsidies. The first Portuguese line was built in 1853–54. Italy did not build any railways worthy of the name until 1860. In Russia, an experimental line was built in 1835–37, but it was not until 1851 that the first line of importance, St. Petersburg & Moscow, was completed. The first Turkish railway was built in 1860.

The railway development of the United States, as measured by the extent of trackage, in 1840 was 3,049 miles, and by 1846 this had grown to 4,930 miles, and in 1850 to 9,021 miles. The next decade more than tripled the construction, running the total to 29,739 miles. The Civil War nearly stopped railway-building during the next five years, so that the advance was but a trifle over 3,000 miles, bringing the total to 32,996. In 1873 the figures swelled to 70,268, and in 1880 to 93,296, and in 1890 to 163,420 miles, while in 1900 the total was 194,321 miles. These figures include the elevated steam railways, but do not include the street and suburban electric railways, which have a mileage of 22,000 miles, giving a total of about 216,000 miles of railway tracks operated in the U. S. in 1900. If to this be added the side tracks and switches, the total trackage is over 265,000 miles.

The following figures regarding United States railways are from the latest sources, the totals being usually those of 1901.

Mileage of Railroads	195,886·90
Second Tracks and Sidings	70,105·45
Total Track,	265,886·35
Steel Rails in Track	246,811·60
Iron Rails in Track	19,180·75
Locomotive Engines, Number	39,729
Cars, Passenger	27,144
" Baggage, Mail, etc.	8,667
" Freight	1,409,472
Total Cars,	1,445,283
Miles of Railroad Operated	194,974·96
Passenger Train Mileage	391,543,708
Freight " "	505,468,619
Mixed " "	20,812,985
Total,	917,825,312
Passengers Carried	600,485,790
Passenger Mileage	17,789,669,925
Tons of Freight Moved	1,084,066,451
Freight Mileage	148,959,303,492

TRAFFIC EARNINGS.

Passengers	$360,702,686
Freight	1,126,267,652
Miscellaneous	125,478,488
Total Traffic Revenue,	$1,612,448,826
Net Earnings	$520,294,727
Receipts from Other Sources	68,368,814
Total Available Revenue,	$588,663,541

LIABILITIES.

Capital Stock	$5,978,796,249
Bonded Debt	6,035,469,741
Unfunded Debt	312,225,536
Current Accounts	456,798,012
Sinking and Other Funds	143,670,983
Total Liabilities,	$12,926,960,521

ASSETS.

Cost of Railroad and Equipment	$10,717,752,155
Other Investments	1,976,518,412
Sundry Assets	390,112,441
Current Accounts	223,616,024
Total Assets,	$13,308,029,032
Excess of Assets over Liabilities	$381,068,511

PAYMENTS.

Interest on Bonds	$215,191,176
Other Interest	7,327,334
Dividends on Stock	132,162,935
Miscellaneous	36,235,397
Rentals—Interest	39,127,204
Dividends	24,724,348
Miscellaneous	22,586,953
Total Payments,	477,355,347
Surplus,	111,308,194

The world's mileage of steam railways for 1901 was as follows:

NORTH AMERICA.

United States	195,887	Newfoundland	641
British North America	17,831	Mexico	9,055
		Central America	718

Total, North America, 224,132.

SOUTH AMERICA.

United States of Colombia	400	Chile	2,850
Cuba	1,134	Peru	1,036
Venezuela	634	Bolivia	621
San Domingo	117	Ecuador	186
Brazil	9,195	British Guiana	55
Argentina	10,171	Jamaica, Barbados, Trinidad, Martinique, Porto Rico,	
Paraguay	157		
Uruguay	1,141	Salvador	657

Total, South America & W. Indies, 28,357.

EUROPE.

All of Germany	31,933	Spain	8,300
Austro-Hungary (incl. Bosnia, etc.)	22,917	Portugal	1,476
		Denmark	1,865
Great Britain and Ireland	21,864	Norway	1,286
		Sweden	7,034
France	26,611	Servia	359
Russia (inc. Finland)	29,892	Roumania	1,925
Italy	9,810	Greece	605
Belgium	3,943	European Turkey, Bulgaria, and Roumelia	1,952
Netherlands (including Luxembourg)	1,994		
Switzerland	2,351	Malta, Jersey, Man.	68

Total, Europe, 176,174.

ASIA.

British India	23,758	Japan	3,661
Ceylon	297	Portuguese India	51
Asia Minor and Syria	1,715	Malay Archipelago	273
		China	401
Russia (Transcaspian District)	1,658	Korea	26
		Siam	203
Siberia	3,852	Cochin China, Pondicherry, Malacca, and Tonquin	238
Persia	34		
Dutch India	1,301		

Total, Asia, 37,469.

AFRICA.

Egypt	2,087	Rhodesia	1,203
Algiers and Tunis	2,642	Orange River Colony	597
British South and Central Africa	2,937	Mauritius, Reunion, Congo, Senegal, and other States	2,298
Natal	737		

Total, Africa, 12,501.

Australasia 14,922

Total, for World, 493,555.

The street railway statistics of the U. S. show that there were at the end of 1901, 22,300 miles in existence. Of recent years there has been a marked tendency towards the consolidation of trolley lines, so that some of them operate many miles of rail. For example the Massachusetts Electric Company, of Boston, has 820 miles under its control; the General Electric Railway, of Chicago, nearly 500 miles; the Rapid Transit Company, of Philadelphia, 900 miles, and numerous others in diminishing proportion. Electric railways worked on the principle of the street railways are by no means confined to city streets, but of late years have extended widely through rural districts, so that long journeys may be made in this manner. New York and Philadelphia are thus connected, and much longer routes may be covered, with few breaks.

The history of railroad financiering in the U. S. is not a matter of national pride. It is rather a story of wild and reckless management, dishonest watering of stocks, and numerous receiverships and demoralization. As told in figures, the capitalization of all the roads foots up to the enormous total of $5,978,796,249, on which dividends were declared in 1901 of only $132,162,935 or 2·20 per cent. The bonded indebtedness of the roads was over $10,000,000,000, on which the average interest paid was 4¼ per cent. The amount of water in the stock can only be guessed at, but it is generally conceded that the amounts raised on bonds commonly much more than paid for the actual cost of construction, equipment, &c. Between 1879 and 1885 there was an enormous swelling of stocks and bonds, over $3,000,000,000 being listed on the New York Stock Exchange during those years. Railroad wrecking became a popular term for the system which resulted in the wiping out of the smaller holdings in a railway, and the diversion of its real profits into the hands of a few, until the road was so depressed that a receivership became necessary. In 1896 about two-thirds of the railway stocks in the market were classed as non-productive, and 8 per cent. of the bonds were also non-earning. Legislation has made it more difficult within recent years to carry on fraudulent watering of stock, or to misdirect the earnings of a railway, yet demoralizing financial operations continue to a reduced extent, and the general business prosperity suffers from the results of bygone defalcations. Many roads which are really very profitable if the earnings were based on the actual investment are dragged down by having to carry a load of interest on mortgages which never could have existed with honest management. (See RECEIVERSHIP.)

The more important railway systems of the U. S. are:

Name of Road.	*Miles Operated*	*Net Earnings*
Atchison, Topeka & Santa Fe	8,680	$23,000,000
Baltimore and Ohio	4,420	18,000,000
Boston & Maine	2,265	10,000,000
Canadian Pacific	8,645	14,000,000
Chicago & Northwestern	8,875	17,000,000
Chicago, Burlington & Quincy	8,435	18,000,000
Chicago, Milwaukee & St. Paul	6,580	15,000,000
Delaware, Lack. & Western	950	11,000,000
Erie	2,150	13,000,000
Grand Trunk	4,180	8,000,000
Great Northern	5,300	13,000,000
Illinois Central	4,265	13,000,000
Lake Shore & Michigan S.	1,370	11,000,000
Louisville & Nashville	3,445	11,000,000
Michigan Central	1,635	4,000,000
Missouri, Kansas & Texas	2,580	5,000,000
Missouri Pacific	5,650	13,000,000
N. Y. Central & Hudson River	3,320	24,000,000
N. Y., New Haven & Hartford	2,000	12,000,000
Northern Pacific	5,000	20,000,000
Pennsylvania	10,500	36,000,000
Philadelphia & Reading	1,470	13,000,000
Southern Pacific	8,750	27,000,000
Union Pacific	2,940	22,000,000
Wabash	2,370	5,000,000

For a complete description of various forms of railways, motive power, construction, &c., see RAILWAY CONSTRUCTION in SECTION II. See also AIR-BRAKE, ELECTRIC RAILWAY, INCLINED PLANE, and LOCOMOTIVE.

Rail'road, *n. Indiana,* a twp. of Stark co.

Rail'way, *n.* The term which in England corresponds to the American *railroad.*

Railway plant. In England, the term used to designate the tools, machinery, locomotives, cars, trucks, &c., for constructing and working railways. (Called in the U. States *rolling-stock.*)

Railway slide, a turn-table.

Raiment, (*rā'ment,*) *n.* [Fr. *arrayment.*] Clothing in general; garments; vestments; vesture; attire.

Rain, (*rān,*) *v. n.* [A. S. *rinan, regnan,* to rain; Ger. *regnen*; allied to Gr. *rainō,* to sprinkle.] To run down, flow, or fall in drops from the clouds, as water (used mostly with *it* for a nominative); as, *it rains, it* threatens to *rain.*—To fall or drop like rain; as, tears *rained* from her eyes.

—*v. a.* To pour or shower down from the upper regions, like rain from the clouds.

"It *rain'd* down fortune, show'ring on your head." — *Shaks.*

—*n.* [A. S. *regn, regn, ren.*] Water running down or falling in drops from the sky; the descent of water in drops from the atmosphere.

(*Meteorology.*) When the air can no longer retain the moisture blended with its particles, the water descends in drops upon the earth, purifying the atmosphere, through which it falls. The vapor thus condensed is called *rain.* The moisture in the atmosphere is derived from the evaporation of water, partly from land, but principally from the surface of the ocean. Continual evaporation goes on from the surface of the lakes, pastures, corn-fields, and forests; and as much moisture will be supplied to the air by a ploughed field as by a sheet of water of equal dimensions. Through this surface-evaporation the air becomes quite damp; but in being transported to a warmer situation it may afterwards become dry. This is the case with a sea-breeze in summer. When it touches the shore, it is cold and moist; but as it proceeds inland, it grows milder and drier. When moisture is deposited by a body of air in minute globules, which remain suspended or subside gradually in the air, it is termed a *cloud*; when it comes near us, and hovers on hill-tops and hangs in valleys, it is called a *mist* or *fog.* The true theory of the production of rain was first discovered by Dr. James Hutton, of Edinburgh, in 1787. Rain-water or melted snow is the purest of all natural waters, though, in consequence of its solvent powers, it generally contains some extraneous ingredient. The amount of rain which falls upon the earth is greatest in the tropics, and decreases as we approach the poles. The quantity of rain falling at a certain place, however, is considerably influenced by the physical features of the locality. On account of this fact, together with the action of prevailing winds and seasonal peculiarities, the surface of the globe has been divided by meteorologists into *hyetographic* regions. Thus between the tropics of Cancer and Capricorn there is a zone of *periodic rains,* and external on either side zones of *constant precipitations.* Within the

tropics, also, there is the striking peculiarity of dry and rainy seasons, depending on the position of the sun and the direction of the wind.

Rain'bow, *n.* [Ger. *regenbogen.*] (*Meteor.*) A luminous meteor which appears in the clouds, opposite the sun, when they are resolved into rain. It consists of seven concentric arcs, presenting successively the colors of the solar spectrum. Sometimes only a single bow is perceived, but there are usually two; a lower one, the colors of which are very bright, and an external or *secondary* one, which is paler, and in which the order of the colors is reversed. In the interior rainbow the red is the highest color; in the other rainbow the violet is. It is seldom that three bows are seen: theoretically a greater number may exist, but their colors are so feeble that they are not perceptible. The phenomenon of the rainbow is produced by the decomposition of the white light of the sun when it passes into the drops, and by its reflection from their inside face. In fact, the same phenomenon is witnessed in dew-drops and in jets of water; in short, wherever solar light passes into drops of water under a certain angle. The appearance and the extent of the rainbow depend on the position of the observer, and on the height of the sun above the horizon; hence only some of the rays refracted by the rain-drops, and reflected in their concavity to the eye of the spectator, are adapted to produce the phenomenon. Those which do so are called *effective rays.* To explain this, let *n* (*fig.* 2209) be a drop of water, into which a solar ray, S *a*, penetrates. At the point of incidence, *a*, part of the light is reflected from the surface of the liquid; another, entering it, is decomposed and traverses the drop in the direction *a b.* Arrived at *b*, part of the light emerges from the rain-drop, the other part is reflected from the concave surface, and tends to emerge at *g.* At this point the light is again partially reflected, the remainder emerges in a direction, *g* O, which forms with the incident ray S *a*, an angle, called the *angle of deviation.* It is such rays as *g* O, proceeding from the side next the observer, which produce on the retina the sensation of colors, provided the light is sufficiently intense. As the different colors which compose white light are unequally refrangible, the maximum angle of deviation is not the same for all. For red rays the angle of deviation corresponding to the active rays is 42° 2′, and for violet rays it is 40° 17′. Hence, for all drops placed so that rays proceeding from the sun to the drop make, with those proceeding from the drop to the eye, an angle of 42° 2′, this organ will receive the sensation of red light; this will be the case with all drops situated on the circumference of the base of a cone, the summit of which is the spectator's eye; the axis of this cone is

Fig. 2209. — RAINBOW.

parallel to the sun's rays, and the angle formed by the two opposed generating lines is 84° 4′. This explains the formation of the red band in the rainbow; the angle of the cone in the case of the violet band is 80° 34′. The cones corresponding to each band have a common axis, called the *visual axis.* As this right line is parallel to the rays of the sun, it follows that when this axis is on the horizon, the visual axis is itself horizontal, and the rainbow appears as a semicircle. If the sun rises, the visual axis sinks, and with it the rainbow. Lastly, when the sun is at a height of 42° 2′, the arc disappears entirely below the horizon. Hence, the phenomenon of the rainbow never takes place except in the morning and evening. What has been said refers to the interior arc. The secondary bow is formed by rays which have undergone two reflections, as shown by the ray S′ *i d f e* O, in the drop *p.* The angle S′ I O formed by the emergent and incident ray is called the *angle of deviation.* This angle is no longer susceptible of a maximum, but of a minimum, which varies for each kind of rays, and to which also efficient rays correspond. It is calculated that the minimum angle for violet rays is 54° 7′, and for red rays only 50° 57′; hence it is that the red bow is here on the inside, and the violet arc on the outside. There is a loss of light for every internal reflection in the drop of rain, and therefore, the colors of the secondary bow are always feebler than those of the internal one. The secondary bow ceases to be visible when the sun is 54° above the horizon. The moon sometimes produces rainbows like the sun, but they are very pale.

Rainbowed, (*rān'bōd,*) *a.* Formed after the manner of, or resembling, a rainbow.

Rain'bow-tinted, *a.* With tints like those of a rainbow.

Rain'deer, *n.* (*Zoöl.*) See REINDEER.

Rain'fall, *n.* A fall, descent, or downpour of rain; as, an average *rainfall.*

Rain'-gauge, (*-gāj.*) PLUVIOMETER, OMBROMETER, UDOMETER, *n.* (*Meteorol.*) An instrument for measuring the quantity of rain which falls at a given place. It is constructed in various ways. The *R. G.* used in the Pennsylvania Hospital at Philadelphia consists of a metal cone about eight inches in diameter at the top, set so as to receive the rain, and the amount which has fallen during a storm is determined by pouring it from this vessel into a graduated measuring-glass. The rain-gauge used at the Smithsonian Institute at Washington is made of sheet-tin, and is only 20½ inches in diameter, and but one foot deep. The only information which these instruments afford is the depth of water which has fallen during each rain-storm, but the meteorologist desires to know the exact time at which each rain-fall commences, the moment at which it ended, the total amount of rain which had fallen, and the rate at which it fell. The objects are perfectly fulfilled by Draper's self-registering

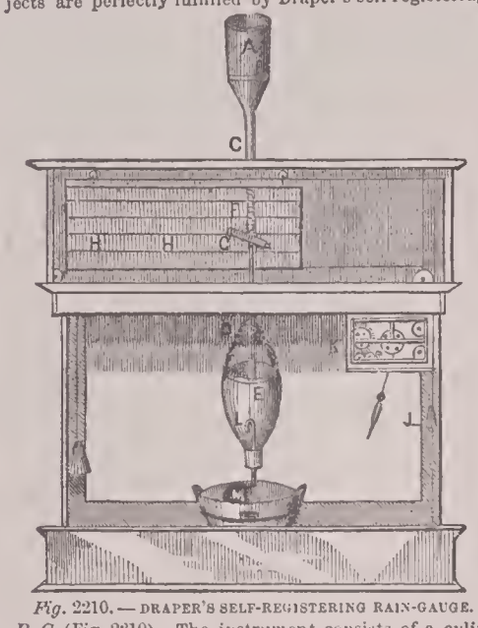


Fig. 2210. — DRAPER'S SELF-REGISTERING RAIN-GAUGE.

R. G. (Fig. 2210). The instrument consists of a cylindrical vessel, A, eight inches in diameter, set so as to receive the rain. C D, a pipe emptying into a glass vessel, E, which is sustained by a spiral spring, F, to the lower end of which is attached a pencil, G, its point resting against a sheet of paper fastened to a board, H H, which is drawn forward 12 inches every 24 hours by means of the weight, J, of the clock, K. At L is a syphon which empties the contents of the receiving vessel, E, into the pail, M, when a half inch depth of rain has fallen.

Rain'ier, in *Oregon,* a post-village of Columbia co., abt. 20 m. N.W. of St. Helen.

Rain'iness, *n.* State or condition of being rainy.

Rain'less, *a.* Without rain; parched; as, a *rainless* tract of country.

Rain'-line, *n.* (*Naut.*) A small rope, or line, sometimes used to form the sheer of a ship, and to set the beams of the deck fair.

Rains'borough, in *Ohio,* a post-village of Highland co., abt. 69 m. E. of Cincinnati.

Rains'burg, in *Pennsylvania,* a post-borough of Bedford co., about 8 m. S. of Bedford.

Rains'ville, in *Indiana,* a post-village of Warren co., abt. 87 m. N.W. of Indianapolis.

Rain'-water, *n.* Water that has fallen from the clouds in the form of rain.

Rain'y, *a.* Abounding with rain; disposed to rain; wet; showery; as, a *rainy* day, the *rainy* season.

Rainy Lake, or LAC DE LA PLUIE, a considerable body of water forming part of the boundary between Minnesota and British N. America, abt. 160 m. W. of Lake Superior. It discharges its surplus water through Rainy River into Lake of the Woods.

Rais'able, *a.* That may be raised.

Raise, (*rāz,*) *v. a.* (*imp.* and *pp.* RAISED.) [Causative of RISE, *q. v.*] To cause to rise; to lift or elevate in a literal or in a figurative sense; to lift upward; to heave; as, to *raise* a weight; — hence, used in derivatives; as, to elevate in rank, dignity, and the like; to place in a higher condition, position, or situation; to exalt; to promote; to enhance the value or estimation of; as, to *raise* to the peerage, to *raise* the price of an article. — To increase or augment the strength, vigor, or force of; to intensify; to heighten; to invigorate; as, to *raise* the voice, to *raise* one's courage. — To bring back into being; to recall from death or inanimation; or give life to; as, to *raise* a ghost or spectre. — To set or make upright; to cause to assume an erect position, pose, or posture; — hence, to awaken; to cause to arise from a recumbent state or position, or from an attitude of quiet, and the like; to make erect. — To excite to action; to put in motion; to stir up; to incite to tumult, strife, or war; as, to *raise* the people. — To give rise to; to originate, produce, cause, effect, &c.; to cause to come into being or to appear; — hence, used specifically, or derivatively, to erect; to build up; to construct by the accumulation or conjunction of constituent parts; as, to *raise* a wall. — To levy; collect; to assemble; to bring together for use or service; as, to *raise* troops, he found it difficult to *raise* money. — To cause to grow or expand; to enable to be produced, bred, or propagated; as, to *raise* horses, cattle, or negroes. — To produce; to cause to come into being, or appear; — sometimes with *up.*

"I will *raise* them *up* a prophet from among their brethren." *Deut.* xviii. 18.

— To give rise or occasion to; to start; to set afoot; to originate; as, to *raise* a rumor, report, or scandal. — To give vent, utterance, or expression to; as, to *raise* a cry, to *raise* a dispute. — To cause to become light and spongy, as bread or pie-crust.

(*Naut.*) To cause to seem elevated, as an object by a gradual approach to it; as, to *raise* the land.

(*Law.*) To create, form, or constitute; as, to *raise* a plea.

To raise a purchase. (*Naut.*) To dispose of instrumental or mechanical agency in such a manner as to employ any operative force required. — *To raise a siege.* To abandon an attempt to take a place by besieging it; to retire from besieging a position. — *To raise the wind.* A figurative expression, used colloquially, in the sense of to gather, collect, or acquire money.

Rais'er, *n.* The person who, or thing which, raises; a builder; a collector. — A riser; one of the upright boards on the front of the steps of a flight of stairs.

Raisin, (*rā'zn,*) *n.* [Fr.; Ger. *rosine.*] A dried grape.

Rai'sin, in *Michigan,* a river which rises in Lenawee co., and flows E. into Lake Erie from Monroe co. — A township of Lenawee co.

Raisiné', *n.* [Fr.] (*Confectionery.*) A rob, or syrup, made by boiling new wine, and skimming until only half the quantity of wine remains, after which it is strained. Apples, pared and cut into quarters, are added to it; and it is allowed to simmer gently till the apples are thoroughly mixed with the wine, when it has a very pleasant, sweetish, acid taste. Cider may be used instead of wine.

Rais'ing, *n.* Act of causing to rise or to become erect; setting up, elevating, producing, or restoring to life. — In the United States, the operation of setting up the frame of a building or any structure composed of timber.

Raising-plate. (*Arch.*) The plate or longitudinal timber on which a roof stands when in its place, or pitched.

Rai'sinville, in *Michigan,* a village of Lenawee co., about 5 miles north-east of Adrian. — A township of Monroe co.

Raisonné, (*rā'zo-nā,*) *a.* [Fr., from *raisonner,* to reason.] Arranged systematically or analytically; as, a catalogue *raisonné.*

Rajah, (*rā'jah,*) *n.* [Hind. *râja.*] In Hindostan, a native prince or sovereign; as, the *Rajah* of Coorg.

Rajahmundry, (*ra-ja-moon'dre.*) a town of British India, cap. of dist. of the same name, on the Godavery, 73 m. N.E. of Masulipatam; Lat. 16° 25′ N., Lon. 81° 54′ E.; *pop.* 17,000.

Rajamahal, or **Rajmahal,** (*ra-ja-ma-hal',*) ["the royal residence,"] a city of British India, presidency of Bengal, on the Ganges, 65 m. N.W. of Moorshedabad; Lat. 25° 2′ N., Lon. 87° 43′ E.; *pop.* 30,000.

Rajpoota'na, the largest prov. of Hindostan, towards its N.W. quarter, between 24° and 31° N. Lat., and 70° and 77° E. Lon.; *area,* abt. 70,000 sq. m. It comprises a large extent of sandy desert; but in the S. and E. are many fertile tracts. This prov., which is wholly subject to the British, consists of a number of principalities, the chief of which are Judpoor, Jessesmeer, Jeypoor, Odeypoor, and Bicanere. A large force of British troops are quartered at Ajmeer, to keep the turbulent princes in order.

Rajpoots', *n. pl.* [From Sans. *râjan,* king, and *putra,* son — *i. e.,* "sons of kings."] The name of various tribes in India, which are of Aryan origin, and either descended from the old royal races of the Hindoos, or from their Kshattriya or warrior caste. At all periods, they seem to have played a conspicuous part in the history of India; and all over Hindostan there are many families who, rightly or wrongly, claim the title of rajpoots. At present, they occupy chiefly the country known as *Rajpootana.*

Rake, *n.* [A. S. *raca;* D. *rakel;* O. Ger. *recho.*] An instrument with teeth and a handle, by which light bodies are gathered up, or the earth divided. — See HORSE-RAKE.

— [Ger. *rückel,* a rakehell.] A man of loose, vicious, or disorderly habits; a man addicted to lewdness; a roué; a debauchee; a rakehell; a man who plays the devil among women. — *Macaulay.*

(*Mining.*) An oblique vein; a rake-vein.

(*Ship-building.*) An obtuse angle, such as the stem and stern-posts make with the keel of a ship.

(*Naut.*) All that part of the hull of a ship which hangs over both ends of the keel; — also, the inclination of a mast from a perpendicular direction.

— The pitch of a roof. — The forward inclination of a mill-saw.

— *v. a.* [A. S. *racian;* Ger. *rechen.*] To draw or gather together, as with a rake; to clear or smooth with a rake; as, to *rake* soil, to *rake* hay; — hence, to collect or draw together, as something scattered; to scrape together; as, to *rake* together money, to *rake* together scandalous stories, to *rake* together the mob of a town. — To gather by violence; to scour; to search with eagerness, as all corners of a place. — To pass over with force or speed.

(*Mil.*) To enfilade; to fire in a direction with the length of anything; — particularly, to cannonade, as a ship, on the stern or head, so that the balls range the whole length of the deck; as, to *rake* a vessel fore and aft.

To rake up. In application to fire, to cover the fire with ashes; — in a figurative sense, to reproduce, to revive; as, to *rake up* past scandals.

— *v. n.* To use a rake; to scratch into for seeking something; to search with minuteness and meanness. — To

Sir Walter Raleigh

1552–1618

pass with violence or celerity of motion. — To lead a debauched, dissolute, vicious life. — To incline from the perpendicular; as, a mast *rakes* aft. — To fly wide of the quarry, as a hawk.

Rakee', Raki', *n.* A spirituous liquor used in Russia, resembling the worst kind of brandy.

Rake'hell, *n.* A rake; a roué; a debauchee; a wild, dissolute, harum-scarum fellow. (Low.)

Rake'hell, Rake'helly, *adv.* Wild; rakish; dissolute; harum-scarum.

Rak'er, *n.* The person who, or thing which, rakes or scrapes together; — specifically, a machine for raking grain, &c., by horse- or steam-power. — A gun so placed as to rake an enemy's ship. — An apparatus annexed to a locomotive-engine for cleaning its grate by automatic action.

Rake'stale, *n.* The helve or handle of a rake.

Rak'ing, *n.* Act or operation of collecting with a rake, or of cleaning and smoothing with a rake. — The space of ground raked at one time, or the quantity of hay, &c., collected by once passing the rake. — Libertinism; habits of a rake or debanchee.

Rak'ish, *a.* Exhibiting the character and conduct of a rake; given to a debauched, dissipated, or dissolute life: as, a *rakish* young fellow.

(*Naut.*) Having a backward inclination; as, *rakish* masts.

Rak'ishly, *adv.* In a rakish course or manner.

Rak'ishness, *n.* Debauchery; dissolute practices.

Raleigh, Sir Walter, (*rȧl'e,*) an accomplished English gentleman, soldier, scholar, statesman, courtier, sailor, colonist, and philosopher, who shone in the reigns of Elizabeth and James I., the lustre of whose name is yet unfaded, was born at Budleigh, Devonshire, 1552. After receiving the rudiments of his education at home, he was, about 1568, sent to Oriel College, Oxford, where "he was worthily esteemed a proficient in oratory and philosophy." He did not long remain there; for, having an enterprising spirit, he entered into the troop of gentlemen volunteers who went to the assistance of the Protestants in France, where he continued about five or six years. He subsequently joined the expedition of General Norris to the Netherlands, in aid of the cause of the Prince of Orange. Soon after his return he engaged with his brother-in-law, Sir Humphrey Gilbert, in a voyage to America, whence they returned in 1579. The next year he was in Ireland, where he distinguished himself against the rebels of Munster. On his return to

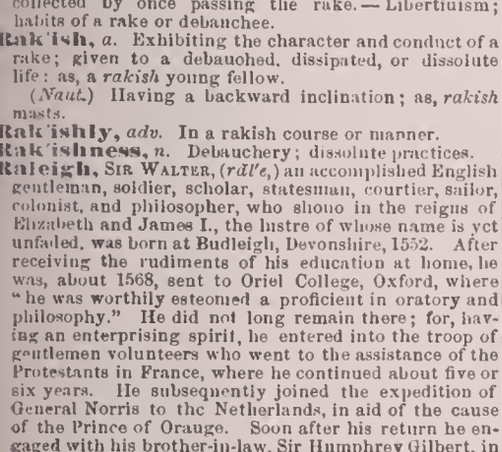


Fig. 2211. — Sir Walter Raleigh, (after Zucchero.)

England he introduced himself to the notice of Queen Elizabeth by a romantic piece of gallantry. Her majesty, while taking a walk, stopped at a muddy place, hesitating whether to proceed or not; on which *R.* took off his new plush cloak, and spread it on the ground. The queen trod gently over the foot-cloth, and soon rewarded the sacrifice of a cloak with a handsome suit to the owner. His reputation for soldiership, his learning, which was varied and profound, his eloquence and ready wit, and the personal advantages and accomplishments, in which he was preëminent, all combined in raising him high in his sovereign's favor. *R.* continued meanwhile to cherish his hopes of transatlantic adventure. Having obtained from Elizabeth an ample patent and the title of Lord-Proprietary over an extensive region, he sent forth two ships, under Captains Amadas and Barlow, which reached the shores of North Carolina in July, 1584, and proceeded north to Virginia. The name last mentioned was given to the new country in honor of the "Virgin Queen," upon the return of the successful explorers. *R.*'s patent was confirmed by Act of Parliament. He was elected, along with Sir William Courtenay, M. P. for his native shire, and received the honor of knighthood, with a more lucrative gift, that of a monopoly for the sale of wines, by which he acquired considerable wealth. A joint-stock company was now formed by Sanderson, a merchant of London, *R.*, and Sir Adrian Gilbert, another of his half-brothers, to find the North-west Passage. The voyages of Davis to the Arctic Seas were made under their auspices. But *R.* and his partners sent a fleet to Virginia, under his relative, Sir Richard Grenville. A party of intending colonists, with Ralph Lane at their head, were landed at Roanoke. They got into difficulties, however, when Grenville left them to return home, and they might have been starved, or murdered by the savages, had not Sir Francis Drake come in time to relieve them. *R.* himself never visited his settlement in Virginia, but he sent thither, in 1587, a fresh party of settlers, governed by Mr. John White, with twelve assistants, who founded the city of Raleigh, now capital of North Carolina. The introduction of tobacco into England, if due to *R.*, must be referred to the date of Ralph Lane's coming home. The pleasant anecdotes upon this occasion are well known: how Sir Walter's servant, alarmed to see the smoke issuing out of his master's mouth, thought he was on fire, and emptied a tankard of ale on his face to quench the flame; how also the Queen lost a wager to *R.*, who had made her a bet that he could weigh the smoke of a given quantity of tobacco, which he did by weighing its ashes, and deducting this weight from that of the tobacco before he smoked it. In the defeat of the Spanish Armada, in 1588, Sir Walter bore a glorious part, for which he received distinguishing marks of favor from the Queen. In 1591 he sailed on an expedition against the Spanish fleet, but without success. About the same time he incurred the Queen's displeasure by an intrigue with one of her maids of honor, whom he afterwards married. In 1595 he sailed to Guiana, and destroyed the capital of Trinidad. The year following he took a distinguished part in the taking of Cadiz. Honors were lavished in abundance upon him, and he obtained the lordship of St. German's, in Cornwall. *R.* was one of those who brought about the fall of Essex, and remained in the favor of the Queen till her death; but, in the succeeding reign, his fortunes changed. He was stripped of his preferments, tried, and condemned for high treason, on a charge the most frivolous, and without the least evidence. He remained in the Tower of London 13 years, during which time he wrote several works on various subjects of great importance, the best of which was the *History of the World*, which was published in 1614. The year following he was released, occasioned by the flattering account which he had given of some rich mines in Guiana. On gaining his liberty, he sailed to that country in search of those pretended mines, instead of discovering which, he burned the Spanish town of St. Thomas, and returned to England, where, in consequence of the complaint of Gondemar, the Spanish ambassador, he was apprehended, and, in a most unprecedented manner, beheaded, on his former sentence. His works are historical, philosophical, poetical, and political. As an author, Hume declares him to be the "best model of the ancient English style." The appearance and character of this poet, courtier, navigator, statesman, and military and naval commander, are thus sketched by Aubrey: — "He was a tall, handsome, and bold man; but his nævе was that he was damnable proud. He had a most remarkable aspect, an exceeding high forehead, and long-faced." Altogether, he was one of the most remarkable men of a remarkable age. Beheaded at Westminster, 1618.

Ral'eigh, in *Illinois*, a post-village and township, former cap. of Saline co., about 75 m. S.S.E. of Springfield.

Raleigh, in *Indiana*, a post-village of Rush co., about 10 m. N.N.E. of Rushville.

Raleigh, in *Tennessee*, a post-town, former cap. of Shelby co., about 200 m. W.S.W. of Nashville.

Raleigh, in *Kentucky*, a post-village of Union co., abt. 215 m. W. by S. of Frankfort.

Raleigh, in *Mississippi*, a post-village, cap. of Smith co., abt. 50 m. E. by S. of Jackson.

Raleigh, in *N. Carolina*, a city, seat of justice of Wake co., and cap. of the State, abt. 148 m. N. by W. of Wilmington, and 286 m. S. by W. of Washington, D. C.; Lat. 35° 47′ N., Lon. 78° 45′ W. It is finely located on an elevated tract, regularly laid out, handsomely built, and, among many other fine edifices, contains one of the largest and most elegant State capitols in the Union. The city has an active trade, and several extensive manufactories. *Pop.* (1897) 13,350.

Raleigh, in *West Virginia*, a S. co.; *area*, about 570 sq. m. *Rivers.* Kanawha and Coal rivers. *Surface*, diversified, and in the S.E. mountainous; *soil*, generally fertile. *Cap.* Beckley. *Pop.* (1897) 10,190.

Rallentan'do, *a.* (*Mus.*) Slackening in time and force.

Ral'liance, *n.* Act of rallying.

Ral'lidæ, *n. pl.* (*Zoöl.*) A family of birds, order *Natatores*, comprising the Rails, Coots (see *Fulica*), Gallinules, Water-hens, Crakes, *q. v.*, &c., chiefly distinguished by their long and slender toes, often with a membranous margin along their sides; by means of which, and their generally compressed bodies, they are not only enabled to support themselves on the aquatic herbage which is seen floating on the surface of the water, but to move with great facility through high grass, bulrushes, and other closely-set herbage. They are for the most part solitary and timid birds, hiding themselves at the least approach of danger, but quitting their semi-aquatic retreats in the morning and evening, to feed in more open spots: their flight, from the shortness of their wings, is very feeble, but they run with swiftness; and by the peculiarly compressed form of their body, are able to make their way through dense masses of reeds and high grass with so much facility as to escape even after being desperately wounded. The flesh of all these birds is delicate. The genus *Rallus*, the Rails, is distinguished by having the bill rather longer than the head, wings and tail very short. The Virginia Rail, *R. virginianus* (Fig. 2212), is 7½ inches long, and the wing 4 inches; upper parts olive-brown, with longitudinal stripes of brownish-black; throat white; neck before, and breast, bright rufous; abdomen and under tail-coverts with transverse bands of black and white. The genus *Porzana* has the bill shorter than the head, and straight. It is represented by the Sora, or Common Rail, *P. Carolina*, of temperate N. America, that is somewhat larger than the Virginia Rail. The genus *Gallinula*, the Gallinules, is distinguished from *Fulica* by the absence of lobes on the toes. It is represented by the Florida Gallinule, *G. galeata*, and the Purple Gallinule, *G. martinica*, of the Southern States and northward, which are abt. 12½ inches long.

Fig. 2212. — American Rail, (*Rallus virginianus.*)

Ral'lier, *n.* One who rallies.

Ralls, in *Missouri*, an E.N.E co., adjoining Illinois; *area*, about 490 sq. m. *Rivers.* Mississippi and Salt rivers, and Spencer's and Lick creeks. *Surface.* diversified; *soil*, fertile, *Min.* Iron and coal. *Cap.* New London. *Pop.* (1897) 14,000.

Ral'lus, *n.* [Lat.] (*Zoöl.*) See Rallidæ.

Ral'ly, *v. a.* [Fr. *rallier*, to reunite, perhaps from Lat. *re-alligare*, to bind together anew.] To collect and reduce to order, as troops dispersed or thrown into confusion; to reunite.

—*v. n.* To reassemble; to come back to order, as troops. — To recover strength and vigor; to recuperate; as, he found his patient had *rallied.*

Ral'ly, *v. a.* [Fr. *railler*, frequent. of *rire.*] To attack with raillery, either in good humor and pleasantry, or with slight contempt or satire, according to the nature of the case; to joke, banter, ridicule, chaff.

—*v. n.* To use satirical pleasantry; to employ banter or persiflage.

—*n.* Reunion; act of bringing disordered troops to their ranks. — Employment or exercise of banter or raillery. — Act or process of recuperating, or of regaining former strength and vigor.

Ralph, James, an American writer, was originally a schoolmaster at Philadelphia, and went thence, in 1725, to London, where he published a poem entitled *Night.* He also wrote a *History of England*, and several political pamphlets. D. in England, 1762. Pope has given him a place in his *Dunciad*, where he exclaims, —

"Silence, ye wolves, while *Ralph* to Cynthia howls,
And makes night hideous; answer him, ye owls."

Rals'ton, in *Pennsylvania*, a post-village of Lycoming co., abt. 25 m. N. of Williamsport.

Ram, *n.* [A. S.; Ger. *ramm.*] The perfect male of the sheep which butts or pushes with his horns; — the castrate male is termed *wether.* — The loose hammer of a pile-driving machine. — The piston of a hydraulic press.

(*Astron.*) See Aries.

(*Hydraul.*) See Hydraulic Press.

(*Mil.*) An engine of war, used formerly for battering and demolishing the walls of cities; a *battering-ram*, q.v.

(*Naval.*) An instrument of modern warfare, reproducing, on a vastly more powerful scale, the beaked vessels of the ancients. The ram is a ship of extraordinary solidity and strength, propelled by engines of great power, and armed at the prow, below the water-line, with a sharp heavy beak, nearly pointed, and diminishing to a sloping edge on the upper side. This beak is nearly solid, or at least of the strongest possible formation; and it is usually built as an independent adjunct to the ship, so that in the event of any very serious collision it may be buried in its victim, or carried away, leaving the vessel itself intact. Irrespective of this beak, the ram is constructed like any other iron-clad vessel. The first practical use of the modern iron-clad ram was in 1862, in Hampton Roads, where the Confederate ram *Merrimac* destroyed several Federal wooden vessels with the greatest ease.

—*v. a.* [Ger. *rammen.*] To drive down or together; to batter or force in; to drive, as with a battering-ram; to stuff; to cram; as, a charge of powder *rammed* into a gun. — To fill or make to cohere by pounding, battering, or driving.

"A ditch . . . *rammed* to make the foundation solid."—*Arbuthnot.*

Ramadan', Rhamadan', *n.* [Ar. *ramazan.*] The ninth month among the Mohammedans. — The name given to the great fast or Lent of the Mohammedans. It commences with the new moon of the ninth month of the Mohammedan year; and while it continues, the day is spent uninterruptedly in prayers and other devotional exercises. Even the night is passed by the more rigid of the faithful in the mosques, which are splendidly illuminated on this occasion; but, generally speaking, the arrival of sunset is the signal for a more than usual indulgence; and, on the third evening of the fast, the grand-vizier commences a series of official banquets. The Ramadan ends on the day preceding the only other great festival of the Mohammedans, the *Bairam* (q.v.), equivalent to our Easter.

Ramapo', in *New York*, a township of Rockland co., containing the post-village of Ramapo Works, abt. 44 m. N. by W. of New York city.

Ramapo River, rises in Orange co., New York, and flowing S. into New Jersey, enters Pompton River from Passaic co.

Ramaya'na, *n.* [Sans., the career or travels of *Rama.*] (*Lit.*) The oldest of the two great Sanskrit epic poems, describing the life and actions of the hero Rama and his wife Sita, and, especially, Rama's expedition to Ceylon, to rescue Sita from the tyrant Rawana.

Ram'berge, *n.* A kind of galley.

Ramberyilliers, (*ram-ber-vil'lai,*) a town of France, dept. of Vosges, on the Mortagne, 16 m. N.E. of Epinal; *pop.* 5,000.

Ram'ola, a town of Spain, prov. of Cordova, 23 m. S. of Cordova; *pop.* 6,500.

Ramble, (*răm'bl.*) *v. n.* [Either from D. *rammelen,* to rove loosely in unbridled desire, or from Lat. *re-ambulare,* to go repeatedly backwards and forwards.] To walk, ride, or sail from place to place, without any specific or determinate object in view; to rove loosely and irregularly; to stroll; to wander; to go about carelessly or desultorily; to go at large without restraint and without direction; as, to *ramble* over the country. — To move, expand, or grow without constraint or direction.

—*n.* A wandering; a roving loosely or irregularly; a going or moving from place to place, without any determinate business or object; an irregular excursion.

Ram'bler, *n.* One who rambles; a wanderer; a rover.

Ram'blingly, *adv.* In a rambling, desultory manner.

Rambouillet, (*ram-boo'e-yai,*) a town of France, dept. of Seine-et-Oise, 17 m. S.W. of Versailles. It is chiefly remarkable for its beautiful park and grounds, and its old castle, in which Francis I. died, 1547, and Charles X. abdicated, 1830. *Pop.* 4,200.

Ram'butan, *n.* (*Bot.*) See NEPHELIUM.

Ra'meal, *a.* [From Lat. *ramus,* branch.] (*Bot.*) Pertaining, or having reference to a branch.

Rameau, JEAN PHILIPPE, (*ra'mo,*) a French musician, b. at Dijon, 1683. In 1733 he produced his opera of *Hippolytus,* which was followed by several others, and greatly admired. But it was as a theorist in music that Rameau excelled; and on account of his two works the *Demonstration of the Principles of Harmony,* and the *Code of Music,* he was called the "Newton" of that science. Louis XV., to whom he was composer, conferred on him the rank of nobility and the order of St. Michael. D. 1764.

Ramentaceous, (*-tā'shus,*) *a.* [Fr. *ramentacé,* from Lat. *ramenta,* scrapings.] (*Bot.*) Covered with scale-like processes, as the leaves of certain ferns.

Ra'ments, Ramen'ta, *n. pl.* [Lat. *ramenta.*] (*Bot.*) Scale-like processes formed on the petioles and leaves of ferns.

Ra'meous, *a.* [Lat. *rameus,* from *ramus,* branch.] (*Bot.*) Pertaining to, growing on, or shooting from a branch.

Ramequin, (*ram'e-kin,*) *n.* [Fr.] (*Cookery.*) A slice of bread spread with toasted cheese and eggs.

Rames'sa, in *Iowa,* a post-village of Clinton co., abt. 24 m. N. by E. of Davenport.

Rameswaram, (*rams-wa'ram,*) an island in the Gulf of Manaar, off the S. extremity of Hindostan; Lat. 9° 18′ N., Lon. 79° 22′ E. *Ext.* 11 m. long, with an average breadth of 6 m. *Pop.* 4,300.

Ramghur, (*ram-goor',*) a town of British India, cap. of a dist. of same name, on the Dummoda River, 200 m. N.W. of Calcutta; Lat. 23° 28′ N., Lon. 85° 43′ E.

Ram'ghur, a town of British India, in the Rajpoot territory of Alwur, 95 m. S. of Delhi; *pop.* 10,000.

Ramification, (*-kā'shun,*) *n.* [Fr. See RAMIFY.] The process of ramifying, or of branching or shooting branches from a stem; also, the manner of their arrangement. — A branch; a small division proceeding from a main stock or channel; as, the *ramifications* of a family genealogy. — A division into chief and subordinate heads, classes, or departments; as, the *ramifications* of a scheme. — The production of figures resembling branches.

(*Bot.*) The manner in which a tree produces its branches or boughs. See BRANCH, and BUD.

Ram'iform, *a.* [Lat. *ramus,* branch, and *forma,* form.] Formed like a branch.

Ram'ify, *v. a.* [Fr. *ramifier,* from Lat. *ramus,* a branch, and *facio,* to make.] To divide or separate into branches; as, a *ramified* subject.

—*v. n.* To shoot into branches, as the stem of a plant; to be divided or subdivided, as a main scheme.

Ramil'lies, a village of Belgium, prov. of S. Brabant, 10 m. N. of Namur, memorable on account of the victory won by the allies under Marlborough over the French under Villeroi, May 23, 1706.

Ra'mist, Ra'mean, *n.* (*Phil.*) A partisan of Pierre Ramé, better known by his Latin name of *Ramus,* royal professor of rhetoric and philosophy at Paris in the reign of Henry II. He perished in the massacre of St. Bartholomew. Ramé's system of logic was opposed to that of the Aristotelian party; and during the latter half of the 16th century a vehement contest was maintained between their respective adherents in France, Germany, and other parts of Europe.

Ram'leh, a town of Palestine, in Lat. 3° 59′ N., and Lon. 35° 28′ E., 8 m. S.E. from Joppa, and 24 m. N.W. from Jerusalem. It has been identified by some with *Arimathea,* the birthplace of the wealthy Joseph, in whose sepulchre Christ was laid. (*Matt.* xxvii. 57; *John* xix. 38.)

Ram'line, *n.* In mast-making, or laying a ship's deck, a long line of cord so fastened as to designate the exact central line.

Ram'mer, *n.* He who, or that which, rams or drives; — specifically, an instrument for driving anything with force; as, a pavior's *rammer;* a gun-stick; a ramrod.

Ram'mish, *a.* [Dan. *ram.*] Like a ram, particularly in regard to odor; — hence, rank; strong-scented.

Ram'mishness, *n.* Quality of being rammish; rankness; a strong scent.

Ram'my, *a.* Rammish.

Ramolescence, (*-es'sens,*) *n.* [From Lat. *mollire,* to soften.] A softening or mollifying. (R.)

Ramollis'sement, *n.* [Fr.] (*Med.*) A softening of the brain; a chronic affection, the result of a previous inflammation, or some injury to the head, resulting in the more or less complete loss of memory and nervous power, the brain in many cases becoming entirely disorganized, and appearing, on dissection, like soft putty. When ramollissement is partial, it generally induces paralysis.

Ramose', Ra'mous, *a.* [Lat. *ramosus,* from *ramus,* a branch.] (*Bot.*) Branched, as a stem or root; branchy; having lateral divisions; cousisting or full of branches; as, a *ramous* efflorescence.

Ra'moth, (*Script.,*) a city in the mountains of Gilead, often called *Ramoth-Gilead,* and sometimes *Ramath-Mizpeh,* or the "Watch-tower." It was famous during the reigns of the later kings of Israel, and was the occasion of several wars between these princes and the kings of Damascus, who had conquered it, and from whom the kings of Israel endeavored to regain it. Here Ahab died, Joram was wounded, and Jehu anointed as king of Israel.

Ramp, *v. n.* [Fr. *ramper,* to creep, to crawl, from Lat. *repo;* Ger. *herpō,* to crawl.] To climb, as a plant; to creep up. — To leap; to bound; to spring; to prance; to romp; to frolic; as, a *ramping* lion.

—*n.* A bound; a leap; a spring. — A highwayman; a footpad. (Prov. Eng.) — A ramping woman; — hence, a prostitute. (Vulgar.)

(*Arch.*) A concave band, or slope, in the cap or upper member of any piece of ascending or descending workmanship. Thus, the *ramp* of a staircase railing is the inclined rail along which the hand of a person going up or down the staircase is led. The word *ramp* is, however, understood in this case to apply to the straight part exclusively.

(*Fortif.*) A road cut obliquely in the interior slope of a rampart, leading from the interior of the work to the terreplein.

Rampage, (*-aj,*) *n.* A state of disorder, violence, or passion; as, a jealous woman on the *rampage.*

Ram'pancy, *n.* [From *rampant.*] State or quality of being rampant; exuberance; extravagance; prevalence; as, *rampancy* of vice.

Ram'pant, *a.* [See RAMP.] Creeping and climbing without check or restraint; overgrowing the usual limits; exuberant; rank in growth; as, *rampant* sin, *rampant* weeds.

—Overmastering restraint; as, a lion *rampant.*

(*Her.*) A term used to describe lions, tigers, bears, &c., when represented as standing erect on their hind legs, and pawing the air with their fore feet (I, Fig. 2213).

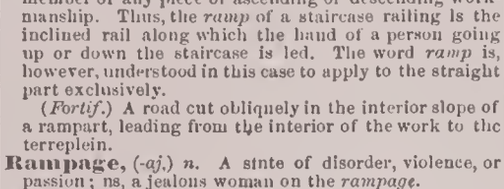


Fig. 2213.

It is *R. gardant,* when it stands erect on the hind legs, with the face turned to the front (2, Fig. 2213), and *R. regardant,* when standing upright and looking backward (3, Fig. 2213).

Rampant arch. (*Arch.*) One whose abutments spring from an inclined plane.

Ram'pantly, *adv.* In a rampant manner.

Ram'part, *n.* [Fr. *rempart,* from *rampe,* a slope; W. *rhanim,* to rise over or beyond.] That which secures safety; that which protects from assault.

(*Fort.*) The mass of earth thrown up from the ditch inwards in order to give the defenders a commanding position over the ground in front. The term *rampart,* though strictly meaning the mound on which the parapet stands, generally includes the parapet itself. If it be of less height than thirty feet, it is liable to be taken by escalade.

—*v. n.* To fortify with ramparts.

Ramphas'tidæ, *n. pl.* (*Zoöl.*) The Toucan family, order *Scansores,* including birds which are distinguished from all others by their enormous bill, which is almost as thick and long as their body, and which is light and cellular internally, arcuated near the end, and irregularly indented along its edges. Their tongue is long, and fringed with barbs on both sides. They inhabit the warm regions of South America. Contrary to what might be supposed, they are graceful in their movements, and in obtaining their food show a use for their long bills. They dip them down into the deep and hanging nests of other birds, and extract the eggs and young for food. They also feed upon fish, insects, and fruit. They throw their food into the air, and catch it as it descends, and thus swallow it with great facility. About twenty species are known.

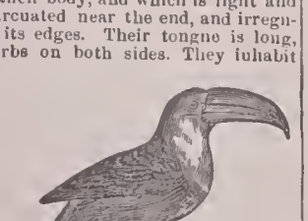


Fig. 2214.—TOUCAN.

Ramphorhyn'chus, *n.* [Gr. *ramphos,* a beak, and *rynchos,* a snout.] (*Pal.*) A genus of Pterosaurian reptiles, in which the fore part of the jaw is without teeth, and may have been encased in a horny beak, but behind the edentulous production there are four or five large and long teeth, followed by several smaller ones. The tail is long, stiff, and slender. All are from the lithographic (middle oölitic) slates of Bavaria.

Ram'pion, *n.* [Fr. *raiponce,* from Lat. *rapum,* turnip.] (*Bot.*) The garden name for *Campanula rapunculus,* the fleshy root of which resembles a little turnip, and is edible.

Ram'pire, *n.* A poetical rendering of RAMPART. *q. v.*

Ram'rod, *n.* A rod of iron, &c., used in ramming down the charge in a musket, pistol, &c.

Ram'say, ALLAN, a Scottish poet, and excepting Burns, the most thoroughly national bard his country has produced, was b. in 1685, at Leadhills, in the county of Lanark. In early youth, he was sent to Edinburgh, and there bound apprentice to a wig-maker, then a profession of a higher grade than it is now esteemed. In 1712, he produced his first poetic effusion, and in 1716, commenced business as a bookseller in Edinburgh, a more fitting and congenial occupation for the poet and literary man. In 1720, he published a collection of his fugitive poems, which realized a considerable sum; and, in 1724, *R.* issued the first vol. of his well-known *Tea-Table Miscellany.* His fame, however, reached its acme on the production of *The Gentle Shepherd,* one of the finest dramatic pastorals ever penned. In soft and gentle sweetness of expression, and in a rich exhibition of old Scottish manners and habits, interspersed with dramatic touches of nature and character, no Scottish poem has maintained a more permanent or a higher place in the national mind and affections. Some of the higher class poems of Burns can alone compete with it in this respect. *R.* died at Edinburgh in 1758, full of years, affluence, and honor.

Ram'say, DAVID, an eminent American physician and historian, was b. in 1749, studied medicine in Philadelphia, and practised at Charleston, South Carolina, where he soon acquired celebrity. From 1776 to 1785 he distinguished himself in a political capacity, first as a member of the legislature of South Carolina, and afterwards as a member of Congress. He labored zealously with his pen to promote the cause of independence of his country; and among his publications are *The History of the American Revolution; The Life of Washington;* and *The History of South Carolina.* But his most important work appeared after his death, and consisted of a series of historical volumes, entitled, *Universal History Americanized,* or *an Historical View of the World, from the earliest Record to the Nineteenth Century,* &c., 12 vols. 8vo. He died May 8, 1815, in consequence of wounds received two days previous from the pistol of a maniac.

Ram'say, now ALMONTE, a village and twp. of Lanark co., Ontario, about 66 m. N.N.W. of Kingston. *Pop.* 4,000.

Rams'burg, in *New Jersey,* a village of Warren co., abt. 5 m. N. of Belvidere.

Ram'ses, RAMESES, or RAMESSES, a name common to several kings of Egypt, of the 19th dynasty, who resided at Thebes. They reigned from the 15th to the 12th centuries B.C. Ramses II. (Fig. 2215), called *the Great,* who has been by some identified with Sesostris, and reigned 68 years, mounted the throne at a very early age, conquered the Khita or Hittites, and other confederate nations of Central Asia, in his 7th year, and concluded an extraditionary treaty with the Khita in his 21st year. Other nations, European and African, fell under his sway, and his empire extended far south into Nubia, the ancient Ethiopia, which he governed by viceroys. He erected fortresses and temples in foreign lands, and embellished all Egypt with his edifices. He had two wives, twenty-three sons, and seven daughters, and was buried in the Biban-El-Me-Look, where the ruins of his sepulchre still exist. His remains were removed, for in 1881 his and other mummies were found concealed in a cave (see EGYPT), and that of *R.* II. (supposed to be identical with that Pharaoh named in Exodus) and *R.* III. were unbandaged, June, 1886, in presence of the Khedive, and subsequently deposited in the museum at Boulak, near Cairo.

Fig. 2215. — RAMSES II.
(Figured from his tomb at Thebes.)

Ram'sey, a seaport of the Isle of Man, on the Bay of Ramsey. — A town of England, co. of Huntingdon. — In *Ill.,* a p.-v. and twp. of Fayette co. — In *Minn.,* an E. by S. co., *area,* about 162 sq. m. *River.* Mississippi. *Surface,* mostly level; *soil,* mostly fertile. *Cap.* St. Paul. *Pop.* (1895) 147,537. — A township of Anoka co.

Ramsey, in *Minnesota,* a village of Isanti co.

Ramsey Isle, off the coast of S. Wales, co. of Pembroke, 4 m. W. of St. David's. *Length,* about 2 m.

Rams'gate, a seaport-town of England, Kent co., on the E. coast of the Isle of Thanet, 15 m. E.N.E. of Canterbury, and 67 m. E.S.E. of London. A favorite watering place. *Pop.* (1897) 25,260.

Ramshackle (*-shăk'l*), *a.* Rickety; loose; falling to pieces; as, a *ramshackle* house.

—*v. a.* To ransack; to search; to turn over pryingly; — used as an English provincialism.

Ram'sheg, a seaport-town of Cumberland co., Nova Scotia, abt. 33 m. N. of Halifax.

Ramstadt, (Upper and Lower,) (*ram'stat,*) two contiguous towns of the grand-duchy of Hesse-Darmstadt, on the Modau, 5 m. S.E. of Darmstadt; *pop.*, united, 4,000.

Ramteak, (*ram-teek',*) a town of British India, territory of Nagpore; Lat. 21° 24′ N., Lon. 79° 22′ E. It is a place of pilgrimage.

Ram'ulose, Ram'ulous, *a.* [Lat. *ramulosus*, from *ramulus*, dim. of *ramus*, a branch.] (*Bot.*) With many small branches.

Ra'mus, or **La Ram'é,** PIERRE, a celebrated French philosopher, mathematician, grammarian, and philologist, killed on St. Bartholomew's day, 1572. See RAMIST.

Ran, *imp.* of RUN, *q. v.*

Ran, *n.* In rope-making, a reel of twenty yarns.

Ra'na, *n.* [Lat., a frog.] (*Zoöl.*) See RANIDÆ.

Ra'nai, or ORANAI, one of the Sandwich Islands in the N. Pacific Ocean; Lat. 20° 51′ N., Lon. 156° 23′ E. *Ext.* 20 m. long, and 10 m. broad.

Rana'les, *n. pl.* (*Bot.*) An alliance of plants, sub-class *Hypogynous Exogens.*—DIAO. Monodichlamydeous flowers, sutural or axile placentæ, indefinite stamens, and minute embryo, inclosed in a large quantity of fleshy or horny albumen. The alliance includes 6 orders,—MAONOLIACEÆ, ANONACEÆ, DILLENIACEÆ, RANUNCULACEÆ, SARRACENNIACEÆ, and PAPAVERACEÆ, *q. v.*

Rancé, ARMANN JEAN LE BOUTHILLIER DE, B. in Paris, 1626, an eminent ascetic writer, chiefly celebrated as the reformer of the monks of La Trappe. D. 1700.

Ran'cedo, *n.* (*Med.*) A chronic thickening of the mucous membrane of the mouth and pharynx, causing partial loss of voice and hoarseness, and requiring counter-irritation and stimulants, such as embrocations of camphorated oil and hartshorn, or even blisters, with hot poultices or fomentations.

Rancescent, (*-sĕs'sent,*) *a.* [Lat. *rancescens*, from *rancere*, to be rancid.] Becoming rancid; turning sour.

Ranch, *v. a.* To sprain; to wrench; to injure by violent contortion. (R.)

Ranchero, (*ran-tshā'ro,*) *n.* [Sp.] A Mexican name for a husbandman or peasant employed on a *rancho*, or stock-farm. The rancheros are a wild, lawless class, a progeny sprung from Spaniards and Indians, and often little better than banditti. The name is also applied to a very different class of people, employed on a cultivated farm, called *hacienda.*

Rancid, (*-sid.*) *a.* [Lat. *rancidus*, from obsol. *ranceo*, *ranceus*, stinking.] Having a rank or stinking smell; strong-scented; sour; musty; fusty; as, *rancid* butter.

Rancid'ity, *n.* [Fr. *rancidité.*] Quality of being rancid or musty; a strong, sour, fusty scent; as, *rancidity* of oil.

Ran'cidly, *adv.* Mustily; with a strong, sour scent.

Ran'cidness, *n.* Rancidity.

Ranco'cas, or RANCOCUS, in *New Jersey*, enters the Delaware River from Burlington co.—A post-village of Burlington co., abt. 12 m. N.E. of Camden.

Rancor, (*rănk'ur,*) *n.* [O. Fr. *rancœur*; Fr. *rancure.*] Deep-seated and implacable enmity; inveterate hatred; malignity; spite; bitterness.

Ran'corous, *a.* Characterized by rancor, or by deep and implacable malice; malignant; malicious; spiteful; virulent; bitter; as, *rancorous* hate.

Ran'corously, *adv.* In a rancorous, malignant, or malicious manner.

Rand, *n.* [A. S.] A border; edge; verge; margin.—A thin inner sole for a shoe.

Ran'dall, in *Iowa*, a post-village of Hamilton co., abt. 50 m. N. of Des Moines.

Randall, in *Wisconsin*, a township of Kenosha co.; *pop.* abt. 1,100.

Ran'dallstown, in *Maryland*, a post-village of Baltimore co., abt. 15 m. W.N.W. of Baltimore.

Ran'dan, *n.* In some parts of England the finest part of the bran of meal.

Randazzo, (*ran-dat'so,*) a town of Italy, in Sicily, prov. of Catania, at the N.W. base of Mount Ætna; *pop.* 4,500.

Ran'ders, a town of Denmark, in N. Jutland, on the Guden, 20 m. N.N.W. of Aarhuus. *Manuf.* Gloves; also, shipbuilding. *Pop.* 8,800.

Ran'dolph, JOHN, of Roanoke, an American statesman, B. at Cawsons, Chesterfield co., Va., in 1773. He was of wealthy parentage, claiming descent from Pocahontas, the Indian princess. He was educated for the legal profession, which, however, he never followed, devoting his attention to politics. In 1799, he was elected to Congress, where he soon became conspicuous, his fluency, wit, and sharpness of retort making him the acknowledged leader of the administration party. His opposition to the war of 1812 caused his defeat in the following election; but he was reëlected to Congress in 1814, where he remained for several years. Visiting England in 1822 and 1824, he attracted considerable attention by his singularity of manners and costume. From 1825 to 1827, he was a senator of the U. States. In 1829, he was a member of the convention for revising the constitution of Virginia, and the year following was appointed U. States minister to Russia, remaining, however, most of the time in England, owing to ill health. On his return, he was again elected to Congress, but was unable to occupy his seat.—"*R.* was tall, and very slender and cadaverous, with long, skinny fingers, which he was in the habit of pointing and shaking expressively at those against whom he spoke. His voice was shrill and piping, but under perfect command, and musical in its lower tones. His favorite weapons in debate were invective and sarcasm; and for many years his sharp and reckless wit made him a terror to his opponents in the house." "For more than 30 years," says Mr. Benton, "he was the political meteor of Congress, blazing with undiminished splendor during the whole time, and often appearing as the 'planetary plague,' which shed, not war and pestilence on nations, but agony and fear on members." "Wit and genius, all allowed him. Sagacity was a quality of his mind visible to all observers, and which gave him an intuitive insight into the effect of measures." Died at Philadelphia in 1833.

Ran'dolph, PEYTON, an American patriot, president of the first Congress; born in Virginia in 1723; died at Philadelphia in 1775.

Randolph, in *Alabama*, an E. co., adjoining Georgia; *area*, about 599 sq. m. *Rivers.* Tallapoosa and Little Tallapoosa rivers. *Surface*, uneven; *soil*, fertile. *Cap.* Weedowee. *Pop.* (1897) 19,150.

—A post-village of Bibb co., about 40 m. N. of Selma.

Randolph, in *Arkansas*, a N.N.E. co., adjoining Missouri; *area*, about 622 sq. m. *Rivers.* Big Black, Eleven Points, and Current rivers. *Surface*, undulating; *soil*, in some parts very fertile. *Cap.* Pocahontas. *Pop.* (1897) 15,670.

Randolph, in *Georgia*, a S.W. co.; *area*, about 449 sq. m. *Rivers.* Patawla, Hodchodkee, and Pachitla creeks. *Surface*, nearly level; *soil*, fertile. *Cap.* Cuthbert. *Pop.* (1897) 16,360.

Randolph, in *Illinois*, a S.S.W. co., adjoining Missouri, settled by La Salle in 1673; *area*, about 560 sq. m. *Rivers.* Mississippi and Kaskaskia rivers. *Surface*, diversified; *soil*, very fertile. *Min.* Bituminous coal, limestone. *Cap.* Chester. *Pop.* (1897) 26,950.

—A post-village and township of McLean co.

Randolph, in *Indiana*, an E. co., adjoining Ohio; *area*, about 460 sq. m. *Rivers.* Whitewater, Mississinewa, and White rivers. *Surface*, nearly level; *soil*, fertile. The co. is traversed by 3 railroads. *Cap.* Winchester. *Pop.* (1897) 31,140.

—A township of Ohio co.—A post-village of Randolph co., about 85 m. E.N.E. of Indianapolis.—A township of Tippecanoe co.

Randolph, in *Kansas*, a post-village of Riley co., about 22 m. N.N.W. of Manhattan.

Randolph, in *Kentucky*, a post-village of Metcalf co., about 44 m. E. of Bowling Green.

Randolph, in *Massachusetts*, a post-township of Norfolk co., containing the villages of East and West Randolph.

Randolph, in *Missouri*, a N. central co.; *area*, about 470 sq. m. *Rivers.* East Fork of Chariton river, Elk Fork of Salt river, Bonne Femme river, and Silver creek. *Surface*, undulating; *soil*, exceedingly fertile. *Cap.* Huntsville. *Pop.* (1897) 25,640.

—A post-village of Clay co., about 30 m. S.E. of Weston.

Randolph, in *North Carolina*, a central co.; *area*, about 750 sq. m. *Rivers.* Deep and Uharie rivers. *Surface*, diversified; *soil*, generally fertile, and well adapted to corn and tobacco, and to grazing. *Min.* Slate. *Cap.* Ashborough. *Pop.* (1897) 26,450.

Randolph, in *New Hampshire*, a post-township of Coos co.

Randolph, in *New Jersey*, a township of Morris county.

Randolph, in *New York*, a post-village and township of Cattaraugus county, about 160 miles W. of Elmira.

Randolph, in *Ohio*, a township of Montgomery county.—A thriving post-township of Portage county.

Randolph, in *Oregon*, a post-village and precinct of Coos county, about 15 miles south by west of Empire City.

Randolph, in *Pennsylvania*, a post-township of Crawford co.

Randolph, in *Tennessee*, a post-village of Tipton co., abt. 33 m. N. of Memphis.

Randolph, in *Texas*, a village of Houston co., abt. 120 m. N. of Houston.

Randolph, in *Vermont*, a post-village and township of Orange co., abt. 25 m. S. of Montpelier.

Randolph, in *W. Virginia*, an E. co.: *area*, abt. 1,000 sq. m. *Rivers.* Buchanan, Elk, Cheat, and Tygart's Valley rivers. *Surface*, hilly or mountainous; *soil*, generally fertile. *Min.* Coal, iron, limestone, sandstone, and slate in abundance. *Cap.* Beverly.

Randolph, in *Wisconsin*, a village and township of Columbia co., abt. 45 m. N.W. of Madison.

Ran'dom, *n.* [O. Fr. *randon*; A. S. *randun—rennan*, to flow, and *dun*, down.] A roving motion or course without direction; absence of direction, plan, rule, or method; hap-hazard;—used, principally, in the phrase *at random*, that is, without a settled point or course.—Distance of a missile or projectile thrown; range.

(*Mining.*) Depth below a given plane.

—*a.* Done at hazard, or without settled aim or purpose; uttered or done without previous forethought or calculation; left to chance; as, a *random* blow, a *random* guess, a *random* truth.

Random shot, a shot not aimed toward any specific object; a chance shot.

Ran'dy, *a.* Tumultuous; disorderly; riotous; as, a *randy* gypsy;—also, lascivious; as, a *randy* woman.

Ranee', *n.* [Hind. *rajiri.*] In Hindostan, the wife of a rajah or prince; as, the *Ranee* of Sattara.

Raneegunge, (*ra'ne-goonj,*) a town of British India, presidency of Bengal; Lat. 23° 35′ N., Lon. 87° 10′ E.

Raneepoor, (*ra-ne-por',*) a town of British India, in Scinde, 45 m. S.W. of Hyderabad; *pop.* 5,000.

Rang, *imp.* of RING. (R.)

Range, (*rānj,*) *v. a.* [Fr. *ranger.*] To set in a row or in ranks; to place in a regular line, lines, or ranks; to rank; to dispose or arrange in the proper order; as, to *range* troops, to *range* one's ideas.—To dispose in proper classes or divisions; to place in regular method; to arrange systematically; as, to *range* plants in genera and species.—To rove over; to pass over.—To sail in a direction parallel to or near; as, to *range* the coast.

—*v. a.* [A. S. *rennan*, to run.] To go at large; to rove; to roam; to travel without restraint or direction; to wander desultorily.

"I saw him in the battle *range* about."—*Shaks.*

—To sail or pass near, or in the direction of; as, to *range* along the coast.—To have range or projection; as, the shot *ranges* three miles.—To have a particular bent or direction; to be in a line with.—To be placed in rank or order; to be arranged or classified.

"And *range* with humble livers in content."—*Shaks.*

—*n.* [Fr. *rangée.*] A rank; a row; a series of things arranged in a line; as, a *range* of houses, a *range* of hills.—A class; an order; an aggregate of individuals of equal degree; as, a *range* of beings. (*Hale.*)—The rung of a ladder.—A sieve for bolting meal.—A kitchen grate; particularly, in modern usage, an improved cooking apparatus of cast-iron, set in brick-work.—A going at large; a roaming; a wandering; an excursion; a ramble; a trip.—Compass or extent of travel or wandering;—hence, scope; command; compass taken in by anything excursive, extended, or ranked in order; as, a wide *range* of thought.

"Far as creation's ample *range* extends."—*Pope.*

—Place, room, or region for excursion;—particularly, a tract of land in which cattle may roam and pasture; as, the prairie is the *range* of the buffalo.

—In the land system of the U. States, a row or line of townships lying between two successive meridian lines six miles apart, and numbered in order east and west from the "principal meridian" of each great survey, the townships in the range being numbered north or south from the "base line," which runs east and west; as, township No. 6, N., *range* 7, W., for the fifth principal meridian.

(*Gun.*) The distance from the muzzle of a gun to the second intersection of the trajectory with the line of sight. The range is not exactly the distance to the point at which the shot impinges on the plane, unless that is also the point aimed at; but the difference is practically of importance only at short distances. In practice, the *range* is usually measured from the muzzle of the gun to the point of impact on the object, or to the first graze of the projectile. The range depends on the initial velocity, the form and density of the projectile, the angle of elevation of the gun, and the difference of level between the planes upon which the gun and object respectively stand.

(*Naut.*) A large cleat in a ship's waist for belaying the sheets and tacks of the courses.—A length of cable equal to, or slightly in excess of, the supposed depth of water into which the anchor is about to be cast. It is lightly coiled on the deck, that it may run freely through the hawse-hole as the anchor falls.

Range'ley, or RANGELY, in *Maine*, a post-township of Franklin co.

Ranger, (*rān'jer,*) *n.* One who ranges; a rover;—hence, a marauder. (R.)—A dog that beats the ground in quest of game.

—*pl.* Mounted troops armed with carbines, or with rifles, who range the country, and often fight on foot; as, the Texan *Rangers.*

Ran'gership, *n.* The office of a ranger, or keeper of a park or forest.

Rangoon', a fortified city of British Burmah, prov. of Pegu, on the Irrawaddy River, 30 m. from the sea, and 58 m. S.S.W. of Pegu; Lat. 16° 48′ N., Lon. 96° 10′ E.; *pop.* 15,000.

Ran'idæ, *n. pl.* (*Zoöl.*) The Frog family, comprising tailless batrachians which have the fingers and toes free, and never dilated into a disk, tympanum visible, upper jaw and palate provided with teeth, and the throat of the males with vocal vesicles, which communicate internally with the mouth. The typical genus *Rana* comprises the frogs proper. It is represented in N. America by several species, the most remarkable of which is *R. caterbiana*, the Bull-frog of the United States, which attains a total length of 21 inches in some instances. It is mainly solitary, and is the most aquatic of all the frogs. The deep croakings of the male may be heard a mile.

Ran'ine, *a.* Pertaining, or relating, to frogs.

(*Anat.*) Pertaining, or belonging, to the lingual artery, and to a vein following the same course as the artery.

Rank, (*rangk,*) *n.* [A. S. *hring*, a ring; Fr. *rang.*] A row, or a line of things, or things in a line; a range; a tier; an order.—Grade; degree of elevation in civil life or station; degree of dignity, eminence, or excellence; relative quality or position; as, a writer of the first *rank.*—An order; a division; a permanent social class; as, the highest and lowest *ranks* of men.—Dignity; high place or degree in the order of men; elevated rank or social position; eminence; distinction; as, a man of *rank.*

(*Mil.*) A line of men standing abreast, or side by side;—opposed to *file*, a line running from front to rear of a company, battalion, &c.

(*Mil. and Nav.*) Degree; grade; as, the *rank* of general or admiral, post-*rank*, brevet-*rank*, &c.

Rank and file. (*Mil.*) All soldiers and non-commissioned officers bearing arms.—*The ranks.* The class of common soldiers; as, to reduce an officer to *the ranks.*—*To fill the ranks*, to supply a competent number of men for a company, regiment, or battalion.—*To take rank of*, to go before in point of precedence.

Rank, *v. a.* To class; to place in a particular class, order, or division.—To arrange; to place abreast or in

line. — To place in proper or suitable order; to dispose methodically or systematically.

—*v. n.* To be ranged; to be placed in a rank, or ranks; to be set or disposed, as in a particular class, order, or division; to place in suitable order, or systematically.

"Let that one article *rank* with the rest." — *Shaks.*

To possess a certain grade or degree of elevation or eminence in the classes of civil or military life; as, he *ranks* high in public estimation.

Rank, *a.* [A. S. *ranc*, high-grown.] High-growing; of luxuriant or vigorous growth; exuberant; as, *rank* herbage. — Fruitful; very fertile; causing luxuriant or vigorous growth or development; as, a *rank* soil. — Strong; excessive; raised to a high degree; rampant; as, *rank* pride; a *rank* error. — Rancid; strong-scented; musty; as, a *rank* smell. — Strong; steadfast; clinching; as, to take a *rank* hold. — High-flavored; strong to the taste.

"Sea-fowl taste *rank* of the fish on which they feed." — *Boyle.*

To set rank, to set the cutting-iron of a plane in such a manner as to take off a thick shaving.

Rank, *adv.* Rankly; stoutly; vehemently.

Ranke, Leopold, an eminent German historian, b. near Naumberg, 1795, was appointed Professor of History in the University of Berlin, in 1824, and historiographer of Russia in 1841. His principal works are: *History of the Roman and German Peoples from* 1494 *to* 1535; *Princes and Nations of South Europe in the* 16*th and* 17*th centuries; The Conspiracy against Venice in* 1688; *The Popes of Rome, their Church and State; Memoirs of the House of Brandenburg; History of Prussia during the* 17*th and* 18*th centuries; History of England* (6 vols. 1875), and *Friedrich der Grosse* (1878). D. 1886.

Rank'er, *n.* One who ranks, or places in ranks; one who arranges.

Ran'kin, in *Mississippi*, a S. central co.; *area*, about 755 sq. m. *Rivers.* Pearl river. *Surface*, generally level; *soil*, fertile. *Cap.* Brandon. *Pop.* (1897) 18,920.

Rankle, (*rănk'l,*) *v. n.* [Probably from O. Lat. *ranceo*, to become rancid.] To fester; to suppurate; to breed corruption; to become putrid; to be inflamed in body or mind; as, a *rankling* malady. — To become painfully diseased or distempered in body or in mind; as, *rankling* envy or hatred, a *rankling* wound.

—*v. a.* To cause to fester; to inflame. (R.)

Rank'ly, *adv.* In a rank manner; with vigorous growth; grossly; coarsely; as, vegetation grows *rankly*.

Rank'ness, *n.* State or quality of being rank; vigorous or exuberant growth; luxuriance; excess; extravagance; extraordinary strength or abundance; as, *rankness* of weeds. — Rank or rancid smell; rancidness; strong taste or high flavor; as, the *rankness* of the flesh of sea-birds.

Ran'ny, *n.* [Lat. *araneus mus.*] The shrew-mouse.

Ran'sack, *v. a.* [A. S. *ran*, plunder, and *secan*, to seek.] To seek through or search, as for plunder or booty. — To pillage; to plunder completely; as, to *ransack* a city. — To investigate thoroughly; to enter and search every part or place of; as, to *ransack* one's memory.

—*n.* Pillage; ravage; devastation. (R.)

Ransom, (*ran'sum,*) *n.* [Ger. *ranzion*; Fr. *rançon*, from Lat. *redemptio.*] Redemption or release from captivity, bondage, or the possession of an enemy.

"Tell me what province they demand for *ransom*." — *Denham.*

—The money or price paid for the redemption of a prisoner or slave, or for property captured by an enemy.

R.-bill. (*Maritime Law.*) A contract for payment of ransom for a captured vessel, with stipulations of safe-conduct if they pursue a certain course, and arrive in a certain time. The payment cannot be enforced in England, during war, by an action on the contract, but it can in this country.

—*v. a.* [Fr. *rançonner.*] To redeem or free from captivity or punishment, by paying an equivalent for; to rescue from the possession of an enemy by paying a price deemed equivalent; as, to *ransom* prisoners of war. — To demand a ransom for; to exact payment for. (R.)

Ran'som, in *Michigan*, a post-village and township of Hillsdale co., about 30 m. W.S.W. of Adrian.

Ransom, in *Pennsylvania*, a post-township of Lackawanna co.

Ran'somer, *n.* One who ransoms or redeems.

Ran'somless, *a.* That may not be ransomed; lacking ransom.

Ran'somville, in *New York*, a post-village of Niagara co., abt. 25 m. N.N.W. of Buffalo.

Rant, *v. n.* [Probably from O. Ger. *ranjan*, to rage; Gael. *ran*, to roar; Heb. *ranan*, to give forth a sridulous sound.] To rave in violent, strident, inflated, or extravagant language, without corresponding loftiness of thought; to mouth words in a stilted, puritanical manner; to be noisy and boisterous in words or declamation; as, a *ranting* preacher.

—*n.* Stilted or high-sounding words, without appropriate dignity of thought or solid sense; boisterous, turgid, empty declamation; as, the *rant* of a puritanical fanatic.

Rant'er, *n.* One who rants; a noisy talker or declaimer; a boisterous, empty-minded preacher.

(*Eccl. Hist.*) One of a sect which originated in a secession from the Wesleyan Connexion, on the ground that the Wesleyans paid too much attention to the externals of public worship, and were deficient in zeal in open preaching in the streets and fields. They admit of female preaching — a thing unknown to every other body of Methodists.

Rant'erism, Rant'ism, *n.* The practice or doctrines of Ranters.

Ranti'pole, *n.* [Eng. *rant*, to make a loud noise, and Prov. Eng. *pole*, the plank used in the game of see-saw.] A wild, harum-scarum, reckless fellow; — also, a romping child.

—*a.* Wild; roving; rakish; harum-scarum; as, *rantipole* tricks, *rantipole* habits.

—*v. n.* To run about in a reckless, harum-scarum manner.

Ran'toul, in *Illinois*, a city of Champaign co., about 10 m. N. of Urbana. *Pop.* (1897) 1,175.

Rantoul, in *Wisconsin*, a township of Calumet county.

Rant'y, *a.* Rantipole; boisterous; noisy; rakish.

Ran'ula, *n.* [Lat., a little frog.] (*Med.*) A tumor under the tongue, generally supposed to arise from some obstruction of the ducts of the salivary glands; some recent observations, however, render it probable that the disease often consists in the development of a cyst in or about the salivary ducts under the tongue.

Ranunculaceæ, *n.* [Lat. *rana*, a frog, because it grows where frogs abound.] (*Bot.*) The Crow-foot, or Buttercup family, an order of plants, alliance *Ranales.* Diag. Distinct carpels, no separate stipules, an imbricated corolla, homogeneous albumen, and seeds without an aril. They are herbs with alternate or radical leaves, or, in one genus, climbing shrubs with opposite leaves, the leaf-stalk in both cases generally dilated at the base, without stipules, the leaf often much divided, and the flowers solitary, or in terminal racemes or panicles. Calyx of 3–6 (usually 5) carpels; corolla of 3–15 (usually 5) petals, generally regular, but sometimes irregular, very minute, or altogether wanting; stamens indefinite, usually numerous, inserted in the receptacle; carpels numerous, 1-celled, or united below, so as to form a compound, many-celled ovary; one or many ovules attached to the ventral suture; style simple. Fruit consisting of a number of achænia, or of several follicles, or a one or more seeded berry; seed containing copious horny albumen, with a minute embryo at base. The plants of this order are widely diffused over the globe, but more especially in temperate or cool climates. Within the tropics, they are, with the exception of the genus *Clematis*, almost confined to high mountain-ranges. An acrid principle is common to all the *R.*, and a narcotic principle is sometimes present in addition. When these principles are in excess, the plants containing them are poisonous. Many of these plants are conspicuous ornaments of our fields, and are cultivated in our gardens; as *Clematis*, *Anemone*, *Ranunculus*, *Eranthis* (Winter Aconite), *Helleborus* (Christmas rose), *Aquilegia* (Columbine), *Aconitum* (Monk's-hood), *Pæonia* (Peony), &c. The *Moutan officinalis*, or Tree-peony of China, is especially remarkable for its very large, and numerous, showy flowers. From the *R.*, the important drugs, aconite, black hellebore, staves-acre seeds, and podophyllin, are derived. The order includes 47 genera, and 1,000 species.

Ranun'culus, *n.* (*Bot.*) The typical genus of the order *Ranunculaceæ*, composed of annual or perennial herbs. Some of them adorn meadows with their yellow flowers, familiarly known as *Buttercups*, *Cuckoo-bud*, *King-cup*, &c.; others, known by the name of *Crow-foot*, or *Cornerow-foot*, are troublesome weeds in gardens and pastures. Many, as the *Spear-worts*, are found chiefly in moist places, and some are altogether aquatic, covering the surface of ditches, ponds, and rivers, where the water is shallow, with a carpet of verdure exquisitely studded with beautiful white flowers. — The Showy Ranunculus, *Ranunculus Asiatica* of our gardens (Figure 2216), is a Levant species. From clusters of small tubers, it sends up several bipartite leaves, and an erect, branched stem, with terminal flowers, which, in the cultivated varieties, are often double or semi-double, yellow, white, red of various shades, or of mixed colors, very brilliant, and from 1½ to 2½ inches in diameter. The cultivated varieties are extremely numerous. The Ranunculus is propagated by seed, by offset tubers, or by dividing the clusters of tubers. Double-flowered varieties of several other species, especially of the common yellow buttercups, are known to gardeners under the name of *Bachelor's Buttons*. *R. sceleratus* (the Celery-leaved Buttercup), and *R. flammula* (the Spear-wort), are very acrid. *R. ficaria* (the lesser Celandine) has thickened roots, which contain a good deal of starch, and have, on this account, been used as food.

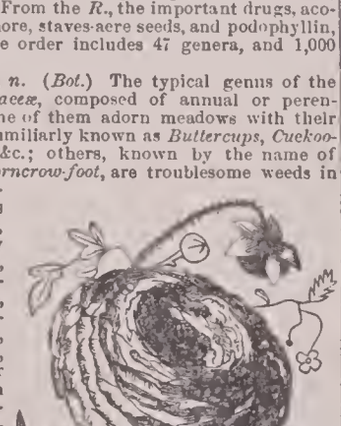


Fig. 2216. — Garden Ranunculus.

Ranz-des-vaches, (*rônz-dā-văsh,*) *n.* [Fr.; Ger. *kuhreihen*, the call to the cows.] (*Mus.*) The name given to the melody which the Swiss herdsmen are in the habit of playing on the Alpine horn, and sometimes of singing, when they drive out their herds to the mountains. It consists of a few simple intervals, and has a beautiful effect when awaking the echoes of the Swiss mountains. The natives of Switzerland are said to be seized with irrepressible longings to return to their native country when they hear it played in a foreign land.

Rap, *v. n.* (*imp.* and *pp.* rapped, usually written rapt.) [O. Ger. *rap.*] To strike with a quick, smart, sharp blow; to knock; as, to *rap* with the knocker of a door.

To rap out. To utter vehemently; as, to *rap out* an oath. (In the U. States, *rip* is frequently colloquially used in the same sense.)

—*n.* A quick, smart blow; as, a *rap* on the head, or on the knuckles.

—*v. a.* [A. S. *rypan;* Goth. *raupjan*, to break in pieces.] To seize by violence; to snatch or hurry away.

'*Rapt* in a chariot drawn by fiery steeds."—*Milton.*

—To seize and bear away, as the mind or thoughts; to transport out of one's self; to affect with ecstasy or rapture.

"Transported and *rapt* in secret studies."—*Shaks.*

—To excbauge; to truck (Vulgar.)

To rap and rend. To fall on and plunder; to seize by violence.

Rapacious, (*-pā'shus,*) *a.* [Fr. *rapace;* Lat. *rapax, rapacis*, from *rapio*, to seize or carry off.] Grasping; greedy of plunder; greedy; ravenous; voracious; as, a *rapacious* spirit. — Given to plunder; disposed or accustomed to seize by violence; seizing by force; as, a *rapacious* soldier. — Accustomed to seize for food; subsisting on prey, or animals seized by violence; as, a *rapacious* beast.

Rapa'ciously, *adv.* In a rapacious or greedy manner; by violent seizure or robbery.

Rapa'ciousness, *n.* Quality or state of being rapacious; disposition to plunder or exact by force, or oppression.

Rapacity, (*-pās'i-te,*) *n.* [Fr. *rapacité;* Lat. *rapacitas.*] Rapaciousness; quality of being addicted to plunder; exercise of plunder; act or practice of seizing by force; ravenousness; greediness; as, the *rapacity* of wild animals. — Act or practice of extorting or exacting by oppressive tyranny or injustice; exorbitant lust of wealth or power, or greediness of gain; as, the *rapacity* of the priesthood.

Raparee', *n.* Same as Rapparee, *q. v.*

Rape, *n.* [Fr. *rapt;* Lat. *raptus*, from *rapio*, to seize.] Act of rapping, or snatching, or seizing by force; robbery. (R.)

(*Crim. Law.*) The carnal knowledge of a woman forcibly and against her will. This detestable offence is punished by penal servitude or imprisonment.

—Fruit plucked from the bunch or cluster, as grapes. — The debris, or stalks and skins of raisins used in the making of wine. — In England, one of the intermediate divisions between a hundred and a shire; as, the *Rape* of Bramber, county of Sussex.

(*Bot.*) The Rape or Cole-seed (*Brassica napus*), (see Brassica), is a biennial plant much cultivated in Europe, both on account of its herbage and its oil-producing seeds. It is so nearly allied to *Brassica rapa* (Turnip), *B. campestris* (Swedish Turnip, Colza, &c.), *B. oleracea* (Kale, Cabbage, &c.), and *B. præcox* (Summer Rape), that botanical distinction is difficult, particularly as to some of the cultivated varieties. *R.* delights in a rich alluvial soil, and is particularly suitable for newly reclaimed bogs and fens, in which the turnip does not succeed well. The mode of cultivation does not differ much from that of turnip; and similar manures are used. In rich soils, *R.* sometimes attains a height of 3 or even 4 feet, so that the sheep turned in are hidden beneath the leaves, and seem to eat their way into the field. They eat the stalks even more greedily than the leaves. *Rape-oil* is extensively used for machinery and for lamps. But the oil and cake so called are not exclusively obtained from this plant; nor are the names *Colza oil* and *Rape oil* used to discriminate the produce of different plants, although in some parts of Europe the name *Colza* is given to varieties of *Brassica campestris* and *B. oleracea*, which are cultivated in the same way as *R. B. præcox* is also cultivated in some places, being sown in spring and reaped in autumn. The seeds of other cruciferous plants are also crushed indiscriminately with these, and the oil and cakes sold by the same names.

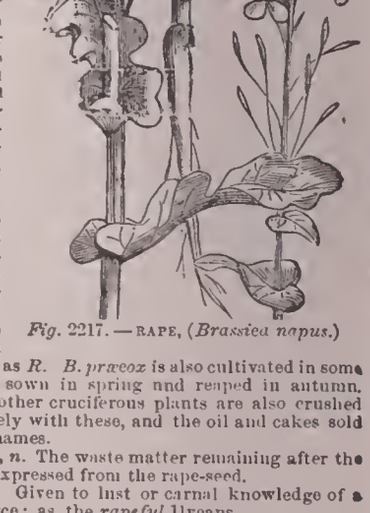


Fig. 2217. — Rape, (*Brassica napus.*)

Rape'-cake, *n.* The waste matter remaining after the oil has been expressed from the rape-seed.

Rape'ful, *a.* Given to lust or carnal knowledge of a woman by force; as, the *rapeful* Ilyeans.

Rape'-oil, *n.* Oil expressed from rape-seed.

Rape'-seed, *n.* The seed of the rape from which oil is obtained.

Rape'-wine, *n.* A weak, thin wine obtained from the last lees of pressed raisins.

Raph'ael, (Raffaello Sanzio or Santi d'Urbino,) the greatest of modern painters, and head of the Roman school, was b. at Ubino, 1483. He received his earliest instructions from his father, Giovanni Santi, after whose death, in 1494, he became the pupil of Perugino, with whom he remained at Perugia and other places for several years. In 1504 he visited Florence, and chiefly lived there till 1508, when he was called to Rome by Pope Julius II., and employed to paint the *stanze* (chambers) of the Vatican. *R.* spent the rest of his short life at Rome, where he formed a numerous school of painters, among whom the most eminent were Giulio Romano, Gian Francesco Pennis, Picrino del Vaga, Polidoro da Caravaggio, and Garofalo. In the numerous works, frescoes, and oil-paintings of this unrivalled master, three styles are distinctly recognizable. The first is the *Peruginesque*, in which sentiment predominates, and was the pure imitation of his master's manner. The second is the *Florentine*, marked by a great advance in respect to form and dramatic composition; it was the result of his studies at Florence, where he was impressed by the cartoons of Leonardo da Vinci and Michael Angelo, and the works of Masaccio, Francia, and Fra Bartolomeo di San Marco. The last-named painter, who especially excelled in his coloring, and the treatment of light and shade, was the intimate friend of *R.* The third style is called the *Roman*, and is peculiarly *R.*'s own — that which constitutes him the greatest of painters. Its supreme excellence is the equable development of all the essential qualities of art, composition, expression, design, coloring; thus forming a truthful representation of nature, both in the grandest conceptions and in the minutest details. It is impossible here to name more than a very few of the works of *R.*, who is distinguished above other painters by the fact of having executed no merely common-place work. Of the paintings executed before his visit to Florence, must be named — *Coronation of the Virgin*, now in the Vatican, and the *Sposalizio*, or *Marriage of the Virgin*, in the Brera at Milan. Among those in his second

Fig. 2218. — RAPHAEL.

manner, are — the *Entombment of Christ*, in the Borghese gallery at Rome; the *Madonna del Baldacchino*, in the Pitti Palace at Florence; the *Madonna del Gran Duca*, in the same palace; and the grand fresco, *Theology*, or *Dispute on the Sacrament*, the first he executed in the Vatican. *The School of Athens*, or *Philosophy*, painted in 1511, first showed traces of his third and highest style. It was followed by the *Parnassus*, or *Poetry*, *Jurisprudence*, *Expulsion of Heliodorus from the Temple of Jerusalem*, founded on a narrative in the book of the Maccabees; the *Mass of Bolsena*, *Attila*, and *Deliverance of St. Peter from Prison*. These frescoes are in the Stanza della Segnatura, and Stanza dell' Eliodoro. The frescoes in the Stanza dell Incendio, and de Constantine, though designed by *R.*, were chiefly painted by his scholars; to whom he was compelled, by the innumerable commissions given him, to intrust the execution of many of his later works. The *loggie* (colonnades) of the Vatican were decorated under his direction; the sublime works of Michael Angelo in the Sistine chapel stimulated him in the production of his *Isaiah* and *Sibyls*; and in 1515 he prepared the *Cartoons* for the tapestry of the Sistine chapel, three of which are lost, and the other seven, sent to Flanders, were bought by Charles I., and now form part of the National Collection in South Kensington Museum, London. Among *R.*'s oil-paintings are the *St. Cecilia*, at Bologna; the famous *Madonna di San Sisto*, now in the Dresden gallery; the *Spasimo di Sicilia*, now at Madrid; and the *Transfiguration*, his last work, and perhaps at once the *chef-d'œuvre* of *R.* and of painting. It is now in the Vatican. His drawings are very numerous, and are to be found in most of the public and private museums of Europe. *R.*, who had occupied himself with architecture as well as painting, was charged, on the death of his friend Bramante, in 1514, with the direction of the building of St. Peter's. *R.* died at Rome from the effects of a cold caught in the Vatican, and after an illness of a fortnight, on his 37th birthday, April 6, 1520. His body lay in state, and was interred with great pomp in the Pantheon. His school was dispersed at the sack of Rome, seven years after his death. There are *Lives of R.* by Vasari, Duppa, Quatremère de Quincy, and others. The most recent are those of Passavant and Baron von Wolzogen. An English translation of the latter, by Miss Bennètt, appeared in 1865. There is an important new work by W. Watkins Lloyd, entitled *Christianity in the Cartoons*. And, among the latest publications, is a series of twenty photographs of *The Great Works of Raphael*, with Vasari's *Life*, and a complete list of his works from Passavant.

Raphaelism, (*răf-a-el'izm,*) *n.* (*Paint.*) The manner of painting in oils introduced by Raphael, or Raffaelle.

Raph'aelite, *n.* A follower of the school of painting founded by Raphael, or Raffaelle.

Raph'anus, *n.* [Gr. *raphanis*, a radish.] (*Bot.*) A genus of plants, order *Brassicaceæ*. The species *R. sativus* is the well-known salad root. Several varieties are in cultivation, some having spindle-shaped, and others globular roots. The latter are commonly distinguished by the name of *turnip-radishes*. Like the most of the salad plants derived from the order *Cruciferæ*, radishes are antiscorbutic and pungent; owing to the excess of woody tissue, they are somewhat indigestible. To attain a large size they require a deep sandy soil.

Fig. 2219. — RADISHES.

Raphe, (*rā'fe,*) *n.* [Gr., a seam or suture.] (*Anat.*) A term applied to parts which look as if they had been sewn or joined together.

(*Bot.*) The vascular cord communicating between the nucleus of an ovule and the placenta, when the base of the former is removed from the base of the ovulum.

Raph'ides, *n. pl.* [Gr. *raphis*, a needle.] (*Bot.*) Certain needle-like transparent bodies found lying in the tissue of plants. They were formerly thought to be peculiar organs, but are now known to be the crystals of various salts.

Raph'illite, *n.* [Gr. *raphis*, and *lithos*, stone.] (*Min.*) A variety of Asbestiform tremolite, occurring in groups of delicate acicular crystals (whence the name) of a white or bluish-green color. It is a silicate of magnesia and lime.

Raphoe, (*rah'fo,*) in *Pennsylvania*, a township of Lancaster co.

Rap'id, *a.* [Fr. *rapide;* Lat. *rapidus*, from *rapio.*] Very swift, fast, quick, or fleet; tearing or hurrying along; moving with speed or celerity; as, a *rapid* river, a *rapid* flight. — Hasty; speedy; quick in progression or sequence; as, *rapid* growth, *rapid* improvement, *rapid* succession. — Of quick speech or utterance of words; as, a *rapid* talker, a *rapid* delivery of language.

—*n.* That which has quickness of motion; — specifically, the part of a river where the current is very swift, or moves with more celerity than the ordinary current; sudden descent of the surface of a stream without actual cataract or cascade; — generally used in the plural; as, the *rapids* of the Mississippi.

Rapidan', or Rapin Ann, in *Virginia*, rises on the S.E. slope of the Blue Ridge in Green co., and flowing S.E., then N.E., enters the Rappahannock River between Spottsylvania and Culpepper cos. *Length*, abt. 80 m. — A village of Madison co., abt. 102 m. N.W. of Richmond.

Rapidan Station, or **Rapidan,** in *Virginia*, a post-village of Culpeper co.

Rapides (*ra-peed'*), in *Louisiana*, a central parish; *area*, about 1,495 sq. m. *Rivers.* Little Red and Calcasieu rivers. *Surface*, nearly level; *soil*, very fertile, especially near the streams. *Cap.* Alexandria. *Pop.* (1897) 30,130.

Rapid'ity, *n.* [Fr. *rapidite;* Lat. *rapiditas.*] State or quality of being rapid; celerity of motion; swiftness; velocity; speed; quickness of utterance: as, the *rapidity* of a current, *rapidity* of speech. — Quickness of progression, development, or advance: as, *rapidity* of growth.

Rap'idly, *adv.* With great speed, celerity, or swiftness; in a rapid manner; with velocity; with quick progression or advance; as, he improves *rapidly*, to move or speak *rapidly*.

Rap'idness, *n.* Rapidity; swiftness; quickness; speed; celerity; velocity.

Rap'ids, in *Iowa*, a township of Linn co.

Ra'pier, *n.* [Fr. *rapiere;* Ger. *rappier.*] Formerly, a long, straight, narrow-bladed sword, now a small sword generally.

Rap'il, Rapil'lo, *n.* [It. *rapillo.*] Pulverized volcanic scoriæ.

Rapine, (*răp'in,*) *n.* [Fr.; Lat. *rapina*, from *rapio.*] Act of seizing and carrying off by force; act of plundering; pillage; ravage; spoliation. — Violence; force.

—*v. a.* To plunder; to pillage; to devastate.

Rappahan'nock, in *Virginia*, a river formed by the Rapidan and North Fork, which unite abt. 10 m. N.W. of Fredericksburg, thence flowing an almost direct S.E. course it enters Chesapeake Bay between Lancaster and Middlesex cos. *Length*, about 125 m.

—A N. co.; *area*, about 270 sq. m. *Rivers.* North River, or North Fork of the Rappahannock river, and Hazel river. *Surface*, much diversified, the Blue Ridge forming the N. W. boundary; *soil*, generally fertile. *Cap.* Washington. *Pop.* (1897) 9,050.

Rapparee', **Raparee',** *n.* Formerly, a wild Irish plunderer or marauder; an outlaw; — the name is supposed to be derived from the *rapery*, or pike, carried by such persons.

Rappee', *n.* [From Fr. *râper*, to grate to powder.] A name used to denote those snuffs which are prepared by grinding the tobacco to powder in a moist state; as, black or brown *rappee*.

Rap'pel, *n.* (*Mil.*) The drum-beat calling troops to arms.

Rap'pen, *n.* A Swiss coin, being the tenth part of a franc, or equivalent to about two cents.

Rap'per, *n.* [From *rap.*] One who, or that which, knocks or raps; — sometimes, the knocker of a door.

Rap'port, *n.* [Fr., from *rapporter*, to refer.] Relation; reference; proportion. (o.)

En rapport. (*Mesmerism.*) That relation of sympathy which insures effective communication or affinity.

Rapscallion, (*-skăl'yun,*) *n.* A low, mean vagabond; a rascal or rascallion; a base, paltry scoundrel; as, ragged *rapscallions*.

Rapt', *imp.* of rap, *q. v.*

Rapt', *n.* [Lat. *raptus*, from *rapere*, to transport, to ravish.] A trance; an ecstasy.

Rap'tee, a river of British India, presidency of Bengal, which, after a S.E. course of 270 m., joins the Ganges in the dist. of Goruckpore.

Rap'tores, *n. pl.* [Lat. *plunderus.*] (*Zoöl.*) Same as Accipitres, *q. v.*

Rapto'rial, *a.* Rapacious, as a bird of prey; raptorious.

Rapto'rious, *a.* [Lat. *raptorius.*] Raptorial. — Fitted for the seizure of prey, as the talons of vultures, falcons, &c.

Rapture, (*rapt'yur,*) *n.* [Lat. *raptura*, from *rapio.*] Violence of a pleasing passion; vehemence of joyful emotions or sensations; ecstasy; transport; enthusiasm; delirium of enjoyment; lively heat of the imagination.

"There is a *rapture* on the lonely shore." — *Byron.*

—*v. a.* To enrapture; to transport; to fill with ecstasy.

Rapt'urize, *v. n.* To become enraptured or smitten with ecstasy. (r.)

Rapt'urous, *a.* Ecstatic; transporting; ravishing; as, *rapturous* delight.

Rapt'urously, *adv.* In a rapturous manner; ecstatically; with transport.

Ra'ra A'vis, *n.* [Lat.] A rare bird; — hence, something strange or unique; a prodigy; a rarity; a wonder; as, a woman without jealousy is a *rara avis*.

Rare', *a.* (*Comp.* rarer; *superl.* rarest.) [Fr., from Lat. *rarus.*] Having wide interstices between its parts; of a loose texture; thin; porous; not dense or compact; as, a *rare*, attenuated substance. — Thinly scattered; dispersed here and there. — Seldom occurring; uncommon; not frequent; scarce; unusual; as, a *rare* occasion, a *rare* chance, a *rare* monster. — Incomparable; of a degree of excellence not usually found; valuable beyond what is common; unique; as, a woman of *rare* beauty, a *rare* work of art, &c.

—[A. S. *hrere*, raw.] Half-raw; imperfectly or partially cooked; underdone; retaining the natural juices; as, *rare* roast-beef.

Rar'ee-show, *n.* [Contracted from *rarity-show.*] A puppet-show; a show carried about in a box by itinerant exhibitors.

Rarefaction, (*rair-e-făk'shun,*) *n.* [Lat. *rarus*, rare; *facio*, to make.] (*Physics.*) The process of expanding or distending bodies. By means of *R.* a body is made to possess more room, or to appear of larger bulk, without accession of any new matter. The rarefaction of the atmosphere is so enormous, that Newton considered it inconceivable on any other principle than an inherent repelling force in the air itself, in consequence of which its particles fly from each other mutually.

Rare'fiable, *a.* [Fr.] Susceptible of rarefaction.

Rare'fy, *v. a.* [Fr. *raréfier;* Lat. *rarefacio* — *rarus*, rare, and *facio*, to make.] To make rare: to make thin and porous, or less dense; to expand or enlarge a body without adding to it any new portion of its own matter; — in contradistinction to *condense*; as, *rarefied* air.

—*v. n.* To become thin, porous, or dispersed; as, "earth *rarefies* to dew." — *Dryden.*

Rare'ly, *adv.* Seldom; infrequent; not often; in a rare manner or degree; as, we *rarely* see him now. — Finely; nicely; accurately; harmoniously; as, a melody *rarely* played.

Rare'ness, *n.* State of being rare; rarity; thinness; tenuity; — opposed to *density*. — State of being uncommon or infrequent; quality of being scarce or unusual. — Value arising from dearth or scarcity.

Rare'ripe, *a.* Prematurely ripe, as fruit.

—*n.* An early, or prematurely ripened fruit.

Rar'itan, in *Illinois*, a post-village of Henderson co., abt. 20 m. S.E. of Burlington, Iowa.

Raritan, or **Rariton,** in *New Jersey*, a river formed by the North and South Branches, which unite in Somerset co., and flowing a general E. course enters Raritan Bay from Middlesex county.—A township of Hunterdon county.—A township of Monmouth county.—A post-borough of Somerset co., about 1 mile W. of Somerville.

Rar'itan Bay, an arm of the Atlantic Ocean, between Middlesex and Monmouth cos., New Jersey, and Staten Island, New York. It is abt. 15 m. long, with a maximum breadth of 10 m.

Rar'itan Landing, in *New Jersey*, a village of Middlesex co., abt. 10 m. N.E. of Trenton.

Rar'ity, *n.* [Fr. *rareté*; Lat. *raritas.*] State or quality of being rare; rareness; tenuity; subtilty; thinness;—opposed to *density*; as, the *rarity* of air.—State of being scarce or unusual; infrequency; uncommonness; as, the *rarity* of a plant.—That which is rare or comparatively unique; something which is uncommon or strange, or valued for its scarcity; as, a disinterested politician is a *rarity* in this country.

Ras'cal, *n.* [A. S., a lean, worthless deer. Etymology unknown.] A lean deer.—Specifically, a mean fellow; a trickish, dishonest man; a knave; a rogue; a scoundrel;—particularly applied to men and boys guilty of the minor offences, and indicating less enormity or flagrancy than *villain.*

—*a.* Lean; scraggy;—hence, worthless; as, a *rascal* deer.

Rascal'ity, *n.* Act or practices of a rascal; mean knavery, trickery, or dishonesty; base malpractice, roguery, or fraud; as, to be guilty of *rascality.*

Rascallion, (*-käl'yun,*) *n.* Same as RAPSCALLION, *q. v.*

Rascal'ly, *a.* Meanly trickish or dishonest; after the manner of a rascal; vile; contemptibly mean, base, worthless, or fraudulent; as, a *rascally* swindler.

Rascol'nik, Raskol'nik, *n.* [Russ., heretic.] (*Eccl.*) One of a large body of Russian dissenters from the Greek Church.

Rase, (*rāz,*) *v. a.* [Fr. *raser*; Lat. *rado, rasus*, to scrape, to scratch.] To scrape; to graze; to skim or rub along the surface of.—To blot out; to obliterate; to cancel; to erase: to expunge; to scratch or rub out.—To level with the ground.

—*v. n.* See RAZE.

Rase, *n.* A graze; a slight wound or abraslon.

Ras-el-Khy'ma, a fortified town of Arabia, on the Persian Gulf; Lat. 25° 49′ N., Lon. 55° 30′ E.

Ras'grad, a town of European Turkey, in Bulgaria, 33 m. S.E. of Rustchuk; *pop.* 6,000.

Rash, *a.* [D. and Ger. *rasch*, quick, speedy.] Precipitate; hasty; unduly quick; headlong;—especially, resolving or entering on a project, measure, or undertaking without due reflection, deliberation, and caution, and thus encountering unnecessary hazard; hasty in counsel or action;—applied to persons: as, a *rash* speaker, a *rash* leader.—Spoken or undertaken with too much haste or too little reflection; as, *rash* expressions, a *rash* step, a *rash* attempt.—Quick: sudden; ardent; as, *rash* gunpowder.—So dry as to fall out with a touch of the hand, as grain. (An English provincialism.)

Rash, *n.* [It. *rascia*; O. Fr. *rasche.*] (*Med.*) A rash is an eruption of red or purple spots on the skin, which may arise from a surfeit, or be the result of some crudity in the stomach and bowels, and may either take place in the form of a few minute pimples, or in a number of irregular blotches or patches, appearing on the face and neck most frequently, but sometimes extending over the entire body. All rashes are attended with heat, irritation, thirst, and sometimes pain. The best *treatment* for rashes, when they occur in adults from the eating of crude food, is to take an emetic of 15 grains of ipecacuanha, or a mild dose of aperient medicine, and, in severe cases, a warm bath. For children, according to their age, a little magnesia, or a few spoonfuls of senna and manna tea, will be, in general, enough to remove the exciting cause.

Rash'er, *n.* A thin slice or cut; as, a *rasher* of bacon.

Rash'ly, *adv.* In a rash or precipitate manner; with hastiness or temerity; without due deliberation or consideration.

Rash'ness, *n.* State or quality of being rash; temerity; precipitancy; hastiness; recklessness; inconsiderate contempt of danger; quality of being uttered or performed without due deliberation and caution.

Raso'res, *n. pl.* [L. Lat., from Lat. *radere, rasum*, to scrape.] (*Zoöl.*) An order of birds (called also *Gallinaceæ*). They have strong feet, provided with obtuse claws for scratching up grains, seeds, &c., of which their food principally consists. Their bodies are for the most part bulky, and their legs strong; but their wings not being of a size proportionate to their bulk, their powers of flight are inconsiderable. The beak is usually arched, and surrounded at the base with a soft skin, in which the nostrils are pierced. They are polygamous, the male taking no part in the construction of the nest, or in the nurture of the young. Generally speaking, the birds of this order are easily domesticated; they multiply with great rapidity; and as they furnish man with a large quantity of wholesome and delicate food, they are justly entitled to his especial regard. Most of them fly badly, do not perch on trees, and seek their food on the ground.

Rasp, *n.* [Swed.; Dan. *raspe*; Ger. *raspel.*] A rough kind of file for rubbing off quickly the asperities of surface, whether of wood or of metal.—A round, oblong, crusty loaf of bread.

—*v. a.* [Ger. *raspeln.*] To rub or file with a rasp or rough file; as, to *rasp* wood to make it smooth of surface.—Hence, to grate harshly upon; as, a sharp, *rasping* voice.

Bas'pail, FRANÇOIS VINCENT, a French chemist and writer, B. at Carpentras, 1794. From 1824 till 1830 he contributed many scientific articles, especially on chemistry, to the *Annales des Sciences Naturelles*, and other journals, and is by some considered the creator of organic chemistry. Raspail, notorious for his democratic opinions, was wounded in the Revolution of July, 1830. Although official employment was offered him, he kept aloof from the government of Louis Philippe, and in the newspaper called the *Friend of the People* proved himself so zealous a republican, that he became the object of a series of prosecutions, which, while augmenting his popularity, cost him six years' imprisonment. For one of his disloyal diatribes against the sovereign, he suffered fifteen months' imprisonment and a fine. Raspail did not, however, neglect his scientific studies; indeed, several of his works were composed in prison. Two of his works were as remarkable for their originality as for their general excellence. These were, the *Natural History of Health*, and the *Médecine et Pharmacie Domestique.* Having adopted the theory that disease is most frequently confined by internal or external parasites, he fixed upon camphor as the best general agent for destroying them, which he prepared and sold at first in the form of cigarettes, afterwards using it systematically in other modes, and combining with it other remedies according to circumstances. He took a prominent part in the revolution of 1848; was a member of the Constitutional Assembly, and, again offending was, in 1849, sentenced to five years' imprisonment. Twice during his incarceration he was elected a deputy, but of course could not sit in the chamber. On being liberated, in 1854, he took up his residence in Belgium, in order to devote himself to scientific pursuits. His *Annuaire de la Santé* had a large sale. In 1870, *R.* availed himself of the general amnesty, and was elected deputy for Paris. He entered zealously the Commune movement in 1871. Sentenced to two years' imprisonment in 1874 for political "objectionable publications," and in 1876 elected deputy for Marseilles. D. Jan., 1878.

Rasp'atory, *n.* A rasp used by surgeons.

Raspberry, (*räz'ber-rỹ,*) *n.* [Ger. *kratzbeere*, from *kratzen*, to scratch.] (*Bot.*) See RUBUS.

Rasp'er, *n.* A scraper; one who, or that which, rasps or grates.

Rasse, (*räs,*) *n.* (*Zoöl.*) A Javanese civet, *viverra rasse.*

Rastadt, a fortified town of S. Germany, in Baden, on the Murg, 20 miles N. of Strasburg. *Manuf.* Carriages, fire-arms, mathematical and philosophical instruments; also, silver and plated-ware. *Pop.* 6,500.

Rasure, (*rāzh'ur,*) *n.* [Lat. *rasura*, from *rado, rasus*, to scrape, scratch.] Act of scraping, rasing, shaving, or erasing; obliteration; an expunging.—An erasure; the mark by which a letter, word, or any part of a writing is effaced, expunged, or obliterated.

Rat, *n.* [Fr.; A. S. *ræt.*] (*Zoöl.*) The popular name of all the larger species of the genus *Mus*, family MURIDÆ, *q. v.*, the most important of which are the Norway or Brown rat, *M. decumanus*, and the Black rat, *M. rattus.* The Brown rat is eight to ten inches long to the tail; the color above is grayish-brown, mixed with rusty, beneath, ashy-white. This rat is known all over the world, and is very destructive in its habits. It belonged originally to Central Asia; crossing the Volga in large troops in 1737, it stocked Russia, and subsequently overrun all Europe. It is often called Wharf-rat. The Black rat is readily distinguished from the Brown rat—its color being sooty-black above, passing into dark plumbeous or paler beneath. Its original locality is unknown. It has been the house-rat of Europe from earliest times, and was introduced into America in 1544. This species is rare, or wholly wanting, in localities where it was formerly very abundant; for it always disappears before its more formidable rival, the Brown rat. Both these species devour everything edible that they can secure, often capturing living prey. The name *rat* is often popularly given, not only to species nearly allied to these, but to other species of *Muridæ*, now ranked in different genera, some of which are noticed in other articles. For the Water-rat, see VOLE.

—A renegade; one who deserts his party or colleagues;—hence, by implication, a printer who works for less than the established scale of wages.—A chignon, or mass of artificial hair, used by ladies.

To smell a rat, to be suspicious; to be on the alert from suspicion, as the cat by the noise of a *rat.*

"Quoth Hudibras, 'I *smell a rat.*'" —*Butler.*

—*v. n.* (*Eng. Pol.*) To become a renegade to one's former party or associates from interested motives; as, he *ratted*, and went over to the Opposition.

(*Print.*) To work for less than the established rate of prices.

Rat, or KRYCI, in the Aleutian Archipelago, the common name of the five islands, Semisopochnoi, Kioka, Booldyr, Amtchitka, and Krycí or Rat Island, the last and most important of which is in Lat. 51° 45′ N., Lon. 180° 40′ W.

Ratabil'ity, *n.* Quality of being ratable.

Ratable, (*rāt'a-bl,*) *a.* That may be rated or set at a certain value.—Assessable; liable or subjected by law to taxation; as, *ratable* property.

Rat'ableness, *n.* Ratability.

Rata'bly, *adv.* Proportionally; by rate or proportion.

Ratafia, (*rāt-a-fē'ah,*) *n.* A delicious cordial, made by macerating the bruised kernels of apricots, cherries, and peaches, with cinnamon, cloves, and other spices, for a certain number of days in brandy, and finally sweetening the whole with lump sugar. It is said to have signified originally a liquid drunk at the *ratification* of an agreement.

Ratan', *n.* Same as RATTAN, *q. v.*

Rata'ny, Rat'anhy, Rhat'any, *n.* [Peruv. *ratañña.*] (*Bot.*) The astringent root of a Peruvian species of the genus *polygala*, sometimes used as a tonic, but more frequently as a dentifrice in a scorbutic state of the gums.

Ratch'et, *n.* (*Mech.*) A wheel, bar, sector or the like having teeth inclined or shaped so that the wheel, bar, &c., may be held in place or moved tooth by tooth. In the case of the ratchet-wheel, as shown in the cut, Fig. 2220, the pawl being perfectly free to move up and down, its own weight makes it drop into tooth after tooth as the wheel revolves. But the wheel can only revolve in the direction of the arrow, as shown in the illustration.

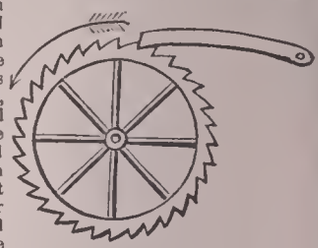


Fig. 2220.
RATCHET WHEEL AND PAWL.

Ratch'et-brace, Ratch'et-drill, *n.* A brace or brace and drill for forming a hole where there is not sufficient room to use the common brace; a ratchet-wheel is fixed in the drill-socket, and turned by a handle with a strong spring attached to force round the socket on the forward motion, and slip over the teeth on the backward motion.

Ratch'et-wheel, *n.* See RATCHET.

Rate, *n.* [O. Fr.; L. Lat. *rata.*] Price or amount fixed or stated of anything; settled allowance; established measure; as, interest at the *rate* of six per cent.—The proportion or standard by which quantity or value is adjusted; degree; comparative height, price, or value; degree of value; degree in which anything is done; price; as, to move at a great *rate*, a high *rate* of prices, a man of the common *rate.*—A tax or sum assessed by authority on property for public use, according to its income or value; as, parish *rates*, poor-*rates*, highway *rates*, &c.—The deviation in the error of a clock or time-piece in 24 hours.

(*Naut.*) The classification of a ship, according to its magnitude or force; as, a first-*rate*, second-*rate*, &c.

—*v. a.* To reckon; to calculate; to compute; to estimate; to value; to set a certain amount of value on; to put or rank at a certain price or degree of worth or excellence; as to *rate* goods, to *rate* a person by the company he keeps.—To rank or class in a certain order; to take the rate of; as, to *rate* a ship, to *rate* a seaman.—To ascertain the exact rate of gain or loss in time, compared with true time; as, to *rate* a chronometer.

—*v. n.* To make an estimate; to place a *rate* on.—To be ranked or classed in a certain order; as, he *rates* as an able-bodied seaman.

Rate, *v. a.* [A. S. *hrethian*, to rage; Swed. *rata*, to find fault with.] To chide or censure with vehemence; to reprove; to scold; to reproach violently.

"Many a time and oft, in the Rialto, you have *rated* me."—*Shaks.*

—*v. n.* To use censures or reproaches; to chide; to scold; to lecture by way of reproof.

Ra'tel, *n.* (*Zoöl.*) The common name of the genus *Mellivora*, including quadrupeds of the Bear family, *Ursidæ*, nearly allied to the Gluttons (*q. v.*), from which it differs in having one false molar less in each jaw, and the upper tubercular teeth slightly developed. The general aspect is similar to that of the badgers, but heavier and more clumsy. They inhabit S. Africa.

Rate'-payer, *n.* One who is assessed for payment of rates or taxes.

Rat'er, *n.* One who sets a rate or value on, or makes an estimate of.

Rath, *n.* [Ir.] A hill or mountain; also, a fortalice;—used as a prefix to many names of places in Ireland.

Rath'bone, in *New York*, a township of Steuben co., containing the post-village of Rathboneville, abt. 317 m. N.W. of New York city.

Rath'bun, in *Wisconsin*, a post-village of Sheboygan co., abt. 86 m. N.E. of Madison.

Rathenau, (*ra'te-nou,*) a town of Prussia, prov. of Brandenburg, on the Havel, 42 m. W.N.W. of Berlin; *pop.* 6,638.

Rather, (*räth'er.*) *adv.* [A. S. *rathor, hrathor*; comp. of *rath*, early, quick, soon.] More readily and willingly; preferably; with better liking; with better choice or reason; as, I would *rather* go than not.—In a greater degree than otherwise; of two alternatives conceived of, this by preference to the other; moderately; tolerably.—With greater propriety; more correctly speaking; as, I speak of art, or, *rather*, the ideality of art.—*The rather*, the sooner; the more so; for particular cause;—especially; as, I forgave her, *the rather* because I loved her.—*Would rather*, or *had rather*, desire by choice or preference to; as, I *would rather* stay at home.

Rathkeale, (*rath'keel,*) a town of Ireland, prov. of Munster, co. of Limerick, 17 m. S.W. of Limerick; *pop.* 4,200.

Rath'lin, an island on the N. coast. of Ireland, co. of Antrim, 3 m. N.E. of Fair Head; Lat. 54° 36′ N., Lon. 9° 15′ W. *Ext.* 6 m. long, and 1 m. broad. *Pop.* 800.

Rath'ripe, *a.* Early ripe; rare ripe; as fruits.

Rati'bor, a town of Prussian Silesia, on the Oder, 44 m. S.S.E. of Oppeln. *Manuf.* Woollen, and linen fabrics, hosiery, leather, and tobacco.

Ratification, (*-kā'shun,*) *n.* [Fr.] Act of ratifying; confirmation; act of giving sanction and validity to something done by another; as, the *ratification* of a treaty of peace.

Rati'fier, *n.* The person who, or thing which, ratifies.

Rati'fy, *v. a.* [Fr. *ratifier*; from Lat. *reor*, to think,

and *facio*, to make.] To make or render valid; to confirm; to approve and sanction; to settle or establish; as, to *ratify* an agreement.

Ratio, (*ra'shī-o,*) *n.*; *pl.* RATIOS. [Lat., from *reor, ratus*, to think.] (*Math.*) That relation of two quantities of the same kind which is expressed by the quotient of the one divided by the other; — divided into *arithmetical* and *geometrical*.

—Hence, analogically, proportion; rate; degree; as, the *ratio* of national wealth to the population of a country.

Ratio to a geometrical proposition. (*Math.*) The constant quantity by which each term is multiplied to form the succeeding one.

Ratiocinate, (*răsh'ī-ōs-ī-nāt,*) *v. n.* [Lat. *ratiocinatus*, from *ratio*, reason.] To reason by deduction from premises; to put forward reason or argument.

Ratiocina'tion, *n.* [Fr.] The act or process of reasoning, or of deducing consequences or results from premises.

Ratiocina'tive, *a.* Having the characteristics of, being influenced by, or expressing ratiocination; consisting in the deduction of inferences or conclusions from premises or comparisons; argumentative; as, a *ratiocinative* process.

Ration, (*rā shon* or *răsh'un,*) *n.* [Fr.; Lat. *ratio.*] A proportion, or fixed, specified allowance of provisions, drink, and forage, assigned to each soldier in the army, or sailor in the navy, for his daily subsistence, and for the sustenance of horses. —Hence, a certain portion dealt; an allowance.

Rational, (*răsh'un-al,*) *a.* [O. Fr.; Fr. *rationnel*; Lat. *rationalis.*] Having reference or relation to reason; not physical. — Possessing reason, or the ratiocinative faculty; endowed with reason; — correlative to *irrational*; as, man is a *rational* being. — Consonant to reason; agreeable to reason; acting in conformity with reason; wise; judicious; not extravagant, foolish, fanciful, absurd, or preposterous; as, *rational* conduct, a *rational* state of mind, a *rational* thinker.

(*Math.*) An algebraic or arithmetical quantity is said to be *rational* when it can be expressed in finite terms without the aid of symbols denoting the extraction of roots; when it cannot be thus expressed, the quantity is termed *irrational*.

R. horizon. (*Geog.*) The plane passing through the centre of the earth parallel to the sensible horizon of the place to which it is referred.

—*n.* A being endowed with reason.

Rationale, (*răsh'un-ā'le,*) *n.* [Fr., from Lat. *rationalis.*] A detail with reasons; a series or sequence of reasons assigned. — An account or solution of the principles of some action, opinion, hypothesis, phenomenon, &c.; as, the *rationale* of a code of laws, the *rationale* of the theory of odic force.

Rationalism, (*răsh'un-al-īzm.*) *n.* [Fr. *rationalisme.*] (*Philos.*) A system of opinions deduced from reason, as distinct from *inspiration*, or opposed to it; main deference to, or dependence on, reason, in opposition to *revelation.* — The name has been applied especially to the school of Paulus and other German writers, who seek to convert the miraculous narratives of the New Testament into a relation of ordinary occurrences. Thus, the feeding of the multitudes with the loaves and fishes is explained by the statement that when at the bidding of Christ the disciples had produced their little store, others also brought out what they had with them, and thus a meal was provided for the whole crowd. Measured by the modern standard of likelihood, such explanations may perhaps be considered as involving difficulties scarcely less than those of the narratives for which they profess to account. The influence of such a school was not likely to be lasting, and it was succeeded by another, commonly known as the *mythical*, which regards the Gospel records as assertions of floating myth round a nucleus of historical fact.

Ra'tionalist, *n.* [Fr. *rationaliste.*] One who, in his disquisitions and practice, bases his proceedings wholly upon reason. — One who considers the supernatural events recorded in the Old and New Testaments as happening in the ordinary course of nature, or in the common order of things; one who is governed by his reason in matters of religion; a freethinker.

Rationalist'ic, Rationalist'ical, *adv.* Belonging to, or in accordance with, the doctrines of Rationalism.

Rationalist'ically, *adv.* In a rationalistic manner.

Rational'ity, *n.* [Fr. *rationalité.*] The quality of being rational; power of reasoning; ratiocinative faculty; soundness or sanity of mind; reasonableness.

Ra'tionalize, *v. a.* To convert to rationalistic opinions; to interpret in the manner of a rationalist.

—*v. n.* To place entire or undue dependence on reason; to bring in accordance with the principles of Rationalism; as, *rationalized* belief.

Ra'tionally, *adv.* In a rational manner; reasonably; in consistency with reason; as, let us consider the question *rationally*.

Ra'tionalness, *n.* Rationality; state or quality of being rational.

Ra'tionary, *a.* Pertaining to accounts.

Rat'isbon. [Ger. *Regensburg.*] A city of Bavaria, on the Danube, opposite the influx of the Regen, 67 m. from Regen. Though built of stone, it has all the defects of an old town, the streets being narrow and crooked, and the houses high and old-fashioned. The town-house is gloomy. The best edifices are the cathedral, and the palace of the Prince of Thürn and Taxis, formerly the abbey of St. Emmeran, containing many good paintings; the town-house, in which the diet of the empire was held from 1662 to 1806; the episcopal residence, the arsenal, and the Haidplatz, where tournaments were given in the days of chivalry. Besides these, there are a public drawing-school, public libraries, an observatory, gymnasium, and several hospitals. *Manuf.* Tobacco, porcelain, leather, and steel-wares; also extensive dockyards for the building of boats and lighters. There is also a considerable trade on the Danube. The

Fig. 2221. — RATISBON CATHEDRAL.

river is crossed by a bridge of great length, connecting Ratisbon with its northern suburb, called Stadt-am-Hof. This place was long the capital of Bavaria. In 1524 the Roman Catholics here formed a league against the Protestants; and here, in 1809, Napoleon I. was wounded in a battle in which he forced the Austrians to retreat. *R.* was made a free port in 1853. *Pop.* 30,357.

Rat'lin, Rat'line, Ratt'lin, *n.* (Generally used in the plural.) (*Naut.*) In the rigging of a ship, small lines that traverse the shrouds horizontally, at regular distances, and forming ascending ladders to the mastheads.

Ratoon', *n.* [Sp. *retoño.*] The young shoot of the sugar-cane, after being cut.

—*v. n.* To shoot up from the root, as in the sugar-cane, from the root planted in the previous year.

Rats'bane, *n.* [*Rat* and *bane.*] Arsenious acid, used as poison for rats.

Ratsbaned, (*-bānd,*) *a.* Poisoned by ratsbane.

Rat'-tail, *a.* Resembling the form of a rat's tail; as, a *rat-tail* file.

—*n.* (*Far.*) An excrescence growing from the pastern to the middle of a horse's shank.

Rat'tan, Rat'an, *n.* [Fr. *ratan*; Malay. *rôtan.*] The long slender stem of a species of *Calamus Rotang*, and other allied species of palm, which are among the most useful plants of the Malay Peninsula and the Eastern Archipelago, whence they are largely exported for canework.

—A walking-stick made of *rattan*.

Rattazzi, (*rat-tuds'se,*) URBANO, an Italian statesman, B. at Alessandria, 1808. He studied law, and practised at the Turin bar, and afterwards at Casale. Remarkable both for the proper knowledge he exhibited of law and for his eloquence, *R.* was returned in 1848 as representative of the College of Alessandria, taking his seat on the ultra-Liberal benches of the Lower Chamber. He was a member of the ministry hastily formed by Charles Albert after the battle of Custozza, July 23, 1848, and which lasted but ten days. His services having been dispensed with, he sided with the Opposition to the new ministry, ranging himself under the banners of the famous Gioberti, whom he overthrew on the question of a Piedmontese intervention on behalf of the Pope. The battle of Novara, March 23, 1849, and the abdication of Charles Albert having led to his retirement from the Ministry of the Interior and of Justice, he took up a position in the Sardinian Parliament as a democrat. His great knowledge of law, and his moderation as a politician, led to his being made President of the Chamber in 1852, and shortly afterwards Minister of Justice, under his former adversary, Count Cavour. From this period *R.* followed in Cavour's steps, whom, after the armistice of Villafranca, he succeeded. After the death of Cavour, he resumed office, but found himself in opposition to the views of Ricasoli, the new Premier; and in the great debate on Italian affairs at Turin, in December, 1861, he sunk his own claims to vote with that statesman. In March, 1862, *R.* was intrusted with the task of forming a new ministry. In his inaugural speech, March 7, he declared his policy to consist essentially in maintaining a friendly alliance with France and England, the "natural allies" of Italy. Finding that his ministry did not possess the confidence of parliament, *R.* resigned Dec. 1, 1862. He came again into power in 1867, succeeding to Ricasoli, and retired in October of that year. D. 1873.

Ratteen', *n.* [Fr. *ratino*; Sp. *ratina.*] A kind of thick, twilled, woollen stuff.

Rattinet', *n.* A woollen stuff of a more flimsy material than ratteen.

Rat'ting, *n.* The act of abandoning one's former party and associates, and going over to the opposite side or faction; — used in reference to English politics. — Among printers, the act of working for less than the established scale of prices.

Rattle, (*rāt'tl,*) *v. n.* [D. *ratden, rentelen*; allied to Gr. *arassō.*] To make a quick, sharp noise, rapidly repeated, by the impact of bodies or substances not very sonorous; to clatter; as, the *rattling* of hail upon glass, the *rattling* of wheels. — To jabber; to speak eagerly and noisily; to utter words in a vehement or clattering manner.

—*v. a.* To cause to make a rattling sound, or a rapid succession of quick, sharp, sounds; to move anything so as to make a clattering noise. — To stun with noise or clangor; to drive with sharp sounds rapidly repeated; as, *rattling* thunder. — To rail at clamorously; to scold; to express with the tongue loudly and vehemently.

"She would sometimes *rattle* off her servants sharply."
Arbuthnot.

—*n.* A rapid repetition of sharp, clattering sounds; as, the *rattle* of musketry, the *rattle* of a drum. — Loud, rapid talk; clattering utterance of words; clamorous scolding or railing; a rapid succession of words sharply delivered, as by a woman's tongue. — A jabberer, a tattler; a gossip; a noisy, frivolous, inconsequential person, fond of hearing the sound of his, or her, own voice; a loquacious individual. — An instrument which, when agitated, makes a clattering sound; as, the *rattle* of a rattlesnake, a child's *rattle*, &c.

—*pl.* The noise produced by the air in passing through mucus of which the lungs are unable to free themselves; — chiefly observable at the approach of death. *Dunglison.*

To spring a rattle, to shake a rattle in order to produce a clattering sound.

Rat'tle-box, *n.* A rattle; a toy to produce a rattling sound.

(*Bot.*) See CROTALARIA.

Rat'tle-brained, *a.* Full of levity; harum-scarum; rantipole; rattle-headed; giddy; noisy; rompish; tomboyish; as, a *rattle-brained* youth.

Rat'tle-headed, Rat'tle-pated, *a.* Wild; unsteady; noisy; empty; giddy.

Rat'tlesnake, *n.* (*Zoöl.*) The common name of the serpents comprising the family *Crotalidæ*, comprising some of the most deadly poisonous Ophidians, whose upper jaw contains but few teeth, but is armed with sharp-pointed, perforated or grooved, movable poison-fangs. These fangs are concealed in a fold of the gum, or raised, at the will of the animal. They connect with a gland situated near the eye, which furnishes the fluid poison. When the snake bites, the fangs are raised, and the pressure of the temporal muscles upon the gland

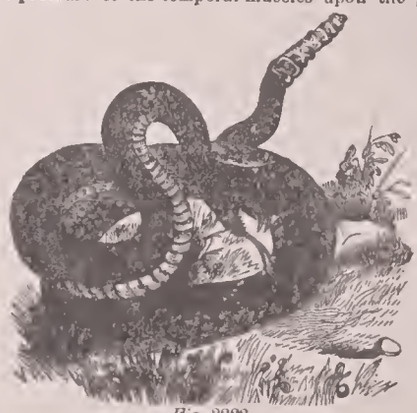


Fig. 2222.
RATTLESNAKE OF THE U. STATES, (*Crotalus durissus.*)

forces the poison along the fang into the wound. The genus *Crotalus* includes the *R.* proper (Fig. 2222), so called from the peculiar rattling instrument at the extremity of the tail, formed of several horny flattened rings, loosely attached together, which move and rattle whenever the animal shakes or alters the position of the tail. These rings increase in number with the age of the animal, and it is asserted that it acquires an additional one at each casting of the skin. The genus is peculiarly American. In common with the boa, the *R.* have simple, transverse plates beneath the body and tail. Their muzzle is hollowed by a little round depression behind each nostril. The habits of the *R.* are sluggish; they move slowly, and bite only when provoked, or for the purpose of killing their prey. They feed principally upon birds, rats, squirrels, &c., which it is believed they have the power of fascinating.

Rat'tlesnake Bar, in *California*, a post-village of Placer co., abt. 7 m. S. of Auburn.

Rat'tlesnake Creek, in *Indiana*, enters White River from Owen co.

Rat'tlesnake Fork, in *Ohio*, a branch of Paint Creek, which it joins in Ross co.

Rat'tlesnake Plan'tain, *n.* (*Bot.*) See GOODYERA.

Rat'tlesnake-root, *n.* Same as snake-root. See POLYGALA.

Rat'tlesnake-weed, *n.* (*Bot.*) See ERYNGO.

Ratt'lin, *n.* (*Naut.*) See RATLIN.

Ratzeburg, (*ratz'boorg,*) a town of Prussia, duchy of Lauenburg, on a small island, in the lake of Ratzeburg, 11 m. S. of Lubeck. *Pop.* 3,700. The lake is 6 m. long, and 1½ m. broad.

Rauch, CHRISTIAN DANIEL, (*rouk,*) a German sculptor, B. in the principality of Waldeck, 1777, who was extensively employed by the various governments of Germany, and produced a large number of works, some of them of great excellence. The statues of Göthe, Schiller, and the monument to Frederick the Great of Prussia, are his best productions. D. 1857.

Raucity, (*rau'sity,*) *n.* [Fr. *raucité*, from Lat. *raucitas* — *raucus* harsh, rough.] Hoarseness; roughness of sound; harshness of utterance; as, the *raucity* of a trumpet.

Raucous, (*raw'cŭs,*) *a.* [Lat. *raucus,* hoarse.] Harsh; hoarse; strident; as, a *raucous* voice.

Ravage, (*rav'aj,*) *n.* [Fr.] Spoil; devastation; pillage; desolation or destruction by violence, either by men, beasts, or physical causes; havoc; waste; demolition by decay: as, the *ravages* of war, fire, tempests, &c., the *ravages* of time.

—*v. a.* [Fr. *ravager.*] To spoil; to devastate; to pillage; to plunder: to lay waste by various means of destruction, as war, fire, inundation, disease, drowning, &c.; to commit havoc or depredation upon; as, to *ravage* an enemy's country.

Rav'ager, *n.* A despoiler; a pillager; a destroyer; one who, or that which, devastates or lays waste.

Ravaillac, François, (*ra-vaï'yak,*) the assassin of Henri IV. of France, executed May 27, 1610.

Rave, *v. n.* [D. *revelin,* to dote; Fr. *rêver,* akin to Lat. *rabies,* madness.] To talk insanely; to move, act, or talk senselessly; to wander in mind or intellect; to be delirious; to talk irrationally; to be wild in words or gestures; to utter furious exclamations, as a madman. —To rush furiously, like a madman.

To rave on, upon, or *of,* to dote; to be unreasonably fond; to hanker after; to be excited about; as, he is continually *raving of* her charms.

—*v. a.* To utter wildly or irrationally; to express in delirium, madness, or frenzy.

—*n.* [From Prov. Eng. *rathes.*] A New England localism for the upper side-piece of timber forming the body of a cart.

Ravee', one of the "five rivers" of the Punjab, rising near Chumba, and after a S.W. course of 380 m. joining the Chenab, 35 m. N.E. of Mooltan.

Rav'el, *v. a.* (*imp.* and *pp.* RAVELLED,) (*răv'eld.*) [D. *rafelen,* to ravel out.] To unravel; to free from an entangled state; to unweave or untwist; to unsew or unknit; as, to *ravel* out a stocking; — hence, to divest of intricacies; to disentangle. — To pull apart, as a texture, in a manner to cause the threads to fall in a tangled mass; —hence, to entwist; to entangle; to net; to make intricate; to involve; as, *ravelled* interests.

—*v. n.* To be untwisted, unwoven, or separated in texture; to be unwove or disentangled; to be relieved of knots or intricacies.

Ravelin, (*rav'lin,*) *n.* [Fr.; It. *ravellino.*] (*Fort.*) A detached out-work, consisting of two faces, which make a salient angle without any flanks. Ravelins are in general constructed beyond the *fosse* or ditch in front of the curtain, and between two bastions, so as to protect the more defenceless line of battlement known as the *curtain.* The *R.* is always placed before a level wall; as a half-moon is before an angle. In Fig. 2223 B B is the *ravelin,* A its *redoubt,* and C C its *ditch.* D D is the main ditch of the fortress, and E the passage giving access from the fortress to the ravelin.

Fig. 2223. — RAVELIN.

Rav'eller, *n.* One who ravels.

Rav'elling, *n.* Act of unweaving or untwisting.—That which is ravelled out;—particularly, a thread extricated from a texture.

Raven, (*rā'vn,*) *n.* [A. S. *hræfen, ræfen.*] (*Zoöl.*) The largest of the *Corvidæ,* and the type of the Linnæan genus *Corvus.* The North American *R., C. carnivorus,* measures 24 inches in length, and the wing 17 inches. The plumage is black, with a blue gloss; it builds its nest in high trees or rocks, composed of sticks, lined with wool, and lays five pale-green eggs, with brown and gray

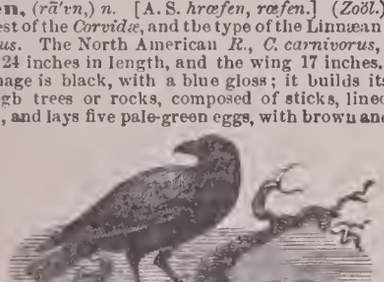


Fig. 2224. — AMERICAN RAVEN.

spots. The species feeds on carrion, birds, young lambs, and weakly sheep, which they first attack by picking out their eyes. His scent is remarkably acute, and he is by nature a glutton, and by habit a thief; yet, with all his mischievousness, he possesses many diverting qualities, and there is no bird that exemplifies more the necessities and advantage of a good education. He is easily tamed, and may be taught to fowl like a hawk, fetch and carry like a spaniel, speak like a parrot, and sing like a man. They are solitary birds, live in pairs, and in clear weather fly high. They were reckoned birds of ill omen by our forefathers. They are very long-lived, some, it is said, having attained to more than a hundred years of age.

—Rapacity: rapine; — Prey; booty; plunder or food procured by violence; — also written *ravin.*

—*a.* Black; resembling the raven in color; as, *raven* hair.

—*v. a.* To seize and carry off forcibly; to obtain by violence. — To devour with great eagerness or greediness; to eat with voracity.

—*v. n.* To prey rapaciously; to be greedy or voracious.

"The more they fed, they *raven'd* still for more." — *Dryden.*

Raven'ala, *n.* (*Bot.*) A genus of plants, order *Musaceæ. R. speciosa,* a fine species found in Madagascar (Fig. 2225), forms a noble tree, which the French call the Traveller's-tree, probably on account of the water which is stored up in the large cup-like sheaths of the leafstalks, and which is sought for by travellers to allay their thirst. The very large, broad, oblong leaves are used as a thatch to cover huts. The seeds are edible; and the blue pulpy aril surrounding them yields an essential oil.

Fig. 2225. — RAVENALA SPECIOSA.

Ra'vener, *n.* One who, or that which, ravens, plunders, or devours with voracity.

Ra'vening, *n.* Appetite for plunder.

Raven'na, a city of Italy, prov. of Ravenna, on the Montone, near its mouth in the Adriatic, 43 m. E.S.E. of Bologna; Lat. 44° 24′ N., Lon. 12° 12′ E. It is pleasantly situated, but unhealthy. The chief objects of interest are the cathedral, the churches of St. Vitale and Santa Maria, the tomb of Dante, and a pillar commemorating the death of Gaston de Foix. *Manuf.* Silk, linen, paper, and glass. *R.* is of Thessalian origin, became subject to Rome B. C. 234, and was an important naval station under Augustus. It was made the capital of the W. empire by Honorius, in 404. In 1218, *R.* became a republic, but passed into the power of the Polenta family in 1275. In 1441, it was seized by the Venetians, by whom it was ceded to the Pope in 1509. In 1512, the French defeated here the Spanish and Papal troops, but lost their general, Gaston de Foix. *R.* was annexed to the kingdom of Italy in 1860.

Raven'na, in *California,* a village of Los Angeles co., abt. 45 m. N. of Los Angeles.

Ravenna, in *Michigan,* a post-village and township of Muskegon co., located abt. 23 m. N.W. of Grand Rapids.

Ravenna, in *Missouri,* a post-village and township of Mercer co., about 95 m. N. E. of St. Joseph. *Pop.* (1897) 1,610.

Ravenna, in *Nebraska,* a village of Cass co., abt. 22 m. N.W. of Nebraska City.

Ravenna, in *Ohio,* a post-village and township, cap. of Portage co., abt. 38 m. S.E. of Cleveland. It has a considerable trade, and is a place of much business activity.

Ravenous, (*răv'n-us,*) *a.* [O. Fr. *ravineux.*] Eager for prey or plunder; ardent for gratification; as, *ravenous* appetite or lust. — Inordinately voracious; mad with hunger; greedy to excess; devouring with furious eagerness; as, a *ravenous* wolf.

Rav'enously, *adv.* In a ravenous manner; with inordinate greediness or voracity; as, to be *ravenously* hungry.

Rav'enousness, *n.* State or quality of being ravenous; excessive or uncontrollable greediness or voracity; inordinate rage for prey; as, the *ravenousness* of a lion or bear.

Ra'vensburg, a town of Germany, in Wurtemberg, circle of the Danube, on the Schussen, 21 m. E.N.E of Constance; *pop.* 4,600.

Ra'ven's-duck, *n.* [Ger. *ravenstuch.*] A particular kind of sail-cloth.

Ra'venswood, in *California,* a village of San Mateo co., abt. 10 m. E. of Redwood.

Ravenswood, in *New York,* a former post-village of Queen's co.; since 1897 included in New York city.

Ravenswood, in *West Virginia,* a post-village of Jackson co., about 15 m. N. W. of Ripley.

Rav'er, *n.* One who raves or is delirious.

Ravignan, (*ra-vēēn'yan,*) Gustave François **Xavier** de, a French preacher and author, and an illustrious member of the Society of Jesus, b. at Bayonne, 1795. He was selected in 1837 to replace Lacordaire at Notre Dâme, in the duty of conducting the special "conferences" for men which had been opened in that church. For ten years, Père de *R.* occupied this pulpit with a success which has rarely been equalled; and his "conferences" are regarded as models of ecclesiastical eloquence. In 1842, he undertook, in addition, to preach each evening during the entire Lent; and it is to the excessive fatigue thus induced that the premature break-down of his strength is ascribed. To the labors of the pulpit he added those also of the press. He published an *Apology* of his order in 1844; and in 1854 a more lengthened work with the same view, *Clement XIII. et Clement XIV.* (2 vols. 8vo.), which was intended as a reply to the *Life of Clement XIV.,* by the Oratorian, Father Theiner. These, with some occasional sermons and "conferences," constitute the sum of the publications issued during his life. In 1855, he was invited by the Emperor Napoleon III. to preach during Lent at the Tuileries. D. on the 26th of Feb., 1858. — The character of Father *R.* affords an illustration of constancy and unshaken virtue triumphant over all obstacles and temptations; of a deep sense of humility and self-abnegation only paralleled by some of the Fathers of the Desert, in whose lives are to be found the rules and maxims of religious conduct which he followed; and an earnest resolve to embrace poverty with the unshaken fidelity of those great exemplars. His talents might have made him proud; but he was as humble-minded as a child, — arguing without dogmatism, and convincing without triumph. Of all the features of his character, perhaps the most prominent was, that in him, self did not seem to be denied or mortified, but to be forgotten; there was no parade about the performance of his duty; it seemed to be his delight; his piety was an instinct; he breathed the atmosphere of religion; and it was the essential element of his existence. — His life, by Father de Ponlevoy, was published in New York, 1869.

Rav'in, *n.* See RAVEN.

Ravine, (*ra'vēn,*) *n.* [Fr., a hollow in a road; *ravin,* a hollow way, from L. Lat. *lavina,* from Lat. *labor, lapsus,* to glide down.] A long, deep hollow formed by a mountain-torrent; a gulch; a long, deep, and narrow hollow gorge or pass through mountains, &c.; a cañon; a deep glen.

Rav'ingly, *adv.* In a raving manner; with furious wildness or frenzy; deliriously; with distraction.

Rav'ish, *v. a.* [Fr. *ravir, ravissant,* from Lat. *rapio,* to seize and carry off.] To seize and carry away forcibly or by violence; to snatch without leave or license. — To have carnal knowledge of by force, and against the woman's consent; to commit rape upon; to deflour by violence; to violate. — To transport; to entrance; to enrapture; to fill with ecstasy; to bear away with joy or delight; as, he was *ravished* with her charms.

Rav'isher, *n.* One who ravishes or takes by forcible means. — One who beguiles or enchants with joy or delight. — One who forcibly violates a woman's chastity; one who commits rape.

Rav'ishing, *n.* Carnal knowledge by force against consent. — Transport; ecstatic delight.

—*p. a.* Transporting; enrapturing; as, *ravishing* beauty.

Rav'ishingly, *adv.* With rapture or transport; in a ravishing or beguiling manner; as, she looked *ravishingly.*

Rav'ishment, *n.* [Fr. *ravissement.*] Act of ravishing or carrying away by violence; abduction; as, the *ravishment* of a child from its parents, or of a wife from her husband, &c. — Rape; forcible violation of chastity. — Rapture; transport of delight; ecstasy; pleasing violence on the mind or senses; as, "divine, enchanting *ravishment.*" — *Milton.*

Rav'issant, *a.* [Fr.] (*Her.*) In a semi-raised attitude, as if about to pounce on prey, as a hawk, &c.

Ravitz, Rawicz, (*ra'vitch,*) a town of Prussia, prov. of Posen, 64 m. S. of Posen. *Manuf.* Woollen, leather, linen, tobacco, and salt. *Pop.* 10,200.

Raw, *a.* [A. S. *hreaw, reaw;* Ger. *roh.*] Imperfect; not altered from its natural state; not subdued by heat, or roasted, boiled, or otherwise cooked or dressed; not done; as, *raw* flesh; — hence, by analogy, unfinished; unprepared for use or enjoyment; crude; immature; unripe; — hence, not concocted; unseasoned; inexperienced; unpractised; unripe in skill: as, he is *raw* to the business, the *raw* judgment of the multitude, a *raw* trick, &c. — Not worked up; not manufactured or prepared for use; crass; in the natural state; unwrought; — specifically, not spun, wove, or twisted; as, *raw* silk. — Unmixed; unadulterated; not incorporated with water; as, *raw* spirits. — Not melted or strained; as, *raw* fat or tallow. — Not tanned; as, *raw* hides. — Bare; not covered with skin; galled; chafed; as, a *raw* excoriation or sore. — Sore, as being galled or chafed.

"Sinews ... weak and *raw* through long imprisonment" — *Spenser.*

—Black; chilly; sharp; cold, or rather, cold and damp; as, a *raw* air, *raw* weather, a *raw* climate.

—*n.* A raw, sore, or galled spot or place; as, to touch one on the *raw.*

Raw'bone, Raw'boned, *a.* With little flesh on the bone; skinny.

Raw'don, now STIRLING, a village and township of Hastings co., Ontario. *Pop.* (1897) 3,615.

Raw'head, *n.* The name of a spectre, mentioned to affright children; as, *rawhead* and bloody-bones.

Raw'-hide, *n* A cow-hide, or riding-whip of untanned leather twisted.

Raw'ish, *a.* Somewhat raw, as meat; cold and damp; as, a *rawish* day.

Rawles, in *Iowa*, a township of Mills co.

Raw'ly, *adv.* In a raw or inexperienced manner; unskilfully. — Newly; hastily.

Raw'ness, *n.* State or quality of being raw; state of being uncooked or unaltered by heat; as, the *rawness* of flesh. — Inexperience; unskilfulness; as, the *rawness* of troops or sailors. — Hastiness; sudden manner. — Chilliness accompanied with dampness.

Raw'son, in *Ohio*, a post-village of Hancock co., abt. 10 m. S.W. of Findlay.

Ray, *n.* [Fr. *raie*, from L. Lat. *radia*, a line, *rayon*, from Lat. *radio* — *onis*, augmentative of *radius*, a staff or rod.] A line, or the right line supposed to be described by a particle of light diverging from a centre; as, a star of six *rays*.

(*Bot.*) Same as RADIUS, *q. v.*

(*Zoöl.*) One of the radiating bony spines forming the frame-work of the fins of fishes.

(*Phys.*) In optics, a beam of light propagated in a straight line from some luminous point; as, a solar *ray*. A ray of white light may be divided by refraction into a number of distinct rays of different colors. See REFRACTION.

(*Geom.*) A straight line, of unlimited length, drawn through a fixed point.

—A beam or gleam of intellectual light; sight; perception; vision; apprehension.

"The air sharpened his visual *ray*." — *Milton.*

—*v. a.* To shine forth; to emit beams or gleams of light.

Ray, *n.* [Fr. *raie*; Sp. *raya*.] (*Zool.*) The name popularly given to a large number of species of cartilaginous fishes, or Elasmobranchs, including the Skates, Thornbacks, Electric Rays, Sting Rays, and Eagle Rays. The true Rays, forming the family Raiidæ, include the very numerous species known as the Skates and Thornbacks. They are all carniverous, and live on the sea bottom, moving sluggishly by the undulations of the pectoral fins, which form a large part of their flat bodies. Many of them are large, sometimes six feet in width. They are edible but have a strong and not pleasant flavor. There are about thirty species, mostly from the northern temperate seas.

Ray, in *Missouri*, a W.N.W. co.; *area*, abt. 560 sq. m. *Rivers.* Missouri River, and Fishing and Crooked Creeks. *Surface*, level or gently undulating; *soil*, very fertile. *Min.* Coal and limestone. *Cap.* Richmond.

Ray'mond, the name of seven Counts of Toulouse. RAYMOND I. reigned 852–865. — RAYMOND VI., son of Raymond V., B. 1156, succeeded 1194, and, being a friend of the Albigenses, was twice excommunicated, 1208 and 1211, and despoiled of his estates by Simon de Montfort, 1218; D. 1222. — RAYMOND VII., son of Raymond VI., and last Count of Toulouse, was B. 1197, and after struggling with his father for the recovery of his possessions, vanquished Simon de Montfort in 1224. He was so enfeebled by these continual wars, however, that he submitted to a humiliating peace with the Pope and the King of France in 1229. He D. 1242, leaving his estates to his only daughter, Jeanne, who had married Alphonse, Count of Poitiers, brother of Louis IX.

Ray'mond, HENRY JARVIS, an American journalist, founder and editor of the *New York Times*, B. in Lima, Livingston co., New York, 1820, graduated at the University of Vermont in 1840; soon afterwards removed to New York; and, while studying law, taught the classics and wrote for the *New Yorker*. In 1841 he became managing-editor of the *New York Tribune*, and afterwards leading editor of the *New York Courier and Enquirer*. In 1849 he was elected to the State Assembly; was reëlected and made Speaker, but relinquished his position on the *Courier*, and travelled in Europe on account of ill-health. On his return to New York, in 1851, he established the *New York Times*. In 1852 he became a delegate to the Baltimore Convention, and in 1856 a leader of the Republican party, and was chosen Lieut.-Governor of New York. He was a delegate to the Chicago Convention of 1860; was again elected to the State Legislature, and, in 1864, was chosen as representative from New York to the 39th Congress. He, subsequently, in 1866, was the leading spirit of the Wigwam Convention in Philadelphia, the resolutions of which body were from his pen. D. June 18, 1869.

Raymond, in *Maine*, a post-village and twp. of Cumberland co., abt. 22 m. N.W. of Portland.

Raymond, in *Mississippi*, a post-village, cap. of Hinds co., abt. 16 m. S.W. of Jackson. At this town, on May 12th, 1863, a short, but severe, struggle took place between McPherson's corps of General Grant's army, and two Confederate brigades under Generals Gregg and Walker. The fight lasted 3 hours, when the Confederates were driven from the field. The Union loss was 69 killed, 341 wounded, and 32 missing. The loss of the Confederates was 103 killed, and 720 wounded and prisoners.

Raymond, in *New Hampshire*, a post-township of Rockingham co.

Ra'yah, *n.* [Ar. *ar'iyah*, a peasant.] In Turkey, a non-Mohammedan of the Porte who pays the capitation tax.

Ray'less, *a.* Without rays; wanting light; not illumined.

Ray'nal, GUILLAUME THOMAS FRANÇOIS, known as the ABBÉ RAYNAL, a French historian and political writer, was B. at St. Geniez, in the Rouergue, 1711, and acquired a European reputation by his *Philosophical History of the Two Indies*. He was a great partizan of the encyclopédists, and a man of remarkable benevolence. D. 1796.

Rayne', in *Pennsylvania*, a township of Indiana co.; *pop.* abt. 2,100.

Rayn'ham, in *Massachusetts*, a post-township of Bristol co.

Ray'onnant, Ray'onnee, *a.* [Fr.] (*Her.*) A term applied to a zigzag line (Fig. 1591) supposed to represent the rays of the sun, or what is commonly called *vandyked*.

Cross-rayonnant. (*Her.*) A cross having rays of glory darting out from behind the centre to all parts of the shield.

Rays'ville, in *Indiana*, a post-village of Henry co., abt. 36 m. E. of Indianapolis.

Raysville, in *Ohio*, a village of Jackson co., abt. 19 m. S.E. of Chillicothe.

Ray'town, in *Georgia*, a village of Taliaferro co., abt. 52 m. N.N.E. of Milledgeville.

Ray'wick, in *Kentucky*, a post-village of Marion co., abt. 72 m. S.W. of Frankfort.

Raza, or GATO, (*ra'za*,) an island of Brazil, off the entrance of the Bay of Rio de Janeiro.

Raze, *n.* A root; as, a *raze* of ginger. See RACE.

Raze, Rase, *v. a.* [Fr. *raser*; Lat. *rado*, *rasus*, to scrape, scratch.] To lay level or even with the ground; to prostrate; to demolish; to overthrow; to subvert; to destroy; to ruin utterly; as, to *raze* a city. — To erase; to efface; to obliterate; to cancel; to extirpate; to expunge.

"*Raze* out the written troubles of the brain."—*Shaks.*

Razee', *n.* [Fr. *rasé*, from Lat. *rasus*, shaved or scraped down.] (*Naut.*) The term applied to any ship cut down to a less number of decks, as a two-decker to a frigate, &c. By razeeing, the draught of water is diminished, while the centre of gravity is lowered, and the qualities of the vessel have generally, though not invariably, been improved.

—*v. a.* To cut down to an inferior class, as a ship;—hence, analogically, to prune or cut down by retrenchment of parts; as, to *razee* a magazine article.

Raz, (Le,) a promontory of France, dept. of Finistère, 25 m. S. of Brest; Lat. 48° 2′ N., Lon. 4° 44′ W.

Ra'zor, *n.* [Fr. *rasoir*, from Lat. *rado*, *rasus*, to scrape.] A keen-edged knife or cutting instrument for shaving or removing the beard or hair.

Razors of a boar, the tusks of a boar.

Ra'zorable, *a.* That may be shaved; ready for the razor; as, a *razorable* chin.

Ra'zor-back, *n.* (*Zoöl*) See BALÆNIDÆ.

Ra'zor-bill, *n.* (*Zoöl.*) See AUK.

Razored, (*rā'zurd,*) *a.* Formed after the manner of a razor.

Ra'zor-fish, Ra'zor-shell, *n.* (*Zoöl.*) See SOLENIDÆ.

Ra'zor-stone, *n.* Same as NOVACULITE, *q. v.*

Ra'zor-strop, *n.* A leathern strop for giving an edge to razors.

Razure, (*razh'ur,*) *n.* Same as RASURE, *q. v.*

Razzia, (*răt'sĭ-ah,*) *n.* [It.] A raid; a marauding incursion; a foray; as, to make a *razzia* on gaming-houses.

Re. A prefix in the composition of certain words signifying return, iteration, repetition.

Re, (*rā.*) (*Mus.*) The French and Italian name for the second tone of the diatonic scale, corresponding to the English *D*.

Ré, (Isle de,) (*ill-de rai,*) a small island on the W. coast of France, dept. of Charente-Inférieure, opposite the city of La Rochelle. *Ext.* 18 m. long, and 4 m. broad. *Cap.* St. Martin. *Pop.* 8,000.

Reabate'ment, Rebate'ment, *n.* (*Com.*) Same as RABATE, *q. v.*—(*Her.*) A diminution or abatement in the bearings of a coat of arms.

Reabsorb', *v. a.* To absorb or imbibe again what has been effused or extravasated: to swallow a second time; — used of fluids; as, to *reabsorb* lymph.

Reabsorption, (*-shun,*) *n.* Act or process of reabsorbing.

Reaburn's Creek, in *S. Carolina*, enters Reedy River from Laurens dist., a short distance above the Saluda River.

Reaccess, (*-ak'sĕs,*) *n.* A second access, approach, or visit.

Reaccuse', *v. a.* To accuse anew.

Reach, (*rēch,*) *v. a.* [A. S. *ræcan*; Ger. *reichen*.] To extend; to stretch; to hold, thrust, or put forth; as, *reaching* with the hand. — Hence, to hand; to deliver with the hand by extending the arm; to pass to another; as, to *reach* one a glass. — To touch, strike, or grasp by extending, either the arm alone or with an instrument in the hand; to attain by stretching forth the hand; as, to *reach* an object with a stick, or the like. — Hence, by implication, to penetrate to; to extend to, so as to include or comprehend in fact or principle, as a case; to extend an action, exertion, or influence to; as, the matter did not *reach* his apprehension. — To extend or stretch from a distance; to spread out as far as; as, his estate *reaches* the boundary of the county. — To arrive at; to come to; to get as far as; as, my letter duly *reached* him, they *reached* home safely. — To attain to or arrive at by endeavor or effort, of whatsoever kind; to gain, obtain, or acquire; to be advanced to; as, the heir will *reach* his majority next month, to *reach* the summit of one's ambition.

—*v. n.* To stretch or hold out the hand. — To make efforts to attain; to strive after something; — preceding *after*.

"The mind, *reaching after* a positive idea of infinity."—*Locke.*

—To be extended, or extended far, so as to touch, attain to, or be equal with something; to penetrate; as, the law will not *reach* him, we *reach* forward into futurity, &c. — To retch; to make efforts to vomit. (A.)

—*n.* Act of extending or stretching; extension; the power of extending to, or of taking by the hand, or by any instrument managed by the hand; as, to place a thing out of a person's *reach*. — Power of attainment or management, or the limit of power, force, or capacity, whether physical or moral; effort of the mind in contrivance or research.

"And match a grace beyond the *reach* of art."—*Pope.*

—Extent; stretch; expause; — hence, result; application, influence, or tendency to consequences.

"Hell, with long *reach*, interposed."—*Milton.*

—A contrivance; a fetch; an artifice to obtain an advantage.

"The Duke of Parma had particular *reaches* and ends of his own." *Bacon.*

—The straight course of a river between any two bendings; a stretch, or extended portion of land or water; an arm of the sea trending into the land. — An effort to vomit or eructate; a retch. (R.)

Reach'able, *a.* That may be reached; within reach.

Reach'er, *n.* One who reaches; one who delivers by stretching or holding forth the arm.

Reach'ing-post, *n.* In rope-making, a post placed at the lower end of a rope-walk or ropery.

Reach'less, *a.* Beyond reach.

React', *v. a.* To do over again; to act or perform a second time; as, to *react* a farce.

—*v. n.* To act again, or in opposition to action; to resist any power or influence; to return an impulse or impression; to resist the action of another body by an opposing force.

"The lungs, acting strongly upon the chyle . . . must be *reacted* upon as strongly."—*Arbuthnot.*

—To act mutually or reciprocally upon each other, as two or more chemical bodies.

Reaction, (*-ak'shun,*) *n.* Action in opposition or antagonism to action; counter tendency; force or movement in a reverse or contrary direction.

(*Mech.*) The force which a body subjected to the action of a force from another body exerts upon that body in an opposite direction. *Action* and *reaction* are equal and in contrary directions; in other words, the mutual actions of two bodies are always equal and in opposite directions. Thus, when a pistol is fired, the *reaction* on the holder is equal to the action on the ball.

(*Chem.*) Mutual or reciprocal action of chemical agents or bodies.

—A secondary action, or the effect of a first cause. When a man on the verge of starvation is suddenly fed, if only with a few spoonfuls of food, a reaction from debility to strength and inflammation may succeed, rendering it necessary even to bleed the man who, an hour before, was unable to stand from exhaustion. As debility may be followed by a reaction of inflammation, so inflammatory action may be succeeded by a reaction of prostrating debility. It is on these accounts, that in fevers, inflammations, and diseases generally, the reaction is always regarded by medical men with so much anxiety, and demands such forethought and judgment, both in anticipating, and in treating when it sets in.

(*Polit.*) Retrogression or backward tendency from reform, progress, or revolution.

Reac'tionary, Reac'tionist, *a.* Implying reaction; as, a *reactionary* movement.

—*n.* One who supports reaction, or retrogression, in political progress or revolution.

Reac'tive, *a.* [Fr. *réactif.*] Tending to reaction; with power to react.

Reac'tively, *adv.* By reaction or retrogression.

Reac'tiveness, *n.* State or quality of being reactive.

Read, (*reed,*) *v. a.* (*imp.* and *pp.* READ (*rĕd*). [A. S. *rædan.*] To speak what is written; to peruse, whether audibly or silently; to utter or pronounce, as written or printed words, letters, or characters, in the proper order: to repeat, as the names, or utter, as the sounds, customarily annexed to words, letters, or characters; as, to *read* a newspaper, to *read* hieroglyphics, to *read* music. — To know fully; to comprehend.

"Who is 't can *read* a woman?" — *Shaks.*

—To learn by observation; to gather the meaning of by inspection; to discover or understand by characters, marks, or features.

"Those from her shall *read* the perfect ways of honour." — *Shaks.*

—*v. n.* To perform the act or function of reading; to peruse a book, or a written or printed document. — To practise much reading; to be studious or a book-worm; as, he is *reading* for the bar. — To learn or gain knowledge of by reading.

"'Tis an old tale, *read* in story old." — *Scott.*

—To be read; to appear in reading; as, the passage *reads* thus.

—*a.* Learned; versed in books or literary lore; instructed or knowing by reading; as, he is deeply *read* in the classics.

Read, NATHAN, an American inventor, who claims to have been the first to use steam-engines for propelling boats and carriages, born in Worcester co., Mass., 1759. *R.* entered Harvard College in 1777, graduated in 1781; studied medicine; and started the Salem Iron Factory in 1796. In 1807, he removed to Belfast, Me., where he D. in 1849. His claims, as announced by his biographer (*Nathan Read*, by David Read, New York, 1869), are substantially as follows: *R.* took out a patent for an improved steam-engine boiler in 1791 — the patent signed by Washington, and countersigned by Jefferson, at Philadelphia. The differences between this and Stephenson's "Rocket" boiler are minutely pointed out. The multitubular boiler is claimed for Read, through his patent and drawings. As a substitute for the old one, he converted the condensing-engine of Watt into a complete working, portable, high-pressure engine, twelve years before the high-pressure engine was known. Oliver Evans used it for grinding plaster and sawing marble in Philadelphia in 1801. In 1790, he petitioned Congress for a patent for land-carriages to be driven by steam. It created so much amusement that he withdrew it.

He built, in 1789, a small steamboat, substantially identical with Fulton's of 1807; but he withdrew his request for a patent in 1790, under a misapprehension. It is alleged that his combinations amounted to the inland steamers now in use. He got a patent in Ang., 1791, for a portable-furnace boiler and other inventions, at the same time with Fitch, Rumsey, and Stevens. These clash with one another, but not with Read's. The system of paddles, afterwards ascribed to Stevens, is also claimed for Read, who, it is stated, inteuded to assert his claims, but procrastinated the work, and died when he had only arranged a memorandum.

Read, in *Iowa*, a post-township of Clayton co.

Readable, (*rēd'a-bl,*) *a.* That may be read, fit, legible, or suitable to be perused; worth reading; as *readable* print, a *readable* book.

Read'ableness, *n.* State or quality of being readable.

Read'ably, *adv.* In a readable manner; so as to be legible.

Read'dress, *v. a.* To address, direct, or apply to again; —sometimes employed reflexively; as, she *readdressed* herself to me.

Reade, CHARLES, D.C.L., a popular English novelist, B. in London, 1814, and educated at Oxford University, where he highly distinguished himself, and became Fellow of Magdalen College. In 1843 he was called to the bar as a member of Lincoln's Inn, but speedily relinquished the practice of law for the profession of literature, to become, eventually, one of the most brilliant novelists of his day. Among his more celebrated works may be mentioned *Peg Woffington*, *Christie Johnstone*, *The Cloister and the Hearth*, *Love me Little*, *Love me Long*, *White Lies*, *Hard Cash*, *It is Never too Late to Mend*, *Foul Play*, *Griffith Gaunt*, and *Put Yourself in His Place* (1870). *R.*, whose fictions have obtained a high and deserved popularity in this country, is also distinguished as the writer, and adapter to the stage, of some of the best of our modern comedies. D. April 11th, 1884.

Read'er, *n.* [A.S. *rēdere.*] One who reads, or peruses, or studies what is written; —especially, in Oxford University, Eng., one who reads lectures on scientific subjects; one whose distinctive vocation is to read prayers in a church. — One who reads or corrects for the press; as, a proof-*reader*. — A book containing lessons or exercises in reading; a collection or selection of extracts or excerpts for reading; a reading-book.

Read'ership, *n.* The office of a reader of prayers in a church. — In Oxford University, England, the office of a reader or lecturer on scientific matters.

Read'field, in *Maine*, a post-village and township of Kennebec co., abt. 10 m. N.W. of Augusta. The township also contains the post-village of Readfield Depot, abt. 10 m. W.N.W. of Augusta.

Readfield, or REDFIELD, in *New York*, a township of Oswego co.

Readily, (*rĕd'i-lĭ.*) *a.* In a ready manner; quickly; promptly; easily. —Cheerfully; without delay, reluctance, or objection; as, he lent the money *readily*.

Read'iness, *n.* State or quality of being ready; a state of being prepared; fitness of condition: as, everything was in *readiness*.—Quickness; expedition; promptitude; facility; freedom from hindrance, difficulty, or obstruction; as, *readiness* of speech, wit, remark, reply, thought, &c. — Freedom from reluctance; alacrity; willingness; cheerfulness; as, he offered his services with *readiness*.

Read'ing, *p. a.* Addicted to reading; studious of books or literary knowledge.

Reading man, in the English universities, a hard student, or one who diligently devotes himself to his curriculum of studies.

—*n.* Act of reading; perusal. — Study of books; literary scholarship; as, a man of varied *reading*.

—A lecture or prelection; a public or formal recital; as, to deliver a series of *readings* from the English poets. —The way in which a given word or passage reads in a manuscript, version, edition, &c.; a version or interpretation of a law, text, or passage, as conveying its meaning; lection.

R. of a bill, in legislative proceedings, the formal recital of a bill, by the appointed officer, before the house which is to take it into consideration.

Reading, (*red'ing,*) a town of England, cap. of the co. of Berks, at the junction of the Kennet with the Thames, 38 m. W. of London. *Manuf.* Silks, velvets, ribbons, &c., also, iron-works. It has a considerable trade.

Read'ing, or REDDING, in *California*, a post-town of Shasta co., about 18 m. N. of Red Bluff.

Reading, now REDDING, in *Connecticut*, a village and township of Fairfield co., about 25 m. W. of New Haven.

Reading, in *Illinois*, a post-township of Livingston county.

Reading, or REDDING, in *Indiana*, a village of Lawrence co., about 82 m. S. by W. of Indianapolis.

Reading, in *Massachusetts*, a post-township of Middlesex co. *Manuf.* Furniture, boots, shoes, &c.

Reading, in *Michigan*, a post-village and township of Hillsdale co., abt. 43 m. W. by S. of Adrian. *Manuf.* Cheese, flour, pumps, &c.

Reading, in *New York*, a post-township of Schuylor co.

Reading, in *Ohio*, a village of Columbiana co., abt. 11 m. W.S.W. of Salem.—A post-village of Hamilton co., abt. 10 m. N.E. of Cincinnati. *Manuf.* Leather, beer, &c.—A township of Perry co.

Reading, in *Pennsylvania*, a township of Adams county.

—A city, cap. of Berks co., abt. 52 m. E. of Harrisburg, and the same distance N.W. of Philadelphia. *R.* is the fifth city of the State in point of population and manufacturing importance. It is finely located, and regularly and compactly built, the streets being kept remarkably clean and neat. It contains many very elegant churches and other edifices, besides a handsome court-house. *R.* has numerous and extensive manufactories, chiefly of iron, flour, machinery, &c. It is reached by the Pennsylvania and the Phil. & Reading R.Rs., and carries on an active and increasing inland traffic. *Pop.* (1897) 62,750.

Read'ing, in *Vermont*, a post-town of Windsor co., 23 m. E. S. E. of Rutland.

Read'ing-book, *n.* A reader. See READER.

Read'ing-boy, *n.* A boy who reads copy to a proof-reader.

Read'ing-desk, *n.* A desk whereat the minister reads the service in a church.

Read'ing-room, *n.* A news-room; an apartment furnished with papers, periodicals, &c., to which persons resort for reading.

Read'ington, in *New Jersey*, a post-township of Hunterdon co.

Reading'ville, in *Michigan*, a village of Washtenaw co., abt. 35 m. S.W. of Detroit.

Readjourn, (*-jûrn,*) *v. a.* [Pref. *re*, and *adjourn.*] To adjourn a second time; as, the meeting *readjourned*.

Readjust', *v. a.* [*Re* and *adjust.*] To adjust or settle again; to put in order again what had been discomposed.

Readjust'ment, *n.* A second adjustment

Readmission, (*-mĭsh'un,*) *n.* Act of admitting again what had been excluded; state of being admitted a second time.

Readmit', *v. a.* To admit again, or a second time.

Readmit'tance, *n.* Readmission; allowance to enter again.

Readopt', *v. a.* To adopt a second time.

Readorn', *v. a.* To adorn anew, or a second time.

Reads'borough, in *Vermont*, a post-township of Bennington co.

Read's Creek, in *Arkansas*, a township of Lawrence co.

Reads'town, or REED'S TOWN, in *Wisconsin*, a post-village of Vernon co., abt. 11 m. S.S.W. of Viroqua.

Reads'ville, or REEDSVILLE, in *Missouri*, a post-village of Callaway co., abt. 33 m. E.N.E. of Jefferson City.

Readsville, in *New York*, a village of Albany co., abt. 16 m. S.W. of Albany.

Readvance', *v. n.* To advance again, or a second time.

Readvert'ency, *n.* The act of adverting to anew.

Ready, (*rĕd'ў,*) *a.* [A. S. *hræd*, *hrad.*] Present in hand; set in order; arranged; not behindhand or backward when called upon; not delayed; fitted; furnished with what is necessary, or arranged in a manner suited to the purpose. — Prompt; quick to receive or comprehend; not slow, dull, awkward, or hesitating; dexterous; keen; facile; as, a *ready* wit, a *ready* speaker, a *ready* writer, *ready* in devising expedients, &c. — Willing; disposed; prone; having a tendency or disposition; inclined; not reluctant; as, a *ready* consent.—Opportune; short; near, or most convenient; offering itself at once; easy: being nearest, or at hand; as, the *readiest* way, the *readiest* weapon. —Being at the point: near; not distant; on the brink or edge of; about to; —preceding an infinitive: as, my heart is *ready* to break.

Ready money, cash; funds in hand; means of immediate payment; as, to pay *ready money*. —*To make ready*, to make preparation; to place things in readiness; as, to *make ready* for action.

—*adv.* In a state of preparation, so as to occasion no delay; as, to be *ready* dressed.

—*n.* A colloquialism for cash or ready money.

Read'y-made, *a.* Kept on hand, or provided to meet instant demands; not made to order; as, *ready-made* clothing.

Ready'ville, in *Tennessee*, a post-village of Rutherford co., abt. 42 m. E.N.E. of Nashville.

Read'y-witted, *a.* Possessing ready or impromptu wit.

Reaffirm', *v. a.* [*re* and *affirm.*] To affirm over again.

Reaffirm'ance, *n.* A second affirmation.

Reafforested, *a.* Made into a forest for the second time.

Rea'gansville, in *Pennsylvania*, a village of Westmoreland co., abt. 16 m. S. of Greensburg.

Rea'gent, (*-jent,*) *n.* (*Chem.*) A test; a substance used as a detector.

Reaggrava'tion, *n.* (*Eccl.*) In the Roman Catholic Church, the last monitory, published after three admonitions and previous to the last excommunication.

Reagree', *v. n.* To agree again.

Re'al, *a.* [O. Fr., from L. Lat. *realis*, from Lat. *res*, *rei*, a thing, an object.] Actually being or existing; not fictitious or imaginary; —opposed to *ideal*; as, a picture drawn from *real* life. — Genuine; true; not artificial, counterfeit, or factitious; as, this wine is *real* sherry. — True; veritable; not affected or assumed; as, her's is *real* sorrow.

(*Law.*) Pertaining or having reference to things fixed, permanent, or immovable; as, *real* estate, in contradistinction to *personal* or *movable* property.

Real action. (*Law.*) An action for the recovery of real estate.

Real assets. (*Law.*) Real estate in possession of the heir, chargeable with the debts of the ancestor.

Real presence. (*Theol.*) A doctrine forming an article in the belief of the Roman, the Greek, and other Eastern churches, and of some bodies or individuals in other Christian communions, according to which it is held that, under the appearance of the Eucharistic bread and wine, after consecration by the priest, Christ himself is really and substantially present, body and blood, soul and divinity.

Real property or *estate.* (*Law.*) Property in lands, tenements, or hereditaments. *Things real*, or *realty*, consist of things substantial and immovable, and of the rights and profits annexed to or issuing out of these, as distinguished from *things personal*, or *personalty*, consisting of goods, money, and all other movables, and of such rights and profits as relate to these. *Lands* include any ground, soil, or earth whatsoever, as arable, pastures, woods, water, moors, &c.; *tenements* whatever may be holden, or the subject of tenure, as, besides land, houses, &c., rents, commons, and other rights and interests issuing out of or concerning land; and *hereditaments*, not only lands and tenements, but whatever may be inherited, be it corporeal or incorporeal, real, personal, or mixed.

Real servitude. (*Civ. Law.*) A burden imposed upon one estate in favor of another estate of another proprietor.

Re'al, *n.* [Sp. and Pg., royal.] A Spanish coin of 100 centimes, varying in equivalence from 13 to 10 cents; the *real vellon* is a money of account equal to 5 cents.

Re'al, a river of Brazil, flowing E. into the Atlantic Ocean, between the provinces of Bahia and Sergipe del Rey. *Length*, abt. 160 *m.*

Re'al del Mon'te, a town of Mexico, abt. 56 m. N.N.E. of the city of Mexico.

Realejo, or **Realexo,** (*re-a-la'ho,*) a seaport-town of Nicaragua, abt. 20 m. N.W. of Leon; Lat. 12° 27 N., Lon. 87° 9' W. It has an excellent harbor, and carries on a considerable trade in mahogany, cedar, raw sugar, Brazil-wood, indigo, &c. *Pop.* 4,000.

Real'gar, *n.* [Fr.] (*Min. and Chem.*) Native tersulphide of arsenic; composed, when pure, of 70 per cent. of arsenic and 30 of sulphur. It occurs crystallized and massive, of various tints of aurora-red, chiefly in Hungary and Transylvania. Artificially prepared, realgar is used as a pigment.

Re'alism, *n.* [Fr. *réalisme.*] The doctrinal tenets held by the Realists.

Re'alists, *n. pl.* (*Philos.*) See NOMINALISTS.

Realist'ic, *a.* Belonging, or relating to, or after the manner of, the Realists.

Real'ity, *n.* [Fr. *realité*, from L. Lat. *realitas*, from Lat. *res*, a thing.] State or quality of being real; actual being or existence of anything, in distinction from mere appearance; fact; truth. — Something intrinsically important; not merely matter of show; that which is real, or has an actual existence; that which is not imagination, fiction, or pretence.

(*Law.*) See REALTY.

Re'alizable, *a.* That may be realized.

Realization, (*-zā'shun,*) *n.* [Fr. *réalisation.*] Act of realizing or making real; also, state of being realized.

Re'alize, *v. a.* [Fr. *réaliser*; Span. *realizár*, from L. Lat. *realis* — Lat. *res.*] To make real; to bring into actual existence or possession; to make certain or substantial; to render tangible or effective; to accomplish; to effectuate; as, to *realize* a fact or project. — To impress on the mind as a reality; to believe, consider, or treat as real; to make one's own in apprehension or experience; as, to *realize* the force of circumstances, to *realize* the presence of God in creation. — To convert, as money into land, or personal into real estate. — To obtain as an actual possession; to gain as the result of enterprise and effort; as, to *realize* a fortune in business.

—*v. n.* To receive value or property, particularly in money; as, to *realize* on railroad shares.

Re'alizer, *n.* One who realizes.

Re'alizing, *a.* That makes real, or that brings home as a reality; as, a *realizing* circumstance.

Re'alizingly, *a.* In a manner serving to realize, or be realized.

Reallege, (*-al'lĕj,*) *v. a.* To allege anew.

Re'alliance, *n.* An alliance entered into a second time.

Re'ally, *v. a.* [Prefix *re*, and *ally.*] To bring together in alliance again; to compose or form anew.

Real'ly, *adv.* With reality; with actual existence; in truth; in fact; not in appearance only; veritably; as, it is *really* opposed to his interests; —*really* is also frequently employed as a slight corroboration of an opinion, assertion, or declaration; as, you I *really* did not expect to see.

Realm, (*rĕlm,*) *n.* [O. Fr. *royaulme*; Fr. *royaume*, from Lat. *regnum*, kingly government.] The dominions of a king, or reigning monarch; a kingdom; royal jurisdiction, or extent of regal sway; as a peer of the *realm*. — Hence, generally, region; province; territory; country; domain; department.

"The ant's republic, and the *realm* of bees." — *Pope.*

Re'alness, *n.* Reality; genuineness; state or quality of being real.

Re'alty, *n.* [A contraction of *reality.*] (*Law.*) Immobility, or the fixed, permanent nature of property; also, a part of real property.

Ream', *n.* [A. S.; Du. *riem*; Fr. *rame.*] A quantity of paper, consisting of 20 quires of 24 sheets each. Printers, however, require 21 quires to be furnished for every 1000 impressions from a full form, counting 19 quires to each ream.

Ream, *v. a.* To enlarge by dressing, as a hole.

Ream, *v. n.* [A. S.] To cream; to foam; to mantle; as, *reaming* liquor.

Ream'er, *n.* The person who, or thing which, reams; —specifically, an implement for enlarging a hole by bevelling.

Ream's Station, in *Virginia*, a locality of Dinwiddie co., a few m. W. by S. of Petersburg. Here, on Aug. 25, 1864, the national fortifications were assaulted, and after a desperate resistance, were taken by a division of Confederates under Gen. Heath. The Union loss was 2,400 men (of whom 1,700 were made prisoners), and 5 guns. That of the Confederates was also severe.

Reams'town, in *Pennsylvania*, a post-village of Lancaster co., abt. 42 m. E. by S. of Harrisburg.

Reau'imate, *v. a.* To revive; to resuscitate; to restore to life, as a person apparently dead; to revive, as the spirits when dull or languid; to reinvigorate; to infuse new life or courage into; as, *reanimated* hopes, to *reanimate* troops.

Reanima'tion, *n.* Act, process, or operation of reanimating; state of being reanimated; revival; resuscitation.

Reannex', *v. a.* (*imp.* and *pp.* REANNEXED,) (*rē-an-nĕkst'.*) [*Re* and *annex.*] To annex anew; to reunite; as, to *reannex* a province.

Reannexa'tion, *n.* Act of annexing a second time.

Reanoint', *v. a.* To anoint afresh.

Reanswer, (*-ăn'ser,*) *v. a.* or *n.* To answer back.

Reap, (*rēp,*) *v. a.* [A. S. *ripan;* O. Ger. *ranpjan.*] To cut with a sickle or reaping-hook, as grain; to gather, as a harvest, by cutting.—Hence, by analogy, to obtain; to gather; to receive as a reward, or as the fruit of labor or of works; — used either in a good or bad sense; as, to *reap* a profit. — To clear off, as a crop by reaping; as, to *reap* a field.

—*v. n.* To perform the act or operation of reaping, as a harvest. — To receive the fruit of labor or of works.

"Men the workers, ever *reaping* something new." — *Tennyson.*

—*n.* A bundle of grain; also, a body of reapers. (Eng.)

Reap'er, *n.* One who reaps, or cuts grain with a sickle. (*Agric.*) An instrument or machine for cutting grain.

Reap'ing, *n.* Act of cutting grain with a sickle. See MOWING.

Reap'ing-hook, *n.* A sickle; an instrument used in cutting grain.

Reappar'el, *v. a.* To clothe anew.

Reappear', *v. a.* To appear again, or a second time.

Reappear'ance, *n.* A second appearance.

Reapplica'tion, *n.* Act of reapplying, or state of being reapplied.

Reapply', *v. a.* or *n.* To apply again, or a second time.

Reappoint', *v. a.* To appoint again.

Reappoint'ment, *n.* An appointment for the second time.

Reapportion, (*-pōr'shun,*) *v. a.* To apportion over again.

Reapportionment, *n.* A second apportionment.

Reapproach', *v. a.* or *n.* To approach anew.

Rear, *n.* [Fr. *arrière,* from Lat. *ad,* to, and *retro,* backward.] That part which is behind or backward; — opposed to *front.* — Specifically, that part of an army which is behind the other; also, that division of a fleet which follows last in order; — opposed to *van.*

—*a.* [Icel. *hrara.*] Rare; half-raw; underdone; partially cooked, as meat.

—*adv.* Early. (Prov. Eng.)

Rear, *v. a.* [A. S. *ræran;* Ger. *rähren.*] To raise or lift up; to elevate. (R.)

"Who now shall *rear* you to the sun?"—*Milton.*

—To lift or take up, as from a fall. (R.)

"He her quickly *rear'd* up again."—*Spenser.*

—To stir or rouse up, as a boar.—To raise or breed, as cattle.

"He *reared* his frugal meat, but never bought."—*Harte.*

—To bring or raise to maturity; to educate; to instruct; as, to *rear* a numerous family of children. — To establish; to set up; to construct; as, to *rear* a building. (R.)

—*v. n.* To rise up on the hind legs, as a horse; as, the animal *reared* and threw his rider.

—*a.* Hindmost; being behind, or last of all; as, the *rear* rank of a company of soldiers.

Rear'-admiral, *n.* (*Naval.*) See ADMIRAL.

Rear'er, *n.* One who, or that which, rears.

Rear'-front, *n.* (*Mil.*) The rear rank of a body of troops when standing in a position face about.

Rear'-guard, *n.* (*Mil.*) That body of an army which marches in the rear of the main body to protect it.

Rear'gue, *v. a.* [*re* and *argue.*] To argue over again.

Rear'-line, *n.* (*Mil.*) The line in an army's rear.

Rear'-rank, *n.* (*Mil.*) The hindermost rank of a column of troops.

Rear'ward, *n.* The rear-guard; the last troop or file. — The end; the tail; the latter part, or train behind.

Reascend, (*-as-send',*) *v. a.* To reach by ascending a second time.

—*v. n.* To rise, mount, or climb anew.

Reascension, (*-as-sĕn'shun,*) *n.* Act of reascending or remounting.

Reascent, (*-as-sĕnt',*) *n.* A returning ascent or ascension.

Reason, (*rē'zon,*) *n.* [Lat. *ratio,* from *reor,* to think.] (*Phil.*) In its most common sense, that highest faculty of the human mind which distinguishes man from the brutes, and constitutes his rational nature. According to Dugald Stewart, it "denotes that power by which we distinguish truth from falsehood and right from wrong, and by which we are enabled to combine means for the attainment of particular ends" More correctly, and apart from its use for cause, motive, argument, &c., it is employed in the five following senses: — 1. As denoting an intellectual nature generally, and comprehending — (*a*) conception, or simple apprehension; (*b*) judgment; (*c*) reasoning, or the discursive faculty; (*d*) intellect, or intelligence proper. — 2. In close connection with the preceding signification, from which perhaps it ought not to be separated, is the sense in which it is used to characterize the legitimate employment of our faculties in general. — 3. It is also used to denote the third and fourth of the above-mentioned functions, viz., the reasoning faculty, and the intellect. — 4. It has been used very generally for the third of the above special functions; reason and reasoning being thus confounded. — 5. It signifies the reasoning, in contradistinction to the intellect or understanding, and is thus used by Kant and his followers, who separate reason (*vernunft*) distinctly and emphatically from understanding (*verstand.*) See METAPHYSICS.

By reason of, on account of.

In reason, or *in all reason,* with just ground.

—*v. n.* To exercise the faculty of reason; to deduce inferences justly from premises. — To argue; to debate; to confer, or inquire by discussion or mutual communication of thoughts, arguments, or reasons.

—*v. a.* To examine or discuss by arguments; to debate or discuss.

—To persuade by reasoning or argument.

Rea'sonable, *a.* Having the faculty of reason; endued with reason. — Governed by reason; being under the influence of reason; thinking, speaking, or acting rationally, or according to the dictates of reason; conformable or agreeable to reason. — Not immoderate; not excessive. — Tolerable; being in mediocrity.

Rea'sonableness, *n.* The faculty of reason. (R.) — Agreeableness to reason; that state or quality of a thing which reason supports or justifies; conformity to rational principles; moderation.

Rea'sonably, *adv.* In a manner or degree agreeable to reason; in consistency with reason; moderately; in a moderate degree; not fully; in a degree reaching to mediocrity.

Rea'souer, *n.* One who reasons or argues.

Rea'soning, *n.* The act of the mind by which new or unknown propositions are deduced from previous ones which are known and evident, or which are admitted or supposed for the sake of argument; argumentation; ratiocination. — Reasons or proofs offered in argument.

Reasonless, (*re'zn-les,*) *a.* Destitute of reason: void of reason; not warranted or supported by reason; irrational; foolish; absurd.

Reassemblage, *n.* Assemblage again, or a second time.

Reassem'ble, *v. a.* To assemble or collect together.

—*v. n.* To assemble or convene together.

Reassert', *v. a.* To assert again; to maintain after suspension or cessation.

Reasser'tion, *n.* A renewed assertion.

Reassess'ment, *n.* A second assessment.

Reassign, (*-sin,*) *v. n.* To assign again, or transfer what has been assigned.

Reassign'ment, *n.* A renewed assignment.

Reassim'ilate, *v. a.* To renew the resemblance of; to assimilate anew.

Reassimila'tion, *n.* A renewed assimilation.

Reassociate, (*-sō'shi-āt,*) *v. n.* To associate anew.

Reassume', *v. a.* To resume; to take again.

Reassumption, (*-sam'shan,*) *n.* A resuming; a renewed assumption.

Reassurance, (*-shur'ăns,*) *n.* A second or renewed assurance.

(*Law.*) A second assurance against loss, or the assurance of property by an underwriter, to relieve himself from a risk he has taken.

Reassure', *n.* To assure anew; to restore courage to; to free from fear or terror. — To assure a second time against loss, or rather to insure through another what one has already insured; to insure against loss that may be incurred by taking a risk.

Reassurer, (*-shur'er,*) *n.* A person who reassures.

Reattach', *v. a.* To attach anew.

Reattach ment, *n.* A second, or renewed, attachment.

Reattain', *v. a.* To attain anew, or a second time.

Reattempt', *v. a.* To attempt again; to make another attempt.

Reaumur, RÉNÉ ANTOINE FERCHAULT DE, (*rai-aw'mur,*) a French naturalist and natural philosopher, B. in 1683, at Rochelle; studied under the Jesuits at Poitiers, and afterwards went through a course of law at Bourges. But his tastes led him to the observation of nature; and, having made himself acquainted with the mathematical sciences, he was chosen a member of the Academy of Sciences, at Paris, to which he had presented some memoirs on geometry. He made valuable researches and discoveries on the arts of manufacturing porcelain, of converting iron into steel, of tinning iron plates, and of making artificial pearls; but he is principally celebrated as the inventor of the thermometer which bears his name. The most valuable work he has left is the *Mémoires pour servir à l'Histoire des Insectes,* in 6 vols. 4to. It is the fruit of his own acute and patient observation, and abounds in interesting and curious details. D. 1757.

Reaumuria'ceæ, *n.* [After the naturalist *Reaumur, q. v.*] (*Bot.*) An order of plants, alliance *Gattiferales.* DIAG. Oblique, glandular petals, a few shaggy seeds, and long distinct styles. — They are small shrubs, closely resembling *Hypericaceæ,* in most essential characters, and only distinguished from that order by the peculiar formation of the petals and seeds, and by the latter having small mealy albumen. The plants are natives of the Mediterranean coast, and the salt plains of N. Asia. They contain much saline matter. A decoction of the leaves of *Reaumuria vermiculata* is used as an internal medicine, and the bruised leaves as an external application for the cure of the itch. The order contains 3 genera and 4 species.

Reau'mur's Porcelain, *n.* See GLASS.

Reave, (*rēv.*) *v. a.* [A. S. *reafian;* Ger. *rauben.*] To bereave; to deprive. (a.)

Reav'er, *n.* A person who reaves or deprives.

Renvow', *v. a.* To avow again, or a second time.

Renwake', *v. n.* To awake again.

Reban'ish, *v. a.* To banish again, or a second time.

Reap'tism, *n.* A renewed baptism.

Rebaptiza'tion, *n.* [Fr. *rebaptisation.*] Renewal of baptism.

Rebaptize', *v. a.* To baptize again, or a second time.

Rebaptiz'er, *n.* A person who rebaptizes.

Rebate', *v. a.* [Fr. *rebattre,* from *re,* again, back, and Lat. *batuere,* to beat.] To beat to obtuseness; to blunt; to deprive of keenness. — To abate or deduct from.

—*n.* A kind of chisel for dressing wood, &c. — A wooden tool for beating mortar.

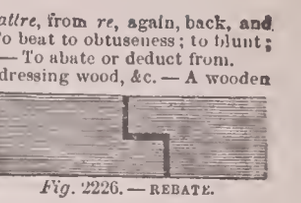


Fig. 2226. — REBATE.

(*Arch.*) A rectangular recess or groove (Fig. 2226) cut longitudinally in a piece of timber, to receive the edge of a plank, or other work required to fit into it. The notch, or recess, in a door-post, into which the door fits, is a *rebate.*

(*Com.*) A discount or allowance for prompt payment.

Re'bec, *n.* [Fr.; It. *ribeca.*] (*Mus.*) A stringed instrument somewhat similar to the violin, having three strings tuned in fifths, and played with a bow. It was introduced by the Moors into Spain.

Rebecca. See ISAAC.

Reb'el, *n.* [Fr. *rebelle;* Lat. *rebellis,* from *re,* and *bellum,* war.] One who revolts from the government to which he owes allegiance, either by openly renouncing the authority of such government, or by taking arms and openly opposing it.

—*a.* Rebellious; acting in revolt.

—*v. n.* To revolt; to renounce the authority of the laws and government to which one owes allegiance; to rise in violent opposition to lawful authority.

Rebel'ler, *n.* One who rebels.

Rebellion, (*re-bel'yun,*) *n.* [Fr.; Lat. *rebellio, rebellionis.*] Act of rebelling; an open and avowed renunciation of the authority of the government to which allegiance is due; revolt. — Violent resistance to lawful authority.

Rebellious, (*re-bel'yus,*) *a.* Engaged in rebellion; renouncing the authority and dominion of the government to which allegiance is due; traitorously resisting governmental or lawful authority.

Rebel'liously, *adv.* In a rebellious manner; with design to throw off the authority of legitimate government.

Rebel'liousness, *n.* The quality of being rebellious

Rebel'low, *v. n.* To bellow in return; to echo back a loud noise.

Re'bersburg, in *Pennsylvania,* a post-village of Centre co., abt. 18 m. E. of Bellefonte.

Reblt'ing, *n.* (*Engraving.*) The act or the operation of restoring worn lines in an engraved plate by the action of acid.

Reboil', *v. a.* and *v. n.* To boil a second time.

Rebound', *v. n.* [Fr. *rebondir,* from *re,* and *bondir,* to bound.] To spring; to start back; to reverberate.

—*v. a.* To drive back; to reverberate.

—*n.* Act of rebounding; act of flying back; resilience.

Rebrace', *v. a.* To brace anew.

Rebreathe', *v. n.* To breathe anew.

Rebuff, *n.* [It. *rebuffo;* Fr. *rebuffade.*] A sudden check; resistance; repulsion; opposition. — Refusal; rejection of solicitation.

—*v. a.* To beat back; to offer sudden resistance to; to check: to reject unceremoniously.

Rebuffet, *v. a.* To beat back; to buffet anew.

Rebuild, (*-bild,*) *v. a.* To build again: to renew, as a structure; to build or construct, as what has been demolished.

Rebuild'er, *n.* One who rebuilds.

Rebuk'able, *a.* Worthy of rebuke or reprehension.

Rebuke', *v. a.* [Fr. *reboucher,* from *re,* again, and *boucher,* to cork, to shut up.] To reprove; to reprehend or reprimand for a fault; to check by reproof; to check or chastise; to chasten; to punish; to silence; to restrain.

—*n.* A chiding into silence; reproof for faults; reprehension; chastisement; punishment. — A check; a rebuff.

Rebuk'er, *n.* One who rebukes; a chider; a reprehender.

Rebuk'ingly, *adv.* By way of rebuke.

Rebullition, (*-ish'un,*) *n.* The act of reboiling, or of effervescing.

Rebuoy', *v. a.* To buoy anew; to support or raise anew.

Rebury, (*rē-bĕr'ry,*) *v. a.* To inter again.

Re'bus, *n.*; *pl.* REBUSES. [Lat., from *res.*] A quaint mode of expressing words or phrases by things, or by pictures of objects whose names bear a resemblance to the words, or to the syllables, of which they are composed.

(*Her.*) An emblazonry suggestive of the name of the bearer (otherwise called *armes parlantes*); *e. g.,* three trouts for Troutbeck, three cups for Butler, &c.

Rebut', *v. a.* [Fr. *rebuter;* It. *ributtare,* to drive back.] To drive back; to repel.

(*Law.*) To oppose by argument, plea, or countervailing proof.

—*v. n.* (*Law.*) To contradict; to do away. Thus, every homicide is presumed to be murder, unless the contrary appears from evidence which proves the death; and this presumption lies on the defendant *to rebut,* by showing that it was justifiable or excusable.

Rebut'ter, *n.* (*Law.*) The defendant's answer to the plaintiff's surrejoinder. See PLEADINGS.

Reca'dency, *n.* A descending again, or a second time.

Recal'citrant, *a.* Kicking back; hence, unruly.

Recal'citrate, *v. a.* [Lat. *recalcitrare,* from *re,* and *calcitrare,* to kick.] To kick again; to kick or strike with the heel; — hence, to evince opposition or repugnance.

Recalcitra'tion, *n.* The act of kicking in return; opposition; repugnance.

Recall', *v. a.* To call back; to take back; to call back from a place or mission.—To revoke; to annul by a subsequent act. — To revive in memory; to remember.

—*n.* A calling back; revocation.

Recall'able, *a.* That may be recalled.
Recanati, (*rai-ka'na-te,*) a town of Italy, prov. of Macerata, on the Musone, 4 m. S.W. of Loretto; *pop.* 4,500.
Recant', *v. a.* [Lat. *recanto*, to recall.] To take back or contradict, as a former declaration; to retract; to disavow.
—*v. n.* To unsay what has been said; to recall words; to revoke a declaration or proposition; to retract.
Recanta'tion, *n.* Act of recanting; act of recalling; retraction; a declaration that contradicts a former one.
Recant'er, *n.* One who recants.
Recapacitate, (*-pas'-,*) *v. a.* To qualify again.
Recapit'ulate, *v. a.* [Lat. *recapitulare.*] To go over, as the principal things mentioned in a preceding discourse, argument, or essay; to give a summary, as of the principal facts, points, or arguments; to reiterate; to rehearse.
—*v. n.* To sum up whatever has been previously said.
Recapitula'tion, *n.* Act of recapitulating; a summary, or concise statement or enumeration of the principal points or facts in a preceding discourse, argument, or essay.
Recapit'ulatory, *a.* Repeating again.
Recap'tion, *n.* (*Law.*) A species of remedy by the mere act of the party injured. This happens when any one has deprived another of his property, in goods or chattels personal, or wrongfully detains one's wife, or child, in which case the owner of the goods, and the husband, or parent, may lawfully claim and retake them wherever he happens to find them, so that it be not in a riotous manner, or attended with a breach of the peace.
Recap'tor, *n.* One who recaptures.
Recapture, (*-kapt'yur,*) *n.* Act of retaking; — particularly, the retaking of a prize or goods from a captor. — A prize retaken.
—*v. a.* To retake; — particularly, to retake, as a prize which had been previously taken.
Rear'ry, *v. a.* To carry back.
Recast', *v. a.* To throw again.—To mould anew. — To complete a second time.
Recede', *v. n.* [Lat. *recedo.*] To go or move back; to retreat; to withdraw; to retire; — followed by *from.*
—To desist; to relax any claim.
—*v. a.* To go or move back; to retreat; to retire.
Receipt, (*re-seet',*) *n.* Act of receiving; reception. — Place of receiving. — Recipe; prescription of ingredients for any composition, as of medicine, &c. — A written acknowledgment of having received a sum of money, a quantity of goods, &c.
—*v. a.* To give a receipt or written acknowledgment for.
—*v. n.* To give a receipt; as, a *receipted* bill.
Receipt'ment, *n.* (*Old Eng. Law.*) The unlawful harboring of a felon.
Receiptor, (*re-seet'or,*) *n.* (*Law.*) A name given in Massachusetts to the person who, on a trustee process being issued and goods attached, becomes surety to the sheriff to have them forthcoming on demand, or in time to respond the judgment, when the execution shall be issued.
Receivabil'ity, *n.* Receivableness.
Receiv'able, *a.* That may be received.
Receiv'ableness, *n.* Capability of being received.
Receive, (*re-seev',*) *v. a.* [Fr. *recevoir*; Lat. *recipio*, from *re*, and *capio*, to take.] To take, as a thing offered or sent; to accept; to take as due, or as a reward. — To take, as a thing communicated: to take or obtain intellectually; to embrace. — To allow; to hold; to retain; as, a custom or tradition. — To admit; to welcome; to entertain, as a guest. — To take in or on; to hold; to contain. — To suffer; to bear. — To take or obtain from another, whether good or evil.
Receiv'edness, *n.* General allowance.
Receiv'er, *n.* One who receives or takes back in any manner
(*Law.*) One to whom anything is communicated by another. Also, an officer of the Court of Chancery appointed to collect rents, &c., pending a suit. Receivers are usually appointed in suits concerning the estates of infants, against executors, and between partners for the purpose of winding up the business.
(*Chem.*) A globular vessel applied to a retort, and in which the *distillate*, or product of distillation, is collected or received. — The bell-glass placed upon the plate of an air-pump is also called a *receiver.*
Receiv'ership, *n.* The state or position of a receiver.
Receiv'ing, *n.* Act of receiving; that which is received.
Recelebrate, *v. a.* To celebrate anew.
Recelebration, *n.* A renewed celebration.
Re'cency, *n.* [t. Lat. *recentia*, from *recens*, fresh, young.] State or quality of being recent; newness; new state; late origin; lateness in time; freshness.
Recense', *v. a.* [Lat. *recensere.*] To revise; to examine. (R.)
Recension, (*-sen'shun,*) *n.* [Lat. *recensio, recensionis*, from *recensere.*] Review; enumeration; examination. — Examination of the text of an ancient author.
Recen'sionist, *n.* One who recenses; one who makes critical examination or review.
Re'cent, *a.* [Fr., from Lat. *recens, recentis.*] New; being of late origin or existence; late; modern; fresh; lately received; of new occurrence.
(*Geol.*) Relating to, or noting, the period coeval with the human race.
Re'cently, *adv.* Newly; lately; freshly; not long since.
Re'centness, *n.* State or quality of being recent; newness; freshness; lateness of origin or occurrence.
Receptacle, (*re-sep'ta-kl,*) *n.* [Fr.; Lat. *receptaculum*, from *receptore*, from *recipio, recipere*, to receive.] A place or vessel into which something is received, or in which it is contained.
(*Bot.*) A term denoting, 1, that part of a flower upon which the carpels are situated, or, in other words, the apex of the peduncle, or summit of the floral branch, of which the carpels are the termination; 2, that part of the ovary from which the ovules arise, and which is commonly called the placenta; 3, that part of the axis of a plant which bears the flowers when it is depressed in its development, so that, instead of being elongated into a rachis, it forms a flattened area, over which the flowers are arranged, as in *Compositæ.* There is thus the *R.* of flowers, which is the *clinanthium*; the *R.* of fruits, which is the *torus*; and the *R.* of ovules, which is the *placenta.* The part of the vein to which the spore-cases of ferns are attached is also called a *R.*
Receptac'ular, *a.* [Fr. *receptaculaire.*] (*Bot.*) Belonging to a receptacle.
Receptibil'ity, *n.* Possibility of receiving.
Recep'tible, *a.* [Lat. *receptibilis.*] Capable of being received.
Recep'tion, *n.* [Lat. *receptio*, from *recipere*, to receive.] Act of receiving; admission of anything sent or communicated. — State of being received. — A receiving, or manner of receiving, for entertainment; entertainment. — Admission, as an opinion.
Recep'tive, *a.* [Fr. *réceptif*; Sp. *receptivo.*] Having the quality of receiving or admitting what is communicated.
Receptiv'ity, *n.* [Fr. *réceptivité.*] State or quality of being receptive.
(*Philos.*) In the philosophical system of Kant, the power or capacity of receiving impressions, as those of the external senses.
Recess', *n.* [Sp. *recéso*; It. *recesso*; Lat. *recessus*, from *recedo* — *re*, back, and *cedo*, to go, to move.] A going back, or receding; a moving back; as, the *recess* of the tides. — A withdrawing or retiring; a withdrawing from public business or notice; retreat; retirement.
"Sacred to soft *recess* and gentle love."—*Prior.*
—Privacy; seclusion from the world or from company; state of being withdrawn: as, "close *recess* and secret conclave." (*Milton.*) — Remission or suspension of business or proceedings, as of a legislative assembly, court of justice, &c. — Part of a room formed by the receding of a wall, as an alcove, niche, &c.; as, the *recess* formed by a bay-window. — Place of retirement; private or secret abode. — Secret or abstruse part; as, "their most secret *recesses* of religion." — *Hammond.*
(*Hist.*) A decree of the Imperial Diet of the former German empire; — perhaps so called from being pronounced at the time when the Diet was about to *recede* or separate.
(*Bot.*) A sinus, or vacancy between the lobes of leaves.
—*v. a.* To form into a recess; as, to *recess* a grotto, or the wall of a room.
Recession, (*-sesh'un,*) *n.* [Late Lat. *recessio.*] Act of receding or withdrawing; act of retiring or retreating: act of receding from a claim, or of relaxing a demand. — Accession, or restoring or granting back: as, the *recession* of a conquered province to its former ruler.
Recession of the equinoxes. (*Astron.*) See PRECESSION.
Reces'sive, *a.* Receding; withdrawing; going back.
Rechabite, (*rĕ'kab-īt,*) *n.* (*Jewish Hist.*) One of the descendants of Jonadab, the son of Rechab, who followed the injunction of his ancestor in abstaining from all intoxicating drinks;—hence, a name assumed by members of certain temperance societies, who adopt the principle of total abstinence from alcoholic liquors; a teetotaller.
Rechange, (*-chānj',*) *v. a.* [Fr. *rechanger.*] To change again or afresh.
—*v. n.* To make a second change.
Recharge', *v. a.* [Fr. *recharger.*] To charge or accuse in return. — To attack anew; as, to *recharge* the enemy.
—*v. n.* To charge a second time.
Char'ter, *n.* A renewal of a charter.
—*v. a.* To charter anew; to grant a second charter to.
Rechase', *v. a.* To chase a second time.
Rechasten, (*-chās'n,*) *v. a.* To chasten afresh.
Recheat', *n.* [From *reçêté*, a near chase.] (*Sport.*) A note winded on the horn to recall dogs which have lost scent of the game.
—*v. n.* To wind or blow the recheat.
Recherché, (*rŭh-shĕr-shā',*) *a.* [Fr.] Sought after with studious pains; — hence, unique; of rare or choice value or attraction; of singular rarity or elegance; peculiar and refined; rococo.
Rechoose', *v. a.* To choose anew, or a second time.
Recipe, (*rĕs'i-pē,*) *n.*; *pl.* RECIPES. [Lat. imp. *recipere*, to take in, to receive; Fr. *récipé.*] A medical prescription; a direction of medicines to be taken;—popularly, a receipt for almost any mixture; as, a *recipe* for mixing a salad.
Recipian'gle, *n.* [Lat. *recipere*, to take, and *angulus*, angle.] An instrument used in measuring angles, particularly in fortifications.
Recip'ience, *n.* State or quality of being recipient; a receiving; reception.
Recip'ient, *a.* Receiving.
—*n.* [Fr.; Lat. *recipiens—entis*, from *recipio.*] A receiver; the person who, or thing which, receives; he or that to which anything is communicated;—specifically, the receiver of a still.
Reciprocal, (*-sip-,*) *a.* [Fr. *réciproque*; Lat. *reciprocus—re*, and *capio*, to take.] Alternate; acting in vicissitude or return.
"Corruption is *reciprocal* to generation."—*Bacon.*
—Mutual; done by each to the other; given and received; interchanging or interchanged; as, *reciprocal* duties or obligations, *reciprocal* affection.
—Mutually interchangeable, as a definition.
(*Gram.*) Reflexive; applied to certain pronouns and verbs;—also, sometimes, confined to such as demonstrate mutual action.
R. equation. (*Math.*) An equation unchangeable in form, when the reciprocal of the unknown quantity is substituted for that quantity. — *R. lines.* (*Math.*) In statics, the lines of action, or any two forces mechanically equivalent to a given system of force. — *R. proportion.* (*Math.*) The relation which exists between four magnitudes, such that, taken in order, the first has to the second the same ratio which the fourth has to the third, or the first has to the second the same ratio which the reciprocal of the third has to the reciprocal of the fourth. — *R. quantities.* (*Math.*) Quantities which, multiplied together, give unity. — *R. terms.* (*Logic.*) Those terms which, having the same signification, are identical in force, and may, consequently, be used the one for the other.
Recip'rocal, *n.* That which is reciprocal to another thing.
(*Math.*) In algebra and arithmetic, the quotient resulting from the division of unity by any quantity; thus, $\frac{1}{8}$ is the reciprocal of 8. The *R. of a fraction* is the fraction in a state of inversion, or the denominator divided by the numerator.
Reciprocal'ity, *n.* Reciprocalness; state or quality of being reciprocal.
Recip'rocally, *adv.* Mutually; interchangeably; in such a manner that each affects the other, and is equally affected by it.
—In the manner of reciprocals.
R. proportional, proportional, as two variable quantities, so that the one shall be in constant ratio to the reciprocal of the other.
Recip'rocalness, *n.* Reciprocality; alternateness.
Reciprocate, (*-sip'ro-kāt,*) *v. n.* [Fr. *réciproquer*; Lat. *reciproco, reciprocatus.*] To go or move backward, or backward and forward; to alternate; to act or move interchangeably; as, *reciprocating* breath.
—*v. a.* To exchange; to interchange; to give and return mutually; as, to *reciprocate* compliments.
Reciprocating motion. (*Mech.*) The alternate up and down, or backward and forward, motion, as of a piston-rod.
Reciprocation, (*-kā'shun,*) *n.* [Fr., from Lat. *reciprocatio—onis.*] Act of reciprocating; a mutual giving or returning; interchange of acts; as, the *reciprocation* of favors or courtesies. — Alternation; as, the *reciprocation* of the tides.
(*Med.*) Regular return or alternation of two symptoms, or diseases.
Reciprocity, (*rĕs'i-prŏs'i-tў,*) *n.* [Fr. *reciprocité.*] State or quality of being reciprocal; reciprocation; interchange; reciprocal obligation or right; equal mutual rights or benefits to be yielded or enjoyed. — Mutual action and reaction.
Reciprocorn'ous, *a.* [Lat. *reciprocus*, reciprocal, and *cornu*, horn.] (*Zoöl.*) Having horns turning backward and forward, like those possessed by a ram.
Recision, (*-sizh'un,*) *n.* [Lat. *recisio*, from *re*, and *cædere*, to cut.] The act of cutting off.
Recital, (*re-sīt'al,*) *n.* [Fr. *récit.*] Act of reciting; recitation; rehearsal; the repetition of the words of another, or of a writing; as, the *recital* of a deed or agreement. — A telling of the particulars of an adventure, or of a series of events; account; narration; narrative. — That which is recited; a story; a narrative.
(*Law.*) The statement of matter in pleading, introductory to some positive allegation.
Recitation, (*rĕs'i-tā'shun,*) *n.* [Fr.; Lat. *recitatio—onis.*] Act of reciting; rehearsal; repetition of words. — The delivery before an audience of the composition of others, committed to memory; a public reading, or elocutionary display, of something prepared beforehand, or reproduced from another. — In the United States scholastic system, the rehearsal of a lesson by pupils before their preceptor or preceptress; the repeating of some theme committed to memory.
Recitative, *n.* [It. *recitativo.*] (*Mus.*) A species of musical recitation; or, in other words, a kind of artificial declamation adapted to musical notes, forming a sort of medium between common recitation and measured air or song. It was first introduced at Rome, in the year 1660, by Emilio del Cavaliere, and was soon after adopted throughout Europe. Recitatives differ from airs in having no fixed time or measure, the singer regulating the length of the notes according to his own conception of the degree of emphasis and expression required. They are written in common time, of four crotchets in a bar, and have no fixed or permanent key; indeed, they generally begin in one key and end in another, modulating frequently *ad libitum.* In this species of composition, strict attention must be paid to all the rules of prosody, as to long and short syllables, accent, emphasis, punctuation, &c. The words are never repeated, and only one note is sung to each syllable; thus all grace notes are excluded, except in some *passionate* passages, where an occasional rapid flight of notes may be introduced to connect distant intervals. A *simple*, or *unaccompanied*, *recitative* is written with no other accompaniment than a bass part, consisting of a few occasional chords, generally played on the pianoforte. An *accompanied recitative*, on the other hand, has, besides the bass, parts for other instruments, as violins, hautboys, flutes, &c. The great use of recitative consists in its capabilities for passing quickly from subject to subject, serving for dialogues, and to prepare important changes in great musical pieces. Some of the most splendid specimens of recitative may be found in the works of Gluck, Haydn, Mozart, Beethoven, and Verdi.
—*a.* In the style or manner of recitative: rehearsing; pertaining to musical pronunciation or declamation.

Recita'tively, *adv.* In the manner of recitative.
Recitati'vo, *n.* [It.] (*Mus.*) See RECITATIVE.
Recite, (*re-sīt',*) *v. a.* [Fr. *réciter;* Lat. *recito — re,* and *cito,* to rehearse.] To rehearse; to repeat, as the words of another, or of a writing; to deliver from a written or printed document, or from memory; as, to *recite* a passage from an anthor. — To tell over or relate, as occurrences or particulars; to narrate; to enumerate or go over in particulars; as, to *recite* the incidents of a journey. — To rehearse, as a lesson to a preceptor or tutor.
—*v. n.* To make a recital; to rehearse; to pronounce before an audience the composition of others, committed to memory; to repeat a lesson learned.
Recit'er, *n.* One who recites, rehearses, or narrates.
Reck, *v. n.* [A. S. *recun, reccan.* See RECKON.] To heed; to regard; to care for; to make account;—with *of,* and seldom used, except in poetry.
Reck'less, *a.* [A. S. *réccleás.*] Having no care or concern; without heed or regard; careless; unmindful; rashly or indifferently negligent; as, a *reckless* man, *reckless* of danger, &c.
Reck'lessly, *adv.* In a reckless manner; heedlessly; negligently; rashly unmindful; carelessly.
Reck'lessness, *n.* State or quality of being reckless; heedlessness; carelessness; rash negligence.
Reck'lesstown, in *New Jersey,* a post-village of Burlington co., abt. 5 m. S.E. of Bordentown.
Reckon, (*rĕk'n,*) *v. a.* [A. S. *recan, reccan;* D. *rekenen;* Ger. *rechnen;* Icel. *reikna.*] To count; to number; to compute; to calculate; to estimate; to enumerate: as, to *reckon* figures.—To set in the number, series, or rank of; to esteem by condition or quality; to regard; to repute; to account.
—*v. n.* To count; to number; to compute: to estimate; to charge to, or take in, account or calculation.

"Before we *reckon* with your several loves."—*Shaks.*

—To settle, make up, or adjust accounts; to examine and strike the balance of debit and credit; to pay a penalty. —To reason with one's self, and conclude from arguments. — To think; to suppose; to imagine; to infer; to conclude;—(an English provincialism, but extensively employed in the Middle and S. States of the Union, in a corresponding sense to that of *guess* in the N. States; — both terms are essentially vulgar.)
To reckon for, to be answerable for; to pay the penalty for. — *To reckon on* or *upon,* to count, rely, or depend on; to adopt measures in confident expectation of; as, I *reckon upon* receiving the money from him. — *To reckon with,* to settle or adjust accounts or claims with; to exact the penalty of.
Reckoner, (*rĕk'n-er,*) *n.* He who, or that which, reckons or computes; as, a ready *reckoner.*
Reck'oning, *n.* Act of counting or computing; calculation;—specifically, an account of time; a statement of accounts with another; statement and comparison of accounts mutually for adjustment;—hence, exaction of penalty; account; infliction of merited punishment.

"The way to make *reckonings* even, is to make them often." *South.*

—The sum of money charged by a host; bill; statement of account, as for entertainment, &c. — Account of; esteem; estimation; as, "you make no further *reckoning* of beauty." — *Sidney.*
(*Navig.*) The computation of a ship's way, usually by the log; or, the act of estimating the distance run between one port, or place, and another. See DEAD-RECKONING.
Reck'oning-book, *n.* An account-book.
Reclaim, (*re-klām',*) *v. a.* [Fr. *réclamer;* Lat. *reclamo,* from *re,* and *clamo,* to call, to shout aloud.] To call back. (R.) — To call back from error, wandering, or transgression, to the observance of moral rectitude; to reform. — To reduce to the state desired; to correct. — To rednce from a wild to a tame or domestic state; to tame.—To recover; to regain.
(*Law.*) To demand again; to insist upon a right.
—*v. n.* To cry out; to exclaim.
Reclaim'able, *a.* That may be reclaimed, reformed, or tamed.
Reclaim'ant, *n.* One who contradicts or remonstrates. (R.)
Reclaim'ing, *n.* Reclamation.
Reclaim'less, *a.* That cannot be reclaimed.
Reclama'tion, *n.* [Fr.; It. *reclamazione.*] Act of reclaiming; state of being reclaimed; recovery.
Reclasp', *v. a.* To clasp again, or a second time.
Rec'linate, *a.* (*Bot.*) Bent down on some other part. The term is applied to parts which fall gradually from the perpendicular, as the branches of many trees or shrubs.
Reclina'tion, *n.* The act or state of reclining.
(*Dialling.*) The angle which the plane of the dial makes with a vertical plane, which it intersects in a horizontal line.
(*Surg.*) A mode of operating for the cataract, which consists in applying the needle in a certain manner to the anterior surface of the cataract, and depressing it into the vitreous humor, in such a way that the front surface of the cataract is the upper, and its back surface the lower one.
Recline', *v. a.* [It. *reclinâre,* from Lat. *reclino,* to bend back.] To bend or lean back; to lean to one side, or sidewise.
—*v. n.* To lean; to be recumbent; to rest or repose.
—*a.* In a leaning posture. (R.)
Reclined, (*-klīnd',*) *a.* (*Bot.*) Curved downward; nearly recumbent.
Reclin'er, *n.* A person who, or thing which, reclines.
Reclin'ing, *n.* (*Bot.*) Same as RECLINATE.
R. dial. (*Dialling.*) A dial whose plane is inclined to the vertical line which passes through its center.
R. chair. A chair with an adjustable back.
Reclose, (*re-klōz',*) *v. a.* To close again.
Reclude', *v. a.* [Lat. *recludo,* from *re,* and *cludo,* to shut.] To close again. (R.)
Recluse, (*re-klūs',*) *a.* [Fr. *reclus;* Lat. *reclusus,* from *re,* and *cludo,* to shut.] Shut up; secluded; sequestered; retired from the world or from public notice; solitary.
—*n.* A person who lives in retirement or seclusion from intercourse with the world.
(*Eccles.*) One of a class of religious persons who live in single cells, usually attached to monasteries.
Recluse'ly, *adv.* In retirement.
Recluse'ness, *n.* State of living in reclusion; retirement.
Reclusion, (*re-klu'zhun,*) *n.* [Fr.] Recluseness; the state of a recluse.
Reclu'sive, *a.* Living or being secluded or retired.
Reclu'sory, *n.* [L. Lat. *reclusorium.*] A place of retirement; a hermitage.
Recoagula'tion, *n.* A second coagulation.
Recoast', *v. a.* To coast again.
Recoc'tion, *n.* A second, or new coction or preparation.
Recogni'tion, *n.* [Lat. *recognitio,* from *recognosco.*] The act of recognizing, or state of being recognized; renewed or revived knowledge. — Acknowledgment; formal avowal; confession; memorial.
(*Law.*) An acknowledgment that something which has been done by one man in the name of another was done by authority of the latter.
Recog'nitory, *a.* Relating to recognition.
Recognizable, (*rek-kog'ni-za-bl,*) *a.* That may be recognized, known, or acknowledged.
Recog'nizance, *n.* (Written also *recognisance.*) [From Lat. *recognosco,* to acknowledge.] Recognition; acknowledgment of a person or thing; avowal.
(*Law.*) An obligation of record entered into before some court of record, or magistrate, duly authorized to take it, with condition to do some particular act, — as to appear at the assizes, to keep the peace, to pay a debt, or the like, upon the performance of which condition the obligation becomes null and void; but upon failure, the amount of the recognizance is forfeited. It differs from a bond, in that the latter is the creation of a new debt, while a recognizance is an acknowledgment upon record of a former debt. The state or person to, or in whose favor the recognizance is made, is called the *cognizee,* and the person who enters into it the *cognizor.* A recognizance may be entered into either to the crown, as where a person enters into recognizances to appear to answer a criminal charge, or to subject, as where bail is given.
Recogniza'tion, *n.* Same as recognizance.
Recognize, or **Recognise,** (*rek'og-nīz,*) *v. a.* [It. *recognóscere;* Fr. *reconnaître;* Lat. *recognosco,* from *re,* and *cognosco,* to know.] To know again; to recall to mind; to recollect or recover the knowledge of, either with an open avowal of that knowledge or not. — To acknowledge; to avow; to confess; to admit with formal acknowledgment.
—*v. n.* (*Law.*) To try; to examine in order to determine the truth of a matter.
Recognizee', *n.* (*Law.*) He for whose use a recognizance has been taken.
Rec'ognizor, *n.* (*Law.*) A person who enters a recognizance.
Recoil', *v. n.* [Fr. *reculer,* from Lat. *re,* again, back, and *culus,* the fundament.] To move or rush back in consequence of resistance; to fall back. — To retire; to retreat. — To shrink; to fail.
—*n.* A starting or falling back.
(*Gun.*) The motion of a piece of ordnance or small-arm in a direction opposite to that in which the projectile is thrown. It is caused by the pressure of the gas upon the bottom of the bore, in the direction of the axis, equal to that which acts upon the projectile. It exerts a very destructive effect upon the gun-carriage.
Recoil'er, *n.* One who, or that which, falls back, or recoils.
Recoil'ing, *n.* Act of starting or falling back; a shrinking.
Recoil'ingly, *adv.* With a recoil.
Recoil'ment, *n.* A recoiling; a rushing back. (R.)
Recoin', *v. a.* To coin over again.
Recoin'age, *n.* The act of coining anew.
Recoin'er, *n.* A person who recoins.
Recollect', *v. a* [Lat. *recolligo,* from *re,* and *colligo,* to collect.] To recover or call back to the memory; to bring back to the mind or memory. — To recover resolution or composure of mind: (with reciprocal pronoun.)
—To gather what is scattered; to gather again.

"Now that God hath made his light radiate in his word, men may *recollect* those scattered divine beams."—*Boyle.*

Rec'ollects, Rec'ollets, *n. pl.* (*Eccl. Hist.*) A name often applied to the order of the OBSERVANTS, *q. v.*
Recollec'tion, *n.* The act, operation, or power of recalling ideas to the mind, or the period within which things can be recollected; memory; reminiscence.
Recollect'ive, *a.* Possessing the faculty of remembering.
Recoloniza'tion, *n.* A renewed colonization.
Recol'onize, *v. a.* To colonize again, or a second time.
Recombina'tion, *n.* A renewed combination.
Recombine', *v. a.* To combine anew.
Recomfort, (*-kum',*) *v. a.* To comfort or console again. — To give new strength to. (R.)
Recommence', *v. a.* To commence again; to begin anew.
—*v. n.* To make a new or fresh beginning.
Recommence'ment, *n.* A commencement anew.
Recommend', *v. a.* To commit or intrust into the hands of another; to commit to one for protection, aid, &c. — To praise to another; to offer or commend to another's notice, confidence, or kindness, by favorable representations. — To make acceptable; to mention or represent as worthy of something. — To commit with prayers.
Recommend'able, *a.* That may be recommended; worthy of recommendation or praise.
Recommend'ableness, *n.* State or quality of being recommendable; worthiness of being recommended.
Recommend'ably, *adv.* So as to deserve recommendation.
Recommenda'tion, *n.* [Fr.] Act of representing in a favorable manner for the purpose of procuring the notice, confidence, or civilities of another. — Favor; esteem. (R.) — That which procures a kind or favorable reception.
Recommend'atory, *a.* That recommends; that commends to another.
Recommend'er, *n.* A person who recommends.
Recommit', *v. a.* To commit again; to refer again to a committee.
Recommit'ment, Recommit'tal, *n.* A second or renewed commitment; a renewed reference to a committee.
Recommu'nicate, *v. a.* To communicate a second time.
Recompact', *v. a.* To join anew; to compact afresh
Rec'ompense, *v. a.* [Fr. *récompenser;* L. Lat. *recompenso.*] To weigh out to in return, or by way of amends; to compensate; to make an equivalent to, for service, loss, &c.; to reward; to requite; to remunerate. — To repay; to make return, as of an equivalent; to compensate or make up to any one.
—*n.* An equivalent returned for anything given, done, or suffered; repayment; compensation; amends; requital; reward; retribution; satisfaction.
Rec'ompenser, *n.* He who, or that which, recompenses or requites.
Recompila'tion, *n.* A compilation rendered afresh.
Recompile', *v. a.* To compile a second time.
Recompile'ment, *n.* A recompilation; act of recompiling; a new digest or compilement; as, a *recompilement* of the laws.
Recompose', *v. a.* To form or adjust again or anew; to adjust together repeatedly; — said of things. — To compose or quiet anew; to compose or tranquillize that which is ruffled or disturbed; as, to *recompose* the mind or spirit.
Recompos'er, *n.* One who, or that which, recomposes.
Recomposition, *n.* Act of recomposing; renewal of composition.
Rec'oncilable, *a.* [Fr. *réconciliable.*] That may be reconciled; capable of renewed or restored unity or friendship; susceptible of being reconciled or readjusted; as, *reconcilable* individuals. — That may be made to agree or be consistent; congruous; not obstinately at variance; as, *reconcilable* accounts.
Rec'oncilableness, *n.* State or quality of being reconcilable; consistency; as, the *reconcilableness* of two apparently incongruous theories.— Practicability of restoration to amity, harmony, or fellowship.
Rec'oncilably, *adv.* In a manner susceptible of reconciliation.
Reconcile, (*rĕk'on-sīl,*) *v. a.* [Fr. *réconcilier;* Lat. *reconcilio — re,* and *concilio,* from *concilium,* from *con,* together, and *cieo,* to make to go, or move.] To reunite; to conciliate anew; to call back into union and friendship, as affections which have been alienated; to restore to friendship or favor, after estrangement; as, to *reconcile* parties who have been at variance.—To bring to acquiesceuce, content, or tranquil submission; to pacify; to appease.— To make congruous or consistent; to bring to agreement, accord, or suitableness;—preceding *with* or *to*

"Due distance *reconcile to* form and grace."—*Pope.*

—To adjust; to settle; to compose, as differences.
Rec'oncilement, *n.* Reconciliation; act of reconciliation, or state of being reconciled; renewal of concord or friendship.
Rec'onciler, *n.* One who reconciles; one who restores harmony and accord between parties at variance.— One who discovers the consistence of propositions seemingly incongruous.
Reconcilia'tion, *n.* [Fr.; Lat. *reconciliatio.*] Act of reconciling parties at variance; renewal of friendship and accord after disagreement or enmity: reconcilement; reunion; restoration to harmony.— Pacification; appeasement; the means by which sinners are reconciled and brought into a state of favor with God, after natural estrangement or enmity: propitiation; atonement; expiation. — Agreement of things seemingly opposite, different, incousistent, or incongruous; harmony.
Reconcil'iatory, *a.* Having a tendency to reconcile.
Recondensa'tion, *n.* Act of recondensing; state of being recondensed.
Recondense', *v. a.* To condense anew.
Recondite, (*rĕk'on-dīt,*) *a.* [Sp. *recondito;* Lat. *reconditus.*] Secret; abstruse; hidden from the view or intellectual faculty: as, *recondite* causes. — Profound; dealing in things mysterious or abstruse; as, *recondite* studies.
Recondnct', *v. a.* To conduct back, or again.
Reconfirm', *v. a.* To confirm afresh, or a second time.
Reconjoin', *v. a.* To conjoin anew.
Recon'naissance, Recon'noissance, *n.* [Fr.] Act of reconnoitring; preliminary survey or examination; specifically.
(*Mil.*) The examination of the features of a country, or the positions of troops, with a view to military move-

ments, such as the march of troops from one station to another, without reference to an enemy; the advance upon ground occupied by an enemy whom it is intended to force; the retreat before an enemy; or the taking up a position for defence.

(*Geol.*) The survey of a region in reference to its general geological characteristics.

(*Civ. Engin.*) An examination of the general features of a tract of country, preparatory to a more particular or exact survey, for the purpose of deciding upon the location of a public work.

R. in force. (*Mil.*) A demonstration of attack in heavy force, for the purpose of feeling the enemy's strength or position.

Reconnoitre, (*rĕk'on-noi'tr,*) *v. a.* [Fr. *reconnaître*, from Lat. *recognoscere.*] To view, survey, or examine by the eye; — particularly, to examine with a view to military, geological, or engineering operations: to make a preliminary survey of.

Reconquer, (*-kŏnk'er,*) *v. a.* To conquer over again; to recover by conquest; — hence, to regain; to recover; to get back again.

Reconquest, (*-kŏnk'west.*) A second conquest.

Reconsecrate, *v. a.* To consecrate afresh, or anew.

Reconsecra'tion, *n.* Consecration for the second time.

Reconsid'er, *v. a.* To consider again; to renew the consideration of; to turn over in the mind again; to review or reëxamine; as, to *reconsider* a proposition. — In legislative proceedings, to take up for renewed consideration that which has been previously acted upon; as, to *reconsider* a motion, to *reconsider* a vote of supply, &c.

Reconsider'ation, *n.* A renewed consideration or review in the mind; the taking up for renewed consideration of that which has been previously acted upon; as, the *reconsideration* of a rider to a legislative bill.

Reconsolida'tion, *n.* The state of being consolidated anew.

Reconstruct', *v. a.* To rebuild; to construct a second time; as, to *reconstruct* a city, to *reconstruct* the preamble to a bill.

Reconstruction, (*-strŭk'shun,*) *n.* Act of reconstructing; state of being reconstructed; as, the *reconstruction* of a government.

(*Amer. Pol.*) A term applied, since the Civil War, to the reorganization of the Southern States under the recent Acts of Congress.

Recontin'uance, *n.* The state of recontinuing.

Recontin'ue, *v. a.* and *n.* To continue again or afresh.

Reconvene', *v. a.* and *v. n.* To convene, or call together, anew.

Reconven'tion, *n.* (*Civ. Law.*) An action brought by the defendant against the plaintiff, before the same judge.

Reconver'sion, *n.* Conversion for the second time.

Reconvert', *v. a.* To convert again, or anew.

Reconvey, (*-kon-vā',*) *v. a.* To convey back, or to the former place; as, to *reconvey* merchandise. — To transfer back to a former owner; as, to *reconvey* lands.

Reconvey'ance, *n.* The act of reconveying or making a transfer of title back to a former possessor.

Recopy', *v. a.* To copy again or afresh.

Record', *v. a.* [Fr. *recorder*, from Lat. *recordor* — *re*, again, and *cor*, *cordis*, the heart.] To cause to be remembered; to imprint deeply on the mind or memory; to register; to enroll; to write or enter in a book or on parchment, for the purpose of preserving authentic or correct evidence of a thing; to make a note of; as, to *record* the proceedings of a court of law, or of a legislative body, to *record* historical events, to *record* a will, lease, or deed.

—*n.* An authentic memorial; a register; a verified or official copy of any writing, or account of any facts or proceedings, entered in a book, or in any collection of archives, for preservation and reference; also, the book or manuscript containing such copy or account. See Archives.

Court of Record, a court whose acts and judicial proceedings are inscribed on parchment, or in books of archives, for a permanent memorial.

Record'er, *n.* One who records or registers: — specifically, an officer who registers writings or transactions; one who enrolls or records; a registrar. — The chief judicial officer of some cities or boroughs, so called because his court is a court of record; the chief law officer of the municipality of the city of London; also, the chief justice of British colonies in the East Indies.

(*Mus.*) A musical instrument, somewhat resembling the flageolet, formerly in vogue.

Recorder'ship, *n.* The office or jurisdiction of a recorder.

Recorporifica'tion, *n.* Act or state of investing, or being invested, anew with a body. (R.)

Recouch', *v. n.* To lie down again.

Recount', *v. a.* [Fr. *reconter*, — *re*, and *conter*, to tell, from *conte*, recital of imaginary adventures; It. *contare*; Sp. *contar.*] To recite, as imaginary adventures; to go over in detail; to repeat; to relate; to rehearse; to narrate; to detail; to enumerate.

"*Recount* our blessings and compare our woes."—*Dryden.*

—To count or reckon again or anew.

Recoup, Recoupe, (*re-koōp',*) *v. a.* [Fr. *recouper.*] To cut afresh; — hence, to redivide or redistribute.

(*Law*) To hold back a part of, as due.

Re'coupe, *n.* (*Law.*) See Recoupment.

Recou'per, *n.* One who recoups.

Recoup'ment, Recoupe', *n.* (*Law.*) Act of retaining something due; diminution of a plaintiff's damages, in an action on an agreement, for default in performance on his part.

Recourse', *n.* [Fr. *recours*; Lat. *recursus*, from *recurro* — *re*, and *curro*, *cursum*, to run.] A return; recurrence; renewed attack; as, *recourse* of sickness. — A going to with a request or application, as for aid or protection; resort; recurrence in embarrassment, difficulty, perplexity, &c.; application of efforts, art, or labor.

"Our last *recourse* is therefore to our art."—*Dryden.*

Without recourse, words sometimes used as a rider to the indorsement of a negotiable instrument, to protect the indorser from liability to the indorsee and subsequent holders.

Recov'er, *v. a.* To cover anew or again.

Recover, (*-kŭv',*) *v. a.* [Fr. *recouvrer*; It. *ricoverare*; Lat. *recupero*, *recuperare* = *recupio* — *re*, and *cupio*, to take.] To get or obtain again; to win back; to regain; to get renewed possession of. — To restore from sickness; to revive from faintness, or apparent death; to bring back to life and health; to cure; — used with the reciprocal pronoun. — To repair the loss of, or to repair an injury done by neglect; to retrieve; to make good to one's self by reparation; as, to *recover* lost ground or time. — To bring back to a former state by liberation from capture or possession; to regain by act or effort; to reach; to come to.

(*Law.*) To gain as a compensation; to obtain in return for injury or debt; as, to *recover* debt and costs, or damages, in a court of law.

—*v. n.* To regain health after sickness; to grow well; — preceding *of* or *from*; as, he has *recovered from* the gout. — To regain a former state or condition after evil or misfortune; as, to *recover* from depression of spirits.

(*Law.*) To obtain a judgment; to succeed in cause at law; as, the plaintiff *recovered* in the case, with costs.

Recov'erable, *a.* That may be recovered or regained; that may be restored from sickness; that may be brought back to a former condition; that may be obtained from a debtor or possessor; as, the amount is *recoverable.*

Recovera'bleness, *n.* State or quality of being recoverable; susceptibility of being recovered.

Recoveree', *n.* (*Law.*) The person against whom a judgment is obtained in common recovery; — correlative to *recoveror.*

Recov'erer, *n.* One who makes recovery.

Recov'eror, *n.* (*Law.*) The demandant in a common recovery after judgment; — opposed to *recoveree.*

Recovery, (*-kŭv'er-ў,*) *n.* Act of recoveriug, or of regaining, retaking, or obtaining possession of anything lost. — Restoration from sickness, faintness, or apparent death; restoration from any evil or misfortune; capacity of being restored to health or prosperity. — The obtaining of a right to something, by a judgment of a court, from an opposing party in a suit at law.

Recov'ery, in *Ohio*, a township of Mercer co.; *pop.* abt. 1,200.

Recreancy, (*rĕk're-an-sў,*) *n.* State or quality of being recreant; a cowardly yielding; mean-spiritedness.

Rec'reant, *a.* [O. Fr., faint-hearted; L. Lat. *recreditus—re*, and *credo*, to intrust to one. In the Middle Ages, those who delivered themselves up to an enemy were called *recreditі*, or *recreanti*, and were accounted infamous.] Renegade; apostate; craven; false; unfaithful. — Crying for mercy, as a combatant in the trial by battle; yielding; — hence, cowardly; mean-spirited; craven; as, a *recreant* knight.

—*n.* A renegade; an apostate. — One who yields in combat; one who begs for mercy; — beuce, a craven; a mean-spirited, cowardly wretch.

Rec'reate, *v. a.* [Lat. *recreo*; Fr. *récréer.*] To revive; to reanimate; — particularly, to divert; to amuse; to enliven; to entertain; to cheer; to refresh after toil; to afford pleasurable occupation in weariness; to gratify; to delight; to relieve.

—*v. n.* To take recreation.

Re'create, *v. a.* To make or create anew; to renew; as, to *recreate* an army.

Recrea'tion, *n.* [Fr.; Lat. *recreatio.*] Act of recreating, or state of being recreated; relief from toil or pain; refreshment of the strength or spirits after labor or exertion; pleasurable occupation in sorrow or distress; amusement; diversion; entertainment; sport; cheerful or invigorating exercise.

Rec'reative, *a.* [Fr. *récréatif.*] Serving to recreate; refreshing; giving new vigor or animation; infusing relief or abstraction after labor or pain; diverting; amusing; yielding pleasurable change; as, *recreative* exercises.

Rec'reatively, *adv.* In a manner to afford recreation.

Rec'reativeness, *n.* State or quality of being recreative.

Rec'rement, *n.* [Fr.; Lat. *recrementum*, from *recerno* — *re*, and *cerno*, to separate.] Superfluous matter separated from that which may be utilized; refuse; dross; scoria; spume; as, the *recrement* of ore.

Recrement'al, Recrementitial, Recrementitious, (*-tĭsh'al, tĭsh'us.*) *a.* [Fr. *recrementiel.*] Drossy; consisting of superfluous matter separated from that which is valuable and useful.

Recrim'inate, *v. n.* [Fr. *récriminer*; Lat. *re*, and *criminor*, *criminatus*, to accuse one of a crime.] To return one accusation with another; to retort a charge; to charge an accuser with the like offence.

—*v. a.* To accuse in return.

Recrimina'tion, *n.* [Fr.] Act of recriminating; the return of one charge or accusation with another.

"The quarrel is carried on with mutual *recriminations.*"
Govt. of the Tongue.

(*Law.*) An accusation brought by the accused against the accuser upon the same fact; a counter-charge.

Recrim'inative, Recrim'inatory, *a.* [Fr. *recriminatoire.*] Retorting accusation.

Recrim'inator, *n.* One who recriminates or retorts a charge.

Recrim'inatory, *a.* See Recriminative.

Recross', *v. a.* To cross again, or a second time.

Recrudescency, Recrudescence, Recrudescency, (*-dĕs'sens, dĕs'sen-sy.*) *n.* [Fr. *recrudescence.*] The state of becoming sore again.

(*Med.*) Increased acuteness of a disease after an intermission of ease.

Recrudes'cent, *a.* [From Lat. *recrudescere* — *re*, again, and *crudescere*, to become hard or raw.] Becoming raw, sore, or painful again, as a wound.

Recruit, (*re-krūt'.*) *v. a.* [Fr. *recruter*; from Lat. *recresco* — *re.*] To cause to grow up or increase again; to repair; to recover; to regain; to recuperate; to gain new supplies of anything wasted or deficient; as, fresh air and exercise *recruit* one's strength. — Hence, to reinvigorate the fallen condition of; to restore the lack of tone or muscularity in; to revive in health or strength. — To furnish with new supplies of men, as an army; to fill up by enlisting new men, as the ranks of a regiment; to supply with new men any deficiency of troops.

—*v. n.* To gain new supplies of anything diminished or wasted; to gain renewed health, spirits, strength, and the like; as, pulmonary invalids often *recruit* in warmer climates. — To raise new men for military or other service; to gain new supplies of soldiers; to enlist raw troops.

—*n.* The rehabilitation of anything wasted or lacking. — A newly raised soldier to supply the deficiency of an army; a newly-enlisted man for the ranks.

Recruit'er, *n.* One who recruits; — especially, a recruiting-officer.

Recruit'ing, *n.* The business of raising new soldiers to supply the loss of men in an army.

Recruiting-officer, a military officer charged with the gain of recruits for the ranks.

Recruit'ment, *n.* Recruiting.

Recrystalliza'tion, *n.* Act or process of crystallizing for the second time.

Recrys'tallize, *v. n.* To crystallize over again.

Rec'tal, *a.* (*Anat.*) Belonging, or relating, to the rectum.

Rec'tangle, *n.* [Fr., from Lat. *rectangulus* — *rectus*, right, and *angulus*, an angle.] (*Geom.*) A right-angled parallelogram; a right angle made by the falling of one line perpendicularly upon another.

Rec'tangled, *a.* Having one or more right angles.

Rectan'gular, *a.* [Fr. *rectangulaire.*] Right-angled; having one or more angles of 90 degrees.

Rectangular'ity, *n.* State or quality of being right-angled.

Rectan'gularly, *adv.* With right angles.

Rectan'gularness, *n.* State or quality of being rectangular.

Rec'tifiable, *a.* Capable of being rectified; capable of being corrected or set right.

(*Math.*) Applied to curves such that straight lines can be constructed equal to any definite portion of them.

Rectifica'tion, *n.* [Fr.] Act or operation of rectifying, or of correcting, amending, or setting right that which is wrong or erroneous.

(*Chem.*) The process of refining or purifying any substance by repeated distillation. See Distillation.

R. of a curve. (*Math.*) The operation of finding an expression for the length of a definite portion of a curve.

(*Astron.*) The adjusting of a celestial or a terrestrial globe for the solution of a given problem.

Rec'tifier, *n.* One who, or that which, rectifies, corrects, or amends.

Rec'tify, *v. a.* [Fr. *rectifier*; from Lat. *rectus*, right, and *facere*, to make.] To make right, as that which is wrong, erroneous, or false; to correct; to amend.

(*Chem.*) To refine by repeated distillation, separating the grosser parts.

Rectilin'eal, Rectilin'ear, *a.* [From Lat. *rectus*, right, and *linea*, a line.] Right- or straight-lined; consisting of a right line or of right lines; bounded by right lines; straight.

Rectilinear'ity, *n.* The state or quality of being right-lined.

Rectilin'early, *adv.* In a right line.

Rec'tion, *n.* [Lat. *rectio*, *rectionis*, from *regere*, to govern.] (*Gram.*) State or power of one word requiring another to be put in a certain case or mode; government.

Rec'titude, *n.* [Fr.; Lat. *rectitudo*, from *rectus*, right, straight.] Straightness. (R.) — Rightness of principles or practice; exact conformity to truth or to the rules prescribed for moral conduct, either by divine or human laws; integrity; uprightness.

Rec'to, *n.* [Lat. *rectus*, right.] (*Law.*) A writ of right.

(*Print.*) A right-hand page; — opposed to *verso.*

Rec'tor, *n.* [Lat., from *regere*, to govern.] A ruler or governor. (R.)

(*Eccl.*) A clergyman who has the charge and care of a parish, and receives the tithes, &c.; or, the parson of an unappropriated parish.

—The head-master of a public school. — The superior officer, or chief, of a convent or religious house.

Rec'toral, *a.* Relating to government, or to a rector; rectorial.

Rec'torate, *n.* A rectorship.

Rec'toress, Rec'trix, *n.* A governess. (R.)

Rectorial, *a.* Pertaining to a rector or rectory; rectoral.

Rec'torship, *n.* The office or rank of a rector.

Rec'tortown Station, in *Virginia*, a post-village of Fauquier co., abt 130 m. N. by W. of Richmond.

Rec'torville, in *Illinois*, a post-village of Hamilton co., abt. 90 m. S.S.E. of Vandalia.

Rec'tory, *n.* A parish church, parsonage, or spiritual living, with all its rights, tithes, and glebes. — A rector's mansion; a parsonage-house.

Rec'tum, *n.* [Lat.] (*Anat.*) The third and last portion of the large intestines (Fig. 218), and so named from its running the greater part of its course in a straight line. The rectum is united above with, or rather is a continuation of, the colon, and terminates below, after a curve, at what is denominated the *anus*, where it is surrounded by the *sphincter* and *levator* muscles.

Recuba'tion, *n.* [Lat. *recubo.*] The act of lying or leaning.

Recul'tivate, *v. a.* To cultivate anew.

Recum'bency, Recum'bence, *n.* Act or posture of leaning, reclining, or lying; rest.

Recum'bent, *a.* [Lat. *recumbens*, from *recumbo*, — *re*, and *cumbo*, to lie.] Leaniug; recliuing. — Reposing; inactive; idle.

Recum'bently, *adv.* In a recumbent posture.

Recu'perable, *a.* [Fr. and Sp.] Capable of being recovered; recoverable. (R.)

Recu'perate, *v. a.* [Lat. *recupero*, from *re*, again, and *capio*, to take.] To regain; to recover. (R.)

Recuperation, *n.* [Lat. *recuperatio.*] The recovery of a thing lost.

Recu'perative, Recu'peratory, *a.* Belonging to recovery. (R.)

Recur', *v. n.* [Lat. *recurro*, from *re*, and *curro*, to run.] To resort; to have recourse; to take refuge in. — To return to the thought or mind.

Recur'rence, Recur'rency, *n.* Act of recurring; return; resort.

Recur'rent, *a.* [Fr.; Lat. *recurrens.*] Recurring from time to time; recurring at intervals.

(*Anat.*) Noting several arterial and nervous branches, which ecem to reasceud towards the origin of the truuk whence they emanate.

(*Crystallog.*) Applied to crystals whose faces, being counted in annular ranges from one extremity to the other, furnish two different numbers, which succeed each other several times, as 4, 8, 4, 8, 4.

Recur'ring, *a.* Returning regularly to the thought or mind; recurrent.

R. series. (*Math.*) A series in which each term is equal to the algebraic sum of the products obtained by multiplying one or more of the preceding terms by certain fixed qnantities, which, taken in their order, are called the *scale of the series.*

Recur'vate, *v. a.* [Lat. *recurvo.*] To bend back.

Recurva'tion, *n.* Flexure backward.

Recurve', *v. a.* [Lat. *recurvo*, from *re*, and *curvo*, to bend.] To bend, or curve, backwards or back.

Recurved', Recurv'ous, *a.* (*Bot.*) Curved outwards or backwards.

Recurviros'tridæ, *n. pl.* [Lat. *recurvus*, bent backward, and *rostrum*, a beak.] (*Zoöl.*) The Avoset family, order *Grallatores*, comprising birds which are at once distinguished by their excessively elongated legs, long and slender neck, and long and slender bill. See AVOSET.

Recur'vity, *n.* Flexure backwards; recurvation.

Recurvopat'ent, *a.* (*Bot.*) Bent back and spreading.

Recu'sant, *n.* One who refuses to acknowledge a certain power or authority.

(*Eccl. Hist.*) A term in vogue in England in the 16th and 17th centuries, and used to express any one who refused to acknowledge the king's supremacy in matters of religion and accept him as head of the Church. In this sense the term came into use in the time of Henry VIII., when that monarch, abjuring the creed and supremacy of the Catholic Church, and the Pope as head of the faith, accepted the Reformation, and, to the horror of many of his pious subjects, usurped the Papal attribute of spiritual head of the Church. In the next century, when dissent began to creep into the established religioo, the term of *recusant* was applied to any dissenter or person who, from motives of conscience, declined, or openly refused, to accept the communion as administered by the Church of England, and signified any Nonconformist, from a Covenanter to a Friend. The term at length became so odious and comprehensive that it embraced all those who, on the most trivial plea, absented themselves from church or public service, and all Catholics who firmly adhered to their faitb were stigmatized as *Popish recusants.*

Recusa'tion, *n.* [Lat. *recusatio.*] (*Civil and Canon Law.*) A plea or exception by which the defendant requires that the judge having jurisdiction of the cause should abstain from deciding, upon the ground of interest, or for a legal objection to his prejudice.— The refusal of a judge to sit for a like reason.

Recu'sative, *a.* Refusing; denying.

Recussion, (*re-kŭsh'un,*) *n.* [Lat. *recutio, recussus*, to cause to rebound.] Act of beating or forcing back.

Red, *a.* [A. S. *red, read*; Ger. *roth*; Lat. *ruber, rutilus*; Gr. *erythros.*] Of a color resembling that of arterial blood; crimson.

—*n.* The second and intermediate of the primary colors, standing between yellow and blue, and in like intermediate relation also to white and black, or light and shade. — Hence, it is preëminent among colors, as well as the most positive of all, forming with yellow the secondary orange and its near relatives, scarlet, etc.; and with blue the ecoudary purple and its allies, crimson, etc. It gives some degree of warmth to all colors, but most so to those which partake of yellow.

—*pl.* (*Med.*) The meuses.

Redact', *v. a.* [Lat. *redigo.*] To force, bring, or reduce to form. (R.)

Redac'tion, *n.* The act of digesting or reducing to form, as literary materials.

Redan', *n.* [Fr.] (*Fort.*) A sort of rampart placed in advance of the principal works, to defend the most exposed parts. The redan usually consists of a rampart of earth, and is generally looked upon as the simplest kind of field fortifications.

Fig. 2227.—REDAN.

Red-ant, *n.* (*Zoöt.*) See ANT.

Red-an'timony, *n.* (*Chem.*) A red crystalline mineral, consisting of oxide of antimony and sulphate of antimony.

Red-ash, *n.* (*Bot.*) The *Fraxinus pubescens*, a species of ash abundant in Pennsylvania. It arises 60 ft., with a straight trunk covered with bark of a deep-brown color. Leaves of about 7 leaflets, which become reddish underneath. The wood is similar to that of the whiteash, and is valuable for about the same diversified uses. See FRAXINUS.

Red Bank, in *New Jersey*, a village of Gloucester co., abt. 5 m. S.W. of Camden.

—A post-town of Monmouth co., abont 26 m. S. of New York city, on Shrewsbury river, aud on the N. J. Southern R. R. *Pop.* (1895) 4,888.

Red Bank, in *Pennsylvania*, a township of Armstrong co.—A township of Clarion co.

Red Bank Creek, in *Mississippi*, enters Coldwater river in De Soto co.

Red Bank Creek, in *Pennsylvania*, enters the Allegheny river betweeu Armstrong aud Clarion cos.

Red Bay, *n.* (*Bot.*) Seo LAURUS.

Red'-bird, *n.* (*Ornith.*) A bird of the family *Sylvicolidæ*, common in the Southern Atlantic and Gulf States. It is about 7 inches long; the bill rather straight, notched at the tip; the wings elongated. Its color is light-red, with the back more dusky.

Red Bluff, in *California*, a city, cap. of Tehama co., about 150 m. N. by W. of Sacramento, on the Sacramento river, at the head of its navigation. *Pop.* (1897) 2,880.

Red'breast, *n.* A bird so named from the color of its breast; the robin.

Redbreast'ed, *a.* Having a red breast.

Red'bred, *n.* (*Bot.*) See CERCIS.

Red'-brown, *a.* Brown mixed with red.

Red Bud, in *Illinois*, a city of Randolph co., about 24 m. S. of Belleville. *Pop.* (1897) 1,420.

Red Bud, in *Missouri*, a village of Ozark co., abt. 35 m. E.S.E. of Springfield.

Red-burn'ing, *a.* That has a fiery color.

Red'-cap, *n.* (*Zoöl.*) A species of goldfinch with the top of the head red.

Red-ee'dar, *n.* (*Bot.*) See JUNIPERUS.

Red Cedar, in *Iowa*, a village of Cedar co., abt. 20 m. E. of Iowa City.

Red Cedar River, rises in Freeborn, Minnesota, aud flowing S. enters Iowa in Mitchell co., thence pursuing an almost direct S.S.E. course to Muscatine co., it turns to the S.W. and enters the Iowa River in Louisa co. *Length*, abt. 300 m.

Red Cedar River, in *Michigan*, rises in Liviogston co., and enters Grand River at Lansing, in Ingham co.

Red Cedar (or MENOMONEE) **River,** in *Wisconsin*, rises in Dallas co., and flowing S., enters the Chippewa River in Pepin co.

Red'-chalk, (*-chawk,*) *n.* (*Min.*) A red, argillaceous iron-ore, used as a drawing material.

Red-cheeked, (*-chēkt',*) *a.* With red cheeks.

Red Clay, in *Georgia*, a post-village of Whitfield co., abt. 245 m. N.W. of Milledgeville.

Red'clay Creek, rises in Chester co., Pennsylvania, and flowing S.E. into Delaware, joins Whiteclay Creek in New Castle co. to form the Christiana.

Red'coat, *n.* A name given to an English soldier, in vulgar parlance;—derived from the color of his uniform.

Red Copper-ore, *n.* (*Min.*) Native dioxide of copper, or Cu_2O, containing 88·8 per cent. of copper and 11·2 per cent. of oxygen. It is of a deep-red color, which usually can only be seeñ by transmitted light. The variety crystallizing in the octahedral form is called *Cuprite;* a lighter red fibrous variety is called *Chalcotrichite*, or *Ptush Copper-ore;* while the massive, or earthy kind, is known as *Brick* or *Tile-ore* (Ziegelerz).

Red Cor'al, *n.* See CORAL.

Red Creek, in *California*, enters the Sacramento River between Colusa and Shasta cos.

Red Creek, in *Mississippi*, enters Black Creek in Jackson co.

Red Creek, in *New York*, a post-village of Wayne co., abt 160 m. N.W. by W. of Albany.

Red Cur'rant, *n.* (*Bot.*) See RIBES.

Redden, (*red'dn,*) *v. a.* To make red or roseate.

—*v. n.* To grow or become red or rosy; to blush; to flush, as with anger or confusion.

Red Deer, *n.* (*Zoöl.*) See DEER.

Red Deer, a river and small lake of British N. America, the former of which joins the Saskatchewan River abt. Lat. 50° 40′ N., Lon. 110° 5′ W.

Redden'dum, [Lat.] (*Law.*) That clause in a deed by which the grantor reserves something new to himself out of that which he granted before.

Red'ding, in *Indiana*, a township of Jackson co., containing the post-village of Reddington, abt. 16 m. N.E. of Brownstown.

Red'dish, *a.* Somewhat red; moderately red; rosy.

Red'dishness, *n.* Redness in a moderate degree.

Red'ditch, a town of England, co. of Worcester, 12 m. S.S.W. of Birmingham. *Manuf.* Needles, pins, fishhooks, and fishing-tackle. *Pop.* 5,570.

Reddition, (*red-dish'un,*) *n.* [Lat. *redditio*, from *reddo* — from *re*, and *do, dare*, to give.] Act of giving back or restoring; restitution.—Explanation; representation.(R.)

Redditive, *a.* [Lat. *redditivus.*] (*Gram.*) Answering to an interrogative.

Red Dog, in *California*, a post-village of Nevada co., abt. 40 m. E. of Marysville.

Rede, *v. a.* To advise; to counsel. (Local Eng.)

Redeem', *v. a.* [Lat. *redimo*, from *re*, and *emo*, to buy, to purchase.] To buy or purchase back; to repurchase. — To ransom; to liberate or rescue from captivity or bondage, or from any obligation or liability to suffer, or to be forfeited by paying an equivalent for. — To rescue; to recover; to deliver from. — To improve or employ to the best purpose, as time. — To recompense; to compensate; to make amends for. — To pay the penalty of; to suffer for.

Redeem'able, *a.* That may be redeemed; capable of redemption; as, *redeemable* property. — Payable or purchasable in bullion, and capable of being thus brought into the possession of government, or the original promisor; as, *redeemable* capital.

Redeem'ableness, *n.* State or quality of being redeemable.

Redeem'er, *n.* One who redeems or ransoms. — Specifically, the Saviour, Jesus Christ.

Redelib'erate, *v. a.* To deliberate anew.

Redeliv'er, *v. a.* To deliver back. — To deliver anew; to set free a second time; as, to *redeliver* a captive.

Redeliv'erance, *n.* A second deliverance.

Redeliv'ery, *n.* Act of delivering back; as, the *redelivery* of a letter.— A second delivery or liberation, as of a prisoner.

Redemand', *v. a.* [Fr. *redemander.*] To demand back again.

—*n.* A demanding back again.

Redemand'able, *a.* That may be demanded back.

Redemise, (*-mīz',*) *v. a.* To convey or transfer back, as an estate.

—*n.* (*Law.*) Reconveyance; as, the demise and *redemise* of an estate.

Redemp'tible, *a.* Redeemable; that may be redeemed.

Redemp'tion, *n.* [Fr., from Lat. *redemptio.*] Act of redeeming, or state of being redeemed; repurchase; ransom; release; rescue; deliverance; as, the *redemption* of prisoners of war, the *redemption* of a ship and cargo; — hence, specifically

(*Com.*) Repurchase by the issuer of bills, notes, or other certificates of indebtedness, by making payment to the holder thereof.

(*Theol.*) Our recovery from sin and death by the obedience and sacrifice of Christ, who is on this account called the *Redeemer.*

(*Law.*) The deliverance of an estate from a mortgage; or the taking back of mortgaged property upon performance of the terms or conditions attending its conveyance; also the right of redeeming and of reëntry upon an estate mortgaged.

Redemp'tionary, *n.* One who is, or may be, redeemed. (a.)

Redemp'tioner, *n.* One who effects self-redemption. — Formerly, an emigrant from the Old World to the New, whose services were mortgaged for a stipulated term, to defray the cost of his passage.

Redemp'tive, *a.* Serving to redeem; redeeming; as, the *redemptive* mission of the Saviour.

Redemp'torists, *n. pl.* (*Eccl. Hist.*) A religious order among the Roman Catholics, founded by Alphonso de Liguori, *q. v.*, in the city of Scala, in 1732, and secured the approval of Pope Benedict XIV. in 1749. Besides the usual monastic vows, they bind themselves to labor for the propagation of the Catholic faith, and have for their principal system of action the conducting of *missions*, which last from one week to one month, during which time the missionaries endeavor to prevail upon all the members of a church for a thorough reformation of their life. They have 10 houses in the United States — at Annapolis, Baltimore, Buffalo, Cumberland, Detroit, New Orleans, New York, Philadelphia, Pittsburg, and Rochester. An independent organization, called the *Paulists*, was founded some years ago for missionary purposes better suited for this country, by some American Redemptionists, who left the congregation with the authority of the Pope, and organized a first house in New York in 1858. A congregation of Redemptorist nuns, also, founded by St. Liguori, but which never extended itself widely, has a house in Third street, New York.

Redemp'tory, *a.* Serving to redeem; applied to ransom.

Redent'ed, *a* Indented like the teeth of a saw.

Redescend, (*-de-sĕnd',*) *v. n.* [Fr. *redescendre.*] To descend again.

Redeye, (*red'ī.*) *n.* (*Zoöl.*) A European fish, *Leuciscus erythrophthalmus*, belonging to the family *Cyprinidæ*, so called from the color of its iris; —also called *Rudd.* — An American vulgarism for fiery new whisky.

Red'field, in *Iowa*, a post-town of Dallas co., about 33 m. W. of Des Moines.

Redfield, in *New York*, a post-township of Oswego county.

Red'-fire, *n.* (*Pyrotech.*) A pyrotechnical compound which burns with a beautiful red or pink flame. It consists of nitrate of strontia, mixed with charcoal and a little sulphur and chlorate of potash.

Red'ford, in *Michigan*, a post-village and township of Wayne county, abt. 13 m. N.W. of Detroit. *Manuf.* Cheese and flour.

Redford, in *New York*, a post-village of Clinton co., abt. 140 m. N. of Albany.

Red Gourd, *n.* (*Bot.*) See CUCURBITA.

Red'grave, RICHARD, R. A., an English painter, b. in Pimlico, London, 1804. His best works are—*The Sempstress*

stress; The Solitary Pool; Little Red Riding-Hood; The Mid-wood Shade; and *The Country Cousins.* He is also the author, in conjunction with his brother, S. Redgrave, of a history of British art, published in 1866, under the title of *A Century of Painters.*

Red Gum, *n.* (*Med.*) An eruptive disease to which children at the breast are very subject, particularly about the time when the gums first begin to get hard and painful. Though very often excited by irritation, it sometimes proceeds from some imperfection of the milk, or disordered state of the mother or nurse's system. The eruption commences with a crop of very small, hard pimples, of a pale-red or pinkish color, which, from the whiteness of the skin surrounding the patches, gives the rash a more positive appearance than it otherwise would have. The eruption is attended with considerable itching, causing the infant great irritation: it may continue from two to three days, and usually terminates by a slight desquamation. This is a very harmless affection, and merely requires a warm bath to allay the itching and relieve the breathing, which is sometimes affected when the eruption is full. A little mild aperient medicine, such as magnesia, with a small quantity of manna dissolved in water, may be given night and morning.

—A disease found in grain, being a kind of blight.

Red'-hand, *adv.* In the very act (*flagrante delicto*), as it were, with hands reddened with blood; — said of one caught in the act of homicide.

—*n.* (*Her.*) Same as BLOODY-HAND, *q. v.*

Red'-head, *n.* A person having hair of a red or reddish hue.

(*Zoöl.*) See AYTHYA.

(*Bot.*) A plant (*Asclepias curassivica*). See ASCLEPIAS.

Red'-heat, *n.* A degree of heat amounting to redness.

Red Hook, in *New York*, a post-township of Dutchess co

Red-hot, *a.* Red with heat; heated to vivid redness.

Red House, in *New York*, a township of Cattaraugus co

Red House, in *Virginia*, a post-village of Charlotte co., abt. 112 m. S.W. of Richmond.

Red'lent, *a.* [From Lat. *redire*, to return.] Returning; going back. (R.)

Redigest, (*-jĕst'*,) *v. a.* To digest anew; to reduce to form a second time.

Redimin'ish, *v. a.* To diminish again, or anew.

Redin'tegrate, *v. a.* [Lat. *re*, again, and *integrare*, to renew; Fr. *réintégrer.*] To make whole again; to renew; to renovate; to restore to a state of integrity or soundness.

Redintegra'tion, *n.* [Lat. *redintegratio — re*, and *integro*, to make whole.] Renewal; renovation; restoration to a whole or sound state.

(*Chem.*) The restoration of any mixed body or compound to its integral constituent parts.

Red Iron-ore, *n.* (*Min.*) A name under which are included those varieties of Hæmatite which have a non-metallic or submetallic lustre.

Redisburse', *v. a.* To repay; to refund; to reimburse.

Rediscov'er, *v. a.* To discover afresh, or again.

Redispose', *v. a.* To dispose or adjust anew.

Redisseize', Redisseise', *v. a.* (*Law.*) To disseize a second time.

Redissei'zin, *n.* (*Law.*) A disseizin by one who once before was adjudged to have disseized the same person of the same lands, &c.; also, a writ which lay in such a case.

Redisseiz'or, *n.* One who redisseizes.

Redissolve, (*-zŏlv,*) *v. a.* To dissolve anew, or a second time.

Redistrain'er, *n.* [*re* and *distrainer.*] One who distrains again, or time after time.

Redistrib'ute, *v. a.* [*re* and *distribute.*] To distribute again.

Redistribu'tion, *a.* A second distribution; a dealing back.

Redivide', *v. a.* To divide again, or anew.

Red Lake, in *Minnesota*, a lake of considerable extent, situated in Beltrami county. It consists of two large bodies of water connected by a narrow strait. It receives numerous streams, and has its outlet in Red Lake river, which flows west into the Red River of the North.

Red Land, in *Arkansas*, a township of Hempstead county.

Red Lead, *n.* (*Min.*) See MINIUM.

Red'-letter, *n.* Having, or marked by, red letters.

Red-letter day, a fortunate or auspicious day; — so called because the holidays, or saints' days, were marked in the old calendar with red letters.

Red Lion, in *Delaware*, a post-village and hundred of New Castle co., about 12 miles S.W. of the city of Wilmington.

Red Lion, in *New Jersey*, a village of Burlington co., abt. 9 m. S.W. of Mount Holly.

Red-liquor, (*-lik'ur,*) *n.* (*Chem.*) A crude acetate of alumina, employed as a mordant in calico-printing.

Red'ly, *adv.* With redness; so as to be, or make to be, red.

Red'man, in *Iowa*, a village of Tama co., abt. 37 m. W. of Cedar Rapids.

Red Mul'berry, *n.* (*Bot.*) See MORACEÆ.

Red'ness, *n.* [A. S. *readnesse.*] State or quality of being red; red hue or color.

Red Oak, in *Iowa*, a post-village and township of Cedar co., abt. 6 m. N. of Tipton;—A township of Montgomery co.

Red Oak Creek, in *Georgia*, enters Flint River from Merriwether co.

Red'olence, Red'olency, *n.* [From *redolent.*] State or quality of being redolent; fragrance; perfume; sweetness of scent or smell; as, the *redolence* of flowers.

Red'olent, *a.* [Lat. *redolens*, from *redoleo — re*, and *oleo*, to smell.] Having or diffusing fragrance, or a sweet scent; odorous; full of perfume; — often followed by *of.*

"Thy odours, O how *redolent!*" — *Sandys.*

Red'ou, a town of France, dept. of Ille-et-Vilaine, on the Vilaine, 38 m. N.W. of Nantes. *Manuf.* Serges. Shipbuilding is extensively carried on. *Pop.* 6,000.

Redouble, (*-dŭb'l,*) *v. a.* [Fr. *redoubler.*] To double again; to repeat in return; to repeat often; to increase by repeated or continued efforts; as, he *redoubled* his attentions.

—*v. n.* To double again; to become twice as much; to suffer considerable augmentation.

Redoubt, Redout, (*re-dowt',*) *n.* [Fr. *redoute.*] (*Fort.*) A term applied to nearly every kind of work intended to fortify military positions. It is also used to signify works constructed within others, so as to prolong their defence; and to detached works used to secure some portion of ground which would be of advantage to the besiegers.

—*v. a.* [Fr. *redoubter.*] To regard with favor; to stand in awe or dread of: as, "my most *redoubted* lord." *Shaks.*

Redoubtable, Redoutable, (*-dout'a-bl,*) *a.* [Fr., from *redouter;* Lat. *re*, and *dubito*, to doubt.] Formidable; awe-inspiring; terrible to foes; as, a *redoubtable* warrior; — hence, valorous; — sometimes in contempt or burlesque; as, my *redoubtable* rival, the counter-jumper.

Redon'da, an island of Brazil, off the entrance of the Bay of Rio de Janeiro.

Redon'da, an islet of the British W. Indies, between the islands of Nevis and Montserrat; Lat. 16° 55′ N., Lon. 62° 19′ W. — An islet of the British W. Indies, off the N. extremity of the island of Grenada.

Redound', *v. a.* [Fr. *redonder;* Lat. *redundo — re*, and *undo*, to surge, swell.] To flow back, as waves; to be sent, rolled, or driven back.

"Driven back, *redounded*, as a flood." — *Milton.*

—To conduce to the consequence; to contribute; to result; to produce in the effect; as it *redounds* to his honor. — To overflow; to be in excess or abundance; to be over and above in quantity.

—*n.* Return, as of consequence or effect; result; requital; as, "*redound* of glory." (*Tennyson.*) — Rebound; reverberation; echo. (R.)

Redo'wa, *n.* A slow and graceful dance in triple time.

Red'-poll, Red'-pole, *n.* (*Zoöl.*) See LINNET.

Redraft', *v. a.* To draft, draw, or delineate anew; as, to *redraft* a sketch or document.

—*n.* A second draft or copy.

(*Com.*) A new bill of exchange which the holder of a protested bill draws on the drawer or indorsers, by which he effects reimbursement to himself the amount of the protested bill, with all incidental costs and charges.

Redraw', *v. a.* To draw anew; to draw a second draft or copy.

—*v. n.* (*Com.*) To draw a new bill of exchange, as the holder of a protested bill, on the drawer or indorsers.

Redress', *v. a.* [Fr. *redresser*, from It. *dirizzare*, from Lat. *re*, and *dirigo, directus*, to lay or make straight.] To set right or straight; to amend; to rectify. (R.) — To set right, or remedy, as a wrong; to repair, as an injury; to ease or relieve from; to make amends for; as, to *redress* grievances. — To make compensation or amends to; to relieve of something unjust, obnoxious, or oppressive; to grant relief to.

—*n.* A setting right or straight; reformation; amendment. (R.) — A rectifying; an adjusting; relief; remedy; reparation; deliverance from wrong, injury, or oppression; as, to seek *redress* from the law. — A redresser; one who administers relief.

Redress'al, *n.* Act of redressing; state of being redressed; redress.

Redress'er, *n.* One who makes or gives redress.

Redress'ible, *a.* That may be redressed or relieved; reparable; as, a *redressible* wrong.

Redress'ive, *a.* Giving redress, or affording relief or succor; as, *redressive* measures.

Redress'less, *a.* Without redress, relief, or amendment.

Redress'ment, *n.* Redress; redressal; act of redressing.

Redriv'en, *p. a.* Driven back, or again.

Red River, the most S. of the great tributaries of the Mississippi River, is formed by the confluence of several branches, in the N.W. part of Texas, and flowing generally E. by S., between that State and Indian Territory, into Arkansas, turns to the S., and enters Louisiana. Thence traversing the latter State in a S.E. direction, it joins the Mississippi River between Concordia and Avoyelles parishes; Lat. 31° N., Lon. 91° 50′ W. The sources of the *R. R.* rise in the deep fissures or *cañons* of a sterile table-land, known as *El Llano Estacado;* thence, for about 500 m., their course is through an arid, sandy plain, almost totally destitute of vegetation. The banks then begin to contract, and the bed to deepen, but the shores remain low, and are subject to frequent inundation. Immense forests now appear, and the adjoining land becomes as preëminently fertile as it was before sterile. At certain points, owing to the light, alluvial nature of the banks, the earth is washed down, carried along, and deposited at other points, so as to entirely change the channel of the river. Large quantities of drift-wood collect also, and by choking up the bed of the river, cause the country to be inundated for miles around. One of these *great rafts*, as they are called, was removed by the U. States government in 1834–5, at an expense of $300,000. Length of main stream, abt. 1,200 m.; including longest fork, 2,100 m.; navigable abt. 500 m.

Red River, in *Arkansas*, a township of Stone county.

—A township of Van Buren county.

—A township of White county.

Red River, in *Kentucky*, enters the Kentucky River between Clark and Estill cos.

Red River, in *Michigan*, enters Clinton River from Macomb co.

Red River, in *Tennessee*, enters the Cumberland River in Montgomery co.

Red River, in *Texas*, a N.E. co., adjoining Indian Territory; *area*, abt. 1,100 sq. m. *Rivers.* Red River and its Sulphur Fork. *Surface*, mostly level; *soil*, exceedingly fertile, producing a great abundance of cotton, corn, and hay. *Cap.* Clarksville. *Pop.* (1897) 22,650.

Red River Country, or PRINCE RUPERT'S LAND. See NORTHWESTERN TERRITORIES OF CANADA.

Red River of the North, rises among the numerous lakes in Otter Tail co., Minnesota, and flows a circuitous S. and W. course to the W. boundary of the State. Thence pursuing an almost direct N. course between Minnesota and Dakota, it enters British N. America, and empties into Lake Winnipeg. *Length*, abt. 700 m.

Red Rock, in *Iowa*, a village and township of Marion co., about 95 m. W. S.W. of Iowa City.

Red Rock, in *Minnesota*, a township of Mower co.

—A former post-village of Ramsey co., about 6 m. S.E. of St. Paul.

Red-root, *n.* (*Bot.*) *Lacnanthes tinctoria*, a plant of the ord. *Hæmodoraceæ*, found in swamps and on borders of ponds throughout the U. States. It is an interesting plant, with rush-like leaves. Stem erect, strict, 18–24′ high, clothed with white wool above. Leaves mostly radical, fleshy, 3–4″ wide and nearly as high as the stem. Corymb terminal, close, 15–30 flowered. Flowers densely clothed with white wool outside, glabrous and yellow within. Anthers bright-yellow. The root is said to be employed in dyeing. (*Wood.*) — Also a plant of the genus CEANOTHUS, *q. v.*

Red'ruth, a town of England, co. of Cornwall, 9 m. N. W. of Falmouth; *pop.* 8,600.

Red-san'dal, Red San'ders, *n.* (*Bot.*) See PTEROCARPUS.

Red Sea. An arm of the Indian Ocean, communicating with the Gulf of Aden by the Straits of Bab-el-Mandeb, 13½ m. in width, and running N.N.W. in a long, deep, and narrow channel between Arabia and Africa to the Isthmus of Suez, through which it has an artificial communication with the Mediterranean by way of the Suez Canal. Its length is about 1,200 m., and its greatest width about 205 m. Its central portion is from 100 to 200 m. wide, while it narrows in the S., and in the N. is divided by the peninsula of Sinai into two gulfs, the Gulf of Suez, 170 m. long by 30 wide, and the Gulf of Akaba, 100 m. long. It is remarkable for the desolateness of the regions which adjoin the bare volcanic rock on its shores and bottom, and the high temperature of its waters, which increases from Suez southward until it amounts to upward of 84°. This is but little below the tropic temperature of the Pacific, while the lack of cooling winds renders it difficult to endure. On the Arabian side the *R. S.* is bordered by narrow sandy plains, closed in by ranges of barren mountains. The African border lands are flat and sandy in the north, while to the south high tablelands rise inland, which in Abyssinia become lofty mountains. The navigation is rendered dangerous by coral reefs, which run parallel to both shores. A dangerous reef, named the Dædalus, lies in the path of steamers in Lat. 24½° N., on which a lighthouse has been placed. The principal harbors on the Arabian side are Mocha, Jedda, Hodeida, Lokeyyah, and Yenbo; on the African side, Massowah, Suakin, and Khor Nowarat. The greatest depth in the *R. S.* is about 1,200 fathoms, and the mean depth about 375 fathoms. The evaporation is great and the air always very moist in summer, which adds greatly to the oppressiveness of the temperature. Owing to the absence of rivers, the bottom deposits resemble those of the open ocean, the marine flora and fauna being quite extensive. The *R. S.* was much used by the Phœnicians and other maritime peoples of ancient times, and has been revived to a large extent in modern times since the excavation of the Suez Canal. A very large steamer traffic now makes use of its waters. See SUEZ, CANAL OF.

Redsear', *v. n.* To crack when red-hot, as metal under the forge-hammer;—a term employed by forgemen.

Red'shank, *n.* A bare-legged person;—a contemptuous epithet formerly applied to the Scots Highlanders, in allusion to their exposed legs.

Red'short, *a.* Breaking short when red-hot, as a metal;—a term in use among forgemen.

Red'-silver, *n.* (*Min.*) A mineral of a black color, sometimes approaching to cochineal-red, and consisting of sulphur, antimony, and silver.

Red'start, REDTAIL, *n.* (*Zoöl.*) The *Setophaga ruticilla*, family *Sylvicolidæ*, a bird of the United

Fig. 2228. — REDSTART.

States, E. of the Missouri, is abt. 5 inches long, the wing 2½ inches, the general color black, the sides of the breast and base of the quills and tail reddish-orange, and the abdomen white. This is one of the handsomest and liveliest birds of our forests. It is almost constantly hunting insects along the branches, and with every movement it opens and shuts its beautiful tail, then flirts it from side to side, and at the same time utters its pleasing *te-tee-whee*. The nest is built upon a low bush, and appears to hang to the twigs; eggs four to six, white, sprinkled with ashen-gray and blackish dots.

Red Stone, in *Minnesota*, a post-village of Nicollet co., abt. 5 m. S.E. of New Ulm.

Red Stone, in *Pennsylvania*, a post-township of Fayette co.

Red Stone Creek, in *Pennsylvania*, enters the Monongahela River from Fayette co.

Red'streak, *n.* A kind of apple covered with red streaks;—whence the name. — Cider made from the red-streak apples.

Red Sulphur Springs, in *West Virginia*, a post-village of Monroe co., about 240 m. W. of Richmond.

Red'-tape, *a.* Pertaining or relating to officiul formality and routine.

Red-tap'ism, *n.* Official formality or routine; circumlocution.

Red-tap'ist, *n.* A routinist; a precisian in official etiquette and formalities.

Red'top, *n.* (*Bot.*) A species of plants, genus *Agrostis, A. vulgaris*. It is a common and very valuable grass, spread over hills, vales, and meadows, forming a soft, dense turf; flowers very numerous, purplish.

Rednce', *v. a.* [Lat. *reduco—re*, and *duco*, to lead; Fr. *reduire*.] To bring to any state or condition, good or bad, but generally one of diminution;—before *ta;* as, to *reduce* a person *ta* indigence; to *reduce* a mass *ta* powder. — To bring down; to lower; to make less in length, breadth, thickness, size, quantity, or value; to bring down in dignity or excellence; to degrade; to impair; as, to *reduce* one's cost of living, to *reduce* a commissioned officer to the ranks, to *reduce* the amount of a bill, to *reduce* the strength of alcoholic liquors, a member of a *reduced* family, &c. — Hence, to bring into submission or subjection; to make subservient; as, to *reduce* a country. — To bring, as into a class, order, genus, species, arrangement, classification, &c.; to place within certain limits of description; as, to *reduce* language to rules, to *reduce* vegetables to a class or classes.

(*Arith.*) To change, as numbers, from one denomination to another, without altering their value; as, to *reduce* a dollar to a hundred cents, or conversely.

(*Metall.*) To separate, as a metal from other combined or associated substances.

(*Surg.*) To restore to its proper place or position, as a displaced organ, joint, or part; as, to *reduce* a dislocation.

To reduce a figure, design, or *draught.* To make a copy of such on a smaller scale than the original, but maintaining the form and proportion. — *Ta reduce a fortified place.* To take it by investment and capture. — *To reduce an equation.* (*Math.*) In algebra, to bring the unknown quantity by itself on one side, and all the known quantities on the contrary side, without destroying the equation. — *Ta reduce a square.* (*Mil.*) To reform the column from the square. — *To reduce ta the ranks,* to degrade, as a non-commissioned officer for misconduct or insubordination, to the inferior position of a private soldier.

Reduce'ment, *n.* Act of reducing; reduction; restoration; act of bringing back.

Reducent, (*-dū'sent,*) *a.* [From Lat. *reducere.*] Having a tendency to reduce.

—*n.* That which serves to rednce.

Redncer, (*-dū'ser,*) *n.* One who reducea or hringa down; as, a *reducer* of the public taxes.

Redncible, (*-dū'si-bl,*) *a.* That may he reduced; convertihle; as, *reducible* currency.

Redu'cibleness, *n.* State or quality of being redncible; as, the *reducibleness* of spirits of wiue.

Rednct', *n.* [L. Lat. *reductus*, a refuge, an asylum.] (*Arch.*) A quirk, or small place, taken out of a layer to make it more regulur aud uniform, or for some other convenience.

Reduc'tion, *n.* [Fr., from Lat. *reductia.*] Act of reducing, or state of bcing reduced; act of making less, or state of heiug made lcss; ahatement; diminution; curtailment; conquest; as, the *reduction* of chaos to order, the *reduction* of one'a personal expenditure, the *reduction* of spirits to helow proof, the *reductian* of an euemy's fortress, &c.

(*Metull.*) The procesa of separating a metal out of a metallic oxide, sulphide, &c. In some cases, this is effected simply by heat, but generally by the joint action of heat and deoxidizing agents. Upon the larger scale, coal, coke, or charcoal is almost always resorted to. See SMELTING.

(*Arith.*) The act or operation of changing numhers from one denomination to another without altering their value, or of changing numhers of one denomination into others of the same valne; as, the *reductian* of pouuds to grains, or *vice versâ*, the *reduction* of fractious to a common denominator, &c.

(*Algeb.*) The act or operation of solving an equation by hringing the unknown quantity by itself on one side, and all the known quantities on the opposite side, without destroying the equation.

—The act or process of making a copy of a design, figure, or sketch on a smaller scale than the original, while maintaining the true form and proportion.

(*Astron.*) The correction of observations for manifest errors of instruments; the collectiou of observations ⁂ gain a gencral result.

(*Lagic.*) The bringing of a syllogism in one of the so-called imperfect modes to a mode in the first figure.

(*Surg.*) Act or operation of replacing a dislocated or fractured organ, joint, &c., to its former position; as, *reduction* of hernia.

R. ascending. (*Arith.*) The operation of altering nmuhers of a lower into others of a higher denomination, as cents into dollars. — *R. descending* is the *converse* of the foregoing operation.

Redne'tive, *a.* [Fr. *reductif.*] Tending to reduce; having the power or property of reduction.

Rednc'tively, *adv.* By reduction; consequentially.

Redun'dance, Redun'dancy, *n.* [Fr. *redundance;* Lat. *redunduntia.*] State or quality of being redundant; excess, or superfluous quality or condition; superahundance; as, *redundancy* of flesh.—That which is redundant, superfluons, or in excess; as, *redundancy* of words to express a simple meauing.

Redun'dant, *a.* [Fr.; Lat. *redunduns*, from *redundo.*] Overflowing; superfluous; excessive; superabundant; exceeding what is natural, usual, or necessary; as, a *redundant* quantity of fat or bile.

—Using more words or illustrutions than are useful or necessary; diffuse; copious; verbose; as, a *redundant* author.

Redun'dantly, *adv.* In a redundant manner; with excess or superfluity; superfluously; exuberantly; superabundantly.

Redu'plicate, *v. a.* [Lat. *reduplico — re*, and *duplico*, to double.] To double again; to redouble; to multiply; to repeat.

(*Grum.*) To repeat the first letter, or letters, of.

—*a.* Double; reduplicative; as, *reduplicate* numbers.

(*Bot.*) Characterized, in æstivation, by a variation of the valvate form in which the margins of the leaves project outward, instead of inward.

Redupliea'tion, *n.* [Fr.] Act of doubling; also, state of being doubled.

(*Pras.*) A figure wherein the first word of a verse is the samo as the last word of a preceding verse.

(*Gr. Gram.*) A prefix to a verb, formed hy a repeating of the labial consonant, generally followed by *E.*

Redu'plicative, *a.* [Fr. *réduplicutif.*] Double; as, a *reduplicative* proposition.

Red Vermil'ion, in *Kansas*, a township of Nemaha co.

Red'-water, *n.* (*Farriery.*) A disease in cattle, presenting an appearance resembling blood in tho urinc.

Red'wing, *n.* (*Zoöl.*) A Europeau species of Thrush, *Turdus iliacus.*

Red'wing, in *Minnesota*, an important city, cap. of Goodhue co., 41 m. below St. Paul, on the Mississippi river, and the C., M. & St. Paul, and 2 other R. Rs. Has extensive manuf. and ships large quantities of wheat. *Pop.* (1895) 7,685.

Red'wood, *n.* (*Bot.*) The uame of an Indian dyewood, obtained from *Pterocarpus santalinus.* The Redwood of the Turks is the wood *Cornus mascula;* that of the Bahamas comes from *Ceanothus colubrinus;* that of Jumaica, from *Gordonia hæmatoxylon;* and that of the timber trade from *Sequoia sempervirens.*

Redwood, in *Minnesota*, a S.W. co.; *area*, 870 sq. m.; drained hy the Minnesota, Redwood, and Big Cottonwood rivers. *Surface*, level; *soil*, fertile. *Cap.* Redwood Falls. *Pop.* (1895) 13,533.

Redwood Falls, in *Minnesota*, a city, cap. of Redwood co., on Chic. & N. W. nud Minn. & St. L. R. Rs., 40 m. N.W. of New Ulm. *Pop.* (1895) 1,589.

Redwood, in *New York*, a post-village of Jefferson co.

Redwood City, in *California*, a post-town, cap. of San Mateo co., ahout 26 m. S. of San Francisco. It contains many fine edifices, nnd is thriving rapidly. *Pop.* (1897) about 2,000.

Reëcho, (*re-ek'o,*) *v. a.* To echo back; to reverherate.

—*v. n.* To echo back; to return hack or he revcrberated, as an echo.

—*n.* The echo of an echo; a repeated echo.

Reech'y, *a.* [A modification of *reeky*, q. v.] Smoky; sooty; tanned; as, a "*reechy* neck." — *Shaks.*

Reed', *n.* [A. S. *hreod;* Du. *riet;* Ger. *rahr.*] (*Bot.*) See ARUNDO.

(*Mus.*) An instrument originally made of a reed; a pastoral pipe. — A thiu tougue of wood or metal (formerly made actually from a reed), which, heing set in vibration hy the action of wind, gives the sound to certain musical instruments, as the oboe, the clarionet, and the bassoon; as nlso in certain stops of the organ, in the harmonium, and the concertina. Sometimes the reed beats against its seat, and sometimes it is free, the latter variety heing called the *free-reed.*

—An arrow, as made of a reed, and headed.

—Prepared straw for thatching a roof. (Prov. Eng.)

(*Weaving.*) A frame of parallel flat strips of wood, through which the warp-threads pass, set in the lathe or batten.

Reed-organ. (*Mus.*) A wind-instrument of music, in which the wind acts on a set of reeds, resembling the melodeon, &c.—*Reed-pipe*, a pipe of an organ furnished with reeds. — *Reed-stop*, a set of pipes in an organ supplied with reeds.

Reed, in *Illinois*, a township of Will co.

Reed, in *Ohio*, a township of Seneca co.

Reed, in *Pennsylvania*, a township of Dauphin county.

Reed-bird, *n.* (*Zoöl.*) The BOBOLINK, *q. v.*

Reed'-buck, *n.* (*Zoöl.*) A species of South Africa antelope, *Elentragus arundinaceus.*

Reed-bunt'ing, Reed-spar'row, *n.* (*Zoöl.*) A bird of the genus PLECTROPHANES, *q. v.*

Reed'ed, *a.* Covered with reeds. — Formed with ridges like reeds; as, *reeded* pipes.

Reed'er, in *Kansas*, a township of Anderson co. —A village of Kiowa co.

Reed'-grass, *n.* (*Bot.*) See SPARGANIUM.

Re-edifica'tion, *n.* [Fr.] Act of rehuilding; state of being rebuilt.

Re-edify, *v. a.* [Fr. *réédifier.*] To rehuild. (R.)

Reed'ing, *n.* (*Arch.*). A small convex moulding.

Reed'-mace, *n.* (*Bot.*) The cat-tail. See TYPHA.

Reed River, or **Red River,** in *Wisconsin*, a township of Kewauuee co.

Reeds'burg, in *Ohio*, a post-village of Wayne co., about 10 m. W.N.W. of Wooster.

Reedsburg, in *Wisconsin*, a city and township of Sauk co., on the Chicago and Northwestern R.R., 45 m. N.W. of Madison; has some mauufacturiug iudustries *Pop.* (1895) 2,116.

Reed's Cor'ners, in *Wisconsin*, a village of Fond du Lac co., abt. 26 m. N. hy W. of Horicon.

Reeds'ville, in *Ohio*, a post-village of Meigs co., abt. 18 m. N.E. of Pomeroy.

Reedsville, in *Pennsylvania*, a post-village of Mifflin co., abt. 8 m. N. of Lewistown.

Reedsville, in *Wisconsin*, a post-village of Manitowoc co., abt. 16 m. N. hy W. of Manitowoc.

Reed'y, *a.* Abounding with reeds. — Resembling a reed in quality of tone, *i. e.*, harsh and thick, as a voice.

Reed'y Island, an island and lighthouse in the Delaware River, at the head of Delaware Bay. It exhibits a fixed light 55 ft. high.

Reedy Island River, in *Virginia*, rises in the Blue Ridge, and enters Kanawha River from Carroll co.

Reedy River, in *S. Carolina*, enters the Saluda River between Laurens and Abbeville dists.

Reef, *n.* [D.; Dan. *rift;* probably akin to A. S. *reafian;* Goth. *raupjan*, to seize, to pluck] (*Naut.*) That part of a sail, between the head and a reef-band, which is folded or rolled up to contract the sail, when the force of the wind renders it necessary.

Reef-band. (*Naut.*) A piece of canvas sewed across a sail, to strengthen it in the part where the eyelet-holes are formed for reefing. — *Reef-line*, a small rope formerly used to reef the courses, by being passed spirally round the yard and through the holes of the reef. — *Reef-points*, flat pieces of braided cordage tapering toward each end, and passed through the holes in the reef-band of a sail, used in reefing it. — *Reef-tackle*, a tackle by which the reef-cringles or rings of a sail are hauled up to the yard for reefing.

—*v. a.* (*imp.* and *pp.* REEFED,) (*rēft.*) (*Naut.*) To haul in or reduce the extent, as of a sail, by rolling or folding a certaiu portion of it and making it fast to the yard; as, to *reef* topsails,

Reef, *n.* [D. *rif;* Ger. *riff;* Dan. *rev.*] A chain or ridge of rocks lying at or near the surface of the water; a range of sandbanks hecoming dry at certain states of the tide; as, the ship struck on a *reef.*

Reefer, *n.* (*Naut.*) One who reefs; — a term frequently given, in the navy, to midshipmen; as, Rattlin the *Reefer.*

Reefy, *a.* Ahounding in reefs, rocks, or sandbanks.

Reek', *n.* [A. S. *eăc, ræc;* Ger. *ranch.*] Smoke; vapor; steam; as, the *reek* of a lime-kiln. —A stack; a rick. — See RICK.

—*v. a.* To smoke; to steam; *ta* exhale; to emit warm or moist vapor; as, *reeking* with the fumes of tobacco.

Reek'y, *a.* Smoky; foul; soiled with smoke or steam.

Reel', *n.* [A. S. *hreol, real;* Ger. *rolle.*] An instrument that rolls or turns, as on an axis, and on which yarn, thread, lines, &c., are wound.

(*Dancing.*) A lively dance peculiar to Scotland, exhibiting a whirling or circular motion.

—*v. n.* To wind upon a reel, as thread or yarn from the spindle.

Reel, *v. a.* [Swed. *ragla.*] To stagger; to incline or move in walking, first to one side and then to the other; to move, as though under the influence of vertigo; to vacillate.

Reeling-ripe, inebriated so as to stagger in one's gait.

Reëlect', *v. a.* To elect again, or for the second time.

Reëlection, (*-lĕk'shun,*) *n.* Election for the second time.

Reële'vate, *v. a.* To elevate anew.

Reëligibil'ity, *n.* Power of being reëlected to the same office.

Reëligible, (*-ĕl'i-ji-bl,*) *a.* Capable of being elected a second time to the same office.

Reels'ville, in *Indiana*, a post-village of Putnam co., abt. 26 m. E.N.E. of Terre Haute.

Reem, *n.* [Heb.] (*Script.*) An unknown animal, called, by the translators of the received version of Job, the unicorn. By some it is supposed to he the rhinoceros, hy others a specics of antelope.

Reëmbark', *v. a.* To embark or put on hoard again.

—*v. a.* To embark, or go on board again.

Reëmbarka'tion, *n.* A putting on board, or a going on board, again.

Reëmbat'tle, *v. a.* To arrange anew in the order of battle.

Reëmbod'y, *v. a.* To embody over again.

Reëmbrace', *v. a.* To embrace anew or afresh.

Reëmerge, (*-merj,*) *v. a.* To emerge again, after being obscured, plunged, or overwhelmed.

Reëmer'gence, *n.* Act of emerging a second time.

Reem'ing, *n.* (*Naut.*) The opening of a vessel's seams, with a caulking-iron, for the purpose of caulking or recaulking them with oakum.

Reem'ing-iron, *n.* (*Naut.*) A caulking-iron.

Reënact', *v. a.* To enact anew.

Reënaction, (*-ăk'shun,*) *n.* A new enactment; also, state of being reënacted.

Reënact'ment, *n.* The renewal of a law or enactment; the passing or enacting of a law a second time.

Reënconragement, (*-kur'aj-,*) *n.* Renswed or fresh enconragement.

Reëndow, *v. a.* To endow over again.

Reënforce', *v. a.* [Fr. *renforcer.*] Same as REINFORCE, *q. v.*

—*n.* (*Ordnance.*) See REINFORCE.

Reënforce'ment, *n.* See REINFORCEMENT.

Reengage, (*-gaj',*) *v. a.* To engage anew, or a second time.

—*v. n.* To engage or covenant afresh; to enlist again.

Reëngage'ment, *n.* A renewed engagement.

Reëngrave', *v. a.* To engrave auew.

Reënjoy', *v. a.* To enjoy afresh, or a second time.

Reënjoy'ment, *n.* A second, or renewed enjoyment.

Reënkin'dle, *v. a.* To rekindle.

Reenlist', *v. a.* To enlist again, or a second time.

Reënlist'ment, *n.* A reuewed eulistment.

Reenstamp', *v. a.* To enstamp aucw.

Reën'ter, *v. a.* To enter again or anew.

(*Engraving.*) To repair an engraved line which has been worn in printing, or not bitten sufficiently deep, and which line is *reëntered* with a sharp graver, and cut to the proper depth.

—*v. n.* To enter a second time.

Reëntering angle. (*Geom.*) A polygonal angle pointing inward — *Reëntering polygon,* a polygon presenting one or more reëntering angles.

Reënthrone', *v a.* To euthrone again; to replace on a throne.

Reënthrone'ment, *n.* Enthroning a second time.

Reën'trance, *n.* Act of entering again.

Reëntrant, *a.* Pointing or directed inwards; as, a *reintrant* angle.

Reën'try, *n.* (*Law.*) The act of returning the possession of lands or tenements, in pursuance of a right which the party exercising it reserved to himself when he quit his former possession.

Reerect', *v. a.* To erect anew, or a second time.

Reer mouse, *n.* Same as REARMOUSE, *q. v.*

Rees, ABRAHAM, D.D., an English author, divine, and scholar, B. in Wales, 1743; D. 1825. From 1802 to 1819 he edited, in 45 vols. 4to., the "Encyclopedia" known by his name, which is still valuable as representing the state of knowledge about the time of the commencement of modern progress.

Reese River, in *Nevada,* rises in Nye co., and flowing a general N. course aloug the W. base of the Toujabe Mountains, becomes lost in the sandy dcsert of Lander co.; *length,* abont 100 m.

Reese'ville, or REES'VILLE, in *Ohio,* a post-village of Clinton co., about 10 m. E.N.E. of Washington.

Reeseville, in *Pennsylvania,* a village of Chester co., abont 18 m. W. N.W. of Philadelphia.

Reëstab'lish, *v. a.* To establish afresh; to fix or confirm again; as, to *reëstablish* a government, to *reestablish* one's health.

Reëstab'lisher, *n.* One who, or that which, reëstablishes.

Reëstab'lishment, *n.* Act of reëstablishing; state of being reëstablished; renewed confirmation; restoration.

Reeve, *n.* (*Zoöl.*) The female of the RUFF, *q. v.*

Reeve, *v. a.* (*imp.* and *pp.* ROVE.) (*Nuat.*) To pass, as the end of a rops, throngh any hole iu a block, cleat, ring-bolt, &c.

Reeve, *n.* [O. Eng. *reve.*] A steward; — obsolete except in compounds, as shire-*reeve* (now written *sheriff*), port-*reeve,* &c.

Reeve, in *Indiana,* a township of Daviess co.; *pop.* abt. 3,000.

Reeve, in *Iowa,* a township of Franklin co.

Reeves'ville, in *S. Carolina,* a post-village of Colleton dist., abt. 52 m. N.W. of Charleston.

Reëxamina'tion, *n.* A reucwed or repeated examination.

Reëxam'ine, *v. a.* To examine anew, or afresh.

Reëxchange, (*-chānj,*) *v. a.* To exchange anew, or a second time.

—*n.* A renewed, or second exchange.

(*Com.*) The expense chargeable on a bill of exchange, or draft, which has been dishonored in a foreign country, and returned to that country in which it was drawn up or indorsed, and then taken up.

Reëxhib'it, *v. a.* To exhibit afresh.

Reëxpel', *v. a.* To expel a second time.

Reëxpe'rience, *n.* A renewed experience.

Reexport', *v. a.* To export, as what has been previously imported.

—*n.* Any commodity reëxported.

Reëxporta'tion, *n.* Act of exporting what has been previously imported.

Reëxpulsion, (*-pŭl'shon.*) *n.* Renewed expulsion.

Reezed, (*rēzd,*) *a.* Rancid; rusty; stale; as, *reezed* bacon.

Refashion, (*-făsh'un,*) *v. a.* To fashion anew; to mould, form, or design afresh.

Refas'ten, *v. a.* To fasten over again.

Refection, (*-fĕk'shan,*) *n.* [Fr., from Lat. *refectio.*] Refreshment after hunger or fatigue; a lunch; a slight repast. — In monastic discipline, a spare meal or repast.

Refect'ive, *a.* Repairing; refreshing; restoring.

—*n.* That which refreshes or reinvigorates.

Refec'tory, *n.* [Fr. *réfectoire,* from L. Lat. *refectorium.*] A room for refreshment or meals;—specifically, a hall or apartment in convents or monasteries, where a moderate repast is taken.

Refer', *v. a.* (*imp.* and *pp.* REFERRED,) (*re-ferd'.*) [Fr. *référer,* from Lat. *refero* — *re,* and *fero,* to bring or carry.] To give or send back; to pass or make over; to give in charge; to direct or deliver, as for information, decision, &c. — To direct, leave, or deliver over to another person or tribunal for information or decision; as, to *refer* the matter to arbitration. — To reduce, as to the ultimate end; to assign, as an order, genus, or class; to ascribe; to impute; to attribute by references.

To refer one's self, to make application; to have recourse.

—*v. n.* To apply; to appeal; to have recourse.—To point; to have reference or relation. — To have respect by intimation without naming; to make allusion.—To make inquiry for information or surety of any kind, as in respect to one's probity, capacity, pecuniary means, &c.

Refer'able, Refer'rible, *a.* That may be referred; capable of being considered in relation tu something else; that may be assigned; that may be considered as belonging to, or related to.

Referee', *n.* One to whom a matter is refsrred for adjustment; an arbitrator; an umpire; a judge.

Refe'rence, *n.* Act of referring; also, stats of being referred; a sending, dismission, or direction to another for information, decision, treatment, &c. — Act ot referriug, or having regard or relation; respect; view toward; heed or concern taken; as, we ought to practise moderation in *reference* to our appetites. — Act of referring or alluding; allusion; intimation. — The person who, or thing which, is referred to;—specifically, one of whom information is sought as to the probity, ability, or pecuniary condition of another; — also, a passage in a work to which the reader is referred from another passage.

(*Law.*) The submitting of a matter in dispute to the judgment of a person or persons for decision and settlement; an arbitration; in equity, the act or process of sending any matter, for inquiry in a cause, to a master or other officer, in order that he may ascertain facts and report to the court.

Referend'ary, *n.* An officer formerly employed to deliver the royal answer to petitions;—also, a functionary who performed the duty of procuring and dispatching diplomas and decrees.

Referential, (*-ĕn'shal.*) *a.* Containing or conveying a reference to another thing.

Referen'tially, *adv.* By way, or in the mauner, of reference.

Referment', *v. a.* To ferment afresh.

Refer'rer, *n.* One who makes reference.

Refer'rible, *a.* Same as REFERABLE, *q. v.*

Refigure, (*-fig'yar,*) *v. a.* To figure again, or anew.

Refill', *v. a.* To fill over again.

Refind', *v. a.* To find again; to experience afresh.

Refine', *v. a.* [Fr. *raffiner.*] To increase the fineness of; to free from impurities; to purge of extraneous matter; to purify; to clarify; to detecate; as, to *refine* liquors, sugar, &c.

—To purify, as manners, from what is gross, clownish, or vulgar; to make elegant; to polish, as taste or language; to give a nice and delicate perception of beauty and propriety in literature and the arts; to impart high culture to; to purify, as the mind or moral principles; as, *refined* wit.

(*Metall.*) To separate, as a metallic substance from drossy matter; as, to *refine* gold.

—*v. n.* To improve in fineness; to increase in accuracy, delicacy, or anything that constitutes excellence. — To affect nicety or elaborateness in style of thought or language; as, "*refining* in controversy." (*Atterbury.*) —To become pure; to be cleared of feculent or drossy matter.

Refin'edly, *adv.* In a refined or polished manner;—also, with affected nicety, elaboration, or elegance.

Refined'ness, *n.* State or quality of being refined; refinement; purity; — also, affected purity.

Refine'ment, *n.* Act of refining, or state of being refined; act of purifying by separating from a substance all feculent or extraneous matter; purification; a clearing from dross, alloy, dregs, or recrement; as, the *refinement* of metals, sugar, or liquors. — An improved or advanced state of language; elegance; lingual purity; polish or elegance of style or manners; nice sense or observance of the civilities of social intercourse and of graceful decorum; fineness or purity of taste; nice perception of beauty and propriety in literature and the arts; purity of mind and morals; nice perception and observance of rectitude in moral principles and practice.—That which is refined or elaborated beyond what is common, or to excess; an over-nicety; an artificial purism or practice; an affected subtilty or polished improvement; as, the *refinements* of philosophy.

Refin'er, *n.* One who refines, improves, or elaborates; as, a *refiner* of metals or liquors, a *refiner* of manners or language, &c.; one who is over-nice or subtle in argument, disquisition, reasoning, discrimination, &c.; a precisian; a purist; an inventor of superfluous subtilties.

Refin'ery, *n.* The place aud apparatus for refining metals, sugar, liquors, &c.

Refin'ing, *n.* The process of purifying copper, gold, tin, lead, and some other metals. It is the last operation connected with smelting. The term is also applied to the purification, on a manufacturing scale, of nitre, common salt, sugar, and other bodies. See the names of the different metals, SMELTING, SUGAR, &c.

Refit', *v. a.* To fit or prepare again; to repair; to equip; to restore after damage or decay; as, to *refit* a vessel for sea.—To fit out or furnish a second time; to equip anew.

—*v. n.* To repair losses or damages; as, the ship put into port to *refit.*

Refit'ment, *n.* A fitting ont a second time.

Refix', *v. a.* To establish anew or afresh; to fix a second time.

Reflect', *v. a.* [Lat. *reflecto* — *re,* back, and *flecto,* to bend, curve, or turn round.] To bend or turn back or backward; to throw back, or cause to return after striking upon any surface, as light, heat, &c. — To mirror; to give an image, semblance, or likeness of.

"Nature is the glass *reflecting* God."—*Young.*

—*v. n.* To throw back light, heat, &c.; to return rays or beams; as, "*reflecting* gems." (*Shaks.*) — To revert; to rebound or be sent back, as from a surface. — To throw or turn back the thoughts upon the past operations of the mind, or upon past events; to bestow attentive consideration; to weigh, turn over, or revolve in the mind; to ponder; to think; to meditate; to muse. — To bring or cast censure or reproach; — with *on* or *upon.*

"Errors of wives *reflect on* husbands stitt."—*Dryden.*

Reflect'ed, *p. a.* (*Bot.*) Bent or curved backward from the axis, as a petal.

Reflect'ent, *a.* [From Lat. *reflectere.*] Bending or flying back, as a ray. — Reflecting.

Reflect'ible, *a.* That may be reflected or thrown back.

Reflect'ing, *p. a.* Throwing back light, heat, &c., as a mirror or other surface. — Given to reflection or serious thought; meditative; reflective; as, a *reflecting* man.

Reflecting Circle. An astronomical instrument for the measurement of angles by reflection. The term is also applied to a surveying instrument, invented by Sir Howard Douglas, which combines the advantages of Hadley's quadrant and the protractor. Its object is to protract, or lay down on the plan, the angles measured with the instrument itself, without any intermediate step, or even a register of their values. The advantages of such an instrument must be obvious in military surveys, where expedition is important, while accuracy is thereby far more efficiently insured than by the old and more tedious process. It is also advantageously used in forming general sketches of a country. — *Reflecting goniometer.* See GONIOMETER.

Reflect'ingly, *adv.* With reflection; — also, with reproach or censure.

Reflection, (*-flĕk'shun,*) *n.* [From *reflect.*] Act of reflecting, or state of being reflected; a turning back after striking upon any surface, as light, heat, sound, &c. (See below, § *Physics.*) — That which is reflected or produced by reflection; as, an image given back from a mirror; a reflected counterpart. — That operation of the mind by which it turns its views back upon itself and its operations; thought thrown back on itself, on the past, or on the absent; attentive consideration; meditation; contemplation; cogitation. — Result of meditation; expression of thought; opinion brought about by attentive consideration or meditation; as *reflections* on the past. — Censure; reproach cast.

(*Mech.*) The rebound or regressive motion of a body from the surface of another body, against which it infringes.

(*Physics.*) When thermal rays fall upon a body they are, speaking generally, divided into two parts, one of which penetrates the body, while the other rebounds, as if repelled from the surface, like an elastic ball. This is said to be *reflected.* If *m n* be a plane reflecting surface (Fig. 2229), C B an *incident ray,* B D a line perpendicular to the surface called the *normal,* and B A the *reflected ray,* the angle C B D is called the *angle of incidence,* and D B A the *angle of reflection.* The reflection of heat, like that of light and of sound, is governed by the two following laws: 1. *The angle of reflection is equal to the angle of incidence.* 2. *Both the incident and the reflected ray are in the same plane with the normal to the reflecting surface.* The laws of *reflection of heat* have been experimentally demonstrated by means of the *conjugate mirrors,* for which, see MIRROR. Under this last article has also been demonstrated the reflection of heat from concave and parabolic mirrors, or *reflectors.* — *Reflection of light* may be very accurately demonstrated by the following experiment: In the

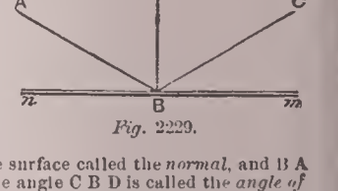


Fig. 2229.

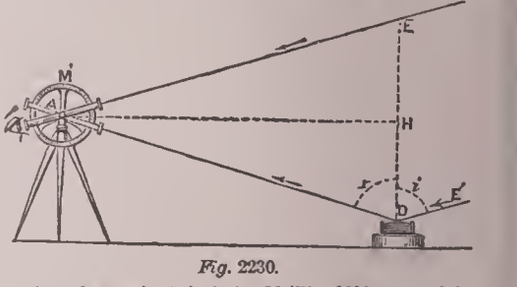


Fig. 2230.

centre of a graduated circle, M (Fig. 2230), placed in a vertical position, there is a small telescope movable in a plane parallel to the limb; at a suitable distance there is a vessel full of mercury, which forms a perfectly horizontal plane mirror. Some particular star of the first or second magnitude is viewed through the telescope in the direction A E, and the telescope is then inclined so as to receive the ray A D coming from the star after being reflected from the brilliant surface of the mercury. In this way the two angles formed by the rays E A and D A, with the horizontal A H, are found to be equal, from which it may easily be shown that the angle of incidence, E' D E, is equal to the angle of reflection, E D A. For if D E is the normal to the surface of the

mercury, it is perpendicular to A H, and A E D, A D E are the complements of the equal angles E A H, D A H: therefore A E D, A D E are equal; but the two rays A E and D E′ may be considered parallel, in consequence of the great distance of the star, and therefore the angles E D E′ and D E A are equal, for they are alternate angles, and, consequently, the angle E D E′ is equal to the angle E D A.—*Reflection of Sound.* So long as sonorous waves are not obstructed in their motion, they are propagated in the form of concentric spheres; but when they meet with an obstacle, they follow the general law of elastic bodies; that is, they return upon themselves, forming new concentric waves, which seem to emanate from a second centre on the other side of the obstacle. This phenomenon constitutes the reflection of sound. Fig. 2231 represents a series of incident waves reflected from an obstacle, P Q. Taking, for example, the incident wave M C D N, emitted from the centre A, the corresponding reflected wave is represented by the arc, C K D, of a circle, whose centre, *a*, is as far beyond the obstacle P Q as A is before it. If any point, C, of the reflecting surface be joined to the sonorous centre, and if the perpendicular, C H, be let fall on the surface of this body, the angle, A C H, is called the *angle of incidence*, and the angle B C H, formed by the prolongation of *a* C, is the *angle of reflection*. From the general laws of reflection, it follows that the wave which is in the figure propagated in the direction A C, takes the direction C B after reflection, so that an observer placed at B hears, besides the sound proceeding from the point A, a second sound, which appears to come from C. The laws of the reflection of sound may be demonstrated by means of the conjugate mirrors (Fig. 1808): if in the focus of one of these mirrors a watch is placed, the ear placed in the focus of the second mirror hears the ticking very distinctly, even when the mirrors are at a distance of 12 or 13 yards.

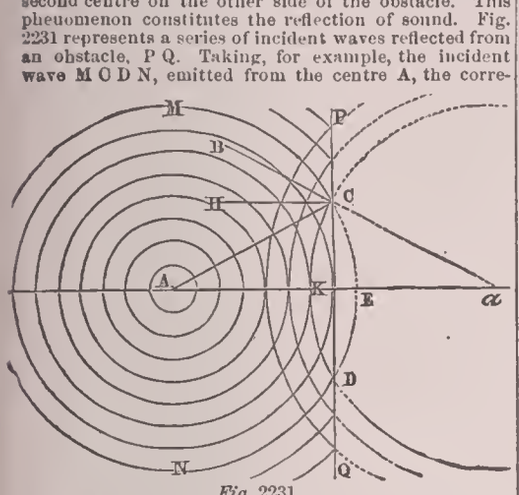


Fig. 2231.

Reflect'ive, *a.* Throwing back images; as, a *reflective* mirror. a *reflective* stream.—Able to exercise thought and judgment, or the consideration of the operations of the mind; meditative; as, *reflective* reason.

(*Gram.*) Same as Reflexive, *q. v.*

Reflect'ively, *adv.* Reflexively; by reflection.

Reflect'iveness, *n.* Quality, or state, of being reflective.

Reflect'or, *n.* The person who, or thing which, reflects.

(*Optics.*) See Mirror and Telescope.

Re'flex, *a.* [Lat. *reflexus*, from *reflecto*. See Reflect.] Directed or turned back; retroactive; introspective; accompanied by reflection; as, a *reflex* act of the soul. (*Hale.*)—Occasioned by reaction, resistance, or return.

(*Bot.*) Reflected; bent back, as a petal.

Reflex action. (*Physiol.*) An action generally regarded as executed without consciousness, and consisting in the reflection by an afferent nerve of an impression conveyed to a nervous centre by an afferent nerve.

—*n.* (*Painting.*) The illumination of one body, or a part of it, by light reflected from another body. The foundation of the law of *reflexes* depends upon the knowledge that every body in light reflects that light, to a certain degree, in the same way that flame does. The stronger, therefore, the light on the body, the stronger will be the *reflex*, distances being equal. Again, the more directly the light falls on a body, the more influence it will have in imparting a reflex.

Reflexed, (*-flĕkst,*) *a.* (*Bot.*) Bent downward or backward, as a petal.

Reflexibil'ity, *n.* Quality of being reflexible, or susceptible of being reflected; as, the *reflexibility* of rays of light.

Reflex'ible, *a.* [Fr.] That may be reflected or thrown back, as rays.

Reflex'ion, *n.* An old spelling of Reflection, *q. v.*

Reflex'ity, *n.* Capacity of being reflected.

Reflex'ive, *a.* [Fr. *réflexif.*] Reflective; bent backward; having reference to something past.

(*Gram.*) Having for its express object a pronoun which refers to the agent or subject as its antecedent; —denoting certain verbs; as, he *killed* himself, I *forgot* myself; —applied also to pronouns of this class; reflective; reciprocal.

Reflorescence, (*-rĕs'sens,*) *n.* [*re* and *florescence.*] A flowering or blossoming afresh.

Reflourish, (*-flŭr'ish.*) *v. a.* (*imp.* and *pp.* Reflourished.) (*re-flŭr'isht.*) To flourish again, or anew.

Reflow', *v. a.* To ebb; to flow back.

Refluctu'ation, *a.* A flowing back.

Re'fluence, Re'fluency, *n.* [From *refluent.*] A flowing back.

Re'fluent, *a.* [Lat. *refluens*—*re*, and *fluo*, to flow.] Ebbing; flowing back; returning; as, *refluent* blood.

Re'flux, *n.* [Fr.; Lat. *refluxus*, from *refluo.*] A flowing back; the returning of a fluid; ebb; as, the flux and *reflux* of the tides.

—*a.* Reflex; refluent; as, *reflux* movement.

Refold', *v. a.* To fold again, or a second time.

Refoment', *v. a.* To foment or excite afresh.

Reforge, (*-fôrj',*) *v. a.* [Fr. *reforger.*] To forge anew;—hence, to form or fabricate afresh; to do or make over again.

Reforg'er, *n.* One who reforges.

Reform', *v. a.* [Fr. *réformer;* Lat. *reformo*—*re*, and *formo*, from *forma*, shape, form.] To form or shape anew; to remould; to transform.—Particularly, to change from worse to better; to bring back or restore to a former good state, or to bring or change from a bad to a good state; to amend; to correct; to repair; to improve; to reclaim; to remove, as that which is bad or corrupt; as, to *reform* vicious habits, to *reform* the constitution of a state.

—*v. n.* To be formed or shaped anew.—Especially, to change or return to a former good state; to abandon that which is evil, vicious, or corrupt; to be amended or corrected; as, a *reformed* rake makes the best husband.

—*n.* [Fr. *réforme.*] A forming anew.—A changing for the better; a reforming of what is defective, vicious, corrupt, or depraved; reformation; amendment; rectification; correction; as, *reform* of parliamentary representation, *reform* of character, habits of life, &c.

Reforma'do, *a.* [Sp., from *reformar.*] Penitent; contrite; disposed to reform.

Reforma'tion, *n.* [Fr., from L. Lat. *reformatio.*] Act of changing for the better, life, manners, or anything defective, vicious, or corrupt; reform; amendment; correction; rectification.

(*Eccl. Hist.*) An important æra in modern history, when the doctrines and usages of the Roman Catholic Church, then dominant throughout the western states of Christendom, were first successfully called in question. This event is commonly dated from the year 1517, when Luther began to oppose the Pope, and condemned the sale of indulgences. Mosheim assigns to it the date 1520, when Luther was excommunicated. For history of the *R.*, see Luther, Calvin, Zwinglius, Christianity, Protestant, Augsburg (Confession of), &c., and the names of the several reformed churches.

Reforma'tion, *n.* Act of reforming, or forming anew or a second time.

Reform'ative, *a.* [Sp. *reformativo.*] Forming again; having the quality of renewing form; reformatory.

Reform'atory, *a.* Reformative; tending or calculated to produce reformation.

—*n.* A public institution established for promoting the reformation of minor offenders.

Reform'ed, *p. a.* Restored to a good state; amended; corrected; purified; denoting, specifically, all who separated from the Roman Catholic Church at the æra of the Reformation;—also, in a restricted sense, denoting those who separated from Luther on the doctrine of transubstantiation, &c.; and, also, the churches founded by them in Switzerland, Holland, France, and part of Germany.

Reformed Episcopal Church. See Section II.

Reformed Protestant Dutch Church. See Reformed Church in America, in Section II.

Reformed Church in the United States (formerly German Reformed Church). (*Eccles. Hist.*) This Church originated among those members of the *Reformed Church of Germany* who began to settle in Pennsylvania in 1684. Their first church was organized in 1727, their first synod meeting in Philadelphia in 1747. The Dutch Reformed Church being already established in the colonies, and being under the control of the classis of the Reformed Church in Amsterdam, Holland, the German mother church advised the German Church in America to avail itself of the same supervision; it did so in 1730, remaining in connection with the Church of Holland until 1793. In 1869, the word German was dropped from the name of the church. In its government it is presbyterian; in its worship liturgical, and in doctrine the Heidelberg Catechism is the only standard. The Melancthonian tendency is accepted rather than the Calvinistic. The Church has 16 theological seminaries, among which are the college and seminary at Mercersburg, Pa., founded at Carlisle in 1835; Franklin and Marshall College at Lancaster, Pa.; Ursinus College and Seminary at Collegeville, Pa.; Catawba College at Newton, N. C.; Heidelberg University at Tiffin, O.; Calvin Institute at Cleveland, and a theological seminary at Howard's Grove, Wis. It publishes 29 periodicals, of which 6 are in German, and supports various home and foreign missions. On the occasion of the celebration of the 150th anniversary of organization, held in Philadelphia, Sept. 23, 1897, statistics were given showing the existence of 8 synods, 56 classes, 1,665 churches, and 229,300 members.

Reform'er, *n.* One who reforms, or who effects a reformation or amendment; as, a *reformer* of abuses.

(*Eccl. Hist.*) One of those who commenced the Reformation in the sixteenth century.

(*Pol.*) One who favors, urges, or promotes political reform.

Reform'ist, *n.* [Fr. *réformiste.*] An adherent to the reformed religion.—A reformer; one who favors or promotes political reform.

Refortifica'tion, *n.* A fortifying again, or a second time.

Refor'tify, *v. a.* To fortify anew.

Refound'er, *n.* One who refounds.

Refract', *v. a.* [Fr. *réfracter;* Lat. *refractus*, broken up, from *refringo*—*re*, and *frango*, *fractum*, to break.] To break abruptly back; to break open, up, or off.

(*Physics.*) To break, as the natural course of the rays of light; to cause to deviate from a direct course; as, the *refracting* media.

Refract'ed, *p. a.* (*Bot. and Conch.*) Bent, and appearing as if broken at the bend; as, a *refracted* corolla.

(*Optics.*) Turned from a direct course; as, *refracted* rays of light.

Refract'ing, *p. a.* That refracts or turns rays from a direct course; bending, or turning from a straight direction; as, a *refracting* medium.

Refracting telescope. See Telescope.—*Refracting dial*, one in which the hour is pointed out by means of some transparent refracting fluid.

Refraction, (*-frŏk'shun,*) *n.* [Fr.] Act of refracting; state of being refracted.

(*Physics.*) The turning of a ray of heat, light, or other imponderable substance, from its direction, when it falls obliquely on the surface of a medium differing in density from that through which it had previously passed. When a luminous ray is refracted in passing from one medium into another of a different refractive power, the following laws prevail: 1. *Whatever the obliquity of the incident ray, the ratio which the sine of the incident angle bears to the sine of the angle of refraction is constant for the same two media, but varies with different media.* 2. *The incident and the refracted ray are in the same plane which is perpendicular to the surface separating the two media.* These are known as *Descartes' laws*, and may be demonstrated by the apparatus in Fig. 2232. The plane mirror in the centre of the graduated circle is replaced by a semi-cylindrical glass vessel, filled with water to such a height that its level is exactly the height of the centre. If the mirror, M, be then so inclined that a reflected ray, M O, is directed towards the centre, it is refracted on passing into the water, but it passes out without refraction, because then its direction is at right angles to the curved sides of the vessel. In order to observe the course of the refracted ray, it is received on a screen, P, which is moved until the image of the aperture in the screen, N, is formed in its centre. In all positions of the screens, N and P, the sines of the angles of incidence and refraction are measured by means of two graduated rules, movable so as to be always horizontal, and hence perpendicular to the diameter, A D. On reading off the lengths of the sines of the angles M O A and D O P in the scales I and R, the numbers are found to vary with the positions of the screens, but their ratio is constant; that is, if the sine of incidence becomes twice or three times as large, the sine of refraction increases in the same ratio, which demonstrates the first law. The second law follows from the arrangement of the apparatus, for the plane of the graduated limb is perpendicular to the surface of the liquid in the semi-cylindrical vessel. For a further study of the *refraction of light*, the inquirer is referred to the article Light.—*Double refraction.* In uncrystallized media, such as air, liquids, and ordinary glass, the luminous ray is singly refracted; but in certain crystallized bodies, such as Iceland spar, selenite, &c., a single incident ray in passing through any one of them is divided into two, or undergoes *bifurcation.* Whence it follows that, when an object is seen through one of these crystals, it appears double. The fact of the existence of double refraction in Iceland spar was first stated by Bartholin in 1669, but the law of double refraction was first enunciated exactly by Huyghens in his treatise on light, written in 1678, and published in 1690. Crystals which possess this peculiarity are said to be *double refracting.* It is found to a greater or less extent in all crystals which do not belong to the cubical system. Bodies which crystallize in this system, and those which, like glass, are destitute of crystallization, have no double refraction. The property can, however, be imparted to them when they are unequally compressed, or when they are cooled quickly after having been heated, in which state glass is said to be unannealed. Of all substances, that which possesses it most remarkably is Iceland spar, or carbonate of calcium. In many substances the power of double refraction can hardly be proved to exist directly by the bifurcation of an incident ray; but its existence is shown indirectly by their being able to "depolarize" light. Fresnel has explained double refraction by assuming that the ether in double-

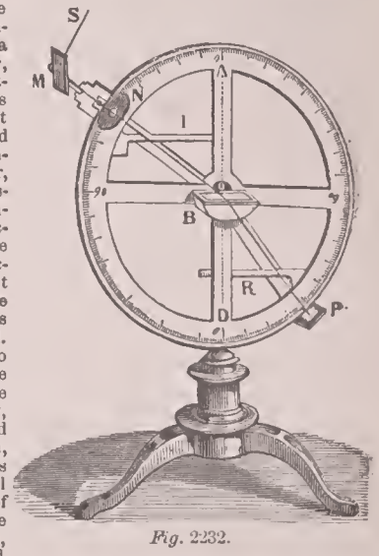


Fig. 2232.

refracting bodies is not equally elastic in all directions; from which it follows that the vibrations in certain directions at right angles to each other are transmitted with unequal velocities, these directions being dependent on the constitution of the crystal. This hypothesis is confirmed by the property which glass acquires of becoming double-refracting by being unannealed, and by pressure.

(*Astron.*) The apparent angular elevation of the celestial bodies above their true places, caused by the refraction of the rays of light in their passage through the earth's atmosphere. It is found by experiment that the refractive power of a gas, or aëriform substance, is proportional to its density. Now the earth's atmosphere is not a medium of uniform density, but of a density continually diminishing as the distance from the centre is increased. For the purpose of illustration, the atmosphere may be regarded as composed of a great but finite number of concentric spherical strata (Fig. 2233), each having a uniform density greater than that of the stratum by which it is enveloped, but less than that of the stratum which it envelopes. Hence, on entering each successive stratum the light must undergo a slight deviation from its rectilinear course, and the amount of all these deviations constitutes the phenomenon of astronomical refraction. So, in Fig. 2233, we see the star at S' along the tangent of the curve described by the luminous rays, instead of at S.

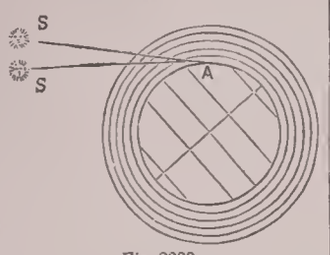


Fig. 2233.

(*Mech.*) The change of direction which takes place in the motion of a body when it passes obliquely out of one medium into another of different density.

Refract'ive, *a.* [Fr. *réfractif.*] That refracts, or has power to refract or turn from a direct course; pertaining or relating to refraction, as, *refractive* powers, *refractive* densities.

Refractive power, the degree to which a diaphonous body deflects a ray of light which passes through it. For the measure of this influence, modern writers generally adopt the square of the index of refraction diminished by unity, or n^2-1, where n denotes the principal index of refraction.

Refractom'eter, *n.* [Eng. *refraction*, and Gr. *metron*, measure.] An instrument for exhibiting and measuring the refraction of light.

Refract'or, *n.* The refracting telescope. See TELESCOPE.

Refract'orily, *adv.* In a refractory manner; perversely; obstinately.

Refract'oriness, *n.* State or quality of being refractory; perverse or sullen obstinacy in opposition or disobedience; stubbornness; contumaciousness; unmanageableness; as, *refractoriness* of conduct. — Unmalleability; difficulty of fusion, or of yielding to the hammer; as, *refractoriness* of metals.

Refract'ory, *a.* [Fr. *réfractaire*; Lat. *refractarius*, from *refringo*.] Sullen or stiff in oppositiou, antagonism, or disobedience; contumacious; stubborn; perverse; obstinate; unruly; unmanageable; ungovernable; as, a *refractory* criminal; obstinately vicious or unyielding; as, a *refractory* horse. — Hence, by analogy, unmalleable; difficult of fusion or reduction; impervious to ordinary methods of working, as metals, &c.

—*n.* A contumacious individual.

Refragable, *a.* [L. Lat. *refragabilis* — *re*, and *frango*, to break.] That may be broken; — hence, specifically, that may be opposed, resisted, gainsaid, or refuted; as, *refragable* testimony.

Refrain', *v. a.* [Fr. *refréner*; Lat. *refræno* — *re*, and *fræno*, from *frenum*, a bridle.] To hold back; to restrain: to curb; to govern; to bridle; to keep within limited bounds, or from independent action; — with a reciprocal pronoun. — To abstain from; to keep aloof from. (R.)

—*v. n.* To keep one's self from action, intervention, or interference; to abstain; to forbear; as, to *refrain* from drinking or swearing.

—*n.* [Fr.] The burden or chorus of a song.

Refrain'er, *n.* One who refrains.

Reframe', *v. a.* To frame again, or anew.

Refrangibil'ity, Refran'gibleness, (*-je-,*) *n.* [Fr. *réfrangibilité.*] (*Physics.*) State or quality of being refrangible; the disposition of rays of light, to be refracted or turned out of a direct course in passing out of one transparent body or medium into another; refrangibleness.

Refran'gible, *a.* [Fr., from Lat. *re*, and *frango*.] That may be refracted, or caused to deviate from a direct course in passing from one medium to another; as, *refrangible* rays of light.

Refresh', *v. a.* [Fr. *rafraichir*, from Lat. *refrigescere*, to grow cold.] To allay the heat or thirst of; to give new strength or vigor to; to raise the tone or body of; to relieve after fatigue; to invigorate; to revive; to give new animation to after depression; to reanimate. — To renew; to restore; to improve by new touches; as, to *refresh* a cornice with new gilding.

Refresh'er, *n.* One who, or that which, refreshes, revives, or invigorates; — specifically, among lawyers, an additional fee paid to counsel when a cause is not heard in the term for which it was originally set down.

Refresh'ing, *p. a.* Cooling; invigorating; reviving.

Refresh'ingly, *adv.* In a refreshing or reanimating manner.

Refresh'ingness, *n.* State or quality of being refreshing.

Refresh'ful, *a.* Refreshing; powerful to refresh.

Refresh'ment, *n.* Act of refreshing, or state of being refreshed; new strength and vigor received after depression or fatigue; relief after suffering or prostration; restoration of animation, nerve, or liveliness. — That which refreshes, or gives new strength, vigor, or animation; particularly, food or rest.

Refrigerant, (*-frij',*) *a.* [Fr., from Lat. *refrigerans.*] Cooling: allaying or assuaging heat.

—*n.* (*Med.*) One of a class of cooling medicines given in fevers as an astringent and refreshing drink, to lower the temperature of the body, and abate the febrile symptoms. Refrigerants are sometimes applied externally, to reduce the heat of the part where they are placed. Among the foremost of this class of medicines stands ice, and freezing mixtures; all the mineral and vegetable acids, diluted, and taken in water; cream of tartar, lemonade, soda-water, nitre, sweet spirits of nitre, spirits of mindererus; all the summer fruits; tamarinds, oranges, lemons, and limes.

Refrig'erate, *v. a.* [Lat. *refrigero* — *re*, and *frigero*, *frigeratus*, to make cool.] To cool; to make cool again.

Refrigera'tion, *n.* [Fr.] Act of cooling; abatement of heat; state of being cooled; as, *refrigeration* of the air.

Refrigera'tive, *a.* [Fr. *réfrigeratif.*] Cooling; allaying heat; serving to refrigerate; refrigeratory.

—*n.* A cooling medicine; a remedy to abate heat.

Refrig'erator, *n.* That which refrigerates or keeps cool; — specifically, an ice-box; also, an apparatus, consisting of a system of pipes contained in tanks of cold water, used for the cooling of large quantities of liquids which are made to circulate through the pipes. — See CONDENSER.

Refrig'eratory, *a.* Cooling; mitigating heat.

—*n.* That which cools or refrigerates; a refrigerator.

Refringency, (*-frin'jen-sy.*) *n.* (*Physics.*) The power exerted by a substance to refract a ray.

Refrin'gent, *a.* [From Lat. *refringere.*] Pertaining or having reference to refringency; refractive; as, a *refringent* substance.

Reft, *imp.* and *pp.* of REAVE, *q. v.*

Reft, *n.* A rift; a crevice; a chink; a crauny.

Refuge, (*réf'ūj,*) *n.* [Fr.; Lat. *refugium*, from *refugio* — *re*, and *fugio*, to flee.] Shelter or protection from danger or distress; as, to take *refuge*. — That which shelters or protects from danger, distress, or calamity; an asylum: a sanctuary; a retreat; a shelter; a covert; a stronghold; any place inaccessible to an enemy. — An expedient, contrivance, or device to secure protection, defence, or shelter.

Cities of refuge. (*Jewish Hist.*) Six cities are mentioned in the Pentatench as appointed for the reception of those who had caused the accidental death of any one. It is stated that if a deliberate murderer should flee to one of these cities, the elders of the city are to deliver him "into the hands of the avenger of blood." (*Deut.* xix.; *Josh.* xx.)

—*v. a.* To shelter; to protect; to afford asylum to.

Refugee, (*réf-ū-jee',*) *n.* [Fr. *refuge*, from Lat. *refugis*, to flee.] One who flees to a place for shelter or protection; one who, in times of persecution or political commotion, flees to a foreign country for safety. The term was first applied to the French Protestants who, by the revocation of the Edict of Nantes, were constrained to fly from persecution, and take refuge in foreign countries.

Refu'gio, in *Texas*, a S.S.E. co., bordering on the Gulf of Mexico; *area*, abt. 1,300 sq. m. *Rivers.* Guadalupe, Arkansas, San Antonio, and Mission rivers. *Surface*, mostly level; *soil*, fertile. *Cap.* Refugio, a post-village on Mission River, abt. 40 m. above its mouth. *Pop.* abt. 2,500.

Refulgence, Refulgency, (*fūl'jens, fūl'jen-sy,*) *n.* [Lat. *refulgentia.*] State or quality of being refulgent; radiance; lustre; brilliancy; splendor; also, a flood of light.

Refulgent, *a.* [Lat. *refulgens* — *re*, and *fulgeo*, to shine.] Reflecting a shining light; casting a bright light; radiant; brilliant; lustrous; luminous; splendid; effulgent; as, the *refulgent* beams of the sun.

Refulgently, *adv.* With a flood of light; in a shining manner.

Refund', *v. a.* [Fr. *refondre*; Lat. *refundo* — *re*, and *fundo*, to pour out, to shed.] To pour back. (R.) — To repay; to reimburse: to restore; to return in payment or as compensation for what has been taken; as, to *refund* money taken as a bribe.

—*v. a.* To fund again or anew; to place again in the funds, as money.

Refund'er, *n.* One who refunds.

Refur'bish, *v. a.* To furbish afresh, or a second time.

Refur'nish, *v. a.* To furnish over again; to supply or provide afresh; as, to *refurnish* a house.

Refusable, (*-fūz'a-bl,*) *a.* That may be refused; susceptible of refusal.

Refusal, (*-fūz'al,*) *n.* Act of refusing; denial of anything demanded, solicited, or offered for acceptance; as, I met with a direct *refusal.* — The right of taking in preference to others; the choice of taking or rejecting; preëmption; option; as, to give one the *refusal* of a bargain.

Refuse, (*re-fūz',*) *v. a.* [Fr. *refuser*, from Lat. *refutare*, to pour back.] To repress or check, as a solicitation; to deny, as a request, demand, invitation, or command; to reject; to repudiate; to decline to do or grant what is solicited, claimed, or commanded; as, to *refuse* to sell goods on credit. — To decline to accept what is proffered; to reject; as, he *refused* the invitation extended to him.

—*v. n.* To decline to accept; not to comply with or accede to.

—*v. a.* [Fr. *refus.*] Literally, refused; rejected; worthless; valueless: left as unworthy of acceptance or reception; as, *refuse* scraps from the table.

—*n.* That which is refused or rejected as valueless or useless; waste matter; debris: dregs; sediment; scoria; scum; dross; scraps; chips; offal; as, the scum and *refuse* of the people (*Govt. of the Tongue*); the *refuse* of slaughtered beasts, &c.

Refuser, (*-fūz',*) *n.* One who refuses, or declines, to accept.

Refusion, (*-fūzh'un,*) *n.* Restoration; as, *refusion* of the soul.

—*a.* Resmelting, as of metals.

Refut'able, *a.* [Fr.] That may be refuted or disproved; that may be proved false, fallacious, or erroneous; as, a *refutable* argument.

Refut'al, *n.* Refutation.

Refuta'tion, *n.* [Fr.; Lat. *refutatio.*] Act or process of refuting or disproving; act or operation of proving to be false, fallacious, or erroneous; confutation; proof of falsehood or error; as, the *refutation* of an opinion, doctrine, or theory.

Refuta'tory, *a.* [Sp. *refutatório.*] Tending, or serving, to refute; containing refutation; as, *refutatory* evidence.

Refute', *v. a.* [Fr. *réfuter.*] To overthrow by argument, evidence, or countervailing proof; to prove to be false, fallacious, or erroneous; to disprove; to confute; as, to *refute* testimony, to *refute* a disputant.

Refuter', *n.* The person who, or thing which, refutes.

Regain', *v. a.* [Fr. *regagner.*] To gain anew; to obtain again what has escaped or been lost; to recover; to retrieve; to repossess; as, to *regain* one's liberty.

Re'gal, *a.* [Fr. *régale*; Lat. *regalis*, from *rex*, *regis*, a king.] Pertaining to a king; kingly; royal; as, a *regal* title, *regal* dignity, &c.

—*n.* (*Mus.*) A small portable organ used in the Middle Ages, and frequently represented in painting and sculpture, as carried by saints and angels of the heavenly choir. It was supported by a strap round the neck; the left hand inflating with a small bellows, while the right was employed in playing on the keys. Fig. 2234 represents an angel thus employed, from a painting by Memling, on the reliquary of St. Ursula, at Bruges.

Fig. 2234. — REGAL.

Regalbu'to, a town of Italy, in Sicily, 25 miles W.N.W. of Catania; *pop.* 6,400.

Regale', *n.* [From Lat. *regalis.*] Monarchical prerogative. (R.)

—*v. a.* [Fr. *régaler*, to treat, from Lat. *regalis*, belonging to a king.] To refresh or entertain in a kingly or magnificent manner; to treat sumptuously; — hence, to gratify; to refresh; to entertain with something that delights or exhilarates; as, to *regale* the senses.

—*v. n.* To feast royally; to fare sumptuously; as, to be *regaled* with delicacies.

—*n.* A royal, or magnificent, entertainment given to ambassadors and other persons of distinction; — hence, a sumptuous banquet or repast.

Regale'ment, *n.* Act of regaling; refreshment; entertainment; gratification.

Rega'lia, *n. pl.* [Lat. pl. neut. of *regalis*, kingly, from *rex*, *regis*, a king.] That which pertains to royalty; — particularly, the rights, privileges, and prerogatives of a king. — Ensigns of royalty; regal symbols, paraphernalia, &c.; in England the royal insignia, (Fig. 2235,) crowns, sceptres, globes, crosses, &c., used at the coronation; also, the crown jewels. — Hence, insignia of an

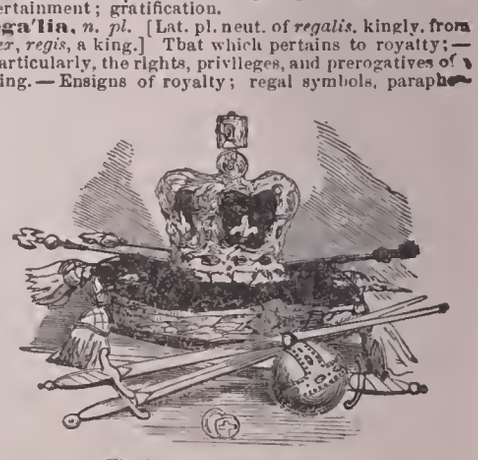


Fig. 2235. — ENGLISH REGALIA.

office, order, society, &c.; as, the *regalia* of the Freemasons, Knights Templars, &c.

Regalia of a church, endowments or privileges granted to it by kings;—sometimes, also, its patrimony.

Regal'ity, *n.* [L. Lat. *regalitas.*] Royalty; kingship; regal or sovereign sway or jurisdiction.

"He neither could, nor would, yield in *regality*." — *Bacon.*

Re'gally, *adv.* In a royal or regal manner; in a manner befitting a monarch.

Regard', *v. a.* [Fr. *regarder*; It. *riguardare.*] To notice with some particularity; to observe; to remark; to attend to with respect or estimation; to heed; to consider seriously; as, he *regarded* me with scrutinizing eyes. — To respect; to esteem; to attend to as a thing that affects one's interest or happiness; to fix the mind on, as a matter of value or importance; to hold in respect or affection; to keep with religious or solemn attention; to care for. — To attend to; to lay to heart; to love and hold in esteem; to consider; to deem; to look upon; as, he was always much *regarded* by his friends. — To have relation to, as bearing upon; to view in the light of; to consider; to reckon; as, the question does not *regard* the matter in hand.

To regard the person, to esteem or value for extrinsic power or advantages.

—*v. n.* To care, heed, or consider.

—*n.* [Fr.; It. *riguardo.*] A looking at; a look; aspect directed to another; gaze; view. — Notice; heed; observation: attention of the mind with a feeling of interest. — Respect; esteem; affection; deference; honor; reverence; that view of the mind which springs from a sense of value, estimable qualities, or anything that excites admiration; as, I have a high *regard* for him. — Matter demanding notice; that which is regarded, or is to be regarded; object of view. (R.) — Account; note; esteem; repute. — Relation; reverence; respect.

Regard'able, *a.* That may be regarded; observable; noticeable; deserving regard or attention. (R.)

Regard'ant, Reguard'ant, *a.* [Fr., from *regarder.*] Looking behind; as, a *regardant* eye.

(*Her.*) Looking backward or behind;—applied to any figure of an animal whose face is turned towards the tail in an attitude of vigilance; as, a stag *regardant*.

Regard'er, *n.* One who regards.

Regard'ful, *a.* Full of regard; taking notice; observing with care; heedful; mindful; attentive; observant; as, *regardful* of consequences.

Regard'fully, *adv.* With regard; attentively; heedfully; respectfully.

Regard'less, *a.* Without regard; not looking or attending to; heedless; negligent; careless; inattentive; unobservant; as, *regardless* of danger.

Regard'lessly, *adv.* Heedlessly; carelessly; negligently.

Regard'lessness, *n.* Quality of being regardless; heedlessness; inattention; negligence.

Regath'er, *v. a.* To collect anew; to gather a second time.

Regat'ta, *n.*; *pl.* REGATTAS. [It. *regata*, from *riga*, a line, row.] A term originally used in Venice, signifying a grand *fête*, in which the gondoliers contested for the superiority in rowing their gondolas on the canals which intersect the city. The term has been received into nearly every European language, and signifies a day set apart for the diversion of boat-racing, or yachting, either on fresh or salt water.

Re'gel, Ri'gel, *n.* [Ar. *ridjl.*] (*Astron.*) A star of the first magnitude, in the left heel of the constellation Orion.

Regela'tion, *n.* [Lat. *re*, and *gelatio*, a thawing.] Act or process of freezing again.

Re'gen, a river of Bavaria, rising in the Böhmer-wald, and after a S.W. course of 70 m., falling into the Danube opposite Ratisbon.

Regency, (*rē'jen-sy,*) *n.* [Fr. *regence*; from Lat. *regens* —*rego*, to rule.] The rule or government of a regent; office or jurisdiction of a regent; state or condition of a regent. — Vicarious government; the territory under the jurisdiction of a vicegerent. — The body of individuals intrusted with vicarious government; as, the *regency* conducted public business during the sovereign's absence.

Regen'eracy, Regen'erateness, *n.* State of being regenerated; regenerateness.

Regenerate, (*-jĕn'e-rāt,*) *v. a.* [Lat. *regenero*, from *genus*, origin.] To generate or beget anew; to make to be born again; as, to *regenerate* gases.

(*Theol.*) To renew by a change of carnal nature to a Christian life; to form into a new or better state of heart and mind.

—*a.* [Lat. *regeneratus.*] Reproduced; generated or born anew.

(*Theol.*) Renovated in heart; changed from a natural to a spiritual state.

Regenera'tion, *n.* [Fr.] Act of regenerating, or state of being regenerated; reproduction.

(*Theol.*) Act of forming into a new or better state of heart and mind; new birth by the grace of God. There are various interpretations of the mode and meaning of this change, but its necessity in some shape or another may be said to be admitted by all branches of the Christian Church. By all, man is supposed, as the condition of his becoming truly Christian, to pass from a state of nature to a state of regeneration, from a state in which he obeys the mere impulses of the natural life to a state in which a new and higher—a divine—life has been awakened in him. The words of our Lord to Nicodemus: "Verily, verily, I say unto thee, except a man be born again, he cannot see the kingdom of God," are accepted as the expression of this universal necessity by the Christian Church. It may be further stated that every branch of the Catholic Church recognizes, although under very different conditions, the Holy Spirit as the author of this change.

(*Physiol.*) The reproduction, or reformation, of a part cut off or destroyed; as, *regeneration* of flesh.

Regen'erative, *a.* [Sp. *regenerativo.*] Producing regeneration.

Regen'eratively, *adv.* After the manner of regeneration.

Regen'eratory, *a.* Regenerating; tending to reproduce or renovate; having the power to renew; serving to regenerate. (R.)

Re'gensburg. See RATISBON.

Regent, (*rē'jent,*) *n.* [Fr., from Lat. *regens*, from *rego*, to rule.] A ruler; a governor.

"Juno, *regent* of the marriage-bed." — *Dryden.*

—Hence, one invested with or exercising vicarious authority; one who governs a kingdom during the minority, absence, or disability of the reigning monarch. — A member of a governing body or board: a trustee; an overseer; as, a *regent* of the Smithsonian Institute. — In the great English universities, a master of arts of less than five years' standing, or a doctor of less than two; — also, in colleges, a teacher of arts and sciences whose pupils are generally of the lower orders; — the regents form the governing body of the universities in the convocation and congregation at Oxford, and in the academical senate at Cambridge.

—In the State of New York, a member of the corporate body which is invested with the superintendence of all the colleges, academies, and schools in the State.

Re'gent, *a.* Regnant; ruling; governing; as, a *regent* principle. — Exercising vicarious authority.

Queen-regent, or *queen-regnant.* See REGNANT.

Re'gentess, *n.* A female regent. (R.)

Re'gentship, *n.* State or office of a regent; power of governing. —Vicarious authority.

Regerminate, (*-jĕr'mi-nāt,*) *v. a.* [Fr. *regermer*; Lat. *regerminare.*] To germinate a second time; to sprout afresh, as plants.

Regermina'tion, *n.* A sprouting again; a germinating anew.

Reget', *v. a.* To get back, or again.

Reg'gio, a town of Italy, prov. of Modena, 16 m. W.N.W. of Modena. *Manuf.* Silks, hempen fabrics, horn, ivory, and wooden articles.

Reggio, (*red'jo,*) (anc. *Regium Julii,*) a town of Italy, cap. of Calabria Ulteriore II., on the strait which separates Sicily from the mainland, 8 m. S.E. of Messina. *Manuf.* Silks, gloves, and hosiery.

Regicid'al, *a.* Belonging, or relating, to a regicide; as, a *regicidal* act.

Regicide, (*rĕj'i-sīd,*) *n.* [Fr., from Lat. *rex*, *regis*, a king, and *cædo*, to kill.] A king-killer; the murderer of a king; — specifically, one of the judges who condemned King Charles I. of England, or Louis XVI. of France, to death. — The slaying, or murder, of a king.

Regild', *v. a.* To gild anew.

Regime, (*rā-zheem',*) *n.* [Fr.; Sp. *regimen.*] Mode or form of rule or management; style or character of government; administration.

Ancient régime. [Fr. *ancien régime.*] Old-time style or society; — specifically, in France, the political or social system existing before the Revolution of 1789.

Regimen, (*rĕj-,*) *n.* [Lat., from *rego.*] Any regulation or remedy which is intended to produce beneficial or efficacious results by gradual operation; a rule prescribed or followed.

(*Med.*) The regulation of diet with a view to the preservation or restoration of health; the plan of a systematic mode of living; — occasionally used synonymously with HYGIENE, *q. v.*

(*Gram.*) In syntax, the government of words; — also, the words governed.

Regiment, (*rĕj-,*) *n.* [Fr., from L. Lat. *regimentum*, from Lat. *regimen* — *rego.*] (*Mil.*) A body of soldiers, consisting (if infantry) of several companies, (if cavalry) of several squadrons, or (if artillery) of several batteries, under the command of a colonel or lieutenant-colonel.

—*v. a.* (*Mil.*) To form into a regiment, or regiments. (R.)

Regiment'al, *a.* Belonging, or having reference, to a regiment, or regiments; as, *regimental* officers, the *regimental* staff, *regimental* duties, clothing, &c.

Regiment'als, *n. pl.* The uniform worn by the officers and privates of a regiment; as, the staff appeared in full *regimentals.*

Reginal, (*-jĭn',*) *a.* [From *regimen.*] Pertaining or relating to regimen; as, *reginal* rules or regulations.

Region, (*rē'jŭn,*) *n.* [Fr.; Lat. *regio*, from *rego.*] A tract of land or space of indefinite extent, usually a territory of considerable size; a country; province; district; as, strange and distant *regions.* — Part, tract, or space, spread about and including anything; vicinity; neighborhood; sphere; as, the Polar *regions.* — Place; station; rank; grade. (R.)

(*Bot.*) A tract of land distinguished by the production, or predominance, of particular plants.

Register, (*rĕj',*) *n.* [Fr. *registre*, from Lat. *re*, back, and *gero*, *gestum*, to carry.] A written account or entry of acts, judgments, or proceedings for preservation; a chronicle; an official record; a list; a roll; a schedule; as, parish *registers* of births, marriages, and deaths, a *register* of voters, &c. — That which registers or records; — specifically, an instrument or apparatus for noting down or calculating the performance of a machine, or the rate of motion of a process. — A sliding-plate in a furnace, grate, or stove, &c., for regulating the admission of air, or the quantity of heat; — also, a contrivance, as in a wall, floor, &c., for letting in or keeping out heat from a hot-air chamber.

(*Com.*) A document issued by the custom-house authorities, containing a description of a ship or vessel; its name, tonnage, country belonging to, ownership, &c., always to be kept on board on a foreign voyage, as evidence of its nationality. Coasting-vessels are *enrolled*, not *registered.*

(*Printing.*) The matrix of the mould in which types are cast. — The correspondence of relative position of pages or columns on the opposite sides of the sheet.

(*Mus.*) A term applied to the different kinds of sound distinguishable in the graduated scale of notes produced by any individual voice. Those sounds which, like the ordinary sounds of speech, proceed naturally and freely from the voice, constitute what is called the *chest-voice.* By means of a strained contraction of the glottis, notes may be produced of a higher pitch than those of the chest-voice; these are called *falsetto*, or *head-voice*, and have a peculiar flute- or flageolet-like quality of their own. Though often sweet and exceedingly pleasing, they cannot be used for a length of time without some amount of constraint or effort, and they are never so powerful, so open, or so impressive, as the chest-voice. The lower notes, and, in most voices, by far the greater number of notes, belong to the chest-voice, the falsetto being only employed in the higher and highest sounds. The sounds produced by the head-voice are called the *upper register*, those produced by the chest-voice the *lower register*, of the voice; and such notes of the chest-voice as may also be produced by the falsetto are said to belong to the *middle register.* In a properly trained voice, the falsetto is so blended with the chest-voice, that there is no perceptible break between them. — The term is also applied to the sets of pipes or stops of an organ.

Lord Clerk Register, in Scotland, an officer of state who has the custody of the archives of the realm. The office is now merely honorary, its duties being performed by the Registrar-general, and Deputy Clerk Registrar.

—*v. a.* To record for official use; to enter in a book for preserving an exact account of facts or of proceedings; as, to *register* a will, to *register* a ship.—To enter in a list; to enrol; as, a *registered* voter.

—*v. n.* (*Print.*) To correspond in relative position, as the pages or columns of a sheet of printed matter, so that the sides and heads of one form shall coincide with those of the other, or so that line shall be parallel with line in opposite pages.

Registrar, Registrary, (*rĕj'-,*) (sometimes written REGISTER,) *n.* [L. Lat. *registrarius.*] An officer who writes or keeps a public register or record; as, a *registrar* of the Court of Chancery.

Reg'istrate, *v. a.* To register. (R.)

Registra'tion, *n.* Act of registering, or of inserting in a register; enrolment; registry; as, the *registration* of voters.

Reg'istry, *n.* Act of recording or entering in a register; enrolment. — The place where a register is kept. — A series of facts recorded.

Re'gium, Re'gius, *a.* [Lat. *regius—a—um*, royal.] Royal; pertaining or relating to a king.

Regive, (*-gĭv',*) *v. a.* To give back again, or anew.

Regla, (*raĭ'gla,*) a fortified town of the island of Cuba, being a suburb of Havana, on the opposite side of its harbor; *pop.* 3,000.

Reglemen'tary, *a.* [Fr. *réglementaire.*] Pertaining or relating to, or embodying, regulations; regulative; as, a *reglementary* charter. (R.)

Reg'let, *n.* [Fr. dimin. of *régle*, a rule.] (*Arch.*) A flat, narrow moulding, employed to separate panels or other members, or to form knots, frets, and similar ornaments.

(*Print.*) A sort of furniture of an equal thickness throughout its length, and of quadrat height. The length is three feet, and the thickness that of the various sizes of types.

Reg'ma, *n.* [Gr., a fracture.] (*Bot.*) One of the terms applied to a tricoccous fruit, like that of the Castor-oil plant, and the *Euphorbias.*

Regnancy, *n.* State, condition, or quality of being regnant: reign; predominance.

Reg'nant, *n.* [Fr.; Lat. *regnans*, from *regno*, to have royal power.] Reigning; exercising sovereign or royal power. — Predominant; ruling; having the chief or controlling power; as, the law is *regnant* over all people.

Queen-regnant, a queen who governs; a reigning female sovereign; a queen-regent; — opposed to *queen-consort.*

Reg'nard, JEAN FRANÇOIS, a French comic poet, B. at Paris, 1658. He ranks next to Moliere in French literature, and is remarkable for his adventurous life. His best comedies are *Le Joueur*, *Les Ménechmes*, *Démocrite Amoureux*, and *Le Distrait.* D. 1709.

Regnitz, (*raĭk'nĭtz,*) a river of Bavaria, which, after a N.W. course of 35 m., falls into the Main near Bamberg.

Regorge, (*-gorj',*) *v. a.* [Fr. *regorger.*] To vomit or bring back from the stomach; to throw up, back, or out again. — To swallow eagerly or greedily — To swallow back, or again.

Regraft', *v. a.* To graft afresh.

Regrant', *v. a.* To grant back or anew, as lands.

Regrate', *v. a.* [Fr. *regratter*, to peddle.] To purchase as provisions, &c., in order to resell in or near the same fair or market: — a practice involving increase of price, and, consequently, in former times, punishable as a public offence. See FORESTALL. — In masonry, to chip the surface of an old hewn stone, in order to improve its appearance

Regrat'er, Regrat'or, *n.* [Fr. *regrattier.*] One who forestalls the market.

Regrede', *v. n.* To retire; to retrograde. (R.)

Regreet', *v. n.* To salute a second time: to greet or hail again.

—*n.* Return, or exchange, of salutation or greeting.

Re'gress, *n.* [Fr. *regres*, from Lat. *re*, and *gradior*, to step, to go.] Return; passage back; — opposed to *progress.* — Power or liberty of returning or passing back.

Regress', *v. n.* (*imp.* and *pp.* REGRESSED,) (*re-grĕst'.*) To go or pass back; to return to a former place or condition.

Regression, (*-grĕsh'un,*) *n.* [Fr., from Lat. *regressio.*] Retrogression; act of going or passing back or returning; retrogradation; — correlative to *progression.*

Edge or point of regression. (*Geom.*) The cusp point.

(*Astron.*) The *R. of the moon's nodes* is the motion of the line of intersection of the orbit of the moon with the ecliptic, which is retrograde, or contrary to the order of the signs. This motion of the nodes of the lunar orbit takes place with considerable rapidity, the whole revolution being accomplished in about eighteen and a half years. The nodes of the planetary orbits also regress on the ecliptic; but, in the case of the planets, the regression is extremely slow, that of the nodes of Mercury, which is the most rapid, amounting only to about 42 seconds of a degree in a solar year.

Regress'ive, *a.* [Fr. *régressif.*] Passing, or going, back; returning.

Regress'ively, *adv.* In a regressive mode or manner; by return; by backward way or method.

Regret', *v. a.* [Fr. *regretter*; Lat. *regressus* — *re*, and *gradior.*] To turn the thoughts or feelings back, as upon the past; to remember with sorrowful yearning; to mourn the loss of, or separation from; as, to *regret* the loss of a near and dear relation. — To be sorry for; to grieve at; to lament; to bewail; to repent of; as, I shall not *regret* the trouble, if the business be successful.

—*n.* [Fr. *regret.*] A turning back of the thoughts and feelings upon the past, sorrowfully or longingly; pain of mind at some sad or untoward event; sorrow or grief for the loss of; concern; as, fond *regrets* and tender recollections. — Remorse; penitence; pain or distress of conscience.

Regret'ful, *a.* Full of regret. (Tautological.)

Regret'fully, *adv.* With regret, sorrow, or compunction.

Reg'ulable, *a.* That may be managed or regulated.

Reg'ular, *a.* [Fr. *régulier*; Lat. *regularis*, from *regula*, a rule.] Conformed to a rule; agreeable to an established rule, law, or principle, or to a prescribed mode or method, or to established customary forms; normal; as, a *regular* plan, *regular* practice, a *regular* verse in poetry, &c. — Governed by a rule, or rules; steady or uniform in a course, practice, mode of procedure, or occurrence; not subject to abnormal or irrational variation; steadily kept up; methodical; orderly; periodical; as, *regular* attendance. — Instituted or initiated according to established forms or discipline; as, *regular* troops, a *regular* physician. — Pertaining to a monastic order or establishment; as, *regular* clergy, in distinction from the *secular* clergy, or those not under vows.

(*Bot.*) Applied to flowers which have all the parts of each series of a similar form and size. Thus, the Buttercup is regular, while the allied Larkspur is irregular.

Regular polygon. (*Geom.*) A plano-rectilineal figure with equal angles and sides. — *Regular polyhedron*, a polyhedron whose faces are all equal and similar regular polygons; of these solids there are five: viz., the *pyramid*, the *cube* or *hexahedron*, the *octahedron*, the *dodecahedron*, and the *icosahedron.* — *Regular troops.* (*Mil.*) Soldiers of a permanent or standing army, as opposed to *militia* or *volunteers.*

—*n.* (*Eccl.*) In the Roman Catholic Church, a member of any religious fraternity who professes and follows a certain rule of life, and observes the three vows of poverty, chastity, and obedience, and is thereupon solemnly recognized by the Church.

—*pl.* (*Mil.*) Soldiers belonging to a standing or permanent army.

Regular'ity, *n.* [Fr. *regularité.*] State, quality, or condition of being regular; agreeableness to a rule or to established order; conformity to certain regulations or settled principles; steadiness or uniformity in a course; method.

Reg'ularize, *v. a.* To make regular; to regulate. (R.)

Reg'ularly, *adv.* In a manner accordant to a rule or established mode, in uniform order; at certain intervals or periods; in due form; methodically.

Reg'ularness, *n.* State or quality of being regular; regularity.

Reg'ulate, *v. a.* [L. Lat. *regulo, regulatus*, from *regula*, a rule.] To adjust by rule, method, or established form; to subject to rules or restrictions; to direct by governing principles or laws; to dispose, to arrange.

— To put or keep in good order, as, to *regulate* a disordered household, or state of the public finances, &c.

Regulation, (*-lā'shun,*) *n.* [Sp. *regulación.*] Act of regulating or reducing to order; state or condition of being regulated, as, the *regulation* of one's own temper or disposition.

— A rule or order prescribed by a superior for the management of some business, or for the government of a community, company, or society; regulating principle; governing direction; law; precept, as, to act contrary to *regulations.*

Regulation sword, cap, uniform, &c. (*Mil.*) Articles of the kind or quality prescribed by the official regulations.

Reg'ulative, *a.* Serving to regulate; regulating.

(*Metaph.*) Supplying fundamental principle; primarily assumed by the mind as fundamental to all other knowledge; as, the *regulative* faculty.

Reg'ulator, *n.* [Sp. *regulador.*] One who regulates; — specifically, in the U. States, one of a band of men who, in the absence or inadequacy of ordinary or competent legal authority, take into their own hands the punishment of crime and the regulation of society. — *Webster.* See LYNCH-LAW.

(*Mech.*) That which regulates or controls; that part of a machine which serves to make the motion equable; as, the spiral spring attached to the balance of a watch; the throttle-valve of a steam-engine; the pendulum or balance of a time-piece, a fan-wheel, &c.

(*Steam-eng.*) See GOVERNOR.

Regulator-cock. (*Mach.*) In locomotive engines, a cock placed to admit oil or tallow to lubricate the faces of the regulator or governor. — *Regulator-cover*, the outside cover, movable at will to examine the regulator. — *Regulator-shaft and levers*, the shaft and levers placed in front of the smoke-box when each cylinder has a separate regulator. A rod connected with the shaft leads to the foot-plate, where a handle is placed conveniently for use. — *Regulator-valve*, the valve in the steam-pipe of a locomotive engine, for regulating the supply of steam to the cylinders. — *Regulator-valve spindle*, the spindle for moving the regulator-valve; being fixed to it at one end, the other end of the spindle passes through a stuffing-box joint over the fire-box, and has a handle fixed on the end to turn it.

Reg'ulus, MARCUS ATTILIUS, a Roman general, celebrated for his patriotism and devotion in the service of his country, was made consul a second time about 256 B. C., and with his colleague, Manlius Vulso, commanded in the first war against Carthage. Made prisoner by the Carthaginians, he was sent to Rome with an embassy, that peace might be procured on favorable terms, and bound himself, by an oath, to return if the terms were rejected. He, however, considered it his duty to advise the continuance of the war; which, being determined on, no entreaties or supplications could prevent him from fulfilling his solemn engagement; and the Carthaginians, on his return, put him to a cruel death.

Reg'ulus, *n.*; Eng. *pl.* REGULUSES; Lat. *pl.* REGULI. [Lat., a petty king, dim. of *rex, regis*, a king; Fr. *regule.*] (*Chem.*) The old chemists designated by this term several of the brittle or inferior metals when freed from impurities, and obtained in their metallic state. Thus they speak of *regulus of antimony, of bismuth*, &c. The term is now often used by metallurgists to denote the metallic button which is found at the bottom of an assay crucible.

(*Astron.*) A star of the first magnitude in the constellation of *Leo*; — called *Leonis*, or *Cor Leonis*, (Lion's Heart.)

(*Zoöl.*) A genus of birds, family *Turdidæ*, the species of which are very small, olive-green above, and whitish beneath. The Golden-crested wren, *R. satrapa*, of the Northern United States, almost identical to the European *R. satrapus*, which may be taken as the type of the genus, is less than 3½ inches long, and when stripped of its feathers, the body is only about an inch long. The bill is slender and dark; eyes hazel; on the top of its head the feathers are of a bright-orange color, bordered on each side with black, which forms an arch above the eyes, and with which it sometimes conceals the crown, by contracting the muscles of the head; the upper part of the body is yellowish olive-green; all the under parts pale reddish-white, tinged with green on the sides; the greater coverts of the wings are dusky-brown, edged with yellow, and tipped with white; legs yellowish-brown. The female is distinguished by a pale-yellow crown; and her whole plumage is less than that of the male. This delightful little fairy bird is very active, and may generally be found with other smaller birds gleaning among the foliage of trees and bushes in search of the smallest insects. Its song is said to be very melodious, and it has besides a sharp shrill cry, somewhat like that of the grasshopper.

Regurgitate, *v. a.* [It. *regurgitare*, from L. Lat.; — Lat. *re*, back, and *gurgis, gurgitis*, a whirlpool.] To throw or pour back, as from a whirlpool, or from a deep or hollow place; to pour or throw back in great quantity.

—*v. n.* To be thrown or poured back.

Regurgita'tion, *n.* [Fr.] Act of throwing or pouring back by the orifice of exit. — Act of reswallowing; reabsorption.

(*Med.*) The natural and easy vomiting of their food by infants.

Regu'sa, a town of Italy, in Sicily, prov. of Syracuse, on the Regusa, 30 m. W.S.W. of Syracuse. *Manuf.* Woollens and silks. *Pop.* 22,000.

Rehabil'itate, *v. a.* [Fr. *réhabiliter.*] To reinstate; to qualify or restore afresh; to restore, as a delinquent to a former right, rank, or privilege lost or forfeited.

Rehabilita'tion, *n.* [Fr.; L. Lat. *rehabilitatio.*] Act of reinstating in a former rank, capacity, or privilege; restoration of a man to former rights or qualifications, of which he had been deprived by a conviction, sentence, or judgment of a competent tribunal.

Rehash', *v. a.* To hash a second time.

—*n.* Something hashed over again; something dished up from old and previously used materials or constituents, as, a *rehash* of an old story

Rehear', *v. a.* To hear anew; to try again, or a second time, as, to *rehear* pleadings in equity

Rehearsal, (*re-hers'al,*) *n.* Act of rehearsing, or state of being rehearsed; repetition of the words of another, or of a written work, narration, a telling or recounting, as of particulars in detail; as, "in *rehearsal* of our Lord's Prayer." (*Hooker.*) — The recital of a piece before the public exhibition of it, as, the *rehearsal* of an opera.

Rehearse', *v. a.* To say, speak, tell, or relate in the hearing of another, or of others; to tell over again; to recite. — To relate; to recount; to narrate; to give an oral account of events or transactions. — To recite or repeat in private for experiment and improvement, previous to a public representation; as, the *rehearsal of a* comedy. — To cause to tell, recite, or relate. (R.)

Rehears'er, *n.* One who rehearses, recites, or narrates.

Reheat', *v. a.* To heat anew, or a second time.

Rehelm', *v. a.* To cover again, as with a helmet.

Rehibition, (*-bish'un,*) *n.* [Lat. *re*, back, and *habere* to have.] (*Law.*) The annulling of a sale.

Rehib'itory, *a.* Pertaining or having reference to rehibition; as, a *rehibitory* action.

Rehire', *v. a.* To hire again.

Rehobo'am. (*Script.*) The son and successor of Solomon, by Naamah, an Ammonitess. He was 41 years old when he began to reign, and was therefore born at the beginning of his father's reign. He ascended the throne about 975 B. C., and reigned 17 years at Jerusalem. Under his reign the ten tribes revolted, and formed the kingdom of Israel under Jeroboam. The immediate cause of this schism was Rehoboam's headstrong folly in rejecting experienced counsellors, and claiming tyrannical power. *R.* relapsed into idolatry; and, in the fifth year of his reign, Shishak, king of Egypt, invaded his kingdom, and carried off all the golden ornaments of the temple. *R.* subsequently repented, and replaced the ornaments of the Temple, using brass, however, instead of the more precious metal. His reign was afterwards almost unbroken by war. D. abt 958 B. C.

Reho'both. (*Script.*) I. A city of ancient Assyria, site unknown, (*Gen.* x. 11.) — II. A place in the wilderness south of Gerar and Beersheba, so named by Isaac on the occasion of his digging a well there, (*Gen.* xxvi. 22.) — III. A city on the Euphrates, thought to be the modern Er-rahabeh, south of Carchemish, (*Gen.* xxx. 37.)

Reho'both, in *Delaware*, a post-town of Sussex co., on the Atlantic Ocean, 5 m. S.E. of Lewes.

Rehoboth, in *Georgia*, a village of Wilkes co., abt. 75 m. N.E. of Milledgeville.

Rehoboth, in *Massachusetts*, a post-vill. and twp. of Bristol co., abt. 41 m. S.by W. of Boston.

Rehoboth, in *S. Carolina*, a post-village of Edgefield dist., abt. 80 m. W. of Columbia.

Rehoboth, in *Virginia*, a post-village of Lunenburg co., abt. 85 m. S.W. of Richmond.

Rehoboth Bay, in *Delaware*, an inlet of the Atlantic Ocean, in Sussex co.

Reho'bothville, in *Georgia*, a village of Morgan co., abt. 57 m. N. by W. of Milledgeville.

Reh'rersberg, in *Pennsylvania*, a post-village of Berks co., abt. 25 m. N.W. of Reading.

Rei, *n.* See REE.

Reichenau, (*ri'ke-nou,*) an island in the grand-duchy of Baden, in the Untersee, 4 m. N.W. of Constance; *ext.* 3 m. long, and 1 m. broad.

Reichenau, a town of Bohemia, 18 m. E.S.E. of Königgrätz; *pop.* 4,500.

Rei'chenbach, KARL, BARON VON, a German naturalist and technologist, B. at Stuttgart, 1788, was the discoverer, as he thought, of a new force in nature, which he called OD, *q. v.*

Reichenbach, (*ri'ken-bak,*) a town of Germany, in Saxony, circle of Zwickau, 12 m. N.N.E. of Plauen. *Manuf.* Woollen, cotton, and linen stuffs *Pop.* 8,300.

Rei'chenberg, or **Lim'berk,** a town of Bohemia, on the Neisse, 58 m. N.E. of Prague. *Manuf.* Woollen, cotton, and linen stuffs.

Reichstadt, (*rīk'stat,*) DUKE OF. See NAPOLEON II.

Reid, MAYNE, a popular novelist, B. in the north of Ireland, in 1818, and educated for the Church. A taste for travel and adventure induced him, in 1838, to set out for Mexico, without any very definite aim. On arriving at New Orleans he went on two excursions up the Red River, trading and hunting in company with the Indians; and afterwards made other excursions up the Missouri and on the prairies, where he remained for nearly 5 years, enjoying the wild freedom of Indian life. He afterwards travelled through almost every State in the Union, and in these journeys, with his previous prairie and backwoods experiences, acquired that knowledge of character and incident so liberally displayed in his writings. In 1845, upon war being declared between the U. States and Mexico, Mayne Reid, then devoted to literature, sought and obtained a captain's commission in the U. States army. He was present at the siege and capture of Vera Cruz, led the last charge of infantry at Churubusco, and, also, the forlorn hope at the assault of Chapultepec, where he was severely wounded, and reported killed. For his gallantry throughout the war, Capt. Reid was honorably mentioned in the dispatches. At the close of the war, resigning his commission, he repaired to London, where he again resumed a life of literary employment. Of his numerous works of fiction, — highly esteemed both in this country and in England, — we may mention *The Rifle Rangers*; *The Scalp Hunters*; *The White Chief*; *The Quadroon*; *Ocoola*; *The War Trail*; *The Wild Huntress*; *The Headless Horseman*, &c. Capt. *R.* has also written numerous books of adventure for boys, besides a standard manual on the game of "Croquet." In 1871, Capt. *R.*, after a protracted sojourn in the U. S., took up his residence in England. D. 1883.

Reid, THOMAS, a celebrated Scottish divine and metaphysician, was B. in 1709 at Strachan, in Kincardineshire, and educated at Marischal College, Aberdeen. In 1764 he succeeded Adam Smith as Professor of Moral Philosophy at Glasgow University, and D. 1796. His principal works are, *An Inquiry into the Human Mind*, and *Essays on the Intellectual and Active Powers of Man*. Dr. *R.* was the first writer in Scotland who attacked the scepticism of Hume, and who endeavored to refute his theory by an appeal to what he called "Common Sense."

Reid, in *Ohio*, a township of Seneca co.

Reids'burg, in *Pennsylvania*, a post-village of Clarion co., abt. 5 m. S. of Clarion.

Reids'ville, in *Georgia*, a post-village, cap. of Tatnall co., about 65 m. W. of Savannah.

Reidsville, in *North Carolina*, a post-town of Rockingham co., about 18 m. N. by E. of Greensborough.

Reigate, (*ri'gait,*) a town of England, co. of Surrey, on the Mole, 6 m. E. of Dorking; *pop.* 5,000.

Reigle, (*rē'gl,*) *n.* A hollow channel for conducting anything; as, the *reigle* of a side-post for a flood-gate.

Rei'glesville, or RIEGLESVILLE, in *Pennsylvania*, a post-village of Bucks co., abt. 8 m. S. of Easton.

Reign, (*rān,*) *v. n.* [Fr. *régner*; Lat. *regnare.*] To have royal, sovereign, or supreme power; to be king; to rule; to govern; to possess or exercise monarchical power or authority; to exercise government, as a king or emperor; as, though the king *reigns*, his minister governs. — To have absolute or uncontrolled dominion. — To prevail; to be predominant; as, dissatisfaction *reigns* throughout the country.

—*n.* [Fr. *règne*; Lat. *regnum.*] Kingly government; royal authority; sovereignty; dominion; supreme power.

"The *reign* of Chaos and old Night." — *Milton.*

—The time during which a monarch or sovereign exercises the regal or supreme authority; as, in the *reign* of Queen Elizabeth.

Rei'ley, in *Ohio*, a post-township of Butler county.

Reillume', *v. a.* To cause to shine anew, or become luminous again; to relight.

Reillu'minate, *v. a.* To reillume; to enkindle with light again.

Reil'ly, in *Pennsylvania*, a township of Schuylkill county.

Reim, Ream, *n.* In S. Africa, a thong of untanned ox-hide

Reimbark', *v. a.* and *n.* Same as REEMBARK, *q. v.*

Reimbod'y, *v. n.* Same as REEMBODY, *q. v.*

Reimburs'able, *a.* [Fr. *remboursable.*] That may be, or is intended to be, repaid or refunded; as, a *reimbursable* loan.

Reimburse', *v. a.* [Fr. *rembourser*; It. *rimborsare.*] To pay back; to restore; to refund; to replace in a treasury, or in a private coffer, an equivalent to the sum taken from it, or lost, or expended. — To make restitution or payment of an equivalent to; to indemnify; to pay back to; as, to *reimburse* a money-lender.

Reimburse'ment, *n.* [Fr. *remboursement.*] Act of reimbursing, or of repaying, or refunding; repayment; as, the *reimbursement* of money advanced as a loan.

Reimburs'er, *n.* One who reimburses, repays, or refunds.

Reim'ersburg, or RIMERSBURG, in *Pennsylvania*, a post-village of Clarion co., abt. 20 m. N. of Kittanning.

Reim'ersville, in *Ohio*, a village of Morgan co., abt. 25 m. N.N.W. of Marietta.

Reimmerge, (*-merj,*) *v. a.* To immerge anew; to plunge a second time.

Reimplant', *v. a.* To implant afresh.

Reimport', *v. a.* To import again; to convey or carry back; as, *reimported* goods.

Reimporta'tion, *n.* Act of importing what has been previously exported.

Reimportune', *v. a.* To importune afresh.

Reimpose, (*-pōz',*) *v.a.* To impose a second time, as a tax.

Reimpreg'nate, *v. a.* To impregnate over again.

Reimpress', *v. a.* To impress anew.

Reimpres'sion, *n.* A second or repeated impression.

Reimprint', *v. a.* To imprint anew.

Reimpris'on, *v. a.* To imprison a second time, either for the same offence, or after a release from prison.

Reims, or RHEIMS, (*reemz,*) a city of France, dep. Marne, of which, though not the cap., it is by far the largest town, in a plain near the Vesle, a tributary of the Aisne, 27 m. N.N.W. of Chalons, and 95 m. E. by N. of Paris. It is tolerably well laid out, its streets wide, straight, and generally clean: it has several good squares, but the houses are small, and constructed with monotonous uniformity. The cathedral (Figure 2236), one of the largest and most magnificent in Europe, is that in which the coronation of the Bourbon kings of France has taken place, with few exceptions, from the æra of Philip Augustus. This edifice was chiefly constructed between 1212 and 1242. It is 479 feet in length, 99 feet in breadth, and 144 feet in height, and has a noble front, flanked with two square towers, 262½ feet in height. Reims is the seat of an archbishop, and has a library of 24,000 volumes, and a botanical garden. Its manufactories of woollens occupy 50,000 hands, of whom 12,000 live in Reims. It produces soap, candles, biscuits, and is the center of champagne trade. *Pop.* (1897) 106,640.

Fig. 2236.—CATHEDRAL OF REIMS.

Rein (*rān*), *n.* [Fr. *rêne*, from O. Fr. *risne*; It. *redina*, contracted from Lat. *retinaculum*, from *retineo—re*, and *tineo*, to hold.] The strap of a bridle by which the rider, or driver, of a horse restrains, governs, or guides him. — Hence, by analogy, that which curbs, restrains, or rules; government. — *To give the reins to*, to allow to act without restraint; to give license to; as, *to give the reins to* one's passions. — *To take the reins*, to take the guidance, control, or government. — *Without rein*, without control or restraint.

—*v. a.* To guide or govern by a bridle; as, to *rein* a horse.

—To check; to restrain; to control.

"He cannot be *reined* again to temperance."—*Shaks.*

—*v. n.* To bear the reins. (R.)

Reinaugurate, *v. a.* To inaugurate anew or afresh.

Reincense, (*-in-sens',*) *v. a.* To incense again.

Reincite, (*-in-sīt',*) *v. a.* To incite again, or a second time.

Reincor'porate, *v. a.* To embody again; to increase anew.

Reincur', *v. a.* To incur a second time, as a penalty.

Rein'deer, RAINDEER, *n.* [A. S. *hranus-dor*; Icel. *hreindyr.*] (*Zoöl.*) This quadruped, forming the genus *Rangifer*, in the family *Cervidæ*, is indiscriminately called Reindeer, Caribou, and Greenland Buck. The Woodland caribou, or American Reindeer, *R. caribou*, of Maine and New Brunswick, and westward to Lake Superior, (Fig. 2237), believed by some to be identical with the N. European species, *R. tarandus*, is about 4½ feet long, and 3 feet high. It has the horns elongated, sub-cylindrical, with the basal branches and tip dilated and palmated. In the N. of Europe the *R.* is domesticated, and its services are invaluable. With it, the Laplander can dispense with the services of horses, sheep, and oxen; for it will carry him in his sledge over the snow 30, 40, or 50 m. a day. Its milk provides him with cheese; its flesh supplies him with food; and its skin furnishes him not only with clothing, but with tents and bedding. In winter, the hair of the *R.* is long, thick, gray-brown; neck, rump, belly, ring round the hoof, and end of nose, white. In summer, the same animal has short, dark, sooty-brown hair, with the parts which are white in winter being rather paler gray-brown. The hair of the body is so thick that the skin cannot be seen when it is put aside; for it stands erect, as in other animals of the same genus, but is much thicker. The *R.*, when wild, travel in herds, varying in number from eight or ten to two or three hundred, their daily excursions being generally towards the quarter from which the wind blows. The Indians kill them with bows and arrows. They also take the *R.* in snares, or spear them as they are crossing rivers or lakes. The Esquimaux take them in traps ingeniously formed of ice and snow.

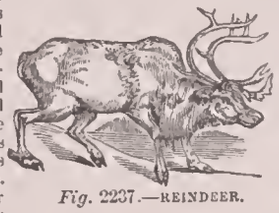


Fig. 2237.—REINDEER.

Rein'deer, in *Missouri*, a post-village of Nodaway co., abt. 40 m. N. of St. Joseph.

Rein'deer Moss, *n.* (*Bot.*) See CLADONIA.

Reinduce', *v. a.* To induce again, or a second time.

Reinfect', *v. a.* To infect again, or afresh.

Reinfectious, (*-fek'shus,*) *a.* That may communicate infection again.

Reinforce', *v. a.* To give new force to; to strengthen by new assistance or support; to reënforce; as, to *reinforce* an army corps.

—*n.* (*Ord.*) That part of a heavy gun or piece of ordnance which, near the breech, is made of an additional thickness of metal to strengthen it. A smooth-bored cast-iron or bronze gun is divided, for purposes of nomenclature, into parts. That portion of the piece between the base ring and the ring nearest to the trunnions is divided into two parts, called respectively *first* and *second reinforce.*

Reinforce'ment, *n.* Act of reinforcing; new force added; fresh supplies of strength; — particularly, additional troops or ships; as, *reinforcements* were at once sent.

Reinform', *v. a.* To inform afresh.

Reinfuse, (*-fūz',*) *v. a.* To infuse again, or a second time.

Reingratiate, (*-grā'shi-āt,*) *v. a.* To ingratiate anew, to curry favor again with.

Reinhab'it, *v. a.* To inhabit again, or a second time.

Rein'holdsville, in *Pennsylvania*, a post-village of Lancaster co., abt. 41 m. E.S.E. of Harrisburg.

Reinless, (*rān'les,*) *a.* Without rein; unrestrained; uncontrolled.

Reinquire, (*-kwīr',*) *v. a.* To inquire afresh, or again.

Reins, (*rānz,*) *n. pl.* [Fr. *rein, rognon*; Lat. *ren*, pl. *renes.*] The kidneys. — The lower part of the back, over the kidneys. — Hence, the heart, or seat of the affections or passions; — so called because formerly supposed to be seated in that part of the body.

"I am he which searcheth the *reins* and hearts." — *Rev.* ii. 23.

Reins of a vault. (*Arch.*) The sides that sustain the arch.

Reinsert', *v. a.* To insert a second time.

Reinsertion, (*-ser'shun,*) *n.* A second insertion.

Rein'spire, *v. a.* To inspire anew, or afresh.

Reinstall', *v. a.* To install again, or a second time.

Reinstal'ment, *n.* A second instalment.

Reinstate', *v. a.* To instate or invest anew; to place again in possession of, or in a former state.

Reinstate'ment, *n.* Act of restoring to a former state; reëstablishment.

Reinstation, (*-stā'shun,*) *n.* Act of reinstating; reinstatement.

Reinstruct', *v. a.* To instruct anew, or again.

Reinsur'ance, *n.* Insurance effected by an underwriter upon a subject against certain risks with another underwriter, on the same subject, against all or a part of the same risks, not exceeding the same amount. In the original insurance, he is the *insurer*; in the second, the *assured.* His object in reinsurance is to protect himself against the risks which he had assumed. There is no privity of contract between the original assured and the reinsurer, and the reinsurer is under no liability to such original assured.

Reinsure', *v. a.* To insure a second time.

Rein'tegrate, *v. a.* To restore; to renew with reference to any state or quality.

Reintegra'tion, *n.* A renewing, restoring, or making whole again.

Reinter', *v. a.* To inter a second time.

Reinter'rogate, *v. a.* To interrogate afresh; to question repeatedly.

Reintro:hce', *v. a.* To introdnce a second time.

Reintroduction, (*dŭk'shun,*) *n.* A second, or renewed introduction.

Rein'undate, *v. a.* To inundate again.

Reinvest', *v. a.* To invest anew.

Reinvestigate, *v. a.* To investigate again, or a second time.

Reinvestigation, (*-gā'shun,*) *n.* A second investigation.

Reinvest'ment, *n.* Act of investing again, or anew.

Reinvig'orate, *v. a.* To reanimate; to infuse vigor into afresh.

Reinvolve, *v. a.* To involve anew.

Reis-effendi, (*rēz-ef-fĕn'de,*) *n.* [Ar. *reis*, head, chief, and *effendi*, q. v.] In Turkey, the minister, or secretary of state, for foreign affairs.

Reissuable, (*rē-ish'shu-a-bl.*) *a.* That may be reissued.

Reis'sue, *v. a.* To issue again, or a second time.

—*n.* A second, or repeated issue.

Reis'terstown, in *Maryland*, a post-village of Baltimore co., abt. 17 m. N.W. of Baltimore.

Reiter, (*rī'ter,*) *n.* [Ger., a rider.] One of the German lanzknechts, or cavalry, of the 14th and 15th centuries.

Reit'erate, *v. a.* [Fr. *réitérer.*] To repeat time after time; to say or do again and again, or repeatedly; as, to *reiterate* a promise.

—*a.* Reiterated; repeated. (R.)

Reit'eratedly, *adv.* Repeatedly.

Reiteration, (*-ā'shun,*) *n.* [Fr. *réitération.*] Repetition.

Reit'erative, *n.* (*Gram.*) A word signifying renewed or reiterated action. — A word formed from another, or employed to form another, by repetition; as, *riff-raff.*

Reject', *v. a.* [Lat. *rejicio — re*, and *jacio*, to throw; Fr. *rejeter.*] To throw away, as anything useless or vile; to cast off; to discard; as, a *rejected* plan, a *rejected* suitor. — To repudiate; to refuse to receive or accept; to decline with hauteur or incivility; to slight. — To refuse to grant or accede to; as, to *reject* a petition.

Reject'able, *a.* That may be rejected.

Reject'er, *n.* One who rejects, discards, or refuses.

Rejection, (*re-jĕk'shon,*) *n.* [Lat. *rejectio.*] Act of rejecting or throwing away; act of casting off or forsaking; refusal to accept a grant.

Reject'ive, *a.* Serving to reject.

Reject'ment, *n.* Matter rejected or thrown away.

Rejoice', *v. n.* [Fr. *réjouir, rejoaissant*, from Lat. *re*, and *gaudere*, to rejoice.] To experience joy or gladness in a high degree; to be exhilarated with lively and pleasurable emotions or sensations; to delight; to be joyful or glad; to exult.

—*v. a.* To make joyful or glad; to animate with lively, or pleasurable emotions or sensations; to gladden; to cheer; to exhilarate; to delight; to please.

Rejoi'cer, *n.* One who rejoices, or makes rejoicing.

Rejoicing, (*-sing,*) *n.* Act of expressing joy or gladness. — Subject or occasion of joy or gladness; cause of rejoicing or delight.

Rejoi'cingly, *adv.* With joy, gladness, or exultation.

Rejoin', *v. a.* [Fr. *rejoindre*, from Lat. *jungere*, to put under the same yoke.] To unite or fall in with after separation; to meet or attach one's self to again.

—*v. n.* To join something on. — To answer to a reply.

(*Law.*) To reply, as the defendant to the plaintiff's replication.

Rejoin'der, *n.* [From Fr. *rejoindre.*] An answer to a reply; or, generally, an answer.

(*Law.*) The answer of the defendant to the plaintiff's replication. See PLEADINGS.

Rejoint', *v. a.* To joint anew; to reunite the joints of. — Specifically, to fill up the joints of with cement or mortar, as the interstices between the stones of buildings.

Rejudge, (*jŭj',*) *v. a.* To judge again, or a second time; to review or reëxamine; as, to *rejudge* a cause.

Rejuvenate, *v. a.* [O. Fr. *rejeuvenir.*] To make young again.

Rejuveneseence, Rejuvenescency, (*-ĕs'sens, -ĕs'sen-si.*) *n.* A renewing of youth; state of being or becoming young again.

Rejuvenes'cent, *a.* Becoming, or causing to become, rejuvenated.

Rejuvenize, *v. a.* To make young again.

Rekindle, (*-kĭn'dl,*) *v. a.* To kindle again.

Relade', *v. a.* To lade, or load, again.

Relaid, (*-lād,*) *imp.* and *pp.* of RELAY, *q. v.*

Relais, (*rŭh-lā,*) *n.* (*Fortif.*) A narrow path on the exterior of the rampart, to receive the earth that may be washed down, and prevent its falling into the ditch.

Reland', *v. a.* and *v. n.* To go on shore after embarkation.

Relapse, (*-lăps,*) *v. n.* [Lat. *relabor, relapsus*, to slide or glide down.] To slip or slide back; to return. — To

fall or go back; to backslide; to return to a former state, as of vice or error; to fall back from recovery, or a convalescent state.

—*n.* A sliding or falling back, particularly into a former bad state, either of body or morals.

Relaps'er, *n.* One who relapses into vice or error.

Relate', *v. a.* [Fr. *relater.*] To report; to recount; to recite; to rehearse; to give orally or in writing, as the particulars of an event; as, to *relate* a story. — To ally by connection or kindred.

"To whom *related*, or by whom begot." — *Pope.*

—*v. n.* To refer; to pertain; to have bearing, relation, or concern; — preceding *to*.

Relat'ed, *p. a.* Allied by kindred; connected by ties of blood or alliance, particularly by consanguinity; as, a person *related* in the third degree. — Being in connection or relation; as, electricity and galvanism are nearly *related*.

(*Mus.*) Same as Relative, *q. v.*

Relater', *n.* One who relates, narrates, or recites.

Relation, (*-lā'shun,*) *n.* [Fr., from Lat. *relatio.*] Act of relating, or of telling or going over particulars; that which is told or related; narration; recital; account; narrative of facts; as, a concise historical *relation*. — Respect; reference; regard; connection between things; state of being related or of referring; direct conformity of parts to a whole and to each other; analogy; ratio; proportion; as, art viewed in *relation* to poetry. — Affinity; consanguinity; kindred; connection by birth or marriage; family ties; relationship; as, the *relation* of parents and offspring. — A relative; a kinsman or kinswoman; a person connected by consanguinity or affinity; as, he was discarded by his rich *relations*.

Rela'tional, *a.* Having relation, kindred, or affinity. — Denoting or specifying some relation, as a phrase.

Rela'tionship, *n.* State of being related by consanguinity, kindred, affinity, or other alliance.

Rel'ative, *a.* [Fr. *relatif.*] Having relation or reference respecting; standing in connection; pertaining; as, to use arguments not *relative* to the point at issue. — Not absolute or existing by itself; having close or obvious connection, relation, or affinity; considered as belonging to or respecting something else.

"Wholesome and unwholesome are *relative*, not real, qualities." *Arbuthnot.*

(*Gram.*) Referring to an antecedent; expressing or implying relation. — *R. pronouns.* They differ from personal and other pronouns in this, that, besides standing for nouns, they at the same time have the power of conjunctions. They join sentences or clauses by *relating*, or referring back directly, to something just named. The relatives in English are *who*, *which*, and *that*. *What* is used for *that which*, thus embracing both relative and antecedent. *Who* is employed when the reference is to persons, and *which* when it is to inferior animals or things. *That* is applied to both persons and things; but it does not follow that it may be used at pleasure instead of *who* or *which*. It is only when the purpose of the relative clause is to limit or define the thing meant, that *that* is ever applied; and for this purpose, its use is in general preferable to that of *who* or *which*. It is easier and more idiomatic to say: "All the men *that* had blue eyes," than, "All the men *who*," &c.; and who would think of saying: "This is the house *which* Jack built?" Besides *that* so employed often avoids ambiguities that would attend *who* or *which*. *Ex.* — "His conduct surprised his English friends, *who* had not known him long." This may mean either that his English friends generally were surprised, for the reason that they had not known him long; or that only a portion of them — those, namely, that had not known him long — were offended. If the latter is the meaning intended, it would remove all ambiguity to write: "His English friends *that* had not known him long."

(*Mus.*) Characterizing, or pertaining to, chords, which, by reason of the identity of some of their tones, admit of a natural transition from one to the other. (*Moore.*) — *Relative keys.* Keys which have all their tones but one in common; a minor mode or key is also said to be the *relative* of the major key possessing the same signature.

Relative terms. Terms which denote relation, as husband and wife, parent and child, &c.

Rel'ative, *n.* A person related or connected by blood or affinity; — strictly, one allied by consanguinity; a relation; a kinsman or kinswoman. — That which has relation to something else.

(*Gram.*) A word which relates to or represents another word, called its *antecedent*, or which refers back to a sentence or member of a sentence; as, a *relative* pronoun.

Rel'atively, *adv.* In a relative sense or manner; in relation or respect to something else; not absolutely.

Rel'ativeness, Relativ'ity, *n.* State of being relative.

Relat'or, *n.* [Fr. *relateur;* Lat., from *referre.*] A narrator; a reciter.

(*Law.*) A rehearser or teller; one who, by leave of court, brings an information in the nature of a *quo warranto*.

Rela'trix, *n.* (*Law.*) A female relator.

Relax', *v. a.* [Lat. *relaxare;* Fr. *relaxer.*] To make lax or loose; to slacken; to loosen; to make less close, firm, tense, or rigid; as, to *relax* a cord or a muscle. — To remit; to lessen or lower the stringency or rigor of; to make less severe, strenuous, or forcible; as, to *relax* a law, sentence, or penalty. — To ease; to divert; to unbend from constraint or attention; to prosecute less assiduously or laboriously, as efforts; as, recreation *relaxes* the mind. — To open; to loosen; to relieve from constipation or costiveness; as, diuretic medicines *relax* the bowels.

Relax', *v. n.* To be made lax or slack; to become loosened or feeble. — To become lessened in severity or rigor; to abate in force. — To unbend; to take diversion or recreation; to remit in close effort or attention.

Relax'able, *a.* That may be relaxed or remitted.

Relax'ant, *n.* (*Med.*) A medicine that relaxes the bowels.

Relaxa'tion, *n.* [Fr., from Lat. *relaxatio.*] Act of relaxing, or state of being relaxed or loosened; remission or slackening of closeness, tension, firmness, rigor, effort, or costiveness; diminution of the healthy and natural tone of parts; as, *relaxation* of the sinews, *relaxation* of the bowels, *relaxation* of a rule, law, or system, &c. — Remission from application, effort, or attention; indulgence in recreation, diversion, or amusement; as, *relaxation* from toil or business.

Relax'ative, *a.* [O. Fr. *relaxatif.*] Laxative; that may relax.

—*n.* A laxative; a medicine that relaxes the bowels.

Relay', *n.* [Fr. *relais*, from *relayer*, to change horses.] A supply of horses placed on the road, to be in readiness to relieve others, in order that the traveller may proceed without delay. — A supply of hounds or sporting dogs kept in readiness at certain places to pursue the game.

—*v. a.* To lay again; as, to *relay* a floor.

Releasable, (*-lēs'a-bl,*) *a.* That may be released.

Release', *v. a.* To loosen again; to set free; to liberate; to disengage or let go from restraint of any kind; to discharge from custody; as, to *release* a prisoner. — To relieve from anything that constrains, confines, or oppresses; as, death *released* him from his sufferings. — To let go, as a legal claim or obligation; to relinquish; to quit; to give up. — To lease over again; to grant a new lease of; as, to *release* a house or land.

—*n.* Act of setting free or at liberty; state of being freed or liberated; deliverance or discharge from restraint of any kind, as from durance, confinement, or bondage. — Relief from care, pain, oppression, or any burden. — Acquittance; discharge from obligation or responsibility.

(*Law.*) The giving up or abandoning a claim or right to the person against whom the claim exists, or the right is to be exercised or enforced. — The conveyance of a man's interest or right which he hath, unto a thing to another that hath the possession thereof, or some estate therein. — The relinquishment of some right or benefit to a person who has already some interest in the tenement, and such interest as qualifies him for receiving or availing himself of the right or benefit so relinquished.

Releasee', *n.* The receiver, or grantee, of a release.

Release'ment, *n.* Act of releasing from confinement, pain, penalty, or obligation.

Releas'er, *n.* One who gives release.

Rel'egate, *v. a.* [Fr. *reléguer.*] To consign; to dispatch; to remand; to transfer; — specifically, to banish; to exile; to cause to depart.

Relega'tion, *n.* [Fr.; Lat. *relegatio.*] Act of relegating; deportation; consignment; exile; banishment.

Relent', *v. n.* [Fr. *ralentir*, from Lat. *re*, and *lentesco*, to become soft or pliant.] To soften in temper; to become more mild, lenient, or tender; to feel compassion; to become less harsh, inflexible, or cruel. — To become less intense. (R.)

"He will *relent*, and turn from his displeasure." — *Milton.*

Relent'less, *a.* Unrelenting; unpitying; unmerciful; unmoved by compassion; insensible to the distresses of others; destitute of tenderness; implacable; unforgiving; cruel; as, *relentless* despotism.

Relent'lessly, *adv.* In a relentless manner; implacably; without mercy or pity.

Relentless'ness, *n.* Quality of being relentless, or of being unmoved by pity.

Relessee', *n.* (*Law.*) The person to whom a release is executed.

Relessor', *n.* (*Law.*) One who executes a release.

Relet', *v. a.* To let again, or anew, as a house.

Rel'evance, Rel'evancy, *n.* State of being relevant.

Rel'evant, *a.* [Fr. *relever*, ppr. *relevant*, from Lat. *re*, and *levo, levatus*, to raise.] Relieving; affording aid or support. (R.) — Having applicableness or pertinence, as an argument or illustration; appropriate; suitable; as, a quotation *relevant* to the case.

Reliabil'ity, *n.* Reliableness.

Reli'able, *a.* That may be trusted or relied on; worthy of trust, dependence, or reliance; as, a *reliable* witness, a *reliable* piece of intelligence.

Reli'ableness, *n.* State or quality of being reliable.

Reli'ably, *adv.* In a reliable or trustworthy manner.

Reli'ance, *n.* [From *rely.*] A relying; act of relying, or condition or quality of being reliant; rest or repose of mind, resulting from a full belief of the veracity, integrity, or trustworthiness of a person, or the certainty or actuality of a fact; trust; confidence; dependence; as, place no *reliance* on promises. — That on which one relies; basis of dependence; ground of trust or confidence.

Reli'ant, *a.* Having or feeling reliance; trusting; possessing confidence in.

Rel'ic, *n.* (Formerly spelled Relique.) [Fr. *relique;* Lat. *reliquiæ.*] That which remains, or which is left after the loss or decay of the rest; — generally in the plural.

"Go gather up the *reliques* of thy race." — *Shaks.*

(*Eccl.*) In the Roman Catholic and Eastern churches, the name given to objects which derive their value from their connection with our Lord and with the saints; as, for example, fragments of our Lord's cross or crown of thorns, portions of the dust, the bones, the blood, the instruments of torture, the chains, &c., of the martyrs, the mortal remains, the clothes, the books, and other objects of personal use of the other saints, and even objects to which a certain indirect sacred interest is given by their being brought into contact with the direct memorials of the distinguished dead, as by their being placed on the tombs of the martyrs, touched with the relics, or blessed at the shrine or sanctuary of the saints, &c. In all such cases, the motive of religious honor, however differently it arises, is precisely the same, viz., the association of the object which is honored with the personage whose virtues or services are the subject of grateful veneration. The merits of relics, in their theological aspect, are beyond the scope of this publication.

—Hence, by implication, a memento; a memorial; a souvenir; anything preserved in remembrance.

"Fair Greece! sad *relic* of departed worth." — *Byron.*

Rel'ict, *n.* [Lat. *relictus, relicta*, from *relinquo.*] A widow; a woman whose husband is deceased.

Reliction, (*-lik'shun,*) *n.* [Lat. *relictio.*] (*Law.*) An increase of land by the retreat or recession of the sea or a river.

Relief, (*-leef',*) *n.* [Fr., from *relever*; Lat. *relevo.*] Act of relieving, or state or condition of being relieved: the removal, in whole or in part, of any evil that afflicts the body or mind, or of anything oppressive or burdensome, by which some ease is obtained; alleviation; mitigation; help; aid; succor; remedy; redress; indemnification. — That which mitigates or removes pain, or other evil or burden; as, death would be a *relief* to him. — The release, as of sentinels, or others, from some post or duty, and the substitution of others; also, the person or persons thus substituted; as, he must stay till his *relief* comes.

(*Fortif.*) The vertical distance of any point in a fortified work, from a horizontal plane coincident with the base of its scarp. The *relief* of a work implies the *relief* of the parapet, *i. e.*, its height above the base of the scarp.

(*Sculp.*) See Relievo.

(*Paint.*) The degree of prominence or boldness which a figure presents to the eye at a distance; as, the horse is painted in strong *relief*.

(*Arch.*) The projection of a figure or ornament from the ground or plane on which it is sculptured.

(*Phys. Geog.*) The elevation of the surface of a country.

Relief-valve. (*Mach.*) A valve belonging to the feeding apparatus of a marine engine, through which the water escapes into the hot-well when it is shut off from the boiler.

Reliefless, *a.* Lacking relief; without relief or remedy.

Reli'er, *n.* One who relies; one who places confidence in.

Reliev'able, *a.* That may be relieved.

Relieve, (*re-lēv',*) *v. a.* [Fr. *relever;* Lat. *relevo.*] To lift or raise up; to cause to rise; to set off by contrast; to give prominence, projecture, or salience to. — To lighten; to lessen; to abate; to mitigate; to alleviate; to assuage; to ease; to set free, wholly or partially, from anything that is considered to be an evil or a burden; as, to *relieve* the wants or distresses of others. — To set free from anything that pains the body or afflicts the mind; to give ease, comfort, help, or consolation to. — To release from a post or station, or from duty, as sentinels, a guard, a body of troops, or ships, and station others in their stead. — To right; to redress; to remove from, or ease of, as any grievance, burden, wrong, or oppression, by judicial or legislative interposition; to make good by indemnification.

Relieve'ment, *n.* Act of relieving, or state of being relieved; relief; release; liberation.

Reliev'er, *n.* One who, or that which, relieves, or gives ease or comfort.

(*Ord.*) An iron ring fixed to a handle, and serving to disengage the searcher of a gun when one of its points is retained in a hole.

Relieving, (*-lēv'-,*) *p. a.* Serving to relieve.

Relieving arch. (*Arch.*) See Discharge. — *Relieving-tackle.* (*Naut.*) Temporary tackle attached to the end of the tiller, in bad weather, to assist the helmsman, and in case of accident happening to the tiller-ropes or wheel.

—*pl.* (*Shipbuilding.*) Two strong tackles used to prevent a ship's overturning on the careen, and afterwards to assist in setting her upright.

Relievo, (*re-lē'vo,*) *n.* [It. *rilievo.*] (*Sculp.*) That species of work which is raised above a surface with which it is connected. There are three gradations of relievo: — *Basso-relievo*, in which the figures project only slightly from the ground on which they are sculptured; *mezzo-relievo*, in which the figures stand out about half their natural proportions, the other half appearing immersed in the ground-work; and finally, *alto-relievo*, in which the figures stand completely out from the ground, being attached to it only here and there, while in most places it is worked entirely round, as in single statues.

Relight, (*-līt',*) *v. a.* To light, or set on fire, again.

Religion, (*-lij'un.*) *n.* [Fr., from Lat. *religio*, from *religare*, to bind fast.] That bond or obligation and sense of duty which we feel from the relation in which we stand to some superior power; — specifically, an acknowledgment of our obligation to God as our Creator, Preserver, and Redeemer, accompanied by a feeling of reverence and love, and a consequent return of duty and obedience to him; duty to God and to his creatures; practical piety; godliness; devotion, with the practice of all moral duties and obligations. — Any system of faith and worship. The varieties of religions in the world are almost innumerable; but they may be reduced to four great classes, — the Jewish, Christian, Mohammedan, and Pagan

Religionism, (*-lij'un-izm,*) *n.* Practice of, or adherence to, religion. — Pretended or assumed religion.

Relig'ionist, *n.* A bigoted or pretended devotee to religion; one deeply and firmly attached to a religion.

Religios'ity, *n.* [Lat. *religiositas.*] Religionsness. (R.)
Religious, (*-lij'us,*) *a.* [Fr. *religieux;* Lat. *religiosus.*] Pertaining or relating to religion; teaching religion; contaiuiug religious subjects, as ths doctrines and precepts of religion; devotioual; appropriated to the performance of sacred or religious duties; concerned with religion; as, a *religious* sect, a *religious* book, a *religious* house, a *religious* order, &c. — Pious; godly; devout; holy; reverential; loving and reverencing the Supreme Being, aud obeying his precepts; devoted to the practice of religion; as, a *religious* man, a *religious* lifs. — Characterized by strictness or exactness, such as religion requires: conscientious; dutiful; scrupulously faithful. — Engaged by vows to a monastic life. — Appropriate to tho performanco of sacred or religious duties.
Religiously, (*rē-lij'us-li,*) *adv.* In a religious manner; piously; with love and revcrence to the Supreme Being; in obedience to the divine commands; according to the rights of religion; reverently; with veneration; also, exactly; strictly; conscientiously.
Relig'iousness, *n.* State or quality of being religious
Relin'quant, *n.* One who relinquishes.
Relinquish, (*re-link'wish,*) *v. a.* [Lat. *relinquere,* to leave behind, from *re,* and *linquo,* to leave.] To depart or withdraw from; to leave; to quit; to forsake. — To give up: to resign; to renounce.
To relinquish back or *to,* to give up; to relsass.
Relin'quisher, *n.* A person who relinqnishes.
Relin'quishment, *n.* Act of leaving or quitting; a forsaking; the renouncing a claim to; abandonment.
Rel'iquary, *n.* [Fr. *reliquaire;* L. Lat. *reliquarium.*] A small chest, box, or casket in which relics are kept.
Relique, (*re-leek',*) *n.* A relic.
Reliquiæ, (*-lik-wi-ē',*) *n. pl.* [Lat., from *relinquere,* to leave behind.] (*Geol.*) Fossil remains of plants and animals found in the sedimentary deposits.
(*Bot.*) The withered remains of leaves which, not being articulated with the stem, cannot fall off, but decay npon it.
Reliq'uidate, *v. a.* To liquidate again, or a second time.
Reliquida'tion, *n.* A renewed liquidation, or adjustment.
Rel'ish, *v. a.* [O. Fr. *relécher,* from Lat. *lingere.*] To be gratified with the enjoyment or nse of; to like or enjoy the taste of; to have a taste or liking for. — To give an agreeable taste to.
—*v. n.* To have a pleasing taste; to give pleasure. — To have a flavor.
—*n.* A pleasing taste; that which gratifies the palate. — That which gives pleasnre or delight; power of pleasing. — Taste: fiavor; savor; gusto; zest. — Liking; fondness; delight; appetite. — A taste; a small quantity just perceptible. — Something taken with food to increase the pleasure of eating.
Rel'ishable, *a.* Having a taste.
Relive, (*re-liv',*) *v. n.* To revive; to live anew.
Reload', *v. a.* To load again, as a gun.
Reloan', *v. a.* To loan again; to lend a second time.
—*n* A second lending, or loan, of the same thing.
Relocate', *v. a.* To locate anew, or a second time.
Relocation, (*-kā'shun,*) *n.* A second, or renewed, location.
(*Law.*) Renewal of a lease.
Relodge, (*-lŏj',*) *v. a.* To lodge again, or afresh.
Relucent, (*-lū'sent,*) *a.* [From Lat. *relucere,* to shine.] Shining; pellucid; transparent; clear; bright; as, *relucent* waters.
Relnct', *v. n.* [Fr. *rélucter.*] To strive or struggle against anything; to make or manifest resistauce, reluctance, or repugnance.
Reluc'tance, Reluc'tancy, *n.* [Sp. *reluctancia.*] State or quality of being reluctant; repugnance; opposition or aversion of mind; unwillingness; — frequently with *to* or *against* before the object; as, "it favors *reluctance against* God." — *Milton.*
Reluc'tant, *a.* [Lat. *reluctans.*] Struggling or striving against: much averse in heart; unwilling: repugnant; loth; as, a *reluctant* witness. — Backward; acting with, or proceeding from, some degree of repugnance or unwillingness; given or granted with reluctance; as, *reluctant* admissions of the truth.
Reluc'tantly, *adv.* In a reluctant manner; with reluctance. resistance, or repugnance; with opposition of heart; unwillingly.
Relnme', *v. a.* [Fr. *rallumer.*] To rekindle; to relight.
Reln'mine, *v. a.* To rekindle; to relnme. — To illuminate over again.
Rely, (*re-lī',*) *v. n.* (*imp.* and *pp.* RELIED,) (*re-līd'.*) [Prefix *re,* and *lie.*] To lie, rest, or repose on something, as the mind when satisfied of the veracity, integrity, or ability of persons, or of the certainty of facts, or of evidence; to confide; to depend; to trust; to have confidence.
Remade', *imp.* and *pp.* of REMAKE, *q. v.*
Remain', *v. n.* [Lat. *remaneo;* Ger. *menō.* to stay.] To stay behind after the withdrawal of others; to continne in the same place when others remove, or are lost, destroyed, or taken away; to he left after any event; to be left after a part, or others, have passed; to be left, as not included or comprised. — To continne in a place tor a time indefinite: to continne; to nbide; to stay; to tarry; to continue unchanged, or in a particular state; to last or endure.
—*v. a.* To await; to be left to.
"The easier conquest now *remains* thee."—*Milton.*
—*n.* Relic; reliquary; reminder; memorial; that which is left; — mostly used in the plural; as, "their small *remains* of life." (*Pope.*) — Specifically, that which is left of a human body after death; a corpse; — always employed in the plural.
"Fowls obscene dismember'd his *remains.*"—*Pope.*
—Posthumous writings; literary works, &c., left by a deceased anthor; as, Paley's Life and *Remains.*
Remain'der, *n.* That which remains, or is left; anything left attsr the separatiou and removal of a part; the rest; the residue. — Relics; remains; the corpse of a humau being.
(*Math.*) Tbe quantity that is left after subtraction, or after any deduction; — called iu algebra the *difference.*
(*Law.*) Au estate in *R.* is dcfiued to be "au estate limited to take effect and be enjoyed after another estate is determined." Thus, if a man seized in fee-simple grants lands to A for twenty years, and after the determination of the said term then to B and his heirs forever, hers A is tenant for years, and ths *R.* falls to B. A *remainder* differs from a *version,* in that the former is created by the act of parties, the latter by act of law. Tbe estate which precedes tbe estate in *R.* is called the *particular estate,* as being a *particula* or portion; the two being equal only to one estats in fee. There must first necessarily be some particular estate precedent to the estate in *R.,* in order, as is said, to support it. The *R.* must also commence or pass out of the grantor at the time of tbe creation of the particular estate, and must be limited to take effect in possession immediately upon the determination of tbe particular estate, and neither sooner nor later. *R.* are of two kinds, — *vested* or *executed,* and *contingent* or *executory.* Vested *R.* are where the estate is invariably fixed to remain to a determinate person after ths particular estate is spent; contingent *R.,* on the other hand, are limited either to an uncertain person, or upon an uncertain event; *i. e.,* to a person not *in esse,* or not ascertained, or upon an event which may not happen at all, or not happen until after the particular estate is determined. The common law on the doctrine of *R.* is followed, almost unchanged, in most of the States.
Remain'der-man, *n.*; *pl.* REMAINDER-MEN. (*Law.*) One who has an estate after a particular estate has been determined.
Remake', *v. a.* To make anew, or afresh.
Remand', *v. a.* [Fr. *remander,* from Lat. *re,* and *mando,* to commit to one's charge.] To call or send back, as one who, or that which, is ordered to a place; to send, as an accused party back to custody.
(*Law.*) When it is necessary to postpone the preliminary examination of a criminal case of a serious character on account of absence of witnesses or other motives, the judge recommits, or *remands,* to prison the person charged with the offence.
Remand'ment, *n* Act of remanding or sending back.
Rem'anence, Rem'anency, *n.* State or quality of being remanent. (R.)
Remark', *n.* [Fr. *remarque — re,* and *marque,* from Ger. *mark,* a limit, boundary.] Act of remarking or attentively viewing; notice or observation. — Notice or observation expressed in words or writing; note; comment; — also, a casual observation; as, to offer a *remark.*
—*v. a.* [Fr. *remarquer*] To mark in an express or notable manner; to point out clearly or obviously. (R.) — To observe; to notice; to heed; to regard; to take notice of in the mind without expression; as, to *remark* what is passing. — To express in words or writing, as what one thinks or sees; to utter, as observations; to call attention to; to bring to notice; as, I agree with what my friend has *remarked.* — To mark anew, again, or a second time; as, to *remark* a bale of goods.
—*v. n.* To observe; to say; to make observations; as, allow me to *remark.*
Remark'able, *a.* [Fr. *remarquable.*] Worthy of remark or notice; that deserves particular notice, or that may excite admiration or wouder; extraordinary; notable; distinguished; eminent; uncommon; as, a *remarkable* man, a *remarkable* event or circumstance.
Remark'ableness, *n.* State of being noteworthy.
Remark'ably, *adv.* In a manner or degree worthy of notice; in an extraordinary or notable manner.
Remark'er, *n.* One who remarks; an observer.
Remar'riage, *n.* A second, or renewed marriage.
Remar'ry, *v. a.* To marry again, or a second time.
—*v. n.* To be married again, or a second time.
Remast', *v. a.* To supply with a second mast, or set of masts, as a ship.
Remas'ticate, *v. a.* To masticate again, or repeatedly.
Remastica'tion, *n.* Act of masticating again or repeatedly; a chewing over again, as of the cud.
Rem'bang, a town of Java, cap. of a Dutch residency, on the N. coast, 60 m. N.W. of Samarang; Lat. 6° 40′ 30″ S., Lon. 111° 17′ E.; *pop.* 11,000.
Remblai, (*rŏng'bla.*) *n.* [Fr., from *remblayer,* to embark.] (*Engineering.*) The earthwork that is carried to bank, in the case of a railway or canal traversing a natural depression of the surface.
(*Fort.*) The earth or materials used to form the whole mass of rampart and parapet. It may contain more than the *déblai* from the ditch.
Rem'brandt, VAN RYN, one of the most celebrated painters and engravers of the Dutch school, b. 1606, at Leyden. He acquired his art from several masters at Amsterdam, and early in life grew famous. *R.* was master of all that relates to coloring, distribntion of light and shade, and composition, and though deficient in other requisites of a true artist, it cannot be denied that his pencil is masterly and unique, possessing an energy and effect belonging to no other painter. His etchings have wonderful freedom, facility, and boldnesa. *R.* was twice married, resided during the greater part of his life at Amsterdam, and acquired a large fortune. D. 1669.
Re'meant, *a.* [From Lat. *remeare,* to go or come back.] Coming back; returning; retrograding; as, "the *remeant* sun." — *C. Kingsley.*
Remeasure, (*-mēzh'yūr,*) *v. a.* To measnre again.
Reme'diable, *a.* [From *remedy.*] That may bs remedied or cured; sanable; curable.
Reme'diably, *adv.* In a manner susceptible of remedy.
Reme'dial, *a.* Affordiug, or admitting, a remedy.
Reme'dially, *adv.* In a remedial manner.
Rem'ediless, *a.* Not admitting a remedy, as disease, incurable; irretrisvable; desperate; hopeless.
Rem'edilessly, *adv.* In a manner or degree preclusive of a remedy.
Rem'edy, *n.* [Fr. *reméde;* Lat. *remedium — re,* and *medeor,* to heal, to relieve.] That which heals or cures a disease; any medicine or application which puts an end to diseass and restores health; a medicine; a restorative; — preceding *for;* as, a *remedy for* ths gout. — That which counteracts an evil of any kind; that which repairs or retrieves loss or disaster; reparation; relief; cure or corrective.
(*Law.*) The legal means to recover a right, or to obtain redress for a wrong.
—*v. a.* [Fr. *remédier.*] To cure; to heal; to remove, as an evil; to repair; to redress; to rsmovs mischisf; as, to *remedy* a wrong.
Remelt', *v. a.* To melt anew, or a second time.
Remem'ber, *v. a.* [O. Fr. *remembrer;* It. *rammemorare.*] To bring or recall to the memory; to recollect; to think of again; to have in the mind, as a former idea which recurs to the mind without effort. — To bear or keep in mind; to attend to; to observe; to cherish the memory of; to preservs from being forgotten; to think of with affection, respect, esteem, or gratitude.
"Dear as *remembered* kisses after death."—*Tennyson.*
Remem'berable, *a.* That may be remembered.
Remem'berably, *adv.* So as to be remembered.
Remem'brance, *n.* Act of remembering; the retaining in miud or bringing to recollection. — State of being remembered; retention in the mind or memory; recollection; remiuiscence; revival in the mind or memory; as, "this ever grateful In *remembrance* bear." (*Pope.*) — A token by which a person or thing is kept in memory; a memorial; a memento; a keepsake; a souvenir; a memorandum; an accouut preserved. — Power of remembering; faculty by which past ideas, acts, persons, or events are called to mind: also, period over which such faculty extends; duration of memory.
Remem'brancer, *n.* One who reminds, or revives, the remembrance of anything; something that rsminds or recalls to remembrance, as a gift.
Remem'orative, *a.* That reminds; that recalls to mind.
Remi', (**St.,**) or **Remi'gius,** the name of two saints of the Roman calendar: — 1. An apostle of the Franks who baptized Clovis, and became archbishop of Rheims, died 533. 2. An archbishop of Lyons, who was of Gaulish origin, and wrote against Godeschalcus, presided at the council of Valence 855, died 875. — A third of the name, catled REMI, or REMIGIUS OF AUXERRE, was a Benedictine monk and commentator, died 980.
Rem'iform, *a.* [Lat. *remus,* an oar, and *forma,* a form.] Formed or shaped like an oar.
Rem'iges, *n. pl.* [Lat. *remex,* a rower; pl. *remiges.*] (*Zoöl.*) The quill-feathers of the wings of a bird, which, like oars, propel it through the air.
Remi'grate, *v. n.* [Lat. *remigro,* from *re,* again, back, and *migro,* to remove.] To remove back again; to return.
Remind', *v. a.* To cause to remember; to bring to the remembrance of.
Remind'er, *n.* A person who, or that which, reminds.
Remind'ful, *a.* Careful to recall to miud; calling to mind.
Rem'ington, in *Indiana,* a post-town of Jasper co., about 40 m. W. of Logansport.
Remington Rifle. (*Gun.*) The Remington system of breech-loading, so called from the name of its American inventor, demands attention from its important position in the developmeut of modern small arms. The arm of the gun is very simple, the mechanism being composed of very few, simple parts, all securely protected in the frame, the weakest point, the neck, being guarded by the upper and lower extension of the frame. At the moment of dischargo, the breech-piece is supported by the front part of the hammer, which forms a shoulder to receive the recoil, and the entire strain upon the axis of the breech-piece comes on that part in the rear of the forward pin, as has been demonstrated by experiments, in which the arm has been successfully fired after having the front portion of the axis of its breech-piece removed by filing. The breech-piece and tbe hammer are of considerable weight and thickness, and of the best solid steel. They, in turn, are supported by solid steel pins, nearly half an inch in thickness,

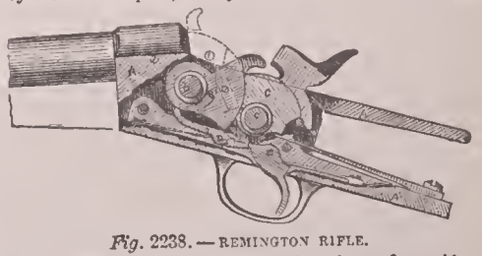


Fig. 2238. — REMINGTON RIFLE.

which passes through the strong iron frame from side to side. The metal in all these parts is so located as to equalize their capacity to resist the action of rscoil. In

consequence of the peculiar interlocking and bracing of the hammer and breech-piece, the hammer is locked securely by the recoil, and the more securely the greater the recoil. Fig. 2238 represents a longitudinal section through the breech of the Remington rifle when open and ready for loading. The barrel is screwed into the breech-piece, through which pass two strong bolts, *C* and c, upon which the breech-block, *B*, and the hammer, *G*, hinge. In order to remove the empty cartridge-cases out of the chamber, which is in the rear end of the barrel, the hammer must first be locked, the breech-block is then drawn backwards, and assumes the position shown in the accompanying Fig. (2238.) By this movement of the breech-block, an extractor, situated in the inside of the chamber, is operated, which draws the cartridge slightly, whereupon it may easily be removed with the fingers. The following cartridges may then be inserted, and the breech-block pushed forward to its original position. To hold it in this position, the lever, *D*, acting upon the pin, *d*, and held in its turn by the spring, *e*, is applied, and falls into a notch in the breech-piece. In the breech-block itself, is the pin upon which the hammer strikes for exploding the cartridge, and the hammer is operated by the main-spring, as shown in the wood-cut. As the hammer descends, its forward surface, from its peculiar circular construction, collides with the rear surface of the breech-piece, and it also acts as a support in resisting the reaction of the discharge. Introduced to public attention in 1866, the *R.* system was widely accepted both in the United States and Europe, and in 1870 was adopted for the breech part of the rifles in the United States navy. Since this date, however, there has been a great activity in the invention of improved small arms, and a number of more efficient weapons have come into use.

Reminis'cence, Reminis'cency, *n.* [Fr., from Lat. *remmiscentiæ*, from *reminiscor*, to recall to mind.] That faculty of the mind by which ideas formerly received into it, but forgotten, are recalled or revived in the memory; recollection; remembrance. In the theory of Plato, knowledge was only a reminiscence or recovery of truth which the soul had possessed in a former state of existence, but which it had forgotten since it began its sojourn on earth.

Reminis'cent, *n.* A person who recalls to mind past events.

Reminiscen'tial, *a.* Relating to reminiscence.

Remiremont, (*rem'eer-mawnt'*,) a town of France, dept. of Vosges, on the Moselle, 14 m. S.E. of Epinal; *pop.* 5,500.

Remise', *n.* [Fr. *remettre;* from Lat. *remitto*, to send back, to deliver.] (*Law.*) A surrender, or return, as of a debt or duty.

—*v. a.* [Fr. *remiser.*] (*Law.*) To give, or grant, back; to release, as a claim or a debt.

Remiss', *a.* [Lat. *remissus*, from *remitto.*] Backward; careless; negligent; not performing duty or business; heedless. — Slow; languid; not vigorous, as motion.

Remiss'ful, *a.* Lenient; that forgives.

Remissibil'ity, *n.* State or quality of being remissible.

Remis'sible, *a.* Capable of being remitted or forgiven.

Remission, (*re-mish'un.*) *n.* [Lat. *remissio*, from *remitto.*] The act of remitting; abatement; relaxation; moderation. — Release; discharge or relinquishment of a claim or right.—Forgiveness; pardon; as, the *remission* of sins.

(*Med.*) A temporary diminution of the symptoms of a disease, either acute or chronic; diminution in the febrile symptoms, such as occurs in a remittent fever between the exacerbations.

(*Com.*) The sending of money to a distant place.

Remis'sive, *a.* [Lat. *remissivus*, relaxing.] Remitting.

Remiss'ly, *adv.* In a remiss manner; slackly; carelessly; negligently.

Remiss'ness, *n.* The state or quality of being remiss; slackness; slowness; want of ardor or vigor.

Remis'sory, *a.* Relating to forgiveness or remission.

Remit', *v. a.* [Fr. *remettre;* Lat. *remitto*, from *re*, and *mitto*, to send.] To relax; to make less tense or violent, as anger. — To pardon; to absolve. — To return; to send back. — To give up; to resign. — To restore; to replace. — To defer; to refer.

(*Com.*) To transmit, as money, bills, &c., to some person at a distance.

—*v. n.* To slacken; to become less intense or vigorous.

(*Med.*) To grow by intervals less violent, though not wholly intermitting.

Remit'ment, *n.* The act of remitting to custody; remittance.

Remit'tal, *n.* A remitting; a giving up; surrender.

Remit'tance, *n.* The act of remitting. — The act of transmitting money, bills, or the like, to a distant place; also, the sum or thing remitted.

Remit'tent, *a.* (*Med.*) Noting a fever which strikingly exacerbates and remits, but without intermission.

Remit'ter, *n.* One who remits, or makes remittance. —One who forgives.

(*Law.*) There is a remitter where he who has the right of entry in land, but is out of possession, obtains afterwards the possession of the land by some subsequent or defective title; in which case he is *remitted* or sent back, by operation of law, to his own preferable title.

Remit'tor, *n.* (*Law.*) One who makes a remittance; a remitter.

Remix', *v. a.* To mix anew.

Rem'nant, *n.* [Contracted from *remanent.*] Residue; that which is left after the separation, removal, or destruction of a part.

—*pl.* The ends of fabrics, as cloth, linen, &c.

Rem'nant, *a.* Remaining; yet left.

Re'mo, (St.,) a seaport-town of Italy, in Piedmont, on the Mediterranean, 14 m. S.E. of Oneglia; *pop.* 7,500.

Remod'el, *v. a.* To model or fashion anew.

Rem'olinite, *n.* (*Min.*) Atacamite from Los Remolinos, Chili.

Remol'lient, *a.* [Fr.] Mollifying; softening.

Remolten, (*re-mol'tn,*) *a.* Melted again.

Remon'strance, Remonstra'tion, *n.* [Fr. *remontrance.*] Strong representation of reasons against a measure; pressing suggestions or expostulations in opposition to a measure or act.

Remon'strant, *n.* One who remonstrates.

—*pl.* (*Eccl. Hist.*) See ARMINIANISM.

—*a.* Expostulatory.

Remon'strate, *v. n.* [Lat. *remonstrare*, from *re*, again, and *monstro*, to show.] To exhibit or present strong reasons against an act, measure, or any course of proceedings; to expostulate.

—*v. a.* To show by a strong representation. (R.)

Remon'strator, *n.* A remonstrant.

Rem'ora, *n.* [Lat.] An obstacle; a hindrance.

(*Surg.*) An instrument intended to retain parts *in sutu.* — *Dunglison.*

(*Zoöl.*) The common name of the *Echeneidæ*, a family of malacopterygious fishes, in which the dorsal fin is so modified as to become a flattened disc covering the top of the head, composed of movable cartilaginous plates directed obliquely backwards. The fish attaches itself

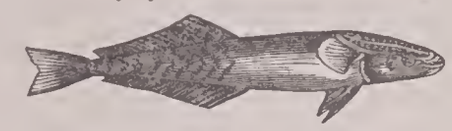


Fig. 2239. — WHITE-TAILED REMORA.

to a foreign body by its structure, and from this well-ascertained fact many fables have been invented regarding the genus; among others, one which asserts that the fish possesses the power of arresting the course of any ship to which it may have attached itself. The species are from 12 to 20 inches long.

Remorse, (*re-mors'*,) *n.* The keen pain or anguish excited by a sense of guilt; compunction of conscience for a crime committed.

Remorse'ful, *a.* Full of remorse.

Remorse'fully, *adv.* With remorse of conscience.

Remorse'less, *a.* Without remorse; having no pity or compassion on distress; ruthless; relentless.

Remorse'lessly, *adv.* Without remorse.

Remorse'lessness, *n.* The quality of being remorseless, or devoid of pity.

Remote', *a.* [Lat. *remotus.*] Distant in time, place, or connection; far; not near. — Alien; foreign; not agreeing with; not related.

Remote'ly, *adv.* At a distance in space or time; not nearly; at a distance in consanguinity or affinity.

Remote'ness, *n.* State of being remote.

Remo'tion, *n.* The act of removing; the state of being removed. (R.)

Remould', *v. a.* To mould or shape anew.

Remount', *v. n.* [Fr. *remonter.*] To mount again; to reascend.

—*v. a.* To mount again.

—*n.* (*Mil.*) A supply of good horses for the service of the cavalry.

Removabil'ity, *n.* The capacity of being removable from an office or station; power of being displaced.

Remov'able, *a.* That may be removed from an office or station; that may be removed from one place to another.

Remov'al, *n.* The act of moving from one place to another for residence. — The act of displacing from an office or post.—State of being removed; change of place.

Remove, (*re-moov'*,) *v. a.* [Sp. *remover;* Lat. *removeo* —*re*, and *moveo*, to move.] To move from its place; to withdraw; to cause to change place; to displace; as, to *remove* one's residence. — To cause to leave a person or thing; to take or put away in any manner;—hence, to banish; to destroy; to take from the present state of being; as, to *remove* an obstruction. — To carry from one court to another; as, to *remove* a suit by appeal.

—*v. n.* To be moved from its place; to change place or position in any manner; to go from one place to another; to change the place of residence.

—*n.* Act of removing; removal; change of place.—State of being removed; a going away; departure. — That which is removed, as a dish to be changed at table while the rest of the course remains.—Act of putting a horse's shoes upon different feet. — A step in any scale of gradation. — Distance or space through which anything is removed; interval.

Removed, (*-mōōvd,*) *a.* Remote; apart or separate from others; as, "so *removed* a dwelling."—*Shaks.*

Removed'ness, *n.* State of being removed; remoteness.

Remover', *n.* One who removes.

Rem'phan. (*Script.*) A deity which is said to have been worshipped by the Israelites while in the wilderness. The passage in *Acts* vii., which speaks of them taking up the tabernacle of Moloch and the star of their god Remphna, is supposed to refer to the words of Amos, "Ye have borne the tabernacle of your Moloch and Chiun, your images." Chiun and Remphan would on this hypothesis be the same, and both are thought to denote Sirius, the dog-star.

Remscheid, (*rem'shide,*) a town of Rhenish Prussia, 18 m. E.S.E. of Dusseldorf. *Manuf.* Principally iron wares.

Rem'sen, in *New York*, a post-village and township of Oneida co., abt. 18 m. N. by E. of Utica.

Remugient, (*-mū'ji-ent,*) *a.* [Lat. *re*, and *mugire*, to bellow.] Rebellowing.

Remunerabil'ity, *n.* Ability of being remunerated or recompensed.

Remu'nerable, *a.* That may be remunerated or rewarded; fit or proper to be recompensed.

Remu'nerate, *v. a.* [Fr. *rémunérer;* Lat. *remunero, remuneratus.*] To render a service back to; to reward for service; to repay; to requite; to recompense; as, to *remunerate* a man for his trouble.

Remunera'tion, *n.* [Fr.; Lat. *remuneratio.*] Act of remunerating, or of paying an equivalent for services, loss, or sacrifice. — That which remunerates; the equivalent given for services, loss, or sufferings; reward; repayment; recompense; compensation.

Remu'nerative, *a.* Affording remuneration, reward, or recompense; profitable; yielding an adequate return; as, a *remunerative* business.

Remu'neratory, *a.* Tending to remunerate or reward.

Remur'mur, *v. a.* To return or throw back in murmurs.

—*v. n.* To return, echo, or murmur back.

"The realms of Mars *remurmur'd* all around."—*Dryden.*

Remu'sat, JEAN PIERRE ABEL, an eminent orientalist, was b. at Paris, in 1788. He was Professor of the Chinese and Tartar languages at the Collége de France; was admitted into the Academy of Inscriptions in 1816; and, after Visconti's death, in 1818, he was appointed editor of the *Journal des Savans.* His principal works are, *Essai sur la Langue et la Littérature Chinoises; Plan d'un Dictionnaire Chinois; Mélanges Asiatiques;* and *Contes Chinois*, 3 vols. D. 1832.

Remy, (St.,) (*rai'me,*) a town of France, dept. of Bouches du Rhône, 42 miles from Marseilles. *Manuf.* Silks and woollens. *Pop.* 6,740.

Ren, *n.* [Lat., the rare singular of *renes*, kidneys.] (*Anat.*) Kidney.

Renaissance, (*rŭh-nā-sŏngs',*) *n.* [Fr., from *re*, again, and *naissance*, birth.] A renewal; a restoration.

(*Arch.*) A term applied to that period of the *Revival* when the classical began to be again introduced after the mediæval styles. The term is not confined to architecture alone, but is also used in ornamental art and sculpture. The architectural *R.* had its origin in Italy, where the Gothic styles never had had a strong footing. With the revival of old Roman literature, there arose a strong desire for the study of classic art, which was soon followed by an attempt to imitate it; and as early as the 14th century may be observed traces of the imitation of Roman architectural forms. The *R.*, properly so called, however, dates from the early part of the 15th century,

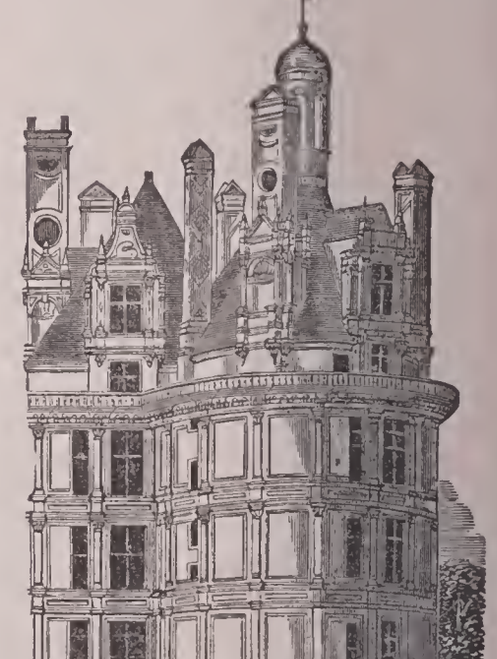
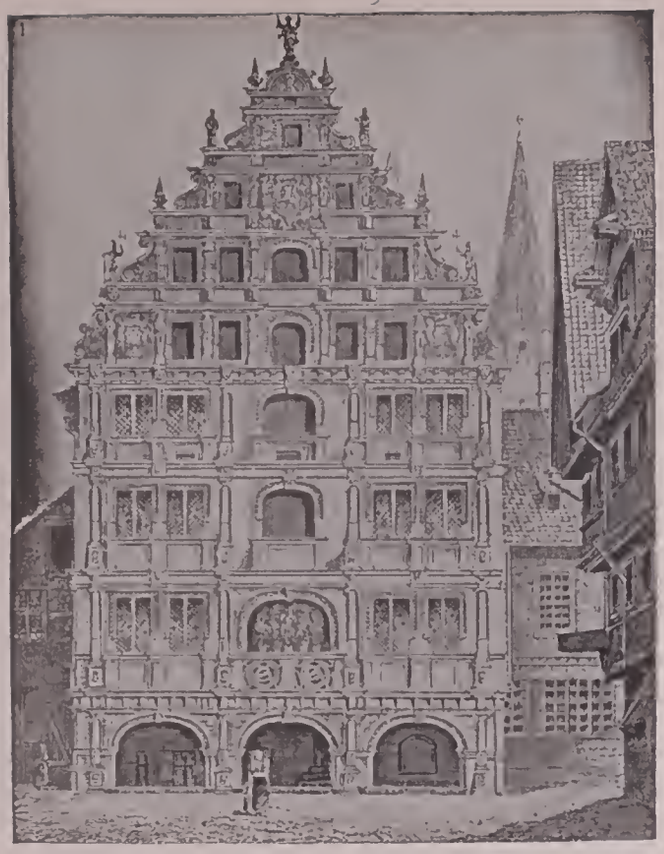


Fig. 2240. — CHÂTEAU DE CHAMBORD, (*Renaissance.*)

when it began to assume consistency and character: in the following century it attained its full development. Every country had its peculiar *R.*, although each was derived from that of Italy; these were named respectively after the different nations in which they appeared; as French, German, English *R.* The latter style is usually called *Elizabethan architecture.* They all bear a general family likeness, but each exhibits characteristic features of its own. The *R.* in general was founded upon the Roman *antique;* not upon the style of the temples, but upon that of their triumphal arches, baths,



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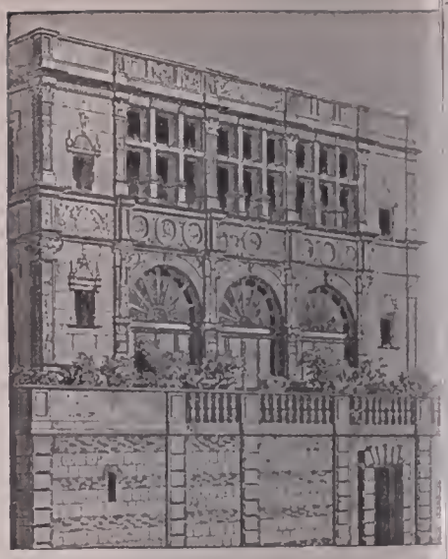

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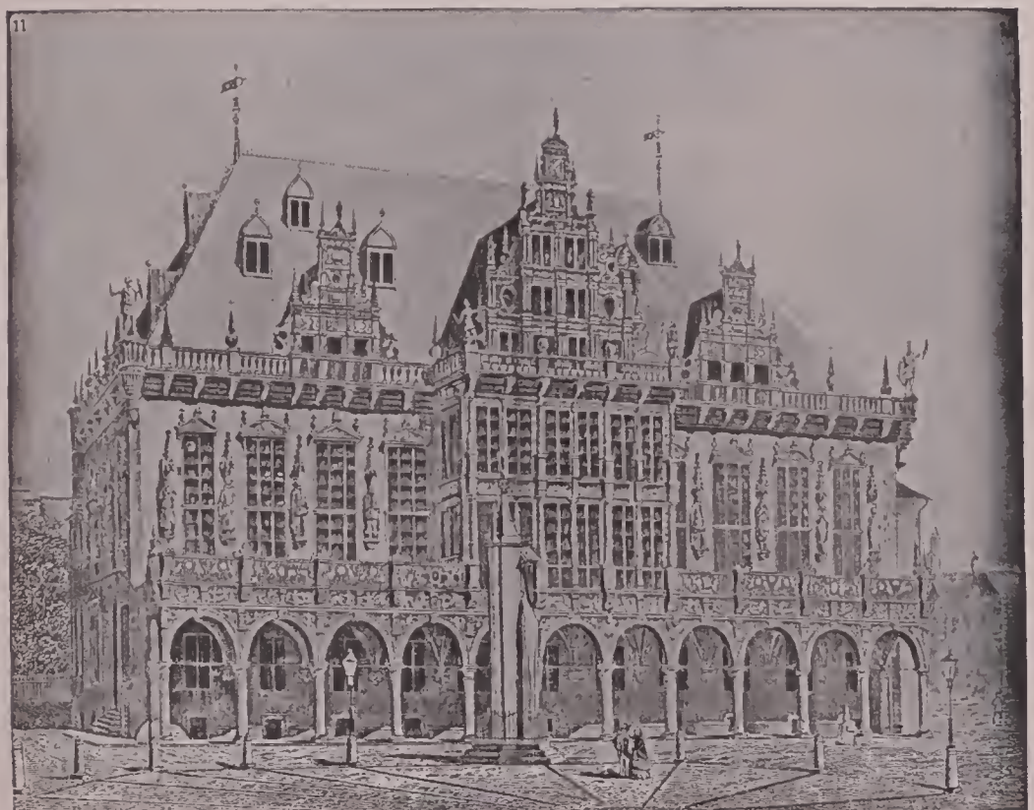

RENAISSANCE ARCHITECTURE.

1. Public Hall (Gewandhaus), Brunswick (Ger.). 2. Scuola di St. Marco, Venice (It.). 6. Console of a chim Capital from House of Francis I. (Fr.). 9, 10. Capitals in the Certosa di Pavia (It.). 11. Town-Hall of Br

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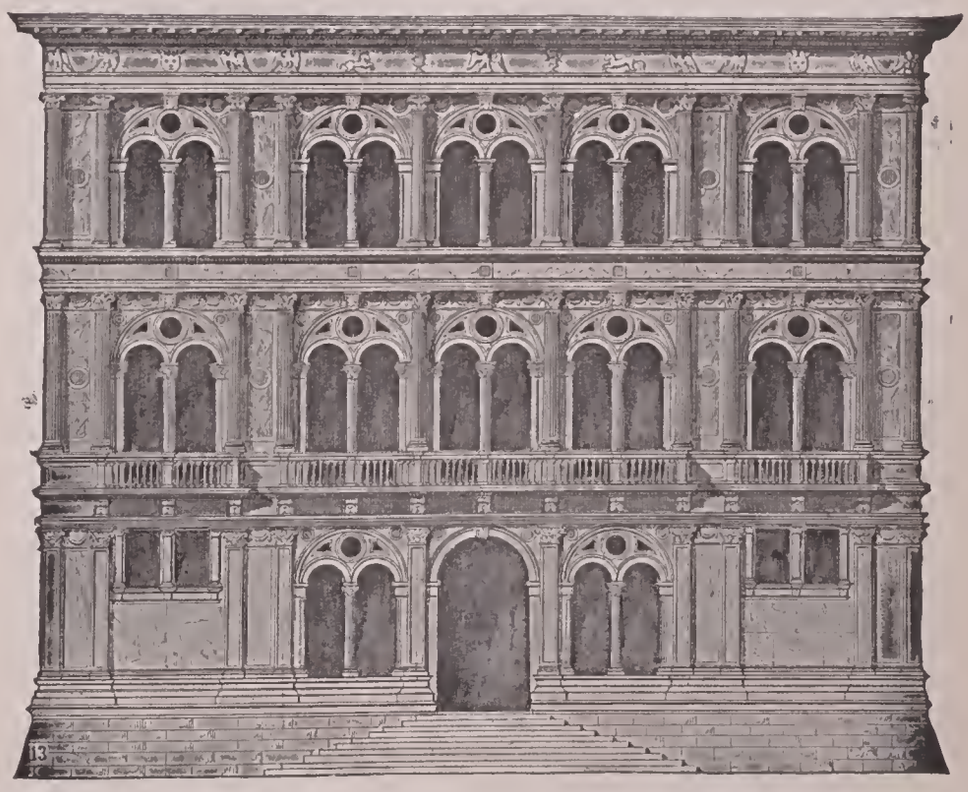

ltrance to Chateau of Anet (Fr.). 3. House of Francis I., Fontainebleau (Fr.). 4. Chateau at Nantouillet (Fr.). 5.
y in the Doge's Palace, Venice (It.). 7. Escutcheon in Church of Sta. Maria Sopra Minerva, Rome (It.). 8.
en (Ger.). 12. Choir of the Church of St. Peter, Caen (Fr.). 13. Palazzo Vendramin-Calergi, Venice (It.).

and other edifices. Neither the portico nor the continuous colonnade were taken as models, but such buildings as the Coliseum, where several orders are introduced, principally for purposes of decoration. Both in the *R.* and Cinque-cento styles, entire orders are merely used as embellishments. In structures where columns are employed for actual support, it is only in combination with arches in the place of piers. Much of the Italian *R.* is *astylar*, with either a full entablature or a cornicione crowning, and proportioned to the rest of the edifice. This broad and simple method of treatment was greatly affected by the Roman and Florentine architects during the period of the Revival, and contrasts strongly with the *R.* in France and other countries, which is characterized by multiplicity of parts and numerous divisions and breaks. In English *R.*, one deviation from the Italian was the frequent employment of coupled columns or pilasters, which was, in some cases, caused by the necessity for wider piers between the windows, which retained their Tudor or English character. In the Italian *R.* generally, the detail is somewhat dry and meagre, the entablatures, even to Corinthian columns, consisting of plain mouldings. In France and in England a much more florid style was adopted. These species of the style are marked by a profusion of enrichment and carvings in mouldings, panels, and friezes, by arabesque foliage and medallions, which frequently cover considerable surfaces. The carvings generally consist of grotesque animals, foliage, &c., extended into scroll-work, and interlaced curiously and capriciously. A similar kind of sculpture, only purer and more graceful, is to be met with in the Italian style. One of the most characteristic features of the *R.* style is the profusion of minute ornament in building, furniture, and decoration generally. French *R.* dates from the reign of Louis XII., who employed Italian artists and architects. There are several magnificent specimens of this style of architecture in France; among others may be mentioned the interior, at least, of the palace of Fontainebleau, and the châteaux of Chambord (Fig. 2240), and Chenonceaux on the Loire. The *R.* is considered by French writers to have risen to its highest point of excellence under Philibert Delorme, in the reigns of Henry II. and Francis II. The palace of Heidelberg, if completed, would have been the most splendid specimen of the *R.* in Germany. In general, the German *R.* was more extravagant in construction and decoration than even the French. There are many interesting specimens of the *R.* style in Spain, which exhibit much elegance and taste.

Re'nal, *a.* [Fr.; Lat. *renalis*, from *ren*, pl. *renes*, the kidneys.] Pertaining, or relating, to the veins or kidneys; as, the *renal* arteries.

Re'nan, Joseph Ernest, savant and Orientalist, was born at Tréguier, Brittany, Feb. 27, 1823. He was a pupil of the Abbé Dupanloup, and educated for the church, a life purpose which he relinquished in 1845, owing to his increasing skepticism and growing independence of thought. From that time he followed a scholastic and literary life. His work entitled *Étude de la Langue Grecque au Moyen-âge*, published in 1845, was crowned by the Institute. In 1848, he gained the Volney prize for a memoir upon the Semitic languages. In 1849, he was sent to Italy on a literary mission by the Académie des Inscriptions and Belles-Lettres; in 1851 was attached to the department of manuscripts in the Bibliothique Nationale, and in 1856 was elected a member of the Academie des Inscriptions in place of M. Augustine Thierry. In 1860, he was sent on a mission to Syria. In 1862, he was appointed professor of Hebrew, but did not retain this chair, owing to the objections raised by his radical views; upon the publication of his great work, *Vie de Jésus*, in 1863, he was dismissed from the professorship, and appointed to an office in the Bibliothique Imperiale, which appointment, at his own urgent protest, was revoked June 11, 1864. He was elected a member of the French Academy (June 13, 1878); attended the congress of Orientalists, at Florence (1878); was twice professor of Oriental Languages in the College of France. In 1880, he received the cross of the Legion of Honor, becoming grand officer in 1888. His *Life of Jesus* was the first volume of his *Histoire des Origines du Christianisme*, the other volumes being *Les Apôtres* (1866); *Saint Paul* (1867); *L'Antichrist* (1873); *Les Évangiles et la Seconde Génération Chrétienne* (1877); *L'Église Chrétienne* (1878); and *Marc-Aurèle et la Fin du Monde Antique* (1880). Three volumes of his *History of Israel* were issued between 1887 and 1891; a fourth volume completed the author's plan. In addition to these works, he wrote many others on Biblical themes, as well as several works of a purely literary character, memoirs on comparative philology, &c. Died Oct. 2, 1892.

Renascence, Renas'cency, (*nās'sens.*) *n.* [Fr. *renaissance.*] State of being renascent; state of being produced again.

Renas'cent, *a.* [Lat. *renascens*, from *renascor—re* and *nascor*, to be born.] Reproduced; springing anew into being.—Rejuvenated; apt or likely to be reborn or renewed.

Renascible, (*-nās'-si-bl,*) *a.* That may be reprodnced or renewed.

Renault', in *Illinois*, a post-village of Monroe co., abt. 128 m. S. by W. of Springfield.

Renav'igate, *v. a.* To navigate a second time.

Reneonn'ter, Reneon'tre, *n.* [Fr. *rencontre—re*, *en*, and *contre*, from Lat. *contra*, against.] A meeting of two persons or bodies in contest or opposition; dash; collision; shock; action or engagement; a casual, sudden contest; an unpremeditated fight, action, or collision, as between two individuals, or small parties.

Reneoun'ter, *v. a.* To encounter; to meet unexpectedly, without enmity or hostility.

—*v. n.* To come in collision; to skirmish; to cross an enemy's path unpremeditatedly or unexpectedly.

Rend, *v. a.* [A. S. *rendan;* Ger. *trennen;* Icel. *rœndi.*] To force asunder; to tear; to sever or dissever; to cleave; to rive; to lacerate.

—*v. n.* To separate; to be disunited.

Rend'er, *n.* One who rends; a tearer.

Ren'der, *v. a.* [Fr. *rendre;* from Lat. *reddere*, from *re*, again, and *dare*, to give.] To bring back; to return; to restore; to inflict, as a retribution. — To give on demand; to assign as a reason. — To make or cause to be, by some influence upon a thing, or by some change. —To translate; as, "*render* it in the English tongue."—*Burnet.* —To surrender; to yield; to give up. — To afford; to give to be used. — To melt, as suet.

(*Arch.*) *Rendered, floated, and set for paper.* A term used to express plastering of three coats; the first being lime and hair upon brickwork; the second, the same compound with the addition of a little more hair, which is brought to a level surface by being *floated* with a long rule; the third, fine stuff mixed with white hair, laid on with a trowel. — *Floated and set.* Plastering of three coats on brickwork.—*Rendered and set.* A term used to denote the plastering executed in two coats, on naked brick-work or on stone-work. If the work is to be of three coats, the first of these is called the *pricking-up* coat, which is afterwards rendered and set; this is sometimes called *roughing in.* The materials for the pricking-up coat and the rendering coat are identical; the setting coat is, generally speaking, of a finer kind of lime.

—*v. n.* (*Naut.*) To go or pass freely through any place, as a rope.

—*n.* A giving up; a surrender. — A return; a payment of rent.

(*Law*) The state of being rendered; paid.

Ren'derable, *a.* Capable of being rendered.

Ren'derer, *n.* One who renders.

Ren'dering, *n.* Act of giving up or returning. — Version; translation.

(*Masonry.*) The first coat of plastering on walls; pargetting.

Rendezvous, (*ren'de-vo,*) *n.* [Fr., render yourselves, repair.] A place appointed for the assembling of troops, or the port or place where ships are ordered to join company; a place for enlisting seamen into the naval service. — A place of meeting, or a sign that draws men together.

—*v. n.* To assemble or meet at a particular place, as troops, ships, &c.

—*v. a.* To assemble, or bring together, at a certain place.

Ren'dible, *a.* That may be broken asunder.

Rendition, (*ren-dish'un,*) *n.* Surrender; the act of yielding. — A translation.

Rends'burg, a town of Prussia, prov. of Schleswig-Holstein, on the Eider, 18 m. from Kiel. *Manuf.* Hosiery, pottery, and tobacco. *Pop* 12,000.

Re'né, surnamed The Good, Duke of Anjou, Count of Provence, and King of Sicily, b. at Angers in 1409. He was son of Louis II., Count of Anjou, married in 1420 Isabella of Lorraine, but was driven from that duchy and kept prisoner by the Duke of Burgundy for several years. He succeeded his brother, Louis III., in 1434, and was chosen successor to the kingdom of Naples by Queen Joanna II. He was liberated in 1436, and was afterwards engaged in war for three years with Alfonso, of Aragon, who, in 1442, finally got possession of Naples. *R.* retired to Provence and devoted himself to the administration of his estates, and to the cultivation of poetry and the fine arts. His daughter Margaret was married, in 1445, to Henry VI. of England. On the seizure of Anjou by Louis XI. of France, in 1473, *R.* retired to Aix, in Provence, where he spent his last years, enjoying the esteem and love of his subjects. His work on tournaments, and some of his poems and paintings, are still extant. D. 1480.

Ren'egade, *n.* [Sp. *renegádo;* Fr. *renégat;* Lat. *re*, and *negare*, to deny.] One who denies or renounces his faith; an apostate. — One who goes over to an enemy; a deserter.

Renerve', *v. a.* To nerve again, or a second time.

Renew', *v. a.* To renovate; to restore to a former state, or to a good state, after a decay or depravation; to rebuild; to repair; to reëstablish. — To begin again, as a course; to repeat; to revive.

(*Theol.*) To transform; to regenerate.

—*v. n.* To grow again; to begin again.

Renewabil'ity, *n.* The state or quality of being renewable. (R.)

Renew'able, *a.* That may be renewed.

Renew'al, *n.* Act of renewing; renovation. — Repetition; act of beginning again, or a second time.

Renewed', *a.* Repaired; reëstablished; renovated.

Renew'edly, *adv.* Again; anew.

Renew'edness, *n.* State of being renewed.

Renew'er, *n.* A person who renews.

Renew'ing, *n.* Act of making new; renewal.

—*a.* Tending, or adapted, to renovate.

Renfrew, (*ren'froo,*) a town of Scotland, cap. of a co. of same name, near the union of the rivers Cart and Clyde, 3 m. from Paisley: *pop.* 4,000.

Ren'frew, a N. E. co. of prov. of Ontario; *area*, about 1,104 sq. m. *Rivers.* Ottawa, Madawasco, and Bonne Cher rivers. *Cap.* Pembroke.—A vill. of the above co., abt. 90 m. N. of Kingston.

Reni, (*ren'e.*) a town of Prussia, in Bessarabia, at the confluence of the Pruth, and the Danube; *pop.* 7,500.

Ren'itency, Ren'itence, *n.* The resistance in solid bodies, when they press upon, or are impelled one against another, or the resistance that a body makes on account of weight.

Ren'iform, *a.* [Lat. *renes*, the kidneys, and *forma*, form.] (*Bot.*) Broad, rounded at the apex, and hollowed at the base (Fig. 2241); kidney-shaped.

Fig. 2241.
RENIFORM LEAF.

Reni'lla, *n.; pl.* **Reni'llidæ.** (*Zoöl.*) A genus and family of *Alcyonaria*, containing polyps which are arranged symmetrically on the upper surface of a more or less flattened disc, to the lower surface of which there is attached a hollow locomotive organ in the form of a peduncle. *Renilla danæ* (Fig 146) is found on the Atlantic coast of S. America.

Ren'itent, *a.* [Lat. *renitor*, from *re*, back, and *nitor*, to strive.] Acting against any impulse by elastic power.

Rennes, (*ren,*) a city of France, cap. of the dept. of Ile-et-Vilaine, at the confluence of the rivers Ile and Vilaine, 60 m. N. of Nantes; Lat. 48° 7′ N., Lon. 1° 36′ W. It is divided into the Upper and Lower town, the former of which contains many fine squares and public buildings, the most noteworthy of which are the Court-House, formerly the house of assembly for the Parliament of Brittany. *Manuf.* Lace, linen, sail-cloth, thread, &c. *Pop.* 60,000.

Ren'net, Rnn'net, *n.* [A. S. *gerunnen;* Ger. *rinnen*, or *gerinnen*, to coagulate.] The prepared inner membrane of the calf's stomach, which, in consequence of the presence of pepsine, has the property of coagulating the casein of milk and separating it from the whey in the form of curd.

Ren'net, Ren'neting, *n.* [Probably from O. Fr. *reinette*, little queen.] (*Hort.*) The common name, not only in the English, but, with slight modifications, in the French, German, and other languages, of a class of apples, including many of the most beautiful and pleasant varieties. They are of very regular and nearly globose shape; their skin has generally a rusty tinge, and often a kind of unctuousness to the touch; their flesh is finely granular; and besides being sweet and agreeably acid, they have a peculiar aromatic flavor. They do not keep well. The trees have a very regular habit of growth, and are very suitable for dwarf standards.

Reno, (*raī'no,*) a river of Italy, rising in the Apennines of Tuscany, and, after a N. course of 75 m., joining the Po, 14 m. S. of Ferrara.

Re'no, in *Pennsylvania*, a post-village of Venango co., abt. 3 m. W. of Oil City.

Renounce', *v. a.* [Lat. *renuncio*, from *re*, again, back, and *nuncio*, to declare.] To disown; to disclaim; to cast off; to repudiate; to reject; to deny.—To give up; to relinquish; to abandon; to forsake; to resign; to abjure.

—*v. n.* To declare a renunciation. (A Gallicism.)

(*Games.*) At cards, not to follow suit when the person has a card of the same sort.

—*n.* The act of renouncing at cards.

Renouncee'ment, *n.* Act of renouncing, or of disclaiming or rejecting; renunciation.

Renoun'cer, *n.* One who disowns or disclaims.

Renoun'cing, *n.* Act of disowning, disclaiming, denying, or rejecting.

Ren'ovate, *v. a.* [Lat. *renovo, renovatus.*] To renew; to restore to the first state; to reproduce.

Renova'tion, *n.* [Fr.; from Lat. *renovatio.*] Act of renovating or renewing, or state of being renewed; renewal.

Ren'ovator, *n.* One who, or that which, renovates.

Renown', *n.* [Fr. *renommée;* from Lat. *re*, and *nomen*, a name.] Fame; celebrity; exalted reputation, derived from the extensive praise of great achievements or accomplishments.

—*v. a.* [Fr. *renommer.*] To distinguish; to render famous.

Renowned, (*re-nound',*) *a.* Having celebrity for great and heroic achievements, for distinguished qualities, or for grandeur; famous; eminent.

Renown'edly, *adv.* With fame or celebrity.

Renown'less, *a.* Without renown.

Ren'ovo, in *Pennsylvania*, a post-borough of Clinton co., on the W. branch of the Susquehanna river, 28 m. N.W. of Lock Haven. *Pop.* (1897) 4,450.

Rensselaer (*ren'se-ler*), in *Indiana*, a post-town, cap. of Jasper co., about 100 m. N.N.W. of Indianapolis.

Rensselaer, in *New York*, an E. co., adjoining Massachusetts and Vermont; *area*, about 643 sq. m. *Rivers.* Hudson, Kinderhook, and Hoosick rivers. *Surface*, uneven and broken; *soil*, very fertile, producing, besides the usual farm crops, large quantities of potatoes. *Min.* Iron ore, slate, and some Epsom salts. *Cap.* Troy. *Pop.* (1897) 131,150.

—A village of the above county.

Rens'selaer Falls, in *New York*, a post-village of St. Lawrence co., abt. 12 m. S.E. of Ogdensburg.

Rensselaer'ite, *n.* [After *Van Rensselaer.*] (*Min.*) A steatitic mineral. It occurs over large areas in Northern New York, and at Grenville in Upper Canada. It is, probably, identical with pyrallolite.

Ren'sselaerville, in *New York*, a post-village and township of Albany county, about 23 m. W. by S. of Albany.

Rent', *n.* A breach; a fissure; an opening produced by rending or violent separation.

—*n.* [A. S. *rent;* Du., Ger., Dan., and Fr. *rente.*] A sum of money, or a certain amount of other valuable thing, issuing yearly from lands or tenements; a compensation or return, in the nature of an acknowledgment, for the possession of a corporeal inheritance; a revenue.

—*v. a.* To hold by paying rent for; to take or hold by lease, as lands or tenements.

—To let or lease to a tenant; to lease.

Rent'able, *a.* Capahls of being rented.
Rent'age, *n.* [O. Fr.] Rent.
Rent'al, *n.* [Said to be corrupted from *rent-roll.*] (*Eng. Law.*) A roll, schedule, or account of rents. — The money or amount paid as reut.
Rent'-arrear, *n.* Rent which is due, or unpald.
Rent'-charge, *n.* (*Law.*) A rent reserved with a power of enforcing its payment by distress.
Rent'-day, *n.* The day appointed for the payment of rent.
Rent'er, *n.* One who holds by paying rent for; a tenant who takes an estate or tenement ou reut. — Oue who leases an estate.
—*v. a.* [Fr. *rentraire.*] To fine-draw; to sew up or together with snch nicety that the seam will be scarcely perceptibls.—To renew the original pattern of by working in a new warp; — said with reference to tapestry.
Ren'terer, *n.* A fine-drawer.
Rentier, (*rong-te-ā',*) *n.* [Fr.] One whose income is derived from rents, dividends, and the like.
Rent'-roll, *n.* A rental; a list or account of rents, or income from landed property.
Rent'-seek, *n.* (*Law.*) Rent collectable only by action at law in cass of non-payment.
Ren'tent, *a* [Lat. *renuo*, to nod back.] (*Anat.*) Applied to two muscles, one of which serves to throw the head back.
Renu'merate, *v. a.* To recount.
Renunciation, (*-she-a'shun,*) *n.* [Fr. *renonciation*; Lat. *renunciatio.*] Act of rsnouucing; disavowal; disclaimer; rejection; abjuration.
Ren'ville, in *Minnesota*, a S.W. central co.; *area*, about 900 sq. m. *Rivers.* Minnesota and Chippewa rivers. *Surface*, mostly level or undulating; *soil*, fertile. *Cap.* Beaver Falls. *Pop.* (189⁵) 21,818.
Reobtain', *v. a.* To obtain again, or a second time.
Reobtain'able, *a.* Capable of being obtained.
Reoc'cupy, *v. a.* To occupy again, or a second time.
Reom'eter, *n.* [Gr. *reo*, to flow, and *metron*, a measure.] (*Elect.*) Same as GALVANOMETER.
Reo'pen, *v. a.* To open again, or a second time.
Reoppose', *v. a.* To oppose anew.
Reordain', *v. a.* To ordain again, or a second time.
Reor'der, *v. a.* To order anew, or again.
Reordina'tion, *n.* A second ordination.
Reorganiza'tion, *n.* Act of orgauiziug anew; state of being organized again.
Reor'ganize, *v. a.* To organize again.
Repac'ify, *v. a.* To pacify again.
Repack', *v. a.* To pack again, or a second time.
Repack'er, *n.* A person who repacks.
Repaint', *v. a.* To paint again.
Repair, (*re-pār',*) *v. a.* [Lat. *reparo*, from *re*, again, back, and *parare*, to prepare.] To restore; to bring back to a sound or good state after decay, injury, or partial destruction; to mend; to refit; to retrieve. — To make amends for; to redress.
—*n.* Act of repairing; restoratiou to a sound or good state after decay, waste, injury, or partial destruction.
—*v. n.* To betake one's self; to resort.
—*n.* Act of betaking one's self to any place; a resorting. (R.)
Repair'er, *n.* One who repairs, or makes amends.
Repand', *a.* (*Bot.*) Applied to leaves which have the margin slightly concave between the projectiug veins, as in *Silanum nigram.*
Repan'dous, *a.* Bent upwards or backwards.
Rep'arable, *a.* [Fr. *réparable.*] That may be repaired
Rep'arably, *adv.* So as to be reparable.
Repara'tion, *n.* [Fr. *réparation.*] The act of repairing; restoration. — Supply of what is wasted. — Recompenss for any injury; amends.
Repar'ative, *n.* Whatever makes amends for loss or injury.
—*a.* That tends to repair.
Repartee', *n.* [Fr. *repartie.*] A smart or witty reply.
—*v. n.* To make smart replies; to retort.
Reparti'tion, *n.* A divisiou into smaller parts.
Repass', *v. a.* To pass back or again; to pass a second time; to travel back; as, to *repass* a river.
—*v. n.* To move, pass, or go back; as, shall you *repass* this way?
Repass'age, *n.* Act of repassing, or of passing back.
Repast', *n.* [Fr. *repas*, from *repatre*; Lat. *re*, aud *pasco*, *pastum*, to feed.] Act of taking food. — Food taken; a meal; victuals; retreshment; a collation.

"Go, and get me some *repast.*"—*Shaks.*

Repa'triate, *v. n.* [Lat. *repatriare — atum*, to return home.] To restore to one's own country. (R.)
Repatria'tion, *n.* Restoration to one's own country; — opposed to *expatriation.*
Repay', *v. a.* (*imp.* and *pp.* REPAID.) [Fr. *repayer.*] To pay back; to refund; to reimburse; as, to *repay* money advanced or lent. — To recompense; to compensate; to requite; to remnnerate; to make reqnital or returu for. — To pay again, or a second time, as a debt.
Repay'able, *a.* That may be, or is to be, repaid or returned; as, money lent, *repayable* by instalments.
Repay'ment, *n.* Act of paying back; reimbursement. — The money or other thing repaid.
Repeal', *v. a* [Fr. *rappeler — re*, and *appeler*; Lat. *appello*, to accost, address.] To recall; to revoke: to annul; to abrogate; to abolish; to make void by an authoritative act, or by the same power that made or enacted, as a deed, will, law, or statute.
—*n* Act of repealing or of annulling; revocation; abrogation; as, the *repeal* of a law.
Repealabil'ity, Repeal'ableness, *n.* State or quality of being repealable.
Repeal'able, *a* Capable of being repealed, abrogated, or revoked by the same power that enacted.
Repeal'er, *n.* One who repeals, or who seeks to repeal; — specifically, ons who advocates the repeal of the Articles of Union between Great Britain and Ireland.
Repeat, (*-peet',*) *v. a.* [Fr. *répéter*, from Lat. *repeto — re*, and *peto*, to seek.] To do, make, attempt, or utter again; to iterate; to recite; to rehearse; to go over a second time; to recapitulate; to quote or say from memory; to try or iucur ngain; as, to *repeat* an experiment, to *repeat* some lines from Byron, &c. — To do or say what has been already done or said; — used reflexively before *self*; as, history *repeats itself.*
To repeat signals, to make signals again, or anew.
—*n.* Act of repeating; a repetition. — That which requires to bs repeated; as, the *repeat* of a pattern.
(*Mus.*) A character written thus, 𝄇, denoting the repetition of the part which it bounds. It is sometimes expressed by dots against the bar, and sometimes by the words *dal segno.*
Repeat'edly, *adv.* More than once; again and again, iudefinitely; as, I have *repeatedly* spoken of it.
Repeat'er, *n.* One who, or that which, repeats; — specifically, one who recites or rehearses.
(*Horology.*) See HOROLOGY.
(*Gun.*) See REVOLVER.
Repeat'ing, *p. a.* Doing the same thing over again, or many times in succession; as, a *repeating* watch, a *repeating* instrument.
R.-circle. (*Astron.*) Oue of the most complicated and ingenious of modern astronomical instruments. It was luvented by the Chevalier de Borda in 1787, and obtained an immense reputation through having been the only instrnment employed in the geodesical and astronomical observations of the great measurement of an arc of the meridian, on which the modern French system of measnres, weights, and money, is founded. The prime objects of the repeating-circle are to diminish the effect of errors of graduation, and to obtain very correct measurements by meaus of comparatively small instruments. The principle of repetition consists in moving the telescope successively over portions of the graduated limb, corresponding to the angle to be measured, and reading only the multiple arcs.
R.-decimal. (*Math.*) A decimal in which the same figures occur in the same order at successive aud eqnal intervals.
Repel', *v. a.* [Sp. *repelér*; Lat. *repello — re*, and *pello*, to drive.] To drive or thrust back; to repulse; to force to return; to check the advance of; as, to *repel* an assailant. — To resist; to withstand; to reject; to rebut; to refuse; as, to *repel* an argument.
—*v. n.* To act with force in opposition to force impressed; to check; as, *repelling* power.
Repel'lence, Repel'lency, *n.* Quality or capacity of repelliug; repulsion.
Repel'lent, *a.* [From Lat. *repellere.*] Capable, or tending to repel; as, a *repellent* manner.
—*n.* That which repels.
(*Med.*) One of a class of remedies, as astringents. cold water, ice, &c., which, when applied to a tnmefied part, causes the fluids that render it tumid to recede, as it were, from it.
Repel'ler, *n.* One who, or that which, repels; a repellent.
Re'pent, *a.* [Lat. *repens*, from *repere*, to creep.] Creeping; as, a *repent* animal.
(*Bot.*) Applied to steins which lie flat upon the ground, and emit roots from their under-surface.
Repent', *v. n.* [Fr. *repentir*, from Lat. *re*, and *pœnitio*, to make to repent; usually connected with *pœna*, expiation.] To feel pain, sorrow, or regret lor something done or spoken, or for what one has omitted to do or speak; to express sorrow or compunction for something past.— To change the mind or course of behavior in consequeuce of the inconvenience or injury done by past conduct.
(*Theol.*) To sorrow or be pained for sin committed, or duty omitted; to be penitent; to have such sorrow for evil as produces amendment of life.

"Nineveh *repented* at the preaching of Jonas." — *Matt.* xii. 41.

—*v. a.* To remember with pain or sorrow; to feel pain or compunction concerning.
Repent'ance, *n.* [Fr.] Act of repenting, or state of being penitent; sorrow for anything done, said, or omitted to be done or said; the pain or grief which one experiences in consequence of the injury, inconvenience, or dissatisfaction produced by one's own conduct; penitence; contrition; that sorrow for sin which issues in reformation.
Repent'ant, *a.* [Fr.] Repenting; disposed to feel sorrowful for what has been done, or for what has been left undone; penitent for siu. — Expressing or manifesting sorrow for sin.
—*n.* One who repents of a sin committed; a penitent.
Repent'antly, *adv.* In a repeutant or penitent manner.
Repent'er, *n.* One who repents; a repentant.
Repen'tigny, a village of Leinster co., Lower Canada, abt. 17 m. N.E. of Montreal.
Repent'ingly, *adv.* With repentance or contrition.
Repent'less, *a.* Unrepentant; without repentance.
Repeople, (*-pē'pl,*) *v. a.* To people again or anew; to perform the act of repopulation.
Reperuss', *v. a.* [From Lat. *re*, and *percutire*, to strike through and through.] To drive or beat back; as, *repercussed* air. (R.)
Reperussion, (*-kŭsh'un,*) *n.* [Fr.] Act of driving or beating back; as, the *repercussion* of echoes.
(*Mus.*) Frequent repetition of the same sound.
Reperus'sive, *a.* [Fr. *répercussif.*] Driving back; having the power of sending back; causing to reverberate. — Driven back; reverberated; as, the *repercussive* roar of thunder.
Rep'ertory, *n.* [Fr. *répertoire*, from Lat. *repertorium — re*, and *pario*, to bring to light.] A repository; a place in which things are deposited in an orderly manner, so they can easily bs found, as ths index of a book, &c. — A treasury; a magaziue.
Reperus'al, *n.* A second, or renewed perusal.
Reperuse, (*-rūz',*) *v. a.* To read over again; to peruse a second time.
Repetend', *n.* [Lat. *repetandus*, from *repetere*, to repeat.] (*Arith.*) A term sometimes used to denote the part of a circulating decimal which is continually repeated.
Repetition, (*-tish'un.*) *n.* [Fr., from Lat. *repetitio — re*, and *peto.*] Act of repeating, or of doing or uttering a second time; iteration of the same act, or of the same words or sounds.
—Act of reciting, rehearsing, or reading over; recital from memory; rehearsal.
(*Mus.*) Act of repeating, playing, or singing the same part a second time.
(*Rhet.*) Reiteration of a word, or words.
Repeti'tional, Repeti'tionary, *a.* Containing or conveying repetitions. (R.)
Repetitious, (*-tish'us,*) *a.* Repeating; making repetition. (American.)
Repeti'tiousness, *n.* State or quality of being repetitious; habit or practice of making repetitions.
Rep'etitive, *a.* Repeating; containing or conveying repetition.
Rep'etitor, *n.* [Lat.] In German universities, a private instructor or teacher.
Repine', *v. a.* [A. S. *pinan*, to langulsh.] To torture or fret one's self; to be discontented; to feel inward dissatisfaction, which preys on the spirits; to complain discontentedly; to murmur; to continue pining; to indulge in envy; as, *repining* age.
Repin'er, *n.* One who repines or murmurs.
Repin'ingly, *adv.* In a repining manner; with murmuring or complaint.
Replace', *v. a.* [Fr. *replacer.*] To put again in the former place; to put in a new place; to restore to a former state, condition, or position; as, the government was *replaced* in office. — To refund; to repay: to restore in a place that was vacated: as, to *replace* a snm of money lost. — To put, as a competent substitute in the place of another displaced, or of something lost; to supply an equivalent for; as, to *replace* an employé. — To take the place of; to supply the need of; to fulfil the end or office of; as, intention does not *replace* the effect of actiou.
Replaced crystal. (*Crystallog.*) A crystal possessing one or more planes in the place of its edges or angles
Replace'ment, *n.* Act of replacing.
(*Crystallog.*) Removal of an edge or angle hy one or more planes.
Replait', *v. a.* To plait or fold again.
Replant', *v. a.* To plant anew.
Replant'able, *a.* That may be planted a second time.
Replanta'tion, *n.* Act of replanting.
Replead', *v. a.* or *n.* To plead again, or afresh.
Replead'er, *n.* (*Law.*) A second pleading, or course of pleadings; also, the right of pleading a second time.
Replen'ish, *v. a.* [From Lat. *repleo, repletus — re*, again, and obsol. *pleo*, to fill.] To fill; to fill up, or again; to stock with numbers or abundance; to pleuish anew; as, to *replenish* one's purse.
Replen'isher, *n.* One who replenishes.
Replen'ishment, *n.* Act of replenishing, or state of being replenished. — Supply; that which serves to replenish.
Replete', *a.* [Fr. *replet*; Lat. *repletus*, from *repleo.*] Filled up; full; completely filled; as, his mind is *replete* with wisdom.
Replete'ness, *n.* Quality or state of heing replete; repletion.
Repletion, (*-plē'shun,*) *n.* [Fr.; Lat. *repletio.*] State of being replete or completely filled; superabundant fullness.
(*Med.*) Plethora; fullness of blood.
Reple'tive, *a.* Serving to make replete; replenishing.
Reple'tively, *adv.* In a repletive manner.
Replev'iable, *a.* (*Law.*) That may be replevied.
Replev'in, *n.* [L. Lat. *replevina*, surety] (*Law.*) The redelivery of the pledge or thing taken. and is a remedy granted on a distress, by which the first possessor has his goods restored to him again, on his giving security to the sheriff that he will try the right of the distress, and restore it if the right be adjudged against him. In a replevin, the person distrained becomes the *plaintiff*, and the person distraining the *defendant* or *arowant*, and his justification an *avowry.*
—*v. a.* (*Law.*) To replevy.
Replev'y, *v. a.* [From L. Lat. *plegiare*, to give hail, surety — *plegium*, bail, security.] (*Law.*) To take back or reclaim, as cattle or goods, upon pledges or security being given to try the right of ownership at law. — To bail; to give security for.
Rep'lica, *n.* [It.] (*Painting.*) A copy of an original picture done by the hand of the same master; copies by pupils are, however, generally palmed on picture-buyers as *replicas.*
Rep'licant, *n.* One who replies.
Rep'licate, *a.* [From Lat. *replicare.*] Folded back.
Rep'licate, *n.* (*Mus.*) A repetition.
Replication, (*kā'shun,*) *n.* [Lat. *replicatio*] A return, rejoinder, answer. or reply, as to a statement. — Echo or repercussion of sonnd. (R.)
(*Law.*) The third stage in the pleadings. See PLEADINGS.
Repli'er, *n.* One who replies or answers; one who speaks or writes in return to something spoken or written.

Rep'lum, *n.* [Lat., door-case.] (*Bot.*) A term applied to the frame left in certain fruits by the falling away of the valves, as in the siliques and silicles of the *Brassicaceæ.*

Replunge, (*-plŭnj,*) *v. a.* To plunge anew; to immerse again, or afresh.

Reply', *v. n.* (*imp.* and *pp.* REPLIED,) (*re-plīd'.*) [Fr. *répliquer*; Lat. *replico.*] To make a return in words or writing to something said or written by another; to answer; to respond; to rejoin.

(*Law.*) The answer; the plea of a defendant.

—*v. a.* To return for an answer; as, what did he *reply?*

n. [Fr. *réplique.*] An answer; a return to a question; that which is said or written in answer to what is said or written by another; a rejoinder; a response; a book or pamphlet written in answer to another.

Repoi'son, *v. a.* To poison afresh.

Repol'ish, *v. a.* To polish over again.

Repone', *v. a.* [Lat. *re,* and *ponere,* to please.] To replace.

Repopula'tion, *n.* Act of populating again; act of supplying with a population anew.

Report', *v. a.* [Fr. *rapporter,* from Lat. *raporto — re,* and *porto,* to carry.] To bear, carry, or bring back, as an answer; or to give, as a statement of what has been discovered by a person sent to examine, explore, or investigate; as, the tellers *reported* the majority as being fifty. — To tell: to relate; to narrate; to give an account of; to carry, as a statement or report from one to another; to circulate publicly, as a story; it is *reported* that the lady is enceinte.—To give an official account or statement of: to give, as an account or statement of cases and decisions in a court of law or chancery, or of the proceedings, debates, &c., of a legislative body, a meeting, &c.; as, the honorable member's speech was well *reported.*

To be reported, or, generally, *to be reported of,* to be well or ill spoken of.

"A widow well *reported of* for good works."—1 *Tim.*

To report one's self, to wait upon a superior, or one to whom service is due, and be in readiness to receive his orders or instructions; as, he *reported himself* at headquarters.

—*v. n.* To make a statement of facts that is looked for; as, the secretary will *report* from the minutes of the proceedings. — To discharge the office of a reporter for the newspaper press. — To wait upon a superior, or one to whom service is due, and be in readiness to receive his orders or instructions; as, the officer *reported* for duty.

—*n.* An account, etatement, or relation returned; an account of facts received; as, to prepare a *report* of ways and means. — Common fame; rumor; hearsay; repute; reputation; statement circulated; as, through good or ill *report.* — Sound; noise; detonation; repercussion; discharge; as, the *report* of a gun or fire-arm. — A statement of a judicial opinion or decision, or of a cause argued and determined in a court of law, chancery, &c.; also, the book containing such statement.

—An official statement of facts, verbal or written; — particularly, a statement made by a legislative committee of facts into which they were charged to inquire; as, the *report* of a committee on a bill before the house. — An account or etatement of the proceedings, debates, &c., of a legislative body, a meeting, or a court; as, a verbatim *report.*

Report'er, *n* One who reports; — specifically, one who gives an account, verbal or written, official or unofficial; a person who makes etatements of law proceedings and decisions, of legislative debates, or of public occurrences for the newspapers.

Report'ingly, *adv.* By report, rumor, or hearsay.

Reporto'rial, *a.* Pertaining, or relating, to a reporter, or reporters; as, the *reportorial* staff of a newspaper.

Reposal, (*-pōz'al,*) *n.* Act of restiug or reposing; as, a *reposal* of trust or confidence.

Repose, (*re-pōz',*) *v. a.* [Fr. *reposer;* Lat. *repono, repositus — re,* and *pono,* to place.] To lay at reet; to compose; to cause to be calm, quiet, or tranquil. — To lay or put the mind at rest in, as confidence or trust; as, to *repose* in reliance upon ono's good faith.

—*v. n.* To lie; to recline; to be at rest, as in a bed; to sleep. — To lodge; to lie; to rest; to be supported; as, trap *reposing* on sand. — To trust in confidence and reliance; — before *on* or *upon.*

—*n.* [Fr. *repos.*] A lying at rest; a state of sleep, as in bed; rest; quiet; ease; as, to enjoy a good night's *repose.* — Rest of mind; peace; tranquillity; calm of the mind or spirits; freedom from unrest or uneasiuess.

(*Pros.*) In poetry, a rest; a pause.

(*Fine Arts.*) That harmony or evenness which affords rest for the eye; or, tho absence of that agitation which is induced by the scattering and division of a subject into too many unconnected parts.

Reposed'ness, *n.* State of being at repose.

Repose'ful, *a.* Affording repose or rest; quiet; peaceful: calm.

Reposer, (*-pōz'-,*) *n.* One who reposes.

Repos'it, *v. a.* [Lat. *repositus,* placed or laid back.] To lay up; to lodge or deposit, as for safety or preservation.

Reposition, (*re-po-zĭsh'un,*) *n.* [Lat. *reposito.*] Act of repositing.

Repos'itory, *n.* [Sp. *repositorio;* Lat. *repositorium.*] A place where things are, or may be deposited; a place where articles are kept for sale; a depository.

Repossess', *v. a.* To possess again.

Repossession, (*-poz'zesh'un,*) *n.* Possessing again.

Reposure, (*-pō'zhur,*) *n.* Rest; quiet; repose. (R.)

Repour, (*-pōr,*) *v. a.* To pour afresh.

Repousse. See SECTION II.

Reprehend', *v. a.* [Fr. *reprendre;* Lat. *reprehendo — re,* and *prehendo,* to lay hold of.] To administer reproof or censure to; to rebuke; to chide; to reproach; to blame; to reprove or cast censure upon, as actions.

Reprehend'er, *n.* One who reprehends, or blames.

Reprehen'sible, *a.* [Fr., from Lat. *re,* and *prehendo.*] Deserving reproof or blame; culpable; censurable; reprovable; blamable; as, *reprehensible* acts or practices.

Reprehen'sibleness, *n.* Quality or state of being reprehensible.

Reprehen'sibly, *adv.* In a reprehensible manner; culpably; in a manner to deserve censure or reproach.

Reprehension, (*-hĕn'shon,*) *n.* [Fr., from Lat. *reprehensio.*] Act of reprehending; reproof; censure; open blame.

Reprehen'sive, Reprehen'sory, *a.* Containing, or conveying, reproof or blame.

Represent', *v. a.* [Fr. *représenter;* Lat. *repræsento — re,* and *præsento,* to place before.] To show or exhibit by resemblance; to present again, as the image or counterpart of.

"Seven lamps . . . *representing* the heav'nly fires."—*Milton.*

—To describe; to exhibit or portray to the mind in words; to show by arguments, reasoning, or statement of facts; to give one's own impressions or judgment of; as, he is *represented* as a good sort of man. — To personate; to act the character, or to fill the place in a play; to portray by mimicry or action of any kind; as, to *represent* Othello.—To supply the place of; to act vicariously, or as a substitute for another; to speak and act with authority on behalf of; as, Congress *represents* the people, his attorney *represents* him in court.—To stand in the place of, in the right of inheritance.—To bring into mental view; to offer to the mind as an object for consideratiou; as, "a faculty of *representing* in consciousnees." (*Sir W. Hamilton.*)—To image or picture sensationally.—To serve as a sign, symbol, or emblem of; as, words *represent* ideas or things.

Represent'able, *a.* That may be represented.

Represent'ant, *a.* Representing; appearing or acting in behalf of another.

Representa'tion, *n.* [Fr.] Act of representing, showing, or describiug.— That which represents; delineation; show; that which describes or exhibits; — especially, a likeness; an image; a resemblance, model, map, plan; a fac-simile; anything which depicts or exhibits by resemblance; as, a *representation* of the human figure. — A performance, as of a stage-play; theatrical performance of a character in a play; as, a dramatic *representation,* a *representation* of Claude Melnotte. — Verbal description; a setting forth of arguments or facts, as in conversation, declamation, literary composition, &c.; as, the *representation* of a historian, an advocate, &c. — Duty or business of acting vicariously, or as a substitute for another.— Act of setting forth publicly. — The standing in the place of another, as an heir, or in the right of taking by inheritance.

—*pl.* Representatives of the people, as a collective body; as, the *representation* ot a State in Congress, or of counties, districts, &c., in a State legislature. See also REFERENDUM, in SECTION II.

Representa'tive, *a.* [Fr. *représentatif,* from L. Lat. *representativus.*] Representing something; suited to represent; exhibiting a similitude; as, rumor is often *representative* of credulity. — Bearing the character or power of another; vicarious; conducted by the agency of delegates; as, a *representative* of the people in Congress.

(*Nat. Hist.*) That presents the characteristics of the type of a group; as, a *representative* genus in a family.

(*Philos.*) Denoting, or existing as, a transcript of what was primarily presentative knowledge; as, *representative* faculties.

—*n.* One who, or that which, represents, or exhibits the semblance of another.— An agent, deputy, or substitute, who supplies the place of another or others, being vicariously qualified with his or their authority; as, the *representative* of a commercial firm abroad.

(*Law.*) One who stands in tho place of another as heir, or in the right of succeeding to an estate of inheritance, as of a crown. — That by which anything is exhibited or shown; a representation.

(*Amer. Pol.*) A member of the lower house in a State legislature, or in the National Congress.

(*Nat. Hist.*) That which presents the characteristics of the type of a group.

Represent'atively, *adv.* In a manner to represent; in a vicarious character; by a represeutative; by delegation of power.

Represent'ativeness, *n.* Quality or state of being representative.

Represent'er, *n.* One who shows, exhibits, depicts, or describes. — One who acts by deputation or delegation; as, a *representer* of tho nation. (R.)

Repress', *v. a.* [Lat. *repressus,* pressed back, from *reprimo — re,* back, and *premo,* to press.] To press or keep back efficiently, or a second time; to put down or keep from rising to excess, as insubordination or mutiny; to quell; to subdue; to crush; as, to *repress* sedition or tumults; — hence, implicatively, to check, curb, or restrain; as, to *repress* desire.

Repress'er, *n.* One who uses repression.

Repression, (*-prĕsh'un,*) *n.* [Fr.] Act of repressing or of subduing; as, the *repression* of tumults. — That which represses; check; curb; restraint.

Repres'sive, *a.* [Fr. *répressif.*] Having power to repress or crush; tending or serving to check, curb, restrain, or subdue; as, *repressive* measures.

Repres'sively, *adv.* In a manuer to repress.

Reprieve (*-prēv',*) *v. a.* [Fr. *reprendre, repris;* Lat. *reprehendo.*] To take back or withdraw, as a sentence, for a certain time; to respite after sentence of death; to suspend or delay the executiou of for a time; to grant a respite to; as, a *reprieved* criminal.—To relieve for a time from any suffering.

"Company may *reprieve* a man from melancholy. —*South.*

—*n.* (*Law.*) The withdrawing of a criminal's sentence for an interval of time, by which means the execution is suspended. It may take place: 1, at the will of the executive of the state; 2, at the pleasure of the judge, — for every court which has power to award execution has also power, either before or after judgment, to grant a reprieve; 3, of legal necessity (*ex necessitate legis*), as where a woman is capitally convicted and pleads her pregnancy; 4, if the criminal become *non compos mentis.* The cases in which a judge usually grants a reprieve are where he is not satisfied with the verdict, or the evidence is suspicious, or the indictment insufficient, or if any favorable circumstances appear in the criminal's character, in order to give time to apply to the state for either an absolute or a conditional pardon.

Rep'rimand, *v. a.* [Fr. *reprimander,* from *reprimer,* from Lat. *reprimo — re,* and *premo,* to press.] To administer severe reproof or rebuke to, as for a fault; to reprove; to chide; to reprehend; to censure; to admonish; as, to *reprimand* a servant. — To administer reproof to publicly or officially, in pursuance of a sentence; as, the police-officer was severely *reprimanded.*

—*n.* Severe reproof, as for a fault; reprehension, private or public.

Reprint', *v. a.* To print again; to print, as a second, or any new edition of. — To renew the impression of.

"The business of redemption is to *reprint* God's image upon the soul."—*South.*

—*n.* A second, or a new edition of a book; — specifically, the publication in one country of a work previously published in another; as, an English *reprint* of an American novel.

Reprisal, (*-prīz'al,*) *n.* [Fr. *représaille,* from L. Lat. *reprisaliæ — reprisa,* from Lat. *re,* and *prehendo.*] A taking back again; a taking or seizing in return; — especially, the seizure or forcible taking of anything from an enemy by way of retaliation or indemnification; reception. — That which is taken from an enemy by way of retaliation or indemnity. — Act of retorting on an enemy by inflicting suffering or death on a prisoner taken from him, in retaliation for an act of inhumanity committed by him.

Letters of marque and reprisal. (*Law.*) See MARQUE.

—*pl.* (*Law.*) Deductions or payments out of the value of lands, such as rent-charges or annuities. (Also written *reprizes.*)

Reproach, (*-prōch',*) *v. a.* [Fr. *reprocher;* It. *rimprocciare.*] To pass censure upon in terms of opprobrium or contempt; to charge with a fault in severe language; to upbraid; to censure; to blame; to condemn; to rebuke; to revile; to villify.

—*n.* Act of reproaching; censure mingled with contempt or derision; reproof; rebuke; upbraiding; blame attached; condemnation; contumelious or opprobrious language employed toward any one; abusive reflections or remarks; as, she loaded him with bitter *reproaches.* — Dishonorable or shameful occasion, condition, or treatment; obloquy; opprobrium; infamy; odium; shame; disgrace; as, he became an object of common *reproach.* — Object of contempt, scorn, censure, blame, derision, or obloquy; as, political corruption is a national *reproach.*

Reproach'able, *a.* [Fr. *reprochable.*] Meriting reproach; open to censure. — Opprobrious; scurrilous; exciting odium.

Reproach'ableness, *n.* State or quality of being reproachable.

Reproach'ably, *adv.* In a reproachable manner.

Reproach'er, *n.* One who utters reproaches; a censor.

Reproach'ful, *a.* Containing or expressing reproach or censure with contempt; abusive; upbraiding; opprobrious; scurrilous. — Bringing or casting reproach; causing or meriting reproach; shameful; disgraceful; infamous; odious; base; vile; as, a *reproachful* life or career.

Reproach'fully, *adv.* In a reproachful manner; in terms of censure or reproach; opprobriously; scurrilously; shamefully; disgracefully; contemptuously; as, to be used *reproachfully,* to speak *reproachfully,* &c.

Reproach'fulness, *n.* Quality of being reproachful.

Reproach'less, *a.* Without reproach; faultless.

Rep'robate, *v. a.* [Lat. *reprobo — re,* denoting the opposite of the action betokened by the simple verb, and *probo,* to approve.] To disallow; to reject; to discard; to condemn; to censure; to disapprove with detestation, or marks of vehement or intense dislike. — To give up to his, or her, sentence without hope of pardon; to abandon to wickedness and eternal perdition; as, a *reprobated* exile, a *reprobated* sinner.

—*a.* Wholly given up to sin; lost to virtue or grace; depraved; abandoned; wholly given up to error, or sunk in apostasy; morally abandoned and lost; as, a *reprobate* person, or condition.

—*n.* A person abandoned to sin or evil courses; one lost to virtue, grace, or religion; as, a confirmed *reprobate.*

Rep'robateness, *n.* State or quality of being a reprobate.

Rep'robater, *n.* One who reprobates.

Reprobation, (*bā'shun,*) *n.* [Fr., from Lat. *reprobatio.*] Act of reprobating or disallowing with detestation, or of expressing extreme dislike; act of abandoning morally; as, to speak of with *reprobation.* — State of being reprobated or morally abandoned; rejection.

"Set a brand of *reprobation* on false coin."— *Dryden.*

Election or *degree of reprobation.* (*Theol.*) A term commonly applied to the supralapsarian tenet of the consignment of all mankind to eternal punishment,

with the exception of those whom God has arbitrarily selected for eternal happiness. — See ELECTION, PREDESTINATION.

Reproba'tioner, *n.* (*Theol.*) One who favors the doctrine of election. See SUPRA.

Rep'robative, Rep'robatory, *a.* Reproving; condemning; pertaining or relating to, or expressing, reprobation.

Reproduce', *v. a.* To produce again, or a second time; to bring to the recollection or imagination; as, to *reproduce* an idea. — To renew the production of a thing lost or destroyed; as, polyps are *reproduced* from cuttings.

Reproduc'er, *n.* One who, or that which, reproduces.

Reproduction, (*-dŭk'shun,*) *n.* (*Physiol.*) A term sometimes used to signify generation, but more especially employed to denote those processes in organic beings by which the individual being is produced, developed, and maintained. In this way it has been employed to denote several processes which are functionally distinct, or have very different ends in the economy of nature. The result of the ordinary processes of nutrition is the constant *R.* of the same tissue in the same parts, and is therefore the means by which the form of a being is maintained during life. Through the whole of the animal and vegetable kingdoms, this function is carried on until the death of the whole or part of the being. However, this power of reproducing the same tissues varies in different beings, and while a lost limb can be restored to the lower animals, no such power belongs to the more highly-organized animals or plants. The origination of the germ from which individual animals and plants grow is sometimes called *R.* In this way, the production of cells, by which the life of the individual is maintained, is called *R.*; while the arrangement by which its existence as an individual is insured is called *generation.* In the ordinary *R.* of the tissues of animals and plants, each cell has the power of producing other cells, or a large number of the same kind of cells are produced simultaneously; in generation, on the contrary, it is necessary that two cells should take part. The two cells thus engaged have been termed the *germ*-cell and the *sperm*-cell. The former is that in which the process of growth of the new being commences, while the latter is that which communicates the growing tendency to the former. In the animal and vegetable kingdoms, these cells are of different sizes and forms, and placed in various positions relative to other organs; the means also by which they are brought together vary, but they perform the same fundamental functions in all cases. The most profound mystery in the generation of animals and plants is the reason why the same apparent combination of elements should assume a particular form. Between the cells of the flowers of the oak and the apple no difference can be discerned; nevertheless, one always produces oak-trees and the other apple-trees. In animal life it is the same; there is no appreciable external difference in the cells; but one set will produce one species of animal form, and another set another species. This fact has led some physiologists to assume the existence of a *vital principle;* that is, of a distinct and independent essence, giving to each species its definite form and character. Three conditions must be regarded in studying the phenomena of *R.* and generation. First, the *formative force,* which is peculiar in every species, and similar in all the generative cells produced in that species. Secondly, the *physical conditions* in which the generative cells are placed; these are more especially heat and light, and the condition of the membranes of the cell, through which absorption goes on. Thirdly, the *elements* which are supplied for the nourishment of the new being, and which, by their chemical properties, are capable of exercising an influence on the form and development of the animal or plant.

Reproduc'tive, Reproduc'tory, *a.* Pertaining or relating to, or used in, reproduction.

Repromul'gate, *v. a.* To promulgate again, or afresh.

Repromulga'tion, *n.* A second promulgation.

Reproof', *n.* [From *reprove.*] A reproving; a charge of misconduct, or imputation of fault, expressed openly; reprehension; rebuke; censure; reprimand; reproach.

Reprovable, (*re-proov'a-bl,*) *a.* [Fr. *réprouvable.*] Deserving of reproof; meriting, or worthy of, censure; blamable; reprehensible; censurable; culpable.

Reprov'ableness, *n.* State of being reprovable; culpableness.

Reprov'ably, *adv.* In a reprovable manner.

Reproval, (*-proov',*) *a.* Act of reproving; a reproof.

Reprove, (*-proov',*) *v. a.* [Fr. *réprouver;* Lat. *reprobo.*] To refute; to disprove; to reject. (R.) — To blame openly to the face; to chide; to censure; to reprimand; to reprehend; to rebuke; to accuse as guilty.

Reprov'er, *n.* One who, or that which, reproves.

Reprov'ingly, *adv.* In a manner conveying or implying reproof.

Reprune', *v. a.* To prune afresh, or a second time.

Reptation, (*-tā'shun,*) *n.* [Fr., from Lat. *reptatio.*] Act of creeping or crawling: — specifically, a mode of progression by advancing successively parts of the trunk, which occupy the place of the anterior parts which are carried forwards, as in serpents. The term is also employed with reference to the slow progression of those animals whose extremities are so short that the body touches the ground.

Rep'tatory, *a.* Creeping; crawling; as, *reptatory* animals.

Rep'tile, *n.* [Fr., from Lat. *reptilis,* from *repo, reptum* = Gr. *herpō,* to creep.] Creeping; crawling; moving on the belly, or by means of many small extremities, as snakes, lizards, &c. — Hence, analogically, grovelling; low; mean; vulgar; as, a *reptile* race, a *reptile* vice, *reptile* souls.

—*n.* (*Zoöl.*) One of the REPTILIA, *q. v.*

Rep'tilia, *n. pl.* (*Zoöl.*) A genus of cold-blooded vertebrated animals, whose movements are usually confined to crawling and swimming, and whose respiration is aërial and incomplete. They have the heart so constructed that at each contraction a portion only of the blood received from the various parts of the system is sent into the lungs, the remainder of this fluid returning into the general circulation without having passed through the lungs, and consequently without having been subjected there to respiration. Hence it results that the action of oxygen upon the blood is less than in the mammalia; and though several of them leap and run with celerity on certain occasions, their habits are generally sluggish, their digestion excessively slow, their sensations obtuse, and in cold or temperate climates, they pass nearly the whole winter in a state of letbargy. In their general form, *R.* approach mammalia nearer than birds; but they offer in this respect many variations, as may be seen by comparing together a tortoise, a crocodile, and a serpent. Their head is almost always small, and their body very much lengthened out; some, as serpents, are entirely destitute of members, or have only traces of them; but the greater number of these animals, the lizard and turtle, for instance, have four limbs, formed so as to serve for walking or swimming. The skeleton in this class presents much greater variations in its structure than in warm blooded vertebrata. All the parts of which it is composed are wanting in one or another group, excepting the head and the vertebral column. Their brain, which is proportionally very small, seems less essential to the exercise of the vital functions than in the mammalia, since many of them are capable of displaying reflex motions for a considerable time after being deprived of the brain and even after loss of the head; their muscles also preserve their irritability for a considerable period after being removed from the body, and the heart may continue to pulsate for hours under similar conditions. Reptiles can remain under water for a longer time than birds or mammals, the process of respiration being capable of suspension for a much longer time without arresting the circulation of the blood, whose temperature is little above that of the surrounding atmosphere. The great majority of the *R.* are oviparous, though in some cases the eggs are hatched within the mother. In those that lay eggs, the young is formed and somewhat advanced within the egg before the parent deposits it, and the eggs are left to the warmth of the sun to complete the process, being usually covered for concealment. The *R.* possess the same organs of sense as the mammalia, but not in equal perfection. In the serpents the eyes are immovable, destitute of eyelids, and covered with a corneous substance. Their nostrils are small, and their sense of

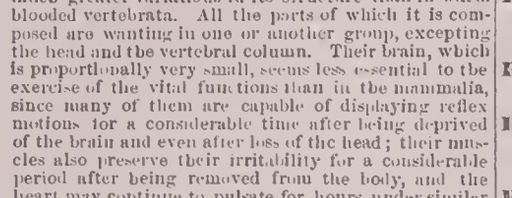

Fig. 2242.—SNAPPING-TURTLE.

smell probably weak, and they seem to lack delicacy of taste, nearly all of them swallowing their food entire. None of them have true fleshy lips, and some, as the tortoises, have a horny beak, like that of a parrot; others have teeth of various forms, which are frequently, however, as in the case of the serpents, used only to assist in holding their prey. The *R.* occupy a central position in the vertebrate series; beneath them are the amphibians and fishes, above them the mammals and birds, with the latter of which they seem most closely related. Huxley, in fact, has united them with birds as a single class, named by him Sauropsida, as contrasted with the Mammalia and the Ichthyopsida (amphibians and fishes). The classification of the living reptiles is as follows: Order 1, *Chelonia:* turtles and tortoises. 2, *Rhynchocephalia:* the New Zealand lizard (sphenodon). 3, *Lacertilia:* the lizards. 4, *Ophidia:* the serpents. 5, *Crocodilia:* the crocodiles and alligators. For these see the separate titles. During the Secondary age of geology the *R.* were very numerous, and often of huge dimensions, they being then the dominant animal type. The extinct *R.* are variously classified, the generally recognized orders being the *Anomodontia, Sauropterygia, Ichthyopterygia, Dinosauria,* and *Ornithosauria.* Many of the large forms, as Plesiosaurus, Ichthyosaurus, &c., were swimming reptiles. The Dinosauria had marked affinities with birds, while the Ornithosauria possessed powers of flight. See CHELONIA, SAURIA, SERPENTS.

Repub'lic, *n.* [Fr. *république;* Lat. *respublica.*] A form of government in which the supreme power is vested in the people. A *R.* may be either an *aristocracy* or a *democracy;* the supreme power, in the former, being consigned to the nobles, or a few privileged individuals, as was formerly the case in Venice and Genoa; while in the latter, it is placed in the hands of rulers chosen by and from the whole body of the people, or by their representatives assembled in a congress or national assembly. The free cities of the Continent of Europe, viz., Hamburg, Frankfort, Lübeck, and Bremen (see HANSE), are instances of this latter form of government, as is also the United States, the most perfect and successful of all democracies in ancient or modern times. France has twice declared itself a *R.*, and each time the *R.* has been displaced by an empire. In 1870 a third *R.* was inaugurated. The *R.* of Switzerland is the oldest now in existence, having grown from a confederation of 3 cantons in the 13th century to one of 22 in the 19th.

Repub'lic, in *Missouri,* a village of Sullivan co., abt. 46 m. N. of La Clede.

Repub'lic, in *Ohio,* a post-village of Seneca co., abt. 29 m. S.W. of Sandusky.

Repub'lican, *a.* [Fr. *républicain;* Sp. *republicano.*] Pertaining or relating to a republic; as, a *republican* form of government. — In accordance with the principles of a republic; as *republican* opinions, sentiments, or manners.

—*n.* One who prefers, advocates, or upholds a republican form of government; a democrat. — In American politics, a member of the party opposed to the *Democratic party.*

(*Zoöl.*) See PLOCEUS.

Repub'lican, in *Indiana,* a township of Jefferson county.

Republican Fork, a river which rises in Arapahoe co., Colorado, and flowing a general N.E. course through the N.W. extremity of Kansas into Nebraska, it turns to the E. and S.E., and entering Kansas again, joins the Kansas river (of which it is the largest branch) from Geary co. *Length,* about 500 m.

Repub'licanism, *n.* [Fr. *républicanisme.*] A republican form or system of government — Attachment to a republican form of government; republican principles.

Repub'licanize, *v. a.* [Fr. *républicaniser.*] To make republican; to convert to republican principles; as, to *republicanize* a state.

Republica'tion, *n.* A second or renewed publication of a printed work; a second publication; a reprint; — specifically, the publication in one country of a work first issued in another.

Repub'lisher, *n.* One who republishes.

Repu'diable, *a.* That may be repudiated or discarded; fit or suitable to be put away.

Repu'diate, *v. a.* [Fr. *répudier;* Lat. *repudio,* to cast off, divorce, from *repudium,* a divorce — *re,* and *pudor,* shame.] To cast off and disavow; to reject; to discard; to disclaim; to renounce; as, he *repudiated* the idea with scorn. — To put away; to divorce, as a husband or wife. — To disclaim; to ignore; to refuse to acknowledge, admit, or pay; as, to *repudiate* an offending child; the state has *repudiated* its debts.

Repu'diation, *n.* [Fr.] The act of repudiating.

(*Law.*) A determination to have nothing to do with a particular thing; as, the *repudiation* of a legacy, which means the abandonment of such legacy, and a renunciation of all right to it.

(*Civil law.*) The putting away of a wife, or a woman betrothed.

Repu'diator, *n.* [L. Lat.] One who repudiates, disavows, or ignores.

Repugnable, (*-pūn'a-bl,*) *a.* That may be opposed or resisted. (R.)

Repug'nance, Repug'nancy, *n.* [Fr. *répugnance;* Lat. *repugnantia,* from *repugno,* to fight against.] State or quality of being repugnant; opposition of mind; antagonism or struggle of passions; resistance; contest; contrariety of principles or qualities; inconsistency; evasion; unwillingness; reluctance; antipathy; dislike.

Repug'nant, *a.* [Fr.; Lat. *repugnans.*] Fighting against; antagonistic to; characterized by opposition or contrariety; contrary; opposed; opposite; adverse; inconsistent; hostile; inimical: — preceding *to,* and, but rarely, *with;* as, the thing is *repugnant to* my thoughts.

Repug'nantly, *adv.* In a repugnant manner; with opposition or antagonism; in contradiction.

Repul'lulate, *v. n.* [Lat. *repullulare.*] To bud afresh.

Repullula'tion, *n.* Act of budding again.

Repulse', *n.* [Lat. *repulsa* — *re,* back, and *pello,* to drive.] Act of repelling or driving back. — A being checked in advancing, or driven back by force; repulsion. — Refusal; denial; rejection; as, his request met with a *repulse.*

—*v. a.* To repel; to beat or drive back; as the enemy was *repulsed* at all points; the lady *repulsed* his advances, &c.

Repulse Bay, an inlet of Welcome Gulf, on the S. coast of Melville Peninsula, British N. America; Lat. 66° N., Lon. 86°.

Repuls'er, *n.* One who repulses, repels, or drives back.

Repulsion, (*-pŭl'shun,*) *n.* [Fr.] Act of repelling or driving back; act of repulsing, or the state of being repulsed.

(*Phys.*) A term sometimes applied to the force or agency which prevents particles of matter from coming into contact. That such particles are not in absolute contact is proved by many experiments. Thus, Newton strongly pressed a spherical mass of glass on the flat surface of a mirror, and proved that even then the two were not in contact, and that the distance between them was not less than the eighty-nine thousandth of an inch.

Repul'sive, *a.* [Fr. *répulsif.*] That repels or repulses; repelling; driving off or keeping from approach; as, a *repulsive* force. — Cold; reserved; forbidding; austere; difficult of approach; inimical to association; as, a *repulsive* manner, a *repulsive* person.

Repul'sively, *adv.* In a repulsive manner; by repulsion.

Repul'siveness, *n.* Quality of being repulsive or forbidding.

Repul'sory, *a.* [Lat. *repulsorius.*] Repulsive; repelling; driving back.

Repur'chase, *v. a.* To purchase or buy again, or a second time; to buy back; to regain by purchase or expense.

—*n.* Act of buying anew, or again; the purchase again of what has been once sold.

Repu'rify, *v. a.* To purify afresh, or a second time.

Repu'table, *a.* (See REPUTE.) Being in good repute; held in esteem or favorable reputation; honorable; estimable; respectable; creditable; as, a *reputable* individual. — Consistent with good reputation; not mean or disgraceful; as, a *reputable* transaction, *reputable* behavior.

Repu'tableness, *n.* Quality or state of being reputable.

Repu'tably, *adv.* With reputation or credit; in a reputable manner; as, to fill an official position *reputably.*

Reputation, (*-tā'shun,*) *n.* [Fr.; Lat. *reputatio.*] The character attributed to a person, thing, or action; estimation in which a person, thing, or action is held; character or credit derived from a favorable public opinion. — Character by report; credit; repute; public esteem; favorable regard; good name; honor; fame.

Reputatively, By repute; reputedly.

Repute', *v. a.* [Fr. *réputer;* from Lat. *reputo,* to count over — *re,* and *puto,* to reckon, to estimate.] To hold in thought or consideration; to estimate; to think; to account; to reckon.

"I know of those that only are *reputed* wise for saying nothing." *Shaks.*

—To attribute.

—*n.* Established opinion; general estimation; character reputed, whether good or bad. — Reputation; good name or character; credit or honor derived from common report or public opinion; as, a man of high *repute.*

Reput'edly, *adv.* In common opinion or estimation; by repute.

Repute'less, *a.* Lacking good repute; disreputable. (R.)

Re'qua Bat'teries, *n. pl.* (*Gun.*) An arrangement of 25 rifle barrels, each 24 inches long, arranged upon a horizontal plane, and held in position upon a light field-carriage by an iron plate. They were much used in the attack upon Charleston by the National troops under Gen. Gilmore in 1863, but are now superseded by the *mitrailleuses* and other similar inventions.

Requena, (*rai-kai'na,*) a town of Spain, prov. of Cuenca, 80 m. E.S.E. of Cuenca. *Manuf.* Woollen, cotton, and silk fabrics. *Pop.* 11,200.

Request, (*-kwēst',*) *n.* [O. Fr. *requeste;* Fr. *requête:* Lat. *requisitum.*] Act of asking for something desired or wished for; expression of desire to some person for something to be granted or done; — hence, solicitation; petition; entreaty; prayer. — Something asked for or solicited; the thing desired and requested; need; requirement; a want. — State of being desired, or held in such estimation as to be sought after or pursued; as, wealth is always *in request.*

In request, in demand; in credit or esteem.

"Coriolanus being now *in no request* of his country."—*Shaks.*

—In demand by buyers; sought after by purchasers; as, saltpetre is *in* good *request.*

—*v. a.* [Lat. *requiro, requisitus.*] To ask for with earnestness; to express desire for; to solicit; to entreat; to beseech; to address with a request; as, an answer is *requested.*

Requester', *n.* One who makes request; a petitioner; one who addresses in solicitation.

Requicken, (*-kwik'n,*) *v. a.* To quicken again or anew; to give new life to; to reanimate; to infuse new vigor into.

Requiem, (*rē'kwi-em,*) *n.* [Fr., from Lat. *requies* — *re,* and *quies,* rest, repose.] (*Eccl.*) In the Roman Catholic Church, a hymn or mass sung for the dead, for the rest of his, or her, soul; — so called from the prayer commencing *Requiem æternam dona eis, Domine.* — A grand musical composition performed on solemn occasions in honor of deceased civil and ecclesiastical dignitaries. The requiems composed by Mozart, Jomelli, Cherubini, and Rossini, are well known

Requin, (*-kwin,*) *n.* [Fr., from Lat. *requiem.*] (*Zoöl.*) See SQUALIDÆ.

Requirable, (*-kwīr'a-bl,*) *a.* That may be required; fit or proper to be asked for or demanded.

Require, (*re'kwīr,*) *v. a.* [Fr. *requérir;* Lat. *requiro.*] To ask, as of right and by authority; to demand; to claim; to exact; to call for; to insist upon having. — To request; to solicit; to ask, as a boon or favor. — To need; to make necessary; to want; to claim as indispensable.

"God gives us what he knows our wants *require.*"—*Dryden.*

Require'ment, *n.* Act of requiring; requisition; demand; claim. — That which is required; an imperative or authoritative command; a necessary or essential condition.

Requir'er, *n.* One who requires.

Requisite, (*rēk'we-zit,*) *n.* [Sp. *requisito;* Lat. *requisitus.*] Required by the nature of things, or by circumstances; not to be dispensed with; absolutely necessary or needful; essential; indispensable; as, it is *requisite* to call upon him.

Req'uisitely, *adv.* In a requisite manner; necessarily; essentially.

Req'uisiteness, *n.* The state of being requisite or indispensable; necessity.

Requisition, (*rēk-wi-zish'un,*) *n.* [Fr., from Lat. *requisitio.*] Act of requiring. — Demand; application made authoritatively, or as of right. — In England, a formal summons; a written call or invitation; as, a *requisition* to one to become a candidate for parliamentary honors. — A formal demand made by one state, power, or government upon another, for the extradition of a fugitive from justice, or of a political refugee.—That which is exacted magisterially or arbitrarily;—particularly, a quota of provisions, money, or necessaries; as, to make *requisitions* in an enemy's country.

Requisi'tionist, *n.* One who makes a requisition.

Requisitive, (*kwiz'i-tiv,*) *a.* Making or implying demand. (R.)

—*n.* One who, or that which, makes requisition.

Requis'itor, *n.* One authorized to investigate facts by requisition.

Requis'itory, *a.* Sought for; demanded; exacted. (R.)

Requital, (*-kwīt',*) *n.* [From *requite.*] Act of requiting; that which requites, compensates, or repays; return for any treatment, good or bad; — in a good sense, recompense; reward; satisfaction; as, the *requital* of honesty; — in a bad sense, retaliation; penalty; punishment; as, the *requital* of treachery.

Requite', *v. a.* To repay; — in a good sense, to reward; to compensate; to recompense; to return an equivalent in good; — in a bad sense, to retaliate; to avenge; to punish.

"Unhappy Wallace, ill-*requited* chief."—*Thomson.*

Requit'er, *n.* One who renders requital.

Rereline', *v. a.* To refine again, or a second time.

Rereign, (*-rān'.*) *v. a.* To reign anew.

Reresolve, (*-zōlv',*) *v. a.* To resolve afresh, or a second time.

Rere'ward, *n.* [*rear* and *ward.*] The rear-guard; that part of an army which marches in the rear.

Rering', *v. n.* To ring back; to reverberate; to reecho.

Resa'ca, in *Georgia,* a post-village of Gordon co., abt. 84 m. N.N.W. of Atlanta. Here, on May 15, 1864, the Confederate army under Gen. Johnston was attacked by Gen. Sherman. A severe and obstinate battle ensued, lasting until night, when Johnston withdrew under cover of darkness. The loss was severe on both sides.

Resaca, in *Pennsylvania,* a village of Monroe co., abt. 132 m. N.E. of Harrisburg.

Resa'ca de la Pal'ma, in *Texas,* a locality of Cameron co., abt. 10 m. N. by E. of Brownsville. Here, on May 9, 1846, Gen. Taylor, with about 2,000 Americans, attacked and totally defeated upwards of 6,000 Mexicans under Gen. Arista.

Resail', *v. a.* or *n.* To sail back.

Resale', *n.* A second sale; a sale at second-hand; a sale of what was before sold.

Resalute', *v. a.* To salute afresh; to greet anew. — To greet with a reciprocal salutation.

Rescind, (*re-sind',*) *v. a.* [Fr. *rescinder;* Lat. *rescindo.*] To abrogate; to annul; to repeal; to revoke; to cut off;—specifically, to render null, or make void, as an act, edict, or decree, by the enacting or by superior authority; as, to *rescind* a judgment.

Rescind'able, *a.* That may be rescinded.

Rescind'ment, *n.* Act of rescinding; rescission.

Rescission, (*re-sizh'un,*) *n.* [Fr. *rescision;* Lat *rescisio,* from *rescindo.*] Act of rescinding, abrogating, annulling, revoking, or vacating; as, the *rescission* of an edict, decree, or law.

Rescissory, (*re-siz'o-ry,*) *a.* [Fr. *récissoire;* Lat. *rescissorius.*] Serving to rescind or annul; tending or having power to cut off, abrogate, or vacate; as, a *rescissory* act.

Rescribe', *v. a.* [Lat. *re,* and *scribero,* to write.] To write back, or in reply. — To write over again, or a second time.

Rescrib'endary, *n.* An officer of the Papal court, who assesses indulgences and applications.

Re'script, *n.* [Fr. *rescrit;* Lat. *rescriptum,* from *rescribo—re,* and *scribo,* to write.] (*Civil Law.*) An answer, or decretal epistle, issued by a pope or emperor, to a question or questions in jurisprudence, propounded to them officially; those of the Roman emperors constitute one of the authoritative sources of the civil law; — hence, an edict; a decree. — A counterpart.

Rescription, (*-skrip'shun,*) *n.* [Fr.; Lat. *rescriptio.*] The reply to a letter; a writing or answering back.

Rescrip'tive, *a.* Relating or pertaining to, or serving the purpose of, a rescript; deciding; determining; settling.

Rescrip'tively, *adv.* By rescript. (R.)

Res'cuable, *a.* Admitting of rescue.

Res'cue, *v. a.* (*imp.* and *pp.* RESCUED,) (*res'cūd.*) [Norm. *rescure,* to rescue; It. *riscossa,* recovery; Fr. *recousse,* from Lat. *reëxcutere,* to shake off again.] To set or render free from any violence, duress, or danger; to retake; to recapture; to save; to deliver; to liberate; to restore to liberty after suffering from restraint or exposure to harm or evil; to set at liberty illegally; as, to *rescue* a prisoner from a guard; to *rescue* a person from drowning, &c.

"*Rescue* thy mistress, if thou be a man."—*Shaks.*

—*n.* Deliverance from restraint, violence, or danger, by force, or by the intervention of other agency; liberation; release.

(*Law.*) A species of resistance against lawful authority; as the delivery of one arrested out of the hands of those who have the legal custody of him; or the taking away and setting at liberty against law a distress effected. When a distress is taken without cause, or contrary to law, the tenant may lawfully make rescue before it is impounded, for then it is not deemed to be in the custody of the law. A rescue of one apprehended for felony is *felony,* for treason is *treason,* and for a misdemeanor is a *misdemeanor.*

Res'cueless, *a.* Without rescue or liberation.

Res'cuer, *n.* One who rescues or takes.

Rescussee', *n.* (*Law.*) The person who is rescued illegally.

Rescus'sor, *n.* A rescuer.

Research, (*-surch',*) *n.* [Fr. *recherche.*] A diligent and protracted seeking of facts or principles; laborious or continued search after truth; investigation; examination; inquiry; scrutiny.

—*v. a.* To seek diligently and patiently; to search or investigate with continued and earnest care. — To search a second time; to examine or scrutinize anew.

Research'er, *n.* One who researches, or investigates.

Research'ful, *a.* Inquisitive; making researches.

Reseal', *v. a.* To set or seat afresh; as, he was *reseated* on the throne.

Resect', *v. a.* To cut, or pare off.

Resection, (*-sek'shun,*) *n.* [Fr.; Lat. *resectio.*] Act of cutting or paring off.

(*Surg.*) An operation in which the carious extremities of long bones, or the unconsolidated extremities of fractured bones forming irregular joints, are removed with the saw.

Reseda, *n.* [Lat *resedo,* to assuage.] (*Bot.*) The typical genus of the natural order *Resedaceæ. R. odorata* is the Mignonette plant, which is so much cultivated in

Fig. 2243. — MIGNONETTE, (*Reseda odorata.*)

gardens and window-boxes for the delicious fragrance of its inconspicuous flowers. *R. lutcola,* usually known under the name of Dyer's Weed, and nearly naturalized in W. New York, yields a yellow dye, and also the paint called *Dutch-pink.*

Reseda'ceæ, *n.* (*Bot.*) The Mignonette, Weld-wort, or Resedad family, an order of plants, alliance *Cistales.* DIAG. Definite not tetradynamous stamens, not tetramerous flowers, exalbuminous seeds, and fruit usually open at the point. They are soft, herbaceous plants, or sometimes small shrubs, with alternate entire or pinnately divided leaves, and minute gland-like stipules; disk large, hypogynous, one-sided; ovary sessile, 1-celled; placentas 3–6, parietal; stigmas 3, sessile; flowers in racemes or spikes; fruit usually opening at its apex long before the seeds are ripe. Seeds usually numerous, reniform. The plants are chiefly natives of Europe and the adjoining parts of Africa and Asia. The order contains 6 genera and 41 species. See RESEDA.

Reseek', *v. a.* (*imp.* and *pp.* RESOUGHT.) To seek again or afresh.

Reseize, (*-sēz',*) *v. a.* To seize again, or a second time. (*Law.*) To take possession of disseized lands or tenements.

Reseiz'er, *n.* One who seizes anew.

Reseizure, (*-sēzh'yur,*) *n.* Act of seizing again.

Resell', *v. a.* (*imp.* and *pp.* RESOLD.) To sell again; to sell at second-hand; to sell what has been bought or sold.

Resemblance, (*-zem'blans,*) *n.* [Fr. *ressemblance.*] State or quality of resembling, or being alike, or of having similar external form or qualities; similitude. — That which resembles; something similar; likeness; representation; semblance; image.

"Fairest *resemblance* of thy Maker fair."—*Milton.*

Resem'blant, *a.* Exhibiting resemblance; resembling. (R.)

Resemble, (*-zem'bl,*) *v. a.* [Fr. *ressembler,* from Lat. *similis,* like.] To be like to; to have the likeness of; to bear the similitude of, either in form, figure, or qualities; to be alike or similar to. — To liken; to compare; to represent, as like or similar to something else; as, "the torrid parts of Africa are *resembled* to a leopard's skin."

—To cause to imitate, copy, or be like. (R.)

Resem'bler, *n.* One who resembles.

Resem'blingly, *adv.* So as to resemble; with resemblance.

Resent, (*re-zent',*) *v. a.* [Fr. *ressentir,* from Lat. *re,* and *sentio,* to perceive by the senses.] To take ill; to consider as an injury or affront; to be in some degree angry or provoked at; to be indignant at; — in a bad sense. — To express resentment by speech or action.

"Thou with scorn would'st *resent* the offered wrong." —*Milton.*

—*v. n.* To be angry; to feel or cherish resentment.

Resent'er, *n.* One who resents.

Resent'ful, *a.* Disposed to resent; easily provoked to anger or indignation; of an irritable or irascible temper; resentive; as, a *resentful* man.

Resent'fully, *adv.* In a resentful manner.

Resent'ive, *a.* Same as RESENTFUL, *q. v.* (R.)

Resent'ment, *n.* [Fr. *ressentiment;* It. *risentimento.*

Act of resenting; anger; indignation; displeasure; the excitement of passion which proceeds from a sense of wrong offered to ourselves, or to those who are connected with us, or in whom we feel an interest; deep sense of injury entertained; irritation; grudge; wrath; rage; fury; — always in a bad sense.

Reserv'ance, *n.* Reservation. (R.)

Reservation, (*rĕz-er-vā'shun.*) *n.* [Fr., from Lat. *reservo.*] Act of reserving or keeping back, as in the mind; reserve; concealment, or withholding from disclosure. — Something withheld, either not expressed or disclosed, or not given up or brought forward. — Custody; state of being treasured up or kept in reserve.

— In the U. States, a tract of public land reserved for some specific purpose; a reserve; as, a school *reservation*, an Indian *reservation*.

(*Law.*) A clause in a legal instrument which reserves some new thing out of the thing granted, and not *in esse* before; — also, a proviso; an exception.

Mental reservation, the failing to disclose something having power to affect a statement, promise, &c., and which, if disclosed, would materially change or modify its import.

Reserv'ative, *a.* Reserving; keeping back; withholding; having a tendency to reserve or keep.

Reserv'atory, *n.* [From Lat. *reservare.*] A place in which anything is reserved or kept; a depository.

Reserve, (*re-sĕrv',*) *v. a.* [Fr. *réserver;* Lat. *reservo* — *re,* back, and *servo,* to save, to keep.] To keep by, or keep back; to save up for future use; to keep in store for future need or emergency; to withhold from present use for another or after purpose; to keep; to hold; to retain; to lay up and keep for a future time or occasion.

"Take each man's censure, but *reserve* thy judgment." — *Shaks.*

— To except; to make an exception. (R.)

— *n.* Act of reserving, withholding, or keeping back.

— Something reserved for other or future use; that which is retained from present use or disposal. — Reservation; retention; something in the mind withheld from disclosure; as, to concur in agreement, with certain *reserves.* — Exception in favor of, or against.

"Each has some darling lust, which pleads for a *reserve.*" — *Rogers.*

— Restraint of freedom in words or deeds; caution or circumspection in general behavior; backwardness; closeness; coldness; reticence; shyness; modesty; as, his manner was characterized by extreme *reserve.*

— In U. S., a tract of land reserved for specific purposes; Indian *reserves,* &c.

(*Life Ins.*) A sum deducted from paid premiums, and set apart for the payment of policies.

(*Mil.*) A body of troops kept back in action, to give support when needed, or to be rallied on, in case of emergency.

(*Theol.*) A system according to which only that portion of the truth is set before the people, which they are regarded as able to comprehend or to receive with benefit.

(*Banking.*) That portion of a banker's capital which he retains in order to meet his average liabilities, and which he, therefore, does not employ in discounts or temporary loans.

(*Mining.*) A part of a lode laid bare by the exploring and regular work of a mine, from which the ore can be at any time removed.

In reserve, in store; kept back for other or future use; as, he had plenty of arguments *in reserve.*

Reserve', in *Indiana,* a township of Parke county.

Reserve, in *Pennsylvania,* a prosperous township of Allegheny co.

Reserved,(*-zĕrvd,*) *p. a.* Not free or frank in words, actions, or social intercourse; not communicative; reticent; tacitnrn; restrained; cautious; close; cold; diffident; shy; modest.

"To all obliging, yet *reserv'd* to all." — *Walsh.*

Reserv'edly, *adv.* With reserve; with backwardness; not with openness, frankness, or impulsiveness; scrupulously; coldly; cautiously; reticently; diffidently.

Reservedness, (*-zĕrvd'nes,*) *n.* Quality or state of being reserved; closeness; reticence; diffidence; want of frankness, openness, or freedom.

Reserv'er, *n.* One who reserves.

Reservoir, (*rĕz'er-vwôr,*) *n.* [Fr.] A pond or tank in which water is collected and preserved, in order to be conveyed through proper canals for the supply of a town. The term is also applied to any place where water is collected and preserved for the regular supply of a fountain or drinking-trough, in situations where water is not naturally abundant.

Reset', *v. a.* (*imp.* and *pp.* RESET.) To furnish with a setting or border; as, to *reset* a gem.

(*Print.*) To set over again, as a page of printed matter.

— *n.* Act of resetting, as of a diamond.

(*Print.*) Matter reset, or set up a second time.

Reset'ter, *n.* One who resets; as, a *resetter* of types.

Resettle, *v. a.* To settle anew, or again. — To collate or install again, as a minister of the gospel.

— *v. n.* To be installed or collated anew, as a minister of the gospel.

Resettlement, *n.* Act of setting or composing a second time. — Act of setting or subsiding afresh; as, the *resettlement* of the lees of wine. — A second settlement, collation, or installation in the gospel ministry. — Act of settling or establishing, or the state of being settled; a second or new settlement.

Reshape', *v. a.* To shape anew.

Reshi, or **Reshd,** a town of Persia, cap. of the prov. of Ghilan, 16 m. S.E. of Enzillee, on the Caspian Sea. It is one of the most industrious and extensively commercial towns in Persia. *Pop.* estimated at 50,000.

Reship', *v. a.* (*imp.* and *pp.* RESHIPPED.) (*re-shipt'.*) To ship again, or a second time; to ship, as anything which has been conveyed by inland navigation or imported by sea; as, cotton in transit *reshipped* at New York for Liverpool.

Reship ment, *n.* Act of reshipping, or placing on shipboard a second time; the shipping for exportation what has been conveyed by inland water-carriage, or imported. — That which is reshipped; as, a *reshipment* of specie.

Reside, (*re-zīd',*) *v. a.* [Fr. *résider;* Lat. *resideo.*] To settle anywhere; to continue in a place as an inhabitant, permanently, or for a length of time; to have one's home or dwelling; to remain; to abide continuously; to have a settled domicile for a time; to dwell; to live. — To inhere; to have a seat, settlement, or fixed position; to lie, or be as an essential, attribute, or element; as, contentedness *resides* in his nature.

Res'idence, Res'ideney, *n.* [Fr. *residence.*] Act or state of residing, or of abiding or dwelling in a place for a length of time, but not definite; stay; sojourn; as, a temporary *residence* in Europe. — The place where one resides; abode; home; dwelling; habitation; domicile; — hence, by analogy, place of permanent rest or settlement.

"The highest court and *residence* of regal power."— *Bacon.*

(*Eccl. Law.*) The abode of a parson or incumbent on his living or benefice; — in contradistinction to *non-residence;* as, a canon in *residence.*

Resident, (*rĕz'-*) *a.* [Fr., from Lat. *residens* — *re,* and *sedeo.*] Residing, dwelling, or abiding in a place for a length of time, but not definite; residing; as, *resident* in the country.

— *n.* One who resides or dwells in a place for some time; an inhabitant; a sojourner. - A diplomatic agent or envoy who resides at a foreign court, and who is beneath the rank of *ambassador.*

Residential, (*rĕz-i-den'shal,*) *a.* Residing; residentiary. (R.)

Residentiary, (*rĕz-i-den'shi-a-ry,*) *a.* Having residence.

— *n.* One who is resident; — specifically, an ecclesiastical dignitary who resides for a certain length of time on his benefice; as, a canon-*residentiary.*

Res'identship, *n.* Station or condition of a resident.

Resid'er, *n.* One who is resident in a particular place.

Residual, (*-zĭd'-,*) *a.* [Lat. *residuus,* from *resideo.*] That remains over and above; remaining after a part is taken.

R. analysis. (*Math.*) A method which proceeds by taking the difference of a function in two different states, and then expressing the relation between this difference and the difference of the corresponding states of the variable. (*Math. Dict.*) — *R. figure.* (*Geom.*) The figure left after a less figure has been subtracted from a greater. — *R. root.* (*Math.*) A root composed of two parts or members, connected together by the sign *minus;* as, $a - b$, or $5 - 3$.

Resid'uary, *a.* [Lat. *residuus.*] Pertaining to the residue or part remaining; entitled to the residue; as, a *residuary* legatee.

R. clause. (*Law.*) That part of the will of the testator wherein the residue of his estate is bequeathed.— *R. legatee.* One to whom the residue of personal estate is bequeathed.

Residue, (*rĕz'e-dū.*) *n.* [Fr. *résidu;* Lat. *residuum.*] That which remains after a part is taken, separated, removed, or designated.— The remainder; the balance; that which remains due of a debt or account; as, I will pay the *residue* another time.

(*Law.*) The remainder of a testator's estate after payment of debts and legacies.

Resid'uus, *a.* Residual; remaining.

Resid'uum, *n.* [Lat.] Residue; that which is left after any process of separation, purification, or reduction has been made.

Resign, (*re-zīn',*) *v. a.* [Fr. *résigner;* Lat. *resigno.*] To sign back, or return by a formal act or process; to give up or yield into the hands of another; to surrender; to relinquish; — said, particularly, of official position or emolument; hence, to give up, to yield, to submit; — said of the will or inclination, or of something valued; — also, frequently employed reflexively. — To renounce or withdraw, as a claim; as, "he soon *resigned* his former suit." — *Spenser.*

— (*re'sin,*) *v. a.* To affix one's signature to a second time; as, to *resign* a document.

Resignation, (*rĕz-ig-nā'shun,*) *n.* [Fr.] Act of resigning, yielding, or giving up; surrender; relinquishment; as, the *resignation* of an office or a commission. — State of being resigned; submission; acquiescence; endurance; patience; — particularly, habitual submission to the will of Providence without resistance or complaint.

Resigned, (*re-zīnd',*) *p. a.* Submissive; yielding; enduring; not disposed to murmur; as, to be *resigned* to one's fate.

Resigned'ly, *adv.* In a resigned manner; with submission.

Resignee, (*rĕz-ī-nē',*) *n.* One in whose favor anything is resigned.

Resigner, (*re-zīn'er,*) *n.* One who resigns or relinquishes.

Resignment, (*-zīn'-,*) *n.* Act of resigning.

Resilience, Resilieney, (*-zĭl'i-ent, -zĭl'i-en-sy,*) *n.* [From *resilient.*] Act of resiling, or leaping or springing back; act of rebounding; as, the *resilience* of a ball.

Resilient, (*-zĭl'-.*) *a.* [Lat. *resiliens,* from *resilio* — *re,* back, and *salio,* to leap.] Leaping or starting back; rebounding.

Resilition, (*rĕz-i-lĭsh'un,*) *n.* Resilience. (R.)

Resin, (*rĕz'in,*) *n.* [Fr. *résine;* Lat. *resina;* Gr. *rēti-ne,* from *rheō,* to flow or run.] (*Chem.*) An important class of vegetable substances, extensively used in manufactures, obtained from various trees by making incisions in their bark, from which they exude in the form of a viscid liquid, consisting of the essential oil of the plant holding the resin in solution. They are mostly formed by the exudation of the essential oils contained in the trees. They are generally insoluble in water, but dissolve readily in alcohol, forming varnishes. They chiefly consist of one or more acid resins, which form, with potash and the other alkalies, solutions similar to soaps. Physically, they are transparent or translucent brittle solids. They are insulators of electricity, and become electrical by friction. They fuse at a moderate temperature, are very inflammable, but burn with a dense, smoky flame. Heated in close vessels, they undergo decomposition, and furnish various forms of hydrocarbon. The resins most extensively employed in the formation of varnishes are *copal, mastic, sandarac, eleine, lac, anime,* and some few others. The principal solvents employed are oil of turpentine, wood naphthas, methylated spirits, and spirits of wine. When varnish is spread over any surface, the spirit evaporates, leaving the resin behind as a hard, transparent layer. The common resin, or *rosin,* of commerce exudes in a semi-fluid state from several species of pine, especially *Pinus tæda, P. mitis, P. palustris,* and *P. rigida,* of N. America. The process of collecting it is very simple. A longitudinal slice of the bark and wood (A, Fig. 2244) about a foot in length is taken off by means of an axe with a curved blade; and at the bottom of the groove thus made, a small piece of bent wood or thin metal, as tin or zinc, is driven into a curved cut made by one blow of the axe (B, Fig. 2244). This forms a sort of spout, which catches the liquid resin as it runs from the wound, and guides it into a small pot, made of common clay burned. At certain periods, these pots are emptied, and their contents put into casks for transport to the distilleries, where the volatile essential oil is removed from the resin. The resin thus procured is used in the manufacture of yellow soap, in which it is present in the form of pinate and sylvate of potash. It is considered by many to be an adulteration; but it seems to increase the lathering quality of the soap. — The other resins most generally known and used in this country are ANIME, COPAL, DAMAR, MASTIC, SANDARAC, FRANKINCENSE, and LAC.

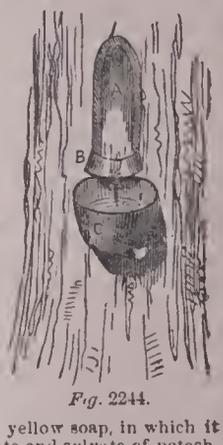

Fig. 2244.

Gum-resins are the milky juices of certain plants solidified by exposure to the air. They consist of a mixture of resins and essential oils with a considerable proportion of gum; and on this account, when rubbed up with water, they yield a turbid or milky fluid from the dissolved gum, retaining the resin and oil in suspension, and are only partly soluble in alcohol. Some of them, as ammoniacum, assafœtida, euphorbium, galbanum, gamboge, myrrh, olibanum, &c., are valuable medicinal agents; while others, as caoutchouc (or India-rubber) and gutta-percha, are of great value in the arts and in manufactures.

Resina, (*rai-se'na,*) a town of S. Italy, prov. of Naples, on the site of the ancient Herculaneum, at the foot of Vesuvius, 5 m. S.E. of Naples.

Resinaceous, (*rĕz'in-ā'shus,*) *a.* Having the quality of resin.

Resinifer'ous, *a.* Producing resin.

Resini'form, *a.* Possessing the form of resin.

Res'ino-elec'tric, *a.* Having, or exhibiting, that kind of negative electricity which is caused by the friction of resinous substances.

Resinous, (*rĕz'in-us,*) *a.* [Fr. *résineux.*] Like resin; partaking of the qualities of, or obtained from, resin; as, a *resinous* gum.

Resinous or *negative electricity.* (*Phys.*) See ELECTRICITY.

Res'inously, *adv.* By means of resin.

Res'inousness, *n.* Quality or state of being resinous.

Res'iny, *a.* Resinous.

Resipiscence, (*rĕs'i-pĭs'zens,*) *n.* [Fr., from Lat. *resipiscere,* to regain one's senses.] Wisdom resulting from practical experience; hence, repentance. (R.)

Resist, (*re-zĭst',*) *v. a.* [Fr. *résister,* from Lat. *resisto,* to withstand.] To set, put, or place one's self against; to withstand. — To confront; to oppose; to strive or act against; to encounter with effectual opposition. — To counteract, as a force, by inertia, or reaction.

— *v. n.* To make opposition.

Resist, (*-zĭst',*) *n.* (*Calico Printing.*) A substance which prevents the stuff from taking the color in those parts which have been impregnated with it. For example, if a pattern be printed with thickened tartaric or citric acid, and the stuff be then passed through an aluminous mordant, the pattern will refuse to take up the alumina, and subsequently the color from the dye-bath.

Resistance, (*re-zĭst'ans,*) *n.* [Fr.] Act of resisting; antagonism; opposition; check; as, to offer effectual *resistance.* — Quality of not yielding to force or external impression; that power by which motion or tendency to action in any body is impeded or prevented.

(*Mech.*) A force acting in opposition to another force, so as to destroy it or diminish its effect. Resistance is

sometimes considered as of two kinds, *active* and *passive;* the active resistance being that which corresponds to the useful effect produced by a machine, and the passive that which belongs to the inertia of the machine. Thus, in raising water from a well, the active resistance to the force employed is measured by the quantity of water which is raised; and the passive resistance by the force required to overcome the weight of the bucket and the rope, the friction of the pulley on its axle, &c.

R. of fluids. (*Hydro-dynamics.*) The force with which a solid body moving through a fluid is resisted or retarded. For many years the resistance experienced by a solid moving through a fluid, such as a ship sailing in the sea, was thought to be determinable only by certain recondite principles of hydro-dynamics which theory could hardly reach: but it has of late been conclusively shown that nearly nine-tenths of the resistance of well-formed ships is made up of friction. This doctrine has been reduced to definite rules, of easy application, by R. Rankine, in his *Treatise on Ship-building* (1866-67).

Solid of least R. (*Mech.*) The solid whose figure is such that in its motion through a fluid it sustains the least resistance of all others having the same length and base; or, on the other hand, being stationary in a current of fluid, offers the least interruption to the progress of that fluid. In the former case, it has been considered the best form for the stem of a ship; in the latter, the proper form for the pier of a bridge.

Resist'ant, *n.* [Fr., from Lat. *resistens.*] The person who, or thing which, resists.

—*a.* Resisting; offering or making resistance.

Resist'er, *n.* One who resists or withstands; a resistant.

Resist'ful, *a.* Resisting, or making much opposition.

Resistibil'ity, *n.* Quality of being resistible; resistibleness.

Resistible, (*-zĭst'e-bl,*) *a.* [Sp.] That may be resisted; having power to resist; as, a *resistible* force, a *resistible* will.

Resist'ibleness, *n.* Quality of being resistible; resistibility.

Resist'ibly, *adv.* In a resistible manner; so as to oppose or withstand.

Resist'ingly, *adv.* With opposition; so as to offer resistance.

Resist'ive, *a.* Resistible; having power to resist.

Resist'less, *a.* Irresistible; that cannot be resisted; as, *resistless* eloquence.

Resist'lessly, *adv.* In a resistless manner; irresistibly; so as not to be opposed or denied.

Resist'lessness, *n.* State or quality of being resistless; irresistibleness.

Resoluble, (*rĕz'o-lū-bl,*) *a.* [Fr.; Lat. *resolubilis.*] That may be resolved or melted; as, bodies *resoluble* by fire.

Res'olubleness, *n.* Quality of being resoluble; resolvable.

Resolute, (*rĕz'o-lūt',*) *a.* [Fr. *résolu;* It. *resoluto,* from Lat. *resolvo, resolutus.*] Having resolution or fixedness of will or purpose; characterized by firmness and constancy in pursuing an aim or end; decided; determined; inflexible; firm; staunch; unwavering; undaunted; unshaken; as, a *resolute* adversary, a *resolute* mind, &c.

—*n.* One who possesses the quality of being resolute; an inflexible, determined person.

Res'olutely, *adv.* With fixed purpose; steadily; with constant perseverance; boldly; firmly; unwaveringly.

Res'oluteness, *n.* Quality or state of being resolute; fixed purpose; firm determination; unshaken stability of will or purpose.

Resolution, (*rĕz'o-lū'shun,*) *n.* [Fr.; Sp. *resolucion;* Lat. *resolutio.*] Act, operation, or process of separating the parts which compose a complex idea or a mixed body; analysis; decomposition; dissolution; act of reducing any compound or combination to its constituent or component parts; act or process of unravelling or disentangling perplexities or problems, or of dissipating obscurity in moral subjects; explication. — Act of resolving; state of being resolved; fixed purpose or determination of mind; resoluteness; firmness; decision; steadiness; constancy; inflexibility; boldness; resolve. — That which is resolved or decided upon.—Formal declaration or determination of a meeting, association, or assembly: decision of a court; as, a judicial, legislative, or popular *resolution.*

(*Math.*) A term usually synonymous with *solution;* thus, the *resolution of an equation* is the procedure which leads ultimately to the discovery of its roots. The term is also frequently used as the opposite of *composition;* thus we speak of the *resolution of a number* into its prime factors, and of a *force* into its components.

(*Mus.*) The writing out of a canon or fugue in partition from a single line.

(*Med.* and *Surg.*) The cessation or dispersion of inflammatory action without the formation of an abscess, tumor, or mortification.

R. of a motion. (*Mech.*) The partition of a single force or motion into two or more which have different courses, and, taken collectively, form an equivalent for the single one; — correlative to *composition.*

R. of a discord. (*Mus.*) The descent by a tone or semitone, according as the mode may require, of a discord which has been heard in the preceding harmony.

R. of a nebula. (*Astron.*) The demonstration of a nebula to the eye by a telescope of sufficient power to show it to be constituted of small stars.

Resolu'tion, an island of British N. America, at the entrance of Hudson's Strait; Lat. 61° 30′ N., Lon. 65° W. *Area,* abt. 160 sq. m.

Resolu'tioner, Resolu'tionist, *n.* One who makes a resolution; one who conjoins in the declaration of others. (R.)

Resolvability, *n.* Power of being separated into parts; resolvableness.

Resolvable, (*re-zŏlv'a-bl,*) *a.* That may be resolved or reduced to first principles; admitting of partition, or of appearing to be separated; as, *resolvable* nebulæ.

Resolv'ableness, *n.* Resolvability; quality or state of being resolvable.

Resolve, (*re-zŏlv',*) *v. a.* [Fr. *résoudre;* Sp. *resolvér;* Lat. *resolvo* — *re,* back, and *solvo,* to loose.] To separate, as the component parts of a compound substance; to reduce to first principles or constituent elements; to decompose; to analyze; — hence, sometimes, to melt.

"Immortal souls *resolved* to elements again." —*Dryden.*

—To reduce to simple parts; to separate, as the parts of a complicated question; to free from ambiguities or perplexities; to remove obscurity from by analysis; to clear of difficulties; to solve; to explain; to interpret; to free from doubt; to disentangle; to unfold; to unravel; as, to *resolve* a conundrum.

"Examine, sift, and *resolve* their alleged proofs." —*Hooker.*

—To dissolve and reduce to another form; as, the house *resolved* itself into a committee of Ways and Means.— To cause to perceive or understand; to inform; to acquaint; to assure; to convince; to settle in opinion; to fix in purpose or determination. — To express, as an opinion, decision, or determination, by resolution or vote; as, it was *resolved* by the meeting *nem. con.*

(*Math.*) To solve or elucidate, as a problem, by enumerating in order the several things to be done; to obtain what is required; to find the answer to, or the result of; as, to *resolve* an equation.

(*Mus.*) To allow the tones, as of a discord, to pursue their several tendencies, resulting in a concord.

(*Med.*) To disperse, scatter, or cause to cease, as an inflammation or abscess, or a tumor.

To resolve a nebula. (*Astron.*) To cause a nebula to appear to the eye as consisting of distinct stars.

—*v. n.* To be separated into elementary or component parts, or first principles; to be decomposed.— To melt; to dissolve; to become fluid, as the blood under certain conditions.— To be settled in opinion; to be convinced.— To determine in one's own mind; to form a resolution: to purpose.— To make a declaration by resolution or vote.

—*n.* Act of resolving or making plain; solution; resolution.

"To give a full *resolve* of that which is so much controverted." *Milton.*

—That which has been resolved on or determined; fixed purpose of mind; settled decision or conclusion; — also, legal or official determination; legislative act, declaration, or determination.

Resolv'edly, *adv.* In a manner to resolve problems or difficulties. — In a resolved or determined manner; with firmness or inflexibility of purpose; decidedly; resolutely.

Resolv'edness, *n.* State of being resolved; fixedness of purpose; firmness; resolution.

Resolvend, (*re-zŏlv'end.*) *n.* [From Lat. *resolvere,* to resolve.] (*Arith.*) In the square- or cube-root, the number which arises from increasing the remainder after subtraction.

Resolv'ent, *a.* [Fr.; Lat. *resolvens.*] Having power to resolve or dissolve.

—*n.* That which has the power of resolving or dissolving.

(*Med.*) A discutient.

(*Math.*) In algebra, an equation upon whose solution that of a given equation depends.

Resolv'er, *n.* One who resolves or determines in purpose.

Resonance, (*rĕz'-*) *n.* [Fr.; L. Lat. *resonantia,* from Lat. *re,* back, and *sono,* to sound.] Act of resounding, or state of being resonant.

(*Acoustics.*) A reverberation of a sound, or of sounds; the returning of sound by the air acting on the bodies of stringed musical instruments.

Res'onant, *a.* [Fr. *resonnant;* Lat. *resonans.*] Resounding; reverberating; returning sound; echoing back; fitted to resound; as, a *resonant* fugue.

Resorb', *v. a.* [Lat. *resorbere.*] To swallow up.

Resorb'ent, *a.* [Lat. *resorbens.*] Swallowing up.

Resorption, (*-shun,*) *n.* Act of resorbing; also, reabsorption.

Resort, (*re-zôrt',*) *v. n.* [Fr. *ressortir,* from Lat. *sortior, sortitus,* to draw or cast lots for.] To betake one's self; to go; to repair. — To have recourse; to apply; to betake one's self for aid, relief, or advantage; to appeal, as from a lower court to a higher; as, he was obliged to *resort* to the law for redress.

—*n.* Act of resorting; act of going to or making application; a betaking one's self; act of visiting or seeking.— The place to which one customarily betakes one's self; place of frequent meeting or habitual assembly; a haunt; as, his *resort* is generally his club.

Last resort, that from which there is no appeal; final step.

Resort'er, *n.* One who resorts or frequents.

Resound, (*-zound',*) *v. a.* [Fr. *résonner,* from Lat. *re,* back, and *sonare,* to sound.] To give or send back the sound of; to echo; to re'echo; to reverberate. — To praise or extol with sounds; to praise or celebrate with the voice, or the sound of instruments; to spread the fame of.

—*v. n.* To sound loudly; as, his voice *resounded* far.— To be echoed or sent back, as sound.— To be much and loudly mentioned.— To reverberate or echo; as, *resounding* praise.

—*v. a.* To sound again, as a note on a bugle.

—*n.* Echo; reverberation; return of sound.

Resource, (*ré-sôrs',*) *n.* [Fr. *ressource.*] Any source of aid or support; any object to which a person may resort for assistance, safety, or supply; expedient; means; contrivance; device; dependence.

—*pl.* Pecuniary means; funds; means of raising money or supplies; capabilities of producing wealth, or of supplying necessary wants; as, a man of ample *resources.*

Resourceless, *a.* Lacking resources. (R.)

Resow, (*re'sō',*) *v. a.* (*imp.* RESOWED, (*re-sōd'*); *pp.* RESOWED or RESOWN, (*re'sōn'.*) To sow again, or a second time.

Respeak', *v. n.* (*imp.* RESPOKE; *pp.* RESPOKEN, RESPOKE.] To reply; to speak in return; to answer.

—*v. a.* To repeat; to speak or utter afresh.

Respect', *v. a.* [Fr. *respecter,* from Lat. *respicio, respectus,* to look back.] To look back upon; to look on or notice with special attention; to regard as deserving of particular notice; — hence, to honor; to view or consider with a degree of reverence; to have esteem for, as possessed of real worth; to venerate; as, a person highly *respected* in society. — To regard; to have regard to, in relation or connection; to relate to; as, a conversation *respecting* business.

To respect the person, to permit the opinion or judgment to be governed or biassed by a regard to the external or superficial circumstances of an individual, to the prejudice of right and equity.

—*n.* Act of respecting, or looking about, or noticing with attention; observation. — That estimation or honor in which men hold the distinguished worth or substantial good qualities of others; that deportment or course of action which proceeds from esteem: consideration; regard; deference; good-will; reverence; as, I have a sincere *respect* for her.

—*pl.* An expression of respect, deference, regard, or goodwill; as, to pay one's *respects* to the President.

—That which respects, belongs, or has reference to any person or thing. — Partial regard, under bias, to the prejudice of right or justice; as, the law suffers no *respect* of persons. — Motive in reference to something; consideration; interest; as, he is a good fellow in some *respects.* — Reference; relation; as, with *respect* to business.

In respect of, in reference to: in comparison with.

Respectability, *n.* State or quality of being respectable; the state or qualities which merit or command respect.

Respect'able, *a.* [Fr., from L. Lat. *respectabilis.*] Worthy of, or commanding respect: possessing the worth or qualities which deserve or excite respect; deserving of esteem, honor, or regard. — Moderately good or excellent: passable in quality or number; tolerable; not despicable: as, a *respectable* audience, a *respectable* dinner, a *respectable* sermon.

Respect'ableness, *n.* Respectability.

Respect'ably, *adv.* In a respectable manner; in a manner to awaken or merit respect or esteem; with respect; — also, moderately, but in a manner not to be despised; as, the house was *respectably* filled.

Respect'ant, *a.* [Fr., from *respecter.*] (*Her.*) Placed face to face; — said of animals; as, two lions *respectant.*

Respect'er, *n.* One who, or that which, respects; as, the law is no *respecter* of persons.

Respect'ful, *a.* Having or exhibiting respect, regard, or esteem; marked or characterized by respect or deference; civil; courteous; complaisant; dutiful; as, a *respectful* manner.

Respect'fully, *adv.* In a respectful manner; with respect or deference; in a manner comporting with due estimation.

Respect'fulness, *n.* Quality of being respectful.

Respect'ing, *prep.* Having respect or regard to; regarding; concerning; relating to; as, *respecting* the book there can be but one opinion.

Respect'ive, *a.* [Fr. *respectif,* from L. Lat. *respectivus.*] Noticing attentively; — hence, circumspect; wary; careful; cautious. — Having respect or reference to; relative; not absolute. — Particular; relating to a particular person or thing; each to each; belonging to each; as, they retired to their *respective* beds.

Respect'ively, *adv.* As relating to each; particularly; as each pertains to each; as, they were told *respectively* what each must do.

Respect'less, *a.* Without respect or regard; lacking reference. (R.)

Respect'lessness, *n.* State of being regardless; regardlessness. (R.)

Respell', *v. a.* To spell over again, or anew.

Respirability, *n.* Quality of being respirable.

Respir'able, *a.* [Fr.] That may be respired or breathed: fit for respiration, or the support of animal life, as air.

Respir'ableness, *n.* State or quality of being respirable; respirability.

Respira'tion, *n.* [Fr., from Lat. *re,* and *spiro,* to breathe.] (*Physiol.*) The alternate inspiration and expiration of atmospheric air. The blood which circulates through the system requires, for its purification and the restoration of its vital qualities, to be brought into contact with the atmospheric air; and this is effected in the lungs. The constituents of the air brought into contact with the blood are separated, its oxygen uniting with the blood, while its nitrogen is returned, by expiration, with a quantity of carbonic-acid gas. The mechanical part of the function of respiration is effected by the action of the ribs and diaphragm. In man, about twenty respirations take place in a minute, and from thirty to forty cubic inches of air are inhaled at each inspiration. (See AIR-CELLS and LUNGS.) Respiration goes on in plants as well as in animals, the leaves and foliage of plants and trees being the lungs or branchiæ of vegetable life. See BOTANY.

Respira'tional, *a.* Pertaining, or relating, to respiration.

Res'pirator, *n.* [Fr. *respirateur.*] A contrivance

for covering the mouth, and which serves to temper cold air inhaled into the lungs.

Respir'atory, *a.* [Fr. *respiratoire.*] Serving for respiration; pertaining, or relating, to the act of breathing.

Respire', *v. n.* [Fr. *respirer;* Lat. *respiro* — *re,* and *spiro,* to breathe.] To blow or breathe out; to take breath again; — hence, to rest; to take rest from toil. —To breathe; to inhale air into the lungs, and exhale it.

—*v. a.* To breathe out, or in and out; to inspire or expire, as air; to emit in exhalations.

Respite, (*rĕs'pit,*) *n.* [Fr. *répit;* O. Fr. *respit,* from Lat. *respectus,* a looking back.] Temporary intermission of labor, or of any process or operation; limited time of rest; pause. — Forbearance; postponement; delay; prolongation of time for the payment of a debt beyond the legal time.

(*Law.*) Temporary suspension of the execution of a capital offender; a reprieve; — also, delay of appearance at court which is granted to a jury beyond the proper term.

—*v. a.* [O. Fr. *respiter.*] To relieve by a pause or interval of rest; to delay for a time; to suspend, as the execution of a criminal beyond the time limited by the sentence; to reprieve.

Res'piteless, *a.* Without respite, relief, or reprieve.

Resplen'dence, Resplen'dency, *n.* [L. Lat. *resplendentia.*] Quality of being resplendent; brilliant lustre; vivid brightness; splendor; effulgence.

Resplen'dent, *a.* [Lat. *resplendens—re,* and *splendeo,* to shine.] Shining or sparkling with brilliant lustre; very bright or luminous; effulgent; as, *resplendent* gold.

Resplen'dently, *adv.* With brilliant lustre; effulgently.

Resplit', *v. a.* To split afresh, or again.

—*v. n.* To resplit, rend, or divide a second time.

Respond', *v. n.* [Fr. *répondre;* Lat. *respondeo.*] To answer or reply; to give response or rejoinder; as, her heart *responded* to his voice. — To suit; to correspond. — To make payment; to render satisfaction or indemnification; as, to be held to *respond* in damages, as a defendant in a suit.

—*v. a.* To accord with; to correspond to, or agree with. (R.) — To satisfy or make good by payment, as the judgment of a court.

—*n.* A short anthem interrupting the reading of a chapter, which is not to proceed till the anthem be ended. — *Wheatley.*

(*Arch.*) In Gothic buildings, a half-pillar, or pier, attached to a wall to support an arch, &c.; it constitutes, in fact, a continuation of the line of the arch in the vertical part of the wall, and appears to be introduced for the purpose of supporting it.

Fig. 2245. — RESPOND, (Fotheringay, England.)

Respond'ence, Respond'ency, *n.* Act of responding or answering.

Respond'ent, *a.* [Lat. *respondens.*] Answering; that answers or responds to demand or expectation; according.

—*n.* [Fr. *respondant.*] One who responds; especially— (*Law.*) One who makes answer in certain suits and proceedings at law, as in equity, and admiralty, or divorce causes, &c.

(*Rhet.*) One who upholds a thesis in reply, and whose province it is to refute objections.

Respondentia, (*-dĕn'shi-a,*) *n.* [Lat., from *respondeo,* to promise to return.] (*Mar. Law.*) A species of mortgage in the nature of bottomry, but differing from it in that the loan is effected on the security of the freight, and not on that of the ship itself.

Response', *n.* [Fr. *réponse;* O. Fr. *response;* Lat. *responsum — respondeo.*] Act of responding. — An answer; a reply; — particularly, an [illegible] answer.—The answer of the people, or congregation, to the priest in the Litany and other parts of divine service.

(*Rhet.*) Answer to an objection in a formal disputation.

(*Eccl.*) In the services of the Roman Catholic Church, a kind of anthem sung after the lessons of matins.

(*Mus.*) In a fugue, a repetition of the given subject by another part.

Responsibil'ity, *n.* [Fr. *responsibilité.*] State of being responsible, accountable, or answerable, as for a trust or office, or for a debt. — That for which one is accountable or responsible. — Ability to answer in payment; means of discharging or liquidating contracts.

Respon'sible, *a.* [Fr.] Answerable; accountable; amenable; liable to respond, or be called upon to make account; as, a husband is *responsible* for his wife's debts during coverture. — Able to discharge an obligation or contract, or having estate adequate to the payment of a debt or debts: as, a *responsible* party became his bail.

Respon'sibleness, *n.* Responsibility.

Respon'sibly, *adv.* In a responsible manner.

Respon'sive, *a.* [O. Fr. *responsif.*] Answering; making reply; able, ready, or disposed to respond; as, a *responsive* letter. — Correspondent; suited to something else.

"The vocal tay, *responsive to the strings."—Pope.*

Respon'sively, *adv.* By way of response; in a responsive manner.

Respon'siveness, *n.* State of being responsive.

Respon'sory, *a.* Containing or conveying answers.

—*n.* Answer or response of the congregation to the priest in divine service. (R.)

Rest, *n.* [A. S. *rœst;* D. *rust;* Ger. *rast.*] A ceasing from motion or action of any kind, and applicable to any body or being; a state free from motion or labor; quiet; repose; quiescence; tranquillity; as, *rest* of body or mind. — Hence, by implication, freedom from worry, annoyance, cares, or disturbance; peace; security; as, his wife's tongue gives him but little *rest.*

—Sleep; hence, in political parlance, death; as, he has gone to his last *rest.* — That on which anything leans or lies for support; — specifically, in a lathe, a piece of iron to hold the turning tool upon, fixed at the end of a slide by a set-screw. — A resting-place; a permanent habitation; as, "In dust our final *rest.*" — *Milton.*

(*Hygiene.*) Rest is as necessary to the health of the body as food, light, and air. How much absolute rest of body and mind, such as only sleep can give, is necessary for the recovery of muscular elasticity and nervous energy, must depend greatly on the age of the person, and the amount of labor taken. Some men are as refreshed after four hours' sleep as others with six or seven; in such cases, temperament has much to do with the benefit derived from the shorter term. As a general rule, the time devoted to repose should not be less than five hours, and need seldom exceed seven. The man who retires to rest before midnight will require less repose than he who makes it dawn before he seeks his bed. The hours of rest, like the hours set apart for meals, should be punctually adhered to. Much of the boasted health of a country life depends upon the regularity, not only in the hours of labor and reflection, but of repose also.

(*Archæol.*) Anciently, a projection from the right side of a coat of mail, serving to support the butt of a lance.

(*Lit.*) A cæsura; a short pause of the voice in reading.

(*Mus.*) One of the characters of silence, each of which denotes a cessation of the sound, equal in duration to the note which it immediately succeeds and after which it is named: thus a *semibreve rest* is equal in length to a semibreve, a *minim rest* to a minim, a *crotchet rest* to a crotchet; and so on through all the different characters of notation.

—*v. n.* [A. S. *restan.*] To stop; to cease from motion or action of whatsoever kind; to cease from labor, work, or performance. — To be quiet or still; to be undisturbed; to be tranquil, or at peace; to be quiet or tranquil, as the mind; not to be agitated by fear, anxiety, worry, or other emotion of passion. — To lie; to recline; to repose, as on a bed.—To be in a state of sleep or slumber; as, when tired one *rests* well. — To lean or stand on; to be supported by; as, a house *rests* on the ground. — To sleep the last sleep; to die, or be dead. — To acquiesce; to be satisfied; as, "to *rest* in heaven's determination" (*Addison.*) — To trust, confide, or rely; to place dependence; as, to *rest* on a man's word or promise.

To rest with, to be in the power of; to be determined by; as, the matter *rests with* him to decide.

—*v. a.* To cause to rest; to lay or place at rest; to quiet. — To place, as on a support.

"Her weary head upon your bosom *rest."* — *Waller.*

Rest, *n.* [Fr. *reste,* from Lat. *re,* back, and *sto,* to stand.] That which is left, or which remains after the separation, either in fact or in contemplation; remainder; overplus; remnant; residue. — Others; those not included in a proposition or description; as, Byron and the *rest* of the modern poets.

—*v. n.* [Fr. *rester.*] To remain; to be left; as, there the affair *rests.*

Res'tant, *a.* [Fr.; Lat. *restans,* from *restare,* to remain.] (*Bot.*) Not falling off, as the calyx of the rose and apple, which remain upon the germ after the corolla has fallen; persistent.

Restate', *v. a.* To state again, or a second time.

Restaurant, (*res'to-rant,*) *n.* [Fr. *restaure.*] An eating-house or saloon.

Restaurateur, (*res-tor-a-tur',*) *n.* [Fr.] One who keeps a restaurant, or eating-house.

Restem', *v. a.* To force back against the current; to stem against.

Rest'ful, *a.* Quiet; being at rest; giving rest.

Rest'fully, *adv.* In a restful manner; in a state of rest.

Rest'fulness, *n.* The state or quality of being restful.

Rest'-harrow, *n.* (*Bot.*) See ONONIS.

Restia'ceæ, *n.* [Lat. *restis,* a cord] (*Bot.*) An order of plants, alliance *Glumales.* DIAG. A 1-3-celled ovary, a pendulous ovule, 2-3 stamens, 1-celled anthers, and terminal embryo. They are herbs or under-shrubs, chiefly native of S. America, S. Africa, and Australia. Their properties are unimportant. The wiry stems of some species have been used for basket-making, thatching, rope, &c. The order includes 23 genera and 171 species.

Res'tiform, *a.* [Lat. *restis,* a rope, and *forma,* form.] A term applied to certain rope-like columns or tracts, behind the *lateral tracts* of the medulla oblongata. The *R. tract* is continuous below with the posterior columns of the myelon; while above, its fibres may be traced transversely through the pons into the cerebellum. If the *R.* tracts be irritated, the most acute suffering is produced.

Restip'ulate, *v. n.* To stipulate again, or anew.

Restipula'tion, *n.* A renewed stipulation.

Res'titute, *v. a.* [Lat. *restituere,* from *re,* and *statuere,* to put, to place.] To restore what is lost or taken away. (R.)

—*n.* Anything restored or replaced. (R.)

Restitu'tion, *n.* [Lat. *restitutio,* from *restituere,* to restore.] Act of restoring to a former state.

—Act of making good, or of giving an equivalent for any loss, damage, or injury; indemnification; reparation; compensation.

—Act of recovering a former state or posture. (R.)

Motion of R. (*Physics.*) The returning of elastic bodies, forcibly bent or compressed, to their natural state.

Res'titutor, *n.* [Lat.; Fr. *restituteur.*] A person who makes restitution. (R.)

Rest'ive, Rest'iff, *a.* [O. Fr. *restif;* Fr. *rétif,* from Lat. *resto,* from *re,* and *stare,* to stand.] Unwilling to go, or only running back; obstinate in refusing to move forward; stubborn.—Impatient; unquiet; uneasy.

Rest'iveness, Restiff'ness, *n.* Obstinate reluctance or indisposition to move forward. — Obstinate unwillingness.

Rest'less, *a.* Continually moving; unquiet; not still. — Sleepless; disturbed; uneasy. — Being without sleep; passed in unquietness. — Not affording rest. — Not satisfied to be at rest or in peace. — Not remaining at rest; turbulent, as a mob. — Disposed to wander or to change place or condition; unsettled; roving.

Rest'lessly, *adv.* Without rest; unquietly.

Rest'lessness, *n.* State or quality of being restless; uneasiness; agitation.

Restor'able, *a.* Capable of being restored.

Restor'ableness, *n.* The state or quality of being restorable.

Restora'tion, *n.* [Fr. *restauration,* from Lat. *restauratio.*] Act of restoring, or of replacing in a former state; renewal; revival; reëstablishment; renovation. — The recovery or bringing back to health and soundness; recovery. — That which is restored.

(*Eng. Hist.*) A term applied to the accession of King Charles II., in 1660, after the Civil War, to the throne of England, after an interregnum of eleven years and four months, from January 30th, 1649, when Charles I. was beheaded, to May 29th, 1660.

(*French Hist.*) The first *R.* begins May 3, 1814, when Louis XVIII. made his entry into Paris under the protection of foreign bayonets, and ended with the return of Napoleon from Elba, March 20, 1815. The beginning of the second *R.* is generally reckoned from the battle of Waterloo, June 18, 1815, which destroyed forever the power of Napoleon, and terminated on July 29, 1830, with the abdication of Charles X.

Restora'tioner, Restora'tionist, *n.* One who holds to the doctrine of the final restoration of all men to happiness.

Restora'tionism, *n.* The doctrine of the Restorationists.

Restor'ative, *a.* That restores; that has power to renew strength and vigor.

—*n.* A medicine efficacious in restoring strength and vigor, or in recruiting the vital powers.

Restor'atively, *adv.* In a manner or degree conducive to a renewal of strength or vigor.

Res'torator, *n.* A restaurateur.

Restor'atory, *a.* Restorative. (R.)

Restore', *v. a.* [Fr. *restaurer;* Lat. *restauro.*] To replace; to repair; to rebuild; to renew; to bring back from a state of decay, ruin, devastation, degeneration, declension, &c.; as, to *restore* order, to *restore* to wealth. — To bring or give to a person, as a specific thing which he has lost, or which has been taken from him and unjustly or arbitrarily detained; to reinstate; to return; to deliver back to the owner; to replace; to bring back to a former state or condition; as, to *restore* a child to the parent, to *restore* a dispossessed or exiled monarch, &c., peace was *restored,* &c. — To cure; to recover from disease; to heal; to bring back to health, soundness, or vigor. — To revive to renew; to reëstablish; to bring back as nearly as may be to its primitive state or condition; as, to *restore* a painting, statue, building, &c. — To give in lieu of, or as satisfaction or an equivalent for.

—*v. n.* To store again, or a second time, as goods.

Restor'er, *n.* The person who, or thing which, restores.

Restrain', *v. a.* [Fr. *restreindre,* from Lat. *restringo, restrictus.*] To draw back tightly; to bind or hold back; to bind fast; to hold from action, proceeding, or advancing by any means; to hold in; to curb; to check; to repress; to keep down; as, to *restrain* one from committing an act of folly. — To hinder; to abridge; to curtail; as, to *restrain* one of one's liberty. — To restrict; to limit; to constrain; to confine. — To withhold; to forbear, or keep back.

Restrain'able, *a.* That may be restrained; as, *restrainable* passions.

Restrain'edly, *adv.* With restraint or limitation.

Restrain'er, *n.* The person who, or thing which, restrains.

Restrain'ment, *n.* Act of restraining.

Restraint', *n.* [F. *restrent,* pp. of *restreindre.*] Act or exercise of restraining, or of holding back, or hindering from action or motion, in any manner; a hindering of the will, or of volition, or of any action, physical, moral, or mental; hinderance; repression; coercion; abridgment of liberty — That which restrains, hinders, or represses; limitation; restriction; prohibition; as, no *restraints* were laid upon him.

Restreng'th'en, *n.* To strengthen, again or afresh; to fortify anew.

Restrict', *v. a.* [Lat. *restrictus,* from *restringo.*] To hold or keep back within certain bounds or limits; to circumscribe; to curb; to restrain; to repress; to confine; as, to *restrict* one to a single glass of wine a day.

Restriction, (*-strĭk'shun.*) *n.* [Fr, from L. Lat. *restrictio.*] Act of restricting, or state of being restricted; limitation: confinement within bounds; as, *restriction* of wit by the laws of propriety. — That which restricts; a restraint; as, to impose *restrictions* on trade.

Restriction of words, the limitation of their force in a special manner or degree.

Restric'tionary, *a.* Restrictive; using restriction.

Restrict'ive, *a.* [Fr. *restrictif.*] Having the quality of restricting or limiting, or of expressing limitation; imposing restraint; as, *restrictive* laws or regulations.

Restrict'ively, *adv.* With limitation or restriction.

Restrict'iveness, *n.* State or quality of being restrictive

Restrive', *v. a.* To strive anew.

Resubjection, (*-jĕk'shun,*) *n.* Subjection a second time.

Resublima'tion, *n.* A second sublimation.

Resublime', *v. a.* To sublime again.

Resuda'tion, *n.* [Fr., from Lat. *resudare.*] Act of sweating afresh.

Result, (*-zŭlt',*) *v. n.* [Fr. *résulter;* Lat. *resulto,* freq. from *resilio—re,* and *salio,* to leap.] To spring or leap back; to rebound. (R.) — To follow, or have origin, as a consequence, from facts, arguments, premises, combination of circumstances, consultation, or meditation; to take effect; to proceed; to spring; to arise; to originate; as, *ennui results* from idleness. — To issue; to ensue; to come out or have an issue; to terminate;—preceding *in;* as, the enterprise *resulted in* failure.

R. trust. (*Law.*) A trust raised by implication or construction of law, and presumed to exist from the supposed intention of the parties and the nature of the transaction.

R. use. (*Law.*) A use raised by equity for the benefit of a feoffer who has made a voluntary conveyance to uses without any declaration of the use.

—*n.* [Fr. *résultat.*] Act of leaping or flying back; resilience. (R.)

—That which proceeds from a given state of facts, certain premises, or the state of things, or force of circumstances, &c.; consequence; conclusion; inference; deduction; effect; issue; event; as, meanness is the natural *result* of avarice. — Decision, resolution, or determination of a council or deliberative assembly.

Result'ance, *n.* Act of resulting.

Result'ant, *n.* [Fr.] (*Math.*) Same as REPELLANT, *q. v.*

(*Mech.*) A term applied to a *force, motion, velocity,* or *rotation* which is mechanically equivalent to several other forces, motions, velocities, or rotations.

—*a.* Resulting from a combination; issuing from a joint effort; arising or following as a result or consequence.

Resultant force or *motion.* (*Phys.*) A force which is the result of conjoined or combined forces.

Result'ful, *a.* Having results or consequences.

Result'less, *a.* Without result; as, *resultless* inquiries.

Resum'able, *a.* [From *resume.*] That may be resumed, or taken back.

Resume', (*rā-zā-mā',*) *n.* [Fr.] A condensed statement; a summing up; a brief recapitulation.

Resume, (*re-zūm',*) *v. a.* [Fr. *résumer;* Lat. *resumo — re,* and *sūmo,* to take.] To take back again. — To take up again, as that which has been given and taken away. — To begin again: to recommence, or take up again, as after absence or interruption; as, the men *resumed* work again.

Resum'mon, *v. a.* To summon or call again, or a second time. — To recall; to recover.

Resum'mons, *n.* A second, or renewed summons.

Resumption, (*-zŭm'shun,*) *n.* [Fr., from Lat. *resumptio — re,* and *sumo.*] Act of resuming, taking back, or taking again; as, the *resumption* of a grant or an office, the *resumption* of cash payments.

Resumptive, (*-zŭm'tĭv.*) *a.* [Fr. *résumptif;* Lat. *resumptivus.*] Resuming, or taking back, or again.

—*n.* (*Med.*) A restorative. (R.)

Resu'pinate, *a.* [From Lat. *resupinare,* to bend back.] Inverted in position; apparently topsy-turvy, or upside down.

(*Bot.*) A term applied to parts which become inverted, usually in the twisting of their stalk, as in many orchidaceous flowers.

Resu'pinated, *a.* Resupinate.

Resupina'tion, *n.* State of being resupinate or inverted: — also, state of lying on the back.

Resupine', *a.* [From Lat. *re,* again, and *supinus,* bent backward.] Stretched on the back.

Resupply', *v. a.* To supply anew.

Resurgence, (*-jens,*) *n.* Resurrection; act of rising again.

Resurgent, (*-jĕnt,*) *n.* One who rises again, as from the dead or a moribund state

Resurprise, (*-prīz',*) *v. a.* To surprise again, or anew.

Resurrection, (*rĕz-ur-rĕk'shun,*) *n.* [Fr., from Lat. *resurrectio.*] A rising again from a state of ignorance, degradation, or bondage; as, the *resurrection* of art in the Middle Ages.

(*Theol.*) A term applied to the rising again of Christ from the dead, and sometimes to the revival of mankind at the last day. The resurrection of Christ is detailed with much fulness by the Evangelists, and is frequently referred to in the other books of the New Testament. In fact, it is presented as a chief argument for the truth of Christianity; for, says the Apostle, "if Christ be not risen, then is our preaching vain, and your faith is also vain."

Resurrectionist, Resurrec'tion-man, *n.* A body-snatcher: one who steals bodies from the grave, particularly for anatomical dissection.

Resurvey, (*-sur-vā',*) *v. a.* To survey again; to review. —*n.* A second, or renewed survey.

Resus'citable, *a.* That may be restored to life.

Resus'citant, *n.* The person who, or thing which, resuscitates.

Resus'citate, *v. a.* [Fr. *réssusciter;* Lat. *resuscito.*] To revive; to revivify; — particularly, to recover from apparent death; as, to *resuscitate* a drowned person.

—*v. n.* To revive; to awaken to life again.

Resuscita'tion, *n.* [L. Lat. *resuscitatio.*] Act of resuscitating, or of reviving from a state of apparent death; state of being revivified.

Ret, *v. a.* [Corrupted from *rot.*] To prepare for use, as flax, by detaching the fibres from the woody part by certain processes.

Reta'ble, *n.* (*Arch.*) A screen for an altar.

Retail', *v. a.* [Fr. *retailler,* to cut again, *re,* and *tailler,* to cut.] To sell by cutting or dividing again and again, and dispose of in small parcels; to vend at second-hand; — opposed to *wholesale;* as, to *retail* liquors. — Hence, by analogy, to deal out or tell in small portions or broken parts; to tell to many; as, to *retail* scandalous reports.

—*n.* The sale of commodities in small quantities or parcels, or at second-hand; — correlative to *wholesale.*

—*a.* Specifying sale by small quantities or parcels; as, a *retail* business.

Retail'er, *n.* One who sells goods by small quantities or parcels; also, one who tells or circulates in small portions; as, a *retailer* of idle stories.

Retail'ment, *n.* Act of retailing.

Retain', *v. a.* [Fr. *retenir;* Lat. *retineo — re,* back, and *teneo,* to hold.] To hold or keep back; to hold or keep in possession; to keep from departure or escape; to detain; not to lose or part with, or dismiss.—To hire; to engage; to keep in pay; to employ by a fee or honorarium paid; as, to *retain* an advocate.

—*v. n.* To keep; to continue.

Retain'able, *a.* That may be retained.

Retain'er, *n.* One who retains.—One who is retained in service; an attendant; a dependent; an adherent; a hanger-on.

(*Law.*) In former times, and in English law, the term was applied to one of a class of servants, or dependents, who wore their master's livery, but were only employed in his service on particular occasions, being, however, retained by him, and liable to be called upon to serve him at any time. In modern legal phraseology, a *retainer,* or *retaining fee,* is a fee given to a counsel to secure his services in a cause, in order to prevent the opposite side from engaging him. It is *special* when given for the purpose of securing the counsel's services for a particular case; *general,* when for securing his services generally. In America, a retainer, much less formal than in the English practice, is only the act of a client by which he engages an attorney or counsellor to manage a cause. The effect of a retainer is to confer on the attorney all the powers exercised by the forms and usages of the court in which the suit is pending.

Retain'ment, *n.* Retention; act of retaining.

Retain'-wall, Retain'ing-wall, *n.* (*Arch.*) A wall built for resisting the thrust of the ground at the back, or for confining a body of water in a reservoir.

Retake', *v. a.* (*imp.* RETOOK; *pp.* RETAKEN.) To take or receive again; as, to *retake* medicine.—To recapture; to take from a captor; as, to *retake* a prize at sea.

Retak'er, *n.* One who takes again what had been taken before; a recaptor.

Retaliate, (*-tăl'i-āt,*) *v. a.* [L. Lat. *retalio, retaliatus —re,* again, and *talis,* such.] To return, as like for like; to repay or requite by an act of the same kind as has been given or proffered;—especially, to return evil for evil; as, to *retaliate* injuries.

—*v. n.* To return tit for tat, or like for like; as, to *retaliate* upon an opponent.

Retalia'tion, *n.* Act of retaliating; the return of like for like. See LEX TALIONIS.

Retal'iative, *a.* Serving or tending to retaliate; retaliatory; inducing or involving retaliation; as, *retaliative* wit, *retaliative* justice.

Retal'iatory, *a.* Retaliative; as, *retaliatory* measures.

Retard', *v. a.* [Fr. *retarder;* Lat. *retardo — re,* and *tardo,* to make slow.] To render slow, or slower; to keep back; to impede; to hinder; to obstruct; to diminish, as the velocity of motion; to prevent from making due progress; as, to *retard* the operations of an army; — opposed to *accelerate.* — To put off; to delay; to procrastinate; to render more late; as, to *retard* payment of a bill past due.

Retarda'tion, *n.* [Fr.; Lat. *retardatio.*] The act of retarding; hinderance; delay.

(*Physics.*) The act of hindering the free progress of a body, and ultimately, therefore, stopping it. It arises from the opposition of the medium in which the body moves, or from the friction of the surface *upon* which it moves. See FRICTION, RESISTANCE.

(*Gun.*) The loss of velocity of a projectile, in consequence of the air's resistance.

Retard'ative, *a.* [Fr. *retardatif.*] Serving to retard.

Retard'er, *n.* One who, or that which, retards.

Retard'ment, *n.* Act of delaying or retarding.

Retch, (*rĕch,*) *v. n.* [A. S. *hræcan.*] To make an effort to vomit; to heave, as the stomach; to strain, as in eructating.

Retecious, (*-tē'shus.*) *a.* [From Lat. *rete,* a net.] Having the appearance of net-work.

Retell', *v. a.* To tell afresh, or over again.

Re'te muco'sum, *n.* [Lat., mucous net.] (*Anat.*) See SKIN.

Retent', *n.* [Lat. *retentum.*] That which is retained.

Retention, (*-tĕn'shun.*) *n.* [Fr.; Sp *retencion;* Lat. *retentio.*] Act of retaining, holding, or keeping; state of being retained or detained; custody. — Power of retaining; faculty of the mind by which it retains ideas; as, *retention* of thought. — Act of withholding; restraint.

"I gave my love without *retention* or restraint." — *Shaks.*

—Confinement; custody; duress; durance; as, to be placed under *retention,* as a prisoner.

(*Med.*) Undue retaining of some natural discharge, as, *retention* of urine.

(*Law.*) A lien; the right of withholding a debt, or of retaining property until a debt due to the person claiming this right be duly paid.

Reten'tive, *n.* [Fr. *retentif.*] That retains; having the power to retain, as ideas; as, a *retentive* memory.

Reten'tively, *adv.* In a retentive manner.

Retentive'ness, *n.* Quality of being retentive.

Rete'pore, *n.* [Lat. *rete,* a net, and *porus,* pore.] (*Zoöl.*) A genus of *Alcyonaria,* distinguished by having their foliate skeleton pierced like net-work. The Neptune's Ruffles, *R. cellulosa* (Fig. 2246), shows the appearance of this genus.

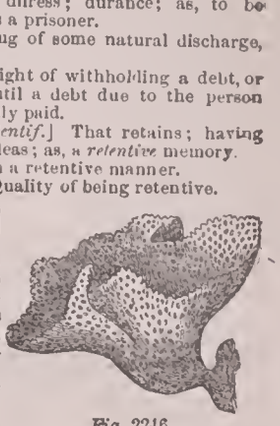

Fig. 2246.
NEPTUNE'S RUFFLES,
(*Retepora cellulosa.*)

Retext'ure, *n.* A new texture.

Rethel, (*raĭ'tel,*) a town of France, dept. of Ardennes, on the Aisne, 24 m. S.W. of Rheims. *Manuf.* Woollens, cottons, linen, hats, and leather. *Pop.* 8,500.

Retiarii, *n. pl.* [Lat., from *rete,* a net.] (*Roman Antiq.*) The name of a class of Roman gladiators. The retiarius was furnished with a trident and net, with no more covering than a short tunic; and with these implements he endeavored to entangle and despatch his adversary, who was called *secutor* (from sequi, to *follow*), and was armed with a helmet, a shield, and sword.

Reti'cence, *n.* [Fr.; Lat. *reticentia,* from *reticeo,* from *re,* and *taceo,* to be silent.] Silence; concealment by silence.

(*Rhet.*) A figure by which mention is made indirectly of some subject, while the speaker or the writer pretends to pass it over in silence.

Reti'cency, *n.* Reticence.

Reti'cent, *a.* Taciturn; disposed to be silent.

Reticle, (*ret'i-kl,*) *n.* A small net; a reticule.

Reti'cular, *a.* [Fr. *reticulaire.*] Having the form of a small net.

Retic'ulate, Retic'ulated, *a.* [Fr. *réticule;* Lat. *reticulatus.*] Resembling net-work; of the form or appearance of net-work.

(*Bot.*) A term especially employed to describe the condition of the venation in *exogens,* as compared with that of the *endogens.*

(*Min.*) Applied to the minerals which occur in parallel fibres crossed by other fibres, which are also parallel, so as to exhibit meshes like those of a net.

Reticulated work. (*Masonry.*) Masonry constructed with diamond-shaped stones, or square stones placed diagonally (Fig. 1732). In the city of Rome this mode of decorating the surface of a wall is generally characteristic of the period of the early empire; it was frequently imitated in Romanesque work in the tympanum of a doorway especially in Norman work.

Reticula'tion, *n.* Organization of substances resembling network.

Reti'cule, *n.* [Lat. *reticulum,* dim. from *rete,* a net.] A lady's work-bag, or a little bag to be carried in the hand.

(*Astron.*) A network of fine spiders' webs or wires crossing each other at right angles, and dividing the field of view into a series of small equal squares. It has been long used for observations on the quantity of the enlightened parts of a luminary during eclipses, and is found well adapted for that and similar purposes.

Reti'culum, *n.* [Lat., dim. of *rete.*] (*Zoöl.*) The name of the *honeycomb bag,* or second cavity of the complex stomach of the ruminant quadrupeds; so called from the reticulate or honeycomb-like disposition of the cells, mostly hexagonal, which occupy its inner surface.

(*Bot.*) The debris of interlacing fibres found at the base of the petiole in palm-trees.

Reti'form, *a.* [From Lat. *rete,* and *forma,* form.] Having the form of a net in texture; composed of cross-lines and interstices; reticule.

Reti'mo, a seaport-town of European Turkey, on the N. coast of the island of Crete, 38 m. S. of Candia; *pop.* 8,000.

Reti'na, *n.; pl.* RETINÆ. [Lat.] (*Anat.*) The pulpy expansion of the optic nerve in the interior of the eye. See EYE.

Reti'nal, *a.* Relating to the retina.

Retin'alite, *n.* [Gr. *retine,* resin, and *lithos,* a stone.] (*Min.*) A Canadian massive variety of serpentine with a resinous appearance.

Ret'inite, Retin'asphalt, *n.* [Gr. *retine,* resin.] (*Min.*) A mineral substance, intermediate between resin and asphalt, discovered by Mr. Hatchett in roundish or irregular opaque lumps, of a yellowish or pale brownish-yellow color, in tertiary clay, at Bovey-Tracey, in Devonshire, England, associated with lignite; also at Halle, and in peat at Osnabrück in Hanover. When digested in alcohol, it yields a portion of resin, and asphalt remains.

Retin'itis, *n.* (*Med.*) Inflammation of the retina; a disease which often produces blindness.

Ret'inoid, *a.* [Gr. *retine,* resin, and *eidos,* form.] Resembling resin.

Retinue (*ret'e-nu*), *n.* [Fr. *retenir, retenu,* to retain, from Lat. *retineo.*] Those whom a prince or distin-

guished person retains as attendants; a train of persons; a suite.

Retir'acy, *n.* Act of retiring.—A fortune sufficient to retire from business with; an adequate competency for life.

Retire', *v. n.* [Fr. *retirer*, from Lat. *trahere*, to draw.] To depart; to retreat; to remove; to go out of company, or from a public place, into privacy.—To withdraw from business or active life; to go from a public station.

Retired', *a.* Secret; private—Withdrawn; removed.—Withdrawn from business or active life; secluded from public notice.

Retired flank. (*Fort.*) A flank bent inwards towards the rear of the work, or army, of which it forms a part.

Retiredly, (*re-tīrd'le,*) *adv.* In a retired manner; in solitude or privacy.

Retired'ness, *n.* Solitude; privacy; secrecy.

Retire'ment, *n.* Act of retiring or withdrawing from company, or from public notice or station.—State of being withdrawn.—Habitation secluded from much society, or from public life.—Private way of life; seclusion; privacy; solitude.

Retir'er, *n.* A person who retires.

Retort', *v. a.* [Lat. *retorqueo*, from *re*, and *torqueo*, to turn.] To bend, turn, or cast back.—To throw back; to return.—To return as an argument, accusation, censure, or incivility.

—*v. n.* To return an argument or charge; to make a severe reply.

—*n.* The return of an argument, charge, or incivility; a repartee; as, a pungent *retort*.

(*Chem.*) A vessel in which distillation is effected by means of heat. Retorts are made of glass, earthenware, or metal, according to the purposes for which they are intended. Glass retorts are employed for the preparation of those substances which do not require any extraordinary degree of cold for their condensation, such as nitric acid. Glass retorts are made of various sizes, capable of holding four or five ounces to several gallons, and both flint and green glass are used in their manufacture. They are usually heated either by spirit-lamp, by gas, or by sand-bath. When higher temperatures are required, earthen retorts are used. In making hydrofluoric acid, a lead retort is necessary: and in concentrating sulphuric acid, platinum retorts are largely employed. Very large earthenware retorts are used in the manufacture of coal-gas.

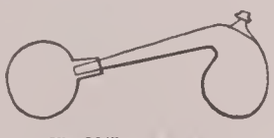

Fig. 2247.—RETORT.

Retort'er, *n.* One who retorts.

Retort'ing, *n.* The act of returning, as an argument, charge, or incivility.

Retortion, (*-tor'shun,*) *n.* The act of retorting.

Retor'tive, *a.* Containing a retort. (R.)

Retoss', *v. a.* To toss back.

Retouch, (*re-tŭch',*) *v. a.* To improve by new touches, as a picture or essay.

—*n.* A repeated touch; the reapplication of a master's hand to a work he had before considered complete, as a painting or sculpture.

Retrace', *v. a.* [Fr. *retracer.*] To trace back; to go back, as in the same course or path.

(*Paint.*) To trace over again, or renew the outlines of.

To retrace one's steps, to return back in the same path in which one advanced.

Retract', *v. a.* [Fr. *rètracter*; Lat. *retractus*, from *re*, again, back, and *trahere*, to draw.] To draw back; to withdraw.—To take back; to resume.—To recall; to recant; to abjure; to unsay.

—*v. n.* To take back; to unsay; to withdraw concession, or declaration.

—*n* (*Farriery.*) The act of pricking a horse's foot in nailing a shoe on

Retractable, *a* Capable of being retracted.

Retractation, *n.* [Lat. *retractatio.*] Retraction; recantation. (R.)

Retract'ible, *a.* Capable of being withdrawn or retracted.

Retract'ile, *a.* Capable of being drawn, as claws; retractable.

Retraction, (*-trăk'shun,*) *n.* [Fr., from Lat. *retractio.*] Act of withdrawing something advanced, or changing something done.—Declaration of change of opinion; recantation.

(*Med.*) State of a part when drawn towards the centre of the body or backwards.

Retract'ive, *a.* Tending to retract; withdrawing; taking from.

—*n.* Anything that retracts or withdraws from.

Retract'or, *n.* A person who retracts.

(*Surg.*) A muscle, the office of which is to retract the part into which it is inserted.

Retranslate', *v. a.* To translate again, or a second time.

Retrax'it, *n.* [Lat.] (*Law.*) The act by which a plaintiff withdraws his suit. It is so called from the fact that this was the principal word used when the law entries were written in Latin.

Retread', *v. a.* To tread anew.

Retreat', *n.* [Fr. *retraite*, from *retraire*; Lat. *re*, and *traho*, to draw.] Act of retiring or withdrawing; a betaking of one's self away from any thing or place that is dangerous or disagreeable; as, to beat a *retreat*.—State of being retired or secluded from noise, bustle, or company; seclusion; retirement; privacy; solitude.—Place of retirement, for safety or security; a shelter; an asylum; a refuge.

"That pleasing shade, a soft *retreat*."—*Dryden.*

(*Nav.*) The retirement of a ship or fleet from before the enemy, or the order or disposition of ships declining to engage in battle.

(*Mil.*) The retiring of an army or body of men from an enemy, or from any position; an orderly retrograde movement.

"Honourable *retreats* are no ways inferior to brave charges."
Bacon.

—A signal used in the military and naval services, by beat of drum or sound of trumpet, at sunset, or for retiring from exercise or action:—opposed to REVEILLE, *q. v.*

(*Eccl.*) In the Roman Catholic Church, a special season of seclusion and silence, to engage in religious ceremonies;—also, a period of withdrawal from society, extending over several days, to a religious house for exclusive devotion to the duties of religion; as, to observe a *retreat*.

—*v. n.* To withdraw; to retire from any position or place; to withdraw to a private abode, or to any secluded situation; to retire to a place of safety or security.—To move back to a place before occupied; as, the *retreating* sea.—To retire from an enemy, or from any advanced position; as, the troops *retreated* in good order.

Retreat'ful, *a.* Serving as a retreat. (R.)

Retreat'ment, *n.* Retreat. (R.)

Retrench', *v. a.* [Fr. *retrancher*—*re*, and *trancher*, from Lat. *trans*, across, and *scindere*, to cut.] To cut off; to pare away; to diminish by excision; as, to *retrench* redundancies.—To render less or smaller; to curtail; to abridge; to diminish; as, to *retrench* expenses.—To limit; to restrain; to confine; as, a *retrenched* interpretation of figures.

—*v. n.* To diminish expenses; to economize; to live at a less cost; as, it is time for us to *retrench*.

Retrench'ment, *n.* [Fr. *retranchement.*] Act of retrenching, or of lopping off; act of removing what is extraneous or superfluous; as, the *retrenchment* of words in a writing.—Act of curtailing, making less, or abridging; a lessening; diminution; reduction; curtailment; as, *retrenchment* of personal expenditures.

(*Fortif.*) A line of works formed so as to cut off parts of a fortified place, and enable the garrison to continue the defence after the outlying parts are taken.

Retrib'ute, *v. a.* [Fr. *rétribuer*, from Lat. *retribuere.*] To pay back; to make compensation, payment, or equivalent in return to; as, to *retribute* to an offender what is in proportion to his offence.

Retrib'uter, *n.* One who renders retribution.

Retribution, (*rĕt-rĭ-bū'shun,*) *n.* [Fr.; Lat. *retributio.*] Act of retributing or repaying; repayment; requital.—State of being retributed or paid back.—That which is given to retribute; return accommodated to the action; reward or punishment; recompense; compensation;—also, a gratuity or present given for services in lieu of a salary; and specifically, rewards and punishments to be distributed at the general judgment.

Retrib'utive, Retrib'utory, *a.* Making retribution; repaying; rewarding for good deeds, and punishing for offences; as, *retributive* justice.

Retrievable, (*-trēēv'a-bl,*) *a.* That may be retrieved or recovered; as, a *retrievable* debt.

Retriev'ableness, *n.* Quality or state of being retrievable.

Retriev'al, *n.* Act of retrieving.

Retrieve, (*trēēv',*) *v. a.* [Fr. *retrouver;* from Ger. *treffen*, to hit, to find.] To hit or light upon again; to find again; to recover; to regain; to recover from loss or detriment; as, to *retrieve* one's character or credit, to *retrieve* an impaired fortune.—To bring back; to recall.—To repair, as a loss, damage, or misfortune; to remedy the evil consequences of; as, to *retrieve* a disastrous defeat.

—*n.* (*Sporting.*) The recovery of game once sprung.

Retrieve'ment, *n.* Retrievul.

Retriever, (*-trēēv'er,*) *n.* One who, or that which, retrieves.

(*Sporting.*) A dog trained to seek out and bring in game that is shot.

Retrim', *v. a.* To trim again, or afresh.

Ret'riment, *n.* Refuse; dregs; offal; dross. (R.)

Re'tro. A Latin prefix denoting *back*, or *backward*.

Retroact', *v. n.* [Fr. *rétroagir*, from Lat. *retroagere.*] To act in antagonism or opposition; to act backward or reciprocally.

Retroaction, (*-ăk'shun,*) *n.* [Fr.] Action backward; return action.—Operation on something past or preceding.

Retroact'ive, *a.* [Fr. *rétroactif*, from Lat. *retro*, back, and *activus*—*ago*, to do, to act.] Acting backward; operating by returned action; affecting what is past; retrospective; as, a *retroactive* statute.

Retroact'ively, *adv.* In a retroactive manner; by operating on something past or preceding.

Retrocede, (*rĕt'ro-sēēd,*) *v. a.* [Fr. *rétrocéder.*] To cede back; to make returned cession; as, to *retrocede* a state to its former possessor.

—*v. n.* To go back.

Ret'rocedent, *a.* (*Med.*) In pathology, a term applied to those diseases which move about from one part of the body to another; as, *retrocedent gout*, when it leaves the toe for the stomach.

Retrocession, (*rĕt-ro-sĕsh'un,*) *n.* [Fr., from Lat. *retrocessus*, a going back, from *retrocedo*—*retro*, and *cedo*, to go.] Act of retrocediug or going back; retrogression.—State of being retroceded; granted back, or restored.

Retrocopula'tion, *n.* Coition from behind, as in the case of most animals.

Retroduc'tion, *n.* [Lat. *retroducere.*] A leading or bringing back.

Re'trotlex, Re'trotlexed, *a.* [Lat. *re*, and *flectero*, *flexum*, to bend.] (*Bot.*) Bent or turned suddenly backward.

Ret'rofract, Ret'rofracted, *a.* [Lat. *retro*, and *fractus*, pp. of *frangere*, to break.] (*Bot.*) Bent backward; refracted, as a petiole.

Retrogen'erative, *a.* Generating young by retrocopulation, as many animals.

Retrograda'tion, *n.* [Fr.; from Lat. *retrogradatio.*] Act of going or moving backward; act of retrograding.—State of being retrograded; a going backward; retrogression.

(*Astron.*) A term applied to the apparent motion of a planet when it is contrary to the order of the signs, or when the planet appears to move westward among the fixed stars.

Ret'rograde, *a.* [Fr.; from Lat. *retrogradior*—*retro*, and *gradior*, to go, from *gradus*, a step] Going or moving backward: retrogressive; declining from a better to a worse state.—Contrary; opposite; tending to move retrogressively; as, a *retrograde* manœuvre.

(*Astron.*) Apparently moving backward, and contrary to the succession of the planets, *i. e.*, from east to west, as a planet; denoting *apparent motion* as opposed to *direct motion*.

—*v. n.* [Fr. *retrograder*, from Lat. *retrogradior*—*retro*, and *gradio*, to go.] To go or move backward.

Retrograd'ingly, *adv.* By retrograding; so as to go backward.

Retrogression, (*rĕt-ro-grĕsh'un.*) *n.* [Fr., from Lat. *retrogradi.*] Act of going backward; retrogradation.

Retrogres'sive, *a.* Going or moving backward; declining from a more perfect to a less perfect state; as, a *retrogressive* national policy.

Retrogres'sively, *adv.* By retrogression; retrogradingly.

Retromin'gency, *n.* Act or quality of being retromingent.

Retromingent, *a.* [Lat. *retro*, and *mingens*—*mingere*, to make water.] Organized so as to discharge the urine backward.

—*n.* (*Zoöl.*) An animal that discharges its urine backward.

Retropul'sive, *a.* [Lat. *retro*, and *fellere*, *pulsum*, to drive, impel.] Repelling; repulsing; driving back.

Retrorse', *a.* [Lat. *retrorsus.*] Bent in a backward direction.

Retrorse'ly, *adv.* In a retrorse manner.

Ret'rospect, *v. n.* [Lat. *retrospicio*, *retrospectum*, to look back at.] To look back; to view what is past.

—*n.* A looking back on things past; view or contemplation of something past; review; survey; reëxamination.

Retrospection, (*-spĕk'shun,*) *n.* Act of looking back on things past; also, the faculty of looking back on past things.

Retrospect'ive, *a.* [Fr. *retrospectif.*] Looking back, or tending to look back, on past events; as, *retrospective* survey, a *retrospective* eye.—Affecting, or having reference to, things past.

Retrospec'tively, *adv.* In a retrospective or backward surveying manner.

Retroversion, (*-ver'shun,*) *n.* [Fr.] A falling or turning backward.

Ret'rovert, *v. a.* [Lat. *retro*, and *vertere*, to turn.] To turn back.

Retrude', *v. a.* [Lat. *re*, and *trudere*, to thrust.] To thrust back.

Retrusion, (*-tru'zhun,*) *n.* Act of retruding, or of being retruded.

Retry', *v. a.* (*imp.* and *pp.* RETRIED.) To try again; to place on trial a second time.

Ret'tery, *n.* A place where flax is retted. See RET.

Ret'ting, *n.* Act or process of preparing ret.—A rettery.

Retund', *v. a.* [Lat. *re*, and *tundere*, to strike with repeated strokes.] To dull; to deaden; to blunt; to turn, as an edge; as, to *retund* the point or edge of a cutting instrument.

Return', *v. n.* (*imp.* and *pp.* RETURNED.) [Fr. *retourner*, from Lat. *tornare*, to turn.] To turn back; to come or go back to the same place, position, or condition; as, *returning* home, to *return* to a subject of conversation, &c.

—To come again; to revisit; as, our hopes *return*.—To revert; to answer; to reply.

"He said, and thus the queen of heav'n *returned*."—*Pope.*

—To retort; to recriminate; to retaliate; as, you *return* upon me without cause.—To appear or begin again after a periodical revolution; as, seasons *return* with the year

—*v. a.* To cause to turn or go back; to bring, carry, or send back; as, to *return* a borrowed umbrella.—To repay; to give back in payment; as, to *return* money lent to one.—To requite; to give in recompense, or as equivalent.—To give or send back in reply: as, to *return* an answer.—To tell, relate, report, or communicate.—To retort; to recriminate; as, to *return* a sarcasm.—To give in an account or statement; to give or send by way of official report; as, to *return* a list of killed, wounded, and missing.—To give back to a tribunal or to an office; as, to *return* a writ.—To send; to transmit; to convey.

To return to our muttons. [Fr. *revenons à nos moutons.*] To come back to the point; to return to the same subject: to resume the thread of one's discourse:—used as a proverbial colloquialism.

—*n.* Act of returning (intransitive) or coming back to the same place, position, or condition; as, the *return* of an anniversary, the *return* of long absent friends, the *return* of health and strength, &c.

"He takes little journeys, and makes quick *returns*."—*Dryden.*

—Act of returning (transitive) or sending back to the same place, position, or condition; restitution; repayment; requital; retribution; as, the *return* of a borrowed article, *return* of ingratitude for favors granted

&c.—That which is returned; as, (1.) A payment; a requital; a remittance; as, yearly *returns* of money. (2.) A reply; an answer; a response; as, the *return* to one's question. (3.) An official account, report, or statement; a formal report or numerical statement; as, election *returns*, census *returns*, the *return* of killed, wounded, &c. (4.) Profit; advantage accrued; gain, on an investment, undertaking, and the like; as, on the principle of small profits and quick *returns*, the business yields a handsome *return*.

—*pl.* A kind of light-colored, mild smoking-tobacco.

(*Arch.*) A projection, moulding, or wall continued in a different or an opposite direction to that of the original direction of the body returned.

(*Law.*) The recital by the sheriff, or other officer, to whom a writ has been directed requiring him to do something, of the manner in which the order has been executed. This is indorsed on the writ, which is then returned to the court from which it issued on the "return day," or day when it is returnable.

(*Mil. and Naval.*) An official report, account, or statement, made or given to a commanding, or other superior, officer; as, a *return* of men fit for duty, a *return* of stores, &c., a *return* of soldiers, or sailors, on the sick-list.

—*v. a.* To turn again, or in the contrary or opposite direction; to reverse.

Return'able, *a.* That may be returned or restored.

(*Law.*) That is legally to be returned, delivered, given, or rendered; as, a *returnable* verdict.

Return'-day, *n.* (*Law.*) The day whereon a defendant is to appear in court, and the sheriff is to return the writ and his proceedings.

Return'er, *n.* One who returns, restores, or gives back.

Retuse', *a.* [Lat. *retusus*, from *retundere*.] (*Bot.*) Applied to leaves terminating in a semi-circular end, the centre of which is somewhat indented.

Retz', Jean François Paul De Gondi, Cardinal de, b. at Montmirail, France, 1613; became coadjutor to his uncle, the archbishop of Paris; and, after many intrigues and fighting several duels, he was made archbishop of Corinth, and cardinal. He conspired against the life of Cardinal Richelieu, and took a prominent part in opposing Mazarin during the minority of Louis XIV. At length Mazarin, who both hated and feared him, imprisoned him in the castle of Vincennes, then at Nantes, whence he escaped, and travelled through Holland, Flanders, and England. In 1675 he wished to give up his cardinal's hat, and retire from the world, but the Pope would not receive it; and as the latter years of his life were some amendment on the past, he d. regretted, at Paris, in 1679. He was daring, turbulent, and intriguing; and in his *Memoirs*, which were written by himself during his retirement from the busy scenes of public life, he has drawn his own portrait with considerable skill and impartiality.

Reu'ben. [Heb., behold a son.] (*Script.*) The eldest son of Jacob by Leah (*Gen.* xxix. 32, xxxv. 23, xlvi. 8). His improper intercourse with Bilhah, his father's concubine wife, was an enormity too great for Jacob ever to forget, and he spoke of it with abhorrence even on his dying bed. For his conduct in this matter, Jacob, in his last blessing, deprived him of the preëminence and double portion which belonged to his birthright, assigning the former to Judah, and the latter to Joseph. The doom, "Thou shalt not excel," was exactly fulfilled in the destinies of the tribe descended from Reuben, which makes no figure in the Hebrew history, and never produced any eminent person.

Reunion, *n.* [Fr. *réunion*.] Union formed anew after separation or discord.—A meeting or assembly.

Réunion. See Bourbon, Isle of.

Reunite, (*re-yu-nīt'*,) *v. a.* To unite again; to join after separation.—To reconcile after variance.

—*v. n.* To be united again; to join and cohere.

Reunit'edly, *adv.* In a reunited manner.

Reurge', *v. a.* To urge anew.

Reus, (*rui'oos*,) a town of Spain, prov. of Tarragona, 8 m. W. of Tarragona. *Manuf.* Silks, cottons, leather, hats, brandy, and liquors. *Pop.* 26,000.

Reuss, (*roiss*,) a river of Switzerland, rising on the S. side of Mount St. Gothard, and after a N. course of 30 m., falling into the Lake of Lucerne.

Reuss, a principality of N. Germany, in Upper Saxony, divided into two parts, one adjoining Bavaria and the other Prussia, between Lat. 50° 28′ and 51° 3′ N., Lon. 11° 28′ and 12° 20′ E.; *area*, 458 sq. m. The surface is hilly, and the soil generally fertile. *Rivers.* Saale, and the Elster.

Reuss'in, Reuss'ite, *n.* (*Min.*) Anhydrous sulphate of soda and magnesia, occurring in crystals and in mealy efflorescences, near Seidlitz, in Bohemia.

Reutlingen, (*roit'ling-en*,) a fortified town of Germany, in Wurtemberg, on the Eschatz, 20 m. S. of Stuttgart. *Manuf.* Woollen, linen, and cotton stuffs, and lace, leather, paper, &c.

Revaccinate, (*-văk'sin-āt*,) *v. a.* To vaccinate again, or a second time.

Revaccina'tion, *n.* A renewed vaccination.

Revalua'tion, *n.* A second, or renewed valuation.

Reveal, (*re-vēl'*,) *v. a.* [Lat. *revelo*, from *re*, again, back, and *velo*, to veil.] To disclose; to divulge; to discover; to make known, as something before unknown or concealed.—To communicate, or make known from heaven.

Reveal'able, *a.* That may be revealed.

Reveal'ableness, *n.* The state or quality of being revealable.

Revealed', *a.* Disclosed; made known; laid open.—Communicated from heaven.

Reveal'er, *n.* One who, or that which, reveals; as, *revealed* religion.

Reveal'ment, *n.* Act of revealing or disclosing; revelation. (R.)

Reveille, (*re-văl'yā*,) *n.* [Fr. *reveiller*, to awake.] (*Mil.*) The beating of drums or sound of trumpets at daybreak in all garrisons, after which sentries do not challenge till the following retreat. See Retreat.

Rev'el, *v. n.* [Fr. *reveiller*.] To feast with loose and clamorous merriment; to carouse.

—*n.* A feast with loose and noisy jollity; a carousal.

—*v. a.* [Lat. *revello*.] To pull or draw back.

Rev'el, a town of France, dept. of Haute-Garonne, 30 m. E.S.E. of Toulouse. *Manuf.* Linen, woollen, hosiery, and caps. *Pop.* 6,000.

Revel, a fortified seaport-town of Russia, govt. of Esthonia, on a small bay of the Gulf of Finland, 200 m. W.S.W. of St. Petersburg; Lat. 59° 26′ 5″ N., Lon. 24° 45′ 2″ E. It has an excellent harbor.

Revela'tion, *n.* [Lat. *revelatio*.] Act of revealing or of disclosing to others what was before unknown to them; communication; discovery.—That which is disclosed or revealed.

(*Theol.*) The preternatural communications of his mind and will made by the Deity to man, more particularly as contained in the books of the Old and New Testaments.

Book of R. (*Script.*) See Apocalypse.

Revel'lent, *a.* Causing revulsion.

Rev'eller, *n.* One who revels or feasts with noisy merriment; a carouser.

Rev'elling, *n.* A feasting with noisy merriment; revelry.

Revello, (*rai-vuil'lo*,) a town of Italy, prov. of Coni, 20 m. N.N.W. of Coni; *pop.* 5,300.

Rev'elry, *n.* Noisy festivity; clamorous jollity.

Reven'dicate, *v. a.* [Fr. *revendiquer*, from *re*, again, and *vendiquer*; Lat. *vindico*, to lay claim to.] (*Civil and French Law.*) A claim legally made to recover.

Revendica'tion, *n.* [Fr.] (*Civil and French Law.*) A claim legally made to recover property, by one claiming as owner.

Revenge', *v. a.* [Fr. *revancher*, from Lat. *re*, and *vindicare*, from *vis*, *vim*, power, authority, and *dico*, to say, to assert.] To inflict pain or injury upon in return for an injury received.—To vindicate by punishment of an enemy; to avenge.—To wreak one's wrongs on him who inflicted them;—with the reciprocal pronoun, or in a passive sense.

"*Revenge yourselves* alone on Cassius."—*Shaks.*

—*v. n.* To take vengeance.

—*n.* [Fr. *revanche*.] Return of an injury; infliction of punishment in return for an injury or offence.—The passion which is excited by an injury done or an affront given.

Revenge'able, *a.* Capable of being revenged.

Revenge'ance, *n.* Revenge. (R.)

Revenge'ful, *a.* Full of revenge, or a desire to inflict pain or evil for an injury received; malicious; spiteful; vindictive.

Revenge'fully, *adv.* By way of revenge; vindictively; with the spirit of revenge.

Revenge'fulness, *n.* State or quality of being revengeful, vindictiveness.

Revenge'less, *a.* Without having revenge; unrevenged.

Reven'ger, *n.* One who revenges; one who inflicts pain on another spitefully, in return for an injury.—One who punishes crime; an avenger.

Revengingly, *adv.* With vengeance; vindictively.

Revenue, (*rev'e-nu*,) *n.* [Fr. *revenu*, from *revenir*; Lat. *revenio*.] The annual rents, profits, interest, or issues of any species of property belonging to an individual or to the public.—The annual produce of taxes, excise, customs, duties, rents, &c., which a nation or state collects and receives into the treasury for public use.

Rev'enue-cut'ter, *n.* A small, swift, armed government vessel, employed to prevent smuggling, the unlawful clearance of vessels, and generally to assist the officers of the revenue.

Rev'enue-officer, *n.* A custom-house officer.

Rever'berant, *a.* Resounding; reverberating.

Rever'berate, *v. a.* [Lat. *reverbero*, from *re*, and *verbero*, to whip.] To send or drive back; to return, as sound; to resound.—To heat in an intense furnace, where the flame is reverberated on the matter to be melted or cleaned.

—*v. n.* To be driven back; to be repelled.—To echo, as sound; to resound.

Rever'beration, *n.* [Fr.] Act of reverberating, or of driving or sending back.

(*Physics.*) The driving back or reflecting of one body by another on which it impinges, as of waves of sound, by arched and other surfaces, whereby echoes are produced, or of flame from the top of glass and reverberatory furnaces.

Rever'beratory, *a.* That reverberates; returning or driving back.

R. furnace. A furnace in which the flame is made to pass over a bridge, and then beat down again upon a hearth or surface, on which the materials to be heated are placed.

—*n.* A reverberatory furnace.

Revere, Paul, a patriot of the American Revolution, was born in Boston in 1735. He took an active part in the destruction of the tea in Boston harbor, and is famous for his midnight ride to Concord to warn the colonists of the coming of the British troops. He was one of the earliest American engravers. Died in 1818.

Revere', *v. a.* [Fr. *révérer*, from Lat. *revereor*, from *re*, and *vereor*, to fear.] To regard with fear, mingled with respect and affection; to venerate; to reverence.

Revere, (*rai-vair'ai*,) a town of Italy, prov. of Mantua, on the Po, 16 m. S. of Mantua; *pop.* 7,500.

Rev'erence, *n.* [Fr., from Lat. *reverentia*.] Fear mingled with respect and esteem; honor; homage; high respect.—An act of respect or obedience; a bow or courtesy.—A title of the clergy; as, his *reverence*.

—*v. a.* To regard with reverence; to revere; to venerate; to honor.

Rev'erencer, *n.* One who regards with reverence.

Rev'erend, *a.* [Fr., from Lat. *reverendus*—*revereor*.] Worthy of reverence; entitled to respect, mingled with fear and affection.

(Note.—*Reverend* is frequently in this country, and in England invariably, used as a title of respect given to the clergy or ecclesiastical body. Thus, a clergyman of the rank of rector, incumbent, vicar, or curate is styled *reverend*, a dean *very reverend*, a bishop *right reverend*, and an archbishop *most reverend*. In Roman Catholic countries, the members of all religious orders are styled *reverend*.)

Rev'erent, *a.* [Lat. *reverens*.] Expressing reverence, veneration, or submission.—Inclined to revere; impressed with veneration; submissive; humble; meek.

Reverential, (*rĕv-er-en'shal*,) *a.* Proceeding from reverence, or expressing it; as, *reverential* awe, *reverential* esteem.

Reveren'tially, *adv.* In a reverential manner; with reverence or show of reverence.

Rev'erently, *adv.* In a reverent manner; with reverence; with veneration or respectful regard;—also, with fear of what is great or terrifying; as, to bow *reverently*.

"Chide him for faults, and do it *reverently*."—*Shaks.*

Rever'er, *n.* One who reveres or venerates.

Reverie, Revery, (*rĕv'er-ē, rĕv'er-ў*,) *n.* [Fr. *rêverie*, from *rêver*, to dream, to muse, to rave.] A loose or irregular train of thoughts occurring in musing or meditation; wild, extravagant exaltation or conceit of the fancy or imagination; as, to be wrapped in a *reverie*.—A chimera; a vision.

(*Med.*) Voluntary inactivity of the whole, or the greater part, of the external senses to the impressions of surrounding objects during wakefulness.

Rever'sal, *a.* [From *reverse*.] A change or overturning; as, the *reversal* of a judgment or an attainder.

Reverse', *v. a.* [Lat. *revertor*, *reversus*—*re*, and *verto*, to turn.] To turn back or over; to cause to return or depart; to cause to face in a contrary direction.—To turn or put in the contrary order, direction, position, or condition; to alter to the opposite; as, to *reverse* a sentence.

"Affectations quite *reverse* the soul."—*Pope.*

—To overset; to invert; to turn end for end, or upside down; as, a *reversed* pyramid.—To subvert; to overthrow; to overturn; as, the *reversed* constitution of a state.—To put, as each in the place of the other; as, the case is *reversed*.

(*Law.*) To change by a contrary decision; to make void, as a sentence; as, to *reverse* a judgment or decree.

To reverse an engine. (*Steam-eng.*) To cause an engine or locomotive to perform backward motion, or revolutions in the opposite direction.

—*n.* [Fr. *revers*.] That which is reversed; a contrary; an opposite; as, sense is the *reverse* of nonsense.—The opposite; that which appears or is presented when anything is reverted or turned back.—Utter change; total opposition in characteristic circumstances or qualities; vicissitude; turn of affairs;—particularly, a change from better to worse; misfortune;—infrequently, a change for the better; good fortune; as, life is a chronicle of *reverses*.

(*Numis.*) The back side;—specifically, the reverse of a medal or coin opposite to that on which the head or principal figure or effigy is impressed, and which is called the *obverse*.

—*a.* Turned backward; having the contrary or opposite direction; as, in *reverse* order.

R. bearing. (*Survey.*) The bearing of a course, taken from the second end of the course, looking backwards.—*R. fire.* (*Mil.*) A fire in the rear;—also, a discharge which strikes the interior slope of a parapet at any horizontal angle greater than 30°.—*R. operation.* (*Math.*) An operation in which the steps are the same as those in a direct operation, but are taken in a contrary order.

Reversed, (*-verst'*,) *p. a.* Turned side for side, or end on end; changed to the contrary;—hence, overthrown, annulled; as, a *reversed* judgment in a suit.

(*Conch.*) Sinistral.

(*Bot.*) Resupinate; as, a *reversed* corolla.

Revers'edly, *adv.* In a reversed manner.

Reverse'ly, *adv.* On the opposite; on the other hand; conversely.

Reverse'less, *a.* Irreversible. (R.)

Revers'er, *n.* One who, or that which, reverses.

Revers'ible, *a.* [Fr.] That may be reversed; as, a *reversible* sentence.

Revers'ing, *p. a.* Turning the contrary way;—also, annulling.

R. gear. (*Mach.*) The apparatus for reversing the motion of a marine or locomotive engine, by changing the time of action of the slide-valve. The eccentric being in advance of the crank for the forward motion, will, if turned to an equal distance behind the crank, produce a backward motion.—*R. handle and guide.* The handle placed beside the foot-plate conveniently for use when required. The guide is a quadrant fixed to the foot-plate, notched for the end of the reversing-handle for each variation of the expansive gear. To reverse the engine, the handle is removed to any notch past the centre of the guide on the opposite side to

which it was before. Expansion is varied by moving the handle from one notch to another notch on the same side of the centre of the guide from which the engine is working. When the handle is on the centre notch, the handle is said to be *out of gear*. — *R. lever.* The lever connected to a crank on the reversing-shaft of the steam engine by a rod, and placed at the side of the fire-box between guide-plates with notches to keep it vertical, or in the forward or backward position. — *R. shaft.* The shaft, with levers attached, connected with the eccentric rods in the *rocking-shaft class*, but with the slide-valve rod in the *expansion class* of steam-engines. Both arrangements effect the object of moving the slide-valve so as to admit steam to the contrary side of the piston to which it had previously been admitted, and thus reverse its motion, and with it the motion of the engine also. — *R.*, or *air, valve.* A valve applied to steam-boilers for the purpose of preventing the formation of a vacuum when the steam is condensing in the boiler.

Reversion, (*-ver'shun.*) *n.* [Fr.; Lat. *reversio.*] Return; act of reverting or returning. (R.)

(*Law.*) The returning of an estate to the grantor or his heirs, after a particular grant is ended; — hence, the residue of an estate left in the grantor, to commence in possession after the determination of the particular estate granted.

—Hence, possession; right to future possession or enjoyment, as, to purchase the *reversion* of an official place.

(*Insurance.*) A payment which is not to be received, or a benefit which does not begin, until the happening of some event, as the death of a person now living. Payments which are to be received at the end of a specified period of time are usually called *deferred payments.*

Rever'sionary, *a.* Pertaining to a reversion, that is, to be enjoyed in succession, or after the determination of a particular estate.

Rever'sioner, *n.* The person who has a reversion, or who is entitled to lands or tenements after a particular estate granted is determined.

Rever'sis, *n.* A game at cards.

Revert', *v. a.* [Lat. *reverto*, from *re*, back, and *verto*, to turn.] To turn back; to turn to the contrary; to reverse; to drive or turn back.

(*Math.*) To take in a contrary order, as the terms of a series.

—*v. n.* To return; to fall back.

(*Law.*) To return to the proprietor after the determination of a particular estate.

—*n.* (*Mis.*) Return; recurrence.

Revert'ent, *n.* (*Med.*) A medicine which restores the natural order of inverted motion in the body.

Revert'er, *n.* A person who, or thing which, reverts.

(*Law.*) Same as REVERSION, *q. v.*

Revert'ible, *a.* That may revert or return.

Revert'ive, *a* Changing to an opposite course.

Rev'ery, *n.* See REVERIE.

Revest', *v. a.* [Fr. *revêtir*; Lat. *revestio*, from *re*, again, and *vestio*, to clothe.] To clothe anew. — To vest again, or a second time; reinvest.

Revet', *v. a.* (*Fort.*) To face the sides of with masonry, &c.

Revete'ment, *n.* (*Fort.*) A facing to the steep sides of a ditch or parapet. In field-works it may be of timber, turf, hurdles, gabions, &c.; in permanent works it is generally of masonry.

Revi'brate, *v. n.* To vibrate again.

Revibra'tion, *n.* A vibrating back, or again.

Revictual, *re-vit'tl,*) *v. a.* To stock with victuals again.

Revictualling, (*re-vit'tl-ing,*) *n.* The supplying again with victuals or provisions. — The stock or resupply of provisions.

Review, (*re-vu',*) *v. a.* [Fr. *revoir, revu.*] To view and examine again; to look back on. — To reconsider; to revise; to examine again. — To examine the state of anything, particularly of troops; to inspect. — To examine critically, as a new publication. — To retrace; to go over again.

—*v. n.* To look back.

—*n.* [Fr. *revue.*] A second or repeated view.

—A second examination, with a view to amendment or improvement; reëxamination; revision; revisal.

(*Mil.*) An examination or inspection of troops under arms by a general or commander.

—A critical examination of a new publication, with remarks; a critique. — A periodical publication, consisting of a collection of critical essays; as, the Edinburgh *Review.*

Reviewable, (*re-vu'a-bl,*) *a.* Capable of being reviewed.

Review'al, *n.* A review of a book; a critique.

Reviewer, (*re-vu'er,*) *n.* One who reviews, or reëxamines; an inspector.—One who critically examines a new publication, and publishes his opinion upon its merit.

Revig'orate, *a.* Having renewed vigor or strength. (R.)

Revile, *v. a.* To regard or treat as vile; to treat with opprobrious and contemptuous language; to reproach; to vilify

Revilement, *n.* Act of abusing or reviling.

Revil'er, *n.* One who reviles another; one who treats another with contemptuous language.

Revil'ing, *n.* Act of reviling or treating with reproachful words.

Revil'ingly, *adv.* With reproachful or contemptuous language; with opprobrium.

Revin'dicate, *v. a.* To vindicate again; to reclaim; to demand and take back what has been lost.

Revi'sal, *n.* Revision; act of reviewing and reëxamining for correction and improvement.

Revise, (*viz',*) *v. a.* [Lat. *reviso* — *re*, and *viso*, to look at with attention.] To review; to reëxamine; to look over with care for correction; to reperuse; as, to *revise* a proof-sheet; to *revise* a manuscript. — To review, alter, and amend; as, to *revise* a statute of limitations.

—*n.* Review; revision; reëxamination; as, corrections and *revises.* (R.)

(*Print.*) A proof-sheet taken after the first correction.

Revis'er, *n.* One who revises, or reëxamines for correction.

Revision, (*-vizh'un,*) *n.* [Fr., from Lat. *revisio.*] Act of reviewing, or reëxamining for correction; revisal; as, the *revision* of a book, or writing, or of a proof-sheet; a statutory *revision*, &c. — That which is revised; a revise. — Enumeration of population. (R.)

Revis'ional, Revis'ionary, *a.* Revisory; pertaining or having reference, to revision.

Revisit, (*-viz'it,*) *v. a.* [Fr. *revisiter*; Lat. *revisito.*] To visit again.

Revisita'tion, *n.* Act of revisiting.

Revi'sory, *a.* [L. Lat. *revisorius.*] Revising; with power or disposition to revise.

Revivable, (*-viv'a-bl,*) *a.* That may be revived.

Reviv'al, *n.* [From *revive.*] Act of reviving, or state of being revived; as, (1.) Return, recall, or recovery to life from death, or apparent death; return, or reanimation from a state of languor and inactivity. (2.) Return or recall to activity from a state of neglect, obscurity, oblivion, or depression; as, the *revival* of the arts, or of literature. (3.) Renewed and more awakened attention to, or interest in, religion and spiritual matters. (4.) Renewed application to, or pursuit or cultivation of: also, flourishing condition of, as commerce, agriculture, &c. (5.) Restored prevalence, prestige, or popularity of, as a custom or fashion.

(*Chem.*) Revivification, as of a metal.

(*Law.*) An agreement to renew the legal obligation of a just debt after it has been barred by the act of limitation or lapse of time. — The act by which a judgment which has been dormant, or without any action upon it for a year and a day, is, at common law, again restored to its original force.

Reviv'alism, *n.* The awakened or revived spirit of religion.

Reviv'alist, *n.* One who advocates or promotes revivalism, or a fresh awakening of religious spirit.

Revive', *v. n.* [Fr. *revivre*, from Lat. *re*, and *vivere.*] To live again; to return to life; to recover life, or new health, strength, or vigor; to be reanimated. — Hence, by analogy, to be reanimated after languor or depression; to recover from a state of neglect, oblivion, obscurity, or depression; as, my hopes *revive.*

(*Chem.*) To regain its natural or metallic condition, as a metal.

—*v. a.* To bring to life anew; to resuscitate; to reanimate; to raise or restore from langnor, depression, or discouragement; to refresh; to renew; to renovate; to bring into action after a period of suspension, as a plan or scheme.—Hence, to bring out or redeem from a state of neglect, depression, or obscurity; as, to *revive* letters, learning, or the arts. — To bring back into the mind or memory, as ideas; to inspire with new animation, hope, or activity; to awaken; to direct attention to; to bring again into notice; as, *revived* recollections, to *revive* a scandalous story, to *revive* a custom, habit, fashion, &c.

(*Chem.*) To restore to its natural state; to reduce to its metallic condition; — said of metals.

Reviv'er, *n.* One who, or that which, revives or reanimates; that which invigorates or refreshes; one who redeems from neglect or depression.

Reviv'ify, *v. a.* [Fr. *revivifier*; Lat. *revivificare.*] To revive or reanimate; to recall or restore to life. (R.)

Revivifica'tion, *n.* Act of recalling to life; renewal or restoration of life.

(*Chem.*) The restoration of a metal from a state of combination to its natural metallic condition.

Reviv'ify, *v. a.* [Fr. *revivifier*, from Lat. *re*, *vivus*, alive, and *fy*, from *facio*, to make.] To reanimate; to revive; to give new life or vigor to.

Reviv'ingly, *adv.* In a reviving manner.

Reviviscence, Reviviscency, (*-viv-is'sens,*) *n.* [Sp. *reviviscencia.*] State of being revived; renewal of life.

"Scripture makes mention of a *reviviscency* of all things." *Burnet.*

Revivis'cent, *a.* [From Lat. *reviviscere*, to come to life again.] Reviving; having power or disposition to revive.

Reviv'or, *n.* (*Law.*) A bill used to renew an original bill which, for some reason, has become inoperative.

Revocabil'ity, *n.* Quality of being revocable; capacity of being recalled, revoked, or annulled.

Rev'ocable, *a.* [Fr., from Lat. *revocabilis.*] That may be recalled or revoked; as, a *revocable* grant.

Rev'ocableness, *n.* Revocability; quality of being revocable.

Rev'ocably, *a.* In a revocable manner.

Revoca'tion, *n.* [Fr., from Lat. *revocatio.*] Act of revoking or of calling back.—State of being recalled or revoked. — The calling back of a thing granted, or act done; repeal; reversal; as, the *revocation* of an edict, will, license, &c.

Rev'ocatory, *a.* [Fr. *révocatoire*, from Lat. *revocatorius.*] Serving to revoke; involving, or pertaining to, revocation; recalling, revoking.

Revoice', *v. a.* To resupply with a voice; to restore, as the proper tone of an organ

Revoke', *v. a.* [Fr. *révoquer*; Lat. *revoco* — *re*, back, and *voco*, to call.] To annul by recalling or taking back; to repeal; to reverse; to countermand; to declare void, as a law, grant, testament, privilege, license, permission, &c.

Revoke', *v. n.* (*Games.*) In playing whist, to renounce; to fail or neglect to follow suit; as, a good whist-player never *revokes.*

—*n.* (*Games.*) In whist, the act of revoking, or neglecting to follow with a suit-card.

Revoke'ment, *n.* Revocation; reversal: annulment.

Revok'ingly, *n.* By way of revocation.

Revolt', *v. a.* [Fr. *révolter*; Lat. *revolvo, revolutus.*] To roll off or back; to turn back or away;—specifically, to fall off or turn from one to another; to renounce allegiance and subjection to one's sovereign or state; to reject regal or national authority. — To be excessively shocked or offended; — with *at*; as, his palate *revolts at* coarse food.

—*v. a.* To put to flight; to overthrow; to overturn.—To shock; to do violence to; to cause to shrink or turn away with loathing, abhorrence, or disgust; as, his pride *revolted* at the idea of meanness.

—*n.* Act of revolting; — particularly, a renunciation of allegiance or fealty to one's sovereign, state, or government; insurrection; rebellion; mutiny; sedition; as, the *revolt* of the Netherlands against the Spanish yoke.

Revolt'er, *n.* One who, or that which, revolts.

Revolt'ingly, *adv.* In a revolting manner; abhorrently; offensively.

Rev'oluble, *a.* [Lat. *revolubilis*, from *revolvere.*] Rotatory; that may revolve. (R.)

Rev'olute, *n.* [Fr., from Lat. *revolutus* — *revolvere.*] (*Bot.*) Rolled downward or backward.

R. leaf. (*Bot.*) A leaf which, in embryo or development, is rolled spirally back, or toward the lower surface.

Revolution, (*-lū'shun,*) *n.* [Fr., from Lat. *re*, and *volvo*, to roll.] Act of revolving, or turning round on a centre or an axis; rotation; motion of a body round any fixed point or centre; rotary action; as, the *revolutions* of a wheel.—Motion or course of anything which brings it back to the same point or state. — Continued course marked by the regular return of years; space measured by some regular return of a revolving body or of a state of things; as, the *revolutions* of time. — A total or radical change; a sweeping or absolute alteration; as, a *revolution* in public opinion.

(*Pol.*) An extensive, or entire, change in the political constitution of a country accomplished in a short space of time, whether by legal or illegal means; a revolt successfully carried out; a fundamental change or subversion in political organization; as, the French *Revolutions* of 1792, 1830, and 1848, the English *Revolution* of 1688, the American *Revolution*, &c.

(*Astron.*) A term used to denote the motion of a secondary body round a primary one, as contradistinguished from *rotation*, which signifies motion round an axis. The *time of revolution* is the period in which a planet, satellite, or comet returns to the place in its orbit from which we estimate its setting out.

(*Mech.*) See ROTATION.

(*Geom.*) A surface generated by the motion of a line, right or curved, around a fixed axis. Thus the surface generated by the motion of one right line around another is either a *cone*, or a *hyperboloid of revolution*, according as the two lines do or do not intersect each other. The motion of an ellipse around one of its axes generates an *ellipsoid of revolution*, which receives the name of *prolate* or *oblate spheroid*, according as the major or minor axis remains fixed. (Also called *surface of revolution.*)

Revolu'tionary, *a.* [Fr. *révolutionnaire.*] Pertaining, or relating, to a revolution in political or social constitution or government; tending to cause or promote a revolution; as, a *revolutionary* war, *revolutionary* principles.

—*n.* A revolutionist. (R.)

R. tribunal. (*French Hist.*) A tribunal for the trial of political offenders, established Aug. 17, 1792, was dismissed Nov. 30. The National Convention was induced by Robespierre and the Montagnards, or Red Republicans, March 10, 1793, to restore it with additional powers. During the trial of the Girondists, its name was changed from *Extraordinary* to *Revolutionary Tribunal*, Oct. 30, 1793. Between the date of its establishment and July 27, 1794, a period of 16 months, no less than 2,730 persons were condemned to the guillotine by this infamous tribunal, the last victims of which were Robespierre and his accomplices, July 28–30, 1794. A third tribunal, reorganized Aug. 9, 1794, was replaced, Dec. 24, by a fourth, which was dissolved June 2, 1795.

Revolu'tioner, *n.* Same as REVOLUTIONIST.

Revolutionism, (*-lū'shun-izm,*) *n.* State of being in a state of revolution. — Revolutionary doctrines; radical principles.

Revolu'tionist, *n.* One engaged in bringing about a change of constitution or government; one who favors or supports a revolution; a revolutioner or revolutionary.

Revolu'tionize, *v. a.* To effect a revolution or change in the form of, as of a political constitution or state government; one who brings about any complete or radical change; as, to *revolutionize* public taste or sentiment.

Revolve', *v. a.* [Lat. *revolvo* — *re*, and *volvo*, to roll.] To roll in a circle, to rotate; to turn round, as on an axis or pivot, to gyrate; as, a *revolving* wheel or top.— To move round a centre: as, the earth *revolves* round the sun. — To return; as, *revolving* years.

—*v. a.* To cause to turn, or roll round, as upon an axis; to rotate. — Hence, analogically, to turn over and over; to consider attentively; to meditate continuously upon; as, to *revolve* a subject in one's mind.

Revolve'ment, *n.* Act or process of revolving, or turning over and over in the mind; as, after much *revolvement* he came to a resolution.

Revolv'ency, *n.* Act, operation, or condition of revolving; revolution.

Revolv'er, *n.* One who, or that which, revolves.

(*Fire-arms.*) A pistol with several chambers or barrels, which are brought successively under the action of the trigger, or percussion arrangement, so that several shots can be fired without the necessity of reloading. The system of revolving fire-arms is not as modern as it is generally believed. A specimen arm of the 17th cent., in the Hôtel Clugny, at Paris, has eight chambers; and a brass pistol with six chambers, and supposed to be of the time of Charles 1., forms part of the collection in the United Service Museum, London. But these arms, extraordinary for the time, never came into general use, in consequence of their unavoidable clumsiness, (each chamber having its own hammer and pan,) and the inconvenience of keeping these primed. Samuel Colt (*q. v.*,) directed his attention to improved pistols, and patented the *R.* which bears his name in 1835. The Colt's *R.*, which is largely used in the U. S. army, consists of one rifled barrel of considerable strength, and a massive chamber, perforated with 6 or 7 chambers, which are brought into a line with the barrel by action of the trigger. Each chamber has its nipple for a cap, which is brought under the hammer by the motion which brings the chamber or breech-piece round. The hammer is discharged by the trigger, and acts nearly horizontally in a forward direction. Under the pistol is a fixed lever-ramrod, which is used in loading the chambers. This mechanism enables a combatant to be on a tolerably fair footing with a party who have the command of six single-barrel guns. Besides all this, by withdrawing a bolt, which can be done in a moment, the entire breech-piece can be taken out, and replaced by another ready charged, so that, by carrying a spare breech-piece, a person may fire twelve shots in less time than another could fire three, if he had to load between the shots. The only objection to Colt's revolver was the necessity of stopping at every fire to cock the piece for the next shot. The pistol made by Savage, at Middletown, Conn., meets the objection against the English self-cocking pistols of their aim being destroyed by the introduction of a double trigger, similar to the English

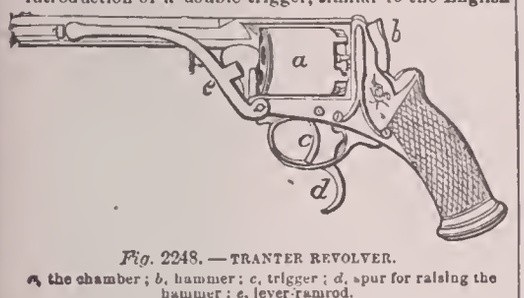

Fig. 2248. — TRANTER REVOLVER.

a, the chamber; *b*, hammer; *c*, trigger; *d*, spur for raising the hammer; *e*, lever-ramrod.

Tranter *R.*, one part of which is fitted for the middle finger, and the other for the forefinger of the right hand. A pull with the one brings the hammer up, and a fresh chamber round to its place. The pull being released, the pistol remains cocked, and the cylinder springs forward, making its connection with the barrel tight. The trigger may be instantly pulled with the forefinger, discharging the piece. These movements may be continued with rapidity till the 6 chambers are discharged, without removing the right hand from its place, or calling the other into use. This pistol, however, has not superseded the Colt, which, along with the Remington arm, is still in general use in the U. S. cavalry service. For close encounters, the small cartridge-loading pistols are the most recent, and much the most efficient, weapons. Several varieties of these have been brought out by American inventors, and are known as Smith and Wesson's, Warner's, and Allen's. They all have the revolving cylinder, which contains 7 chambers; and they differ from each other chiefly in the manner in which the cartridges are inserted into these chambers.

Revom'it, *v. a.* To vomit again, or a second time.

Revulsion, (*re-vul'shun,*) *n.* [Fr., from Lat. *revulsio*, from *re*, again, and *vello*, to pluck.] A holding or drawing back; abstraction.

(*Med.*) The act of turning the principle of a disease from the part in which it seems to have taken its seat to some other part of the body.

Revul'sive, *a.* [Fr. *révulsif.*] Having the power of revulsion.

—*n.* That which has the power of withdrawing.

(*Med.*) A medicine which produces a revulsion.

Rewake', *v. a.* and *n.* To wake again, or anew.

Reward', *v. a.* [A. S. *a* for *on*, and *ward*, or *weorth*, worth, price.] To return worth or value to, or for; to give in return. — To repay; to recompense; to requite; to compensate; — usually in a good sense.

—*n.* Equivalent return for good done, for kindness, for services, and the like; the fruit of men's work or labor. — A just return of evil or suffering for wickedness; retribution; punishment.

Reward'able, *a.* Capable of being rewarded.

Reward'ableness, *n.* Worthiness of receiving reward.

Reward'ably, *adv.* In a manner worthy of reward.

Reward'er, *n.* One who rewards; one who requites or recompenses.

Reward'ful, *a.* Accustomed to reward; recompensing. (R.)

Reward'ing, *n.* Act of bestowing a reward; recompense.

Reward'less, *a.* Without reward.

Reword, (*re-wurd',*) *v. a.* To repeat with the same words.

Rewrite', *v. a.* To write again.

Re'yes, or CHINCHACO'CHA, a lake of Peru; Lat. 10° 25′ S., Lon. 75° 40′ W. It forms one of the principal sources of the Amazons.

Reyes, (Los,) (*loce ra'yes,*) a town of the U. S. of Colombia, abt. 100 m. S.E of Santa Marta. The vicinity abounds in silver, copper, and lead mines.

Rey'nard, Re'nard, *n.* [Fr. *renard.*] A name given to the fox, in fables and in poetry.

Rey'nolds, SIR JOSHUA, the greatest of English portrait-painters, was the son of the rector of Plympton, in Devonshire, where he was born, 1723. He was educated at the grammar-school of his native place, and early discovered a predilection for drawing, which induced his father to place him, at the age of 17, with Hudson, then the most famous portrait-painter in London, with whom he remained two years. After practising several years as a portrait-painter, he went to Italy, and on his return to London, 1763, his talent placed him at the head of English portrait-painters; and being a man of liter-

Fig. 2249. — SIR JOSHUA REYNOLDS.

ary ability and an amiable companion, he soon numbered among his intimate friends some of the most distinguished characters of the day. Rejecting the stiff, unvaried, and unmeaning attitudes of former artists, he gave to his figures air and action adapted to their characters. When the Royal Academy was instituted, in 1768, he was unanimously chosen president, and was knighted; and although it was no prescribed part of his duty to read lectures, yet his zeal for the advancement of the fine arts induced him to deliver annual or biennial discourses before the Academy on the principles and practice of painting. Of these he pronounced fifteen, from 1769 to 1790, which were published in two sets, and form a standard work. He was a member of the celebrated club which contained the names of Johnson, Garrick, Burke, and others of the first rank of literary eminence, and seems to have been beloved and respected by his associates. In 1773 the University of Oxford conferred on Sir Joshua the honorary degree of Doctor of Laws, and in 1781, he was appointed principal painter to the King. This great artist D. unmarried, 1792, and was buried in St. Paul's Cathedral.

Reynolds, in *Indiana*, a post-town of White co., about 24 m. N. of Lafayette.

Reynolds, in *Missouri*, a S.E. co.; *area*, about 830 sq. m. *River*, Big Black river. *Surface*, uneven; *soil*, generally fertile. *Cap.* Centerville. *Pop.* (1897) 7,050.

Rey'noldsburg, in *Ohio*, a post-village of Franklin co., about 10 m. E. of Columbus.

—A village of Pike co., about 8 m. E. of Piketon.

Reynoldsburg, in *Tennessee*, a village of Humphreys co., about 75 m. W of Nashville.

Rey'nolds Fer'ry, in *California*, a village of Calaveras co., about 10 m. W. of Sonora.

Rey'noldsville, in *New York*, a village of Schuyler county.

Rezen'de, a town of Brazil, abt. 92 m. W.N.W. of Rio de Janeiro; *pop.* 6,000.

Rhabar'barate, *a.* Impregnated or tinctured with rhubarb.

Rhabdomancy, (*răb-do-măn'se,*) *n.* [Gr. *rhabdos*, a rod, and *manteia* prophecy.] Divination by a rod or wand, and generally applied to the power supposed to be possessed by some persons, of discovering things hid in the bowels of the earth, especially metals, ores, and bodies of water, or the art of discovering these substances by means of a divining-rod.

Rhadaman'thus, (*Myth.*) Same as MINOS, *q. v.*

Rhætia, (*rē'sha*) (*Anc. Geog.*) The name given by the Romans to a part of Southern Germany and Switzerland, now known as Suabia and the Grisons.

Rhamna'ceæ, *n* [Lat.; from *Rhamnus*, one of the genera.] (*Bot.*) The Buck-thorn family, an order of plants, alliance *Rhamnales*. DIAG. Polypetalous flowers, a valvate calyx, stamens opposite the petals, and erect seeds. They are small trees or shrubs, often spiny; distributed over the globe, except in the very coldest regions. Some are acrid and purgative; others bitter, febrifugal, and tonic. A few are used in the preparation of dye-stuffs, and a few have edible fruits. The order contains 42 genera and 250 species. See RHAMNUS.

Rham'nales, *n pl.* (*Bot.*) An alliance of plants, subclass *Perigynous exogens*. DIAG. Monodichlamydeous flowers, consolidated carpels, axile placentæ, capsular, berried, or drupaceous fruit, definite seeds, and an amygdaloid embryo, with little or no albumen. The alliance includes 10 orders, — PENÆACEÆ, AQUILARIACEÆ, ULMACEÆ, RHAMNACEÆ, CHAILLETIACEÆ, HIPPOCRATEACEÆ, CELASTRACEÆ, STACKHOUSIACEÆ, SAPOTACEÆ, and STYRACACEÆ, *q. v.*

Rham'nus, *n.* [Gr. *ramnos.*] (*Bot.*) The typical genus of the order *Rhamnaceæ*. It includes many interesting and useful species. *R. catharticus*, the Buck-thorn, produces a fruit which has been for ages employed medicinally as a cathartic; at the present time it is seldom used, on account of its violent and unpleasant operation. The color called *sap-green* is prepared by evaporating the juice of buck-thorn-berries, previously mixed with lime. The bark of *R. frangula*, the Black Alder, possesses purgative and alterative properties, and is reputed to be efficacious in various cutaneous affections, rheumatism, secondary syphilis, &c. A greenish or yellowish dye is made from the leaves. The unripe fruit of *R. infectorius* is known in commerce as *French berries*, or *graines d'Avignon*; while those of *R. amygdalinus* constitutes *Yellow* or *Persian berries*. Both kinds are used to produce a beautiful yellow dye, chiefly applied to morocco leather. The Chinese green dye (*Lo-rao*), now much used in Europe, is prepared from *R. chlorophorus* and *utilis*. A blue dye is prepared from *R. alaternus*. In Abyssinia, the leaves of *R. paniculatus* and the fruit of *R. staddo*, both of which possess bitter properties, are used in place of hops in the preparation of beer.

Fig. 2250.
RHAMNUS CATHARTICUS.

Rhamphast'idæ, *n. pl.* (*Zoöl.*) See RAMPHASTIDÆ.

Rhapsodic, Rhapsodical, (*rap-sod'ik.*) *a.* [Gr. *rapsodikos.*] Pertaining to, or consisting of, rhapsody; unconnected.

Rhapsod'ically, *adv.* In the manner of rhapsody.

Rhap'sodist, *n.* [Gr. *rhapsodos*, from *rhapto*, to string together, and *odē*, a song.] Strictly, one who strings songs together, but usually applied to a class of persons in ancient Greece, who earned their living by reciting the poems of Homer. It is believed that to these persons we are chiefly indebted for the preservation of the Homeric poems. In the present day, a rhapsodist is one who composes rhapsodies or collections of poetical effusions, descriptions, &c., strung together without any natural connection or necessary dependence.

Rhapsodize, (*rap'so-dīz,*) *v. n.* To utter or recite rhapsodies; to act as a rhapsodist.

Rhapsody, (*rap'so-de,*) *n.* [Fr. *rapsodie*; Gr. *rhapsodia*, from *rhapto*, to stitch together, and *odē*, a song.] Anciently, a portion of an epic poem fit for recitation at one time. — A confused jumble of sentences or statements, without dependence or natural connection; rambling composition.

Rhe'a. (*Gr. Myth.*) The daughter of Cœlus and Terra, or Heaven and Earth; the wife of Saturn, and mother of Jupiter, Juno, Ceres, Vesta, and several other deities. When Jupiter usurped the sovereignty of the skies, and expelled his father from the empyrean, Rhea followed her discrowned husband, Saturn, to earth, and when he founded a terrestrial kingdom in Italy, she exercised such benevolence and charity, so constantly promoted virtue, and was so beloved for her example and goodness, that, under her auspices, universal peace and happiness prevailed on earth, so as to obtain the appellation of the "Golden Age," or the reign of Rhea.

(*Zoöl.*) A genus of the Ostrich family. See OSTRICH.

Rhea, (*ra,*) in *Tennessee*, an E. by S. central co.; *area*, about 560 sq. m. *Rivers*, Tennessee river. *Surface*, diversified and mountainous; *soil*, in some parts fertile. *Min.* Coal. *Cap.* Dayton. *Pop.* (1897) 13,900.

Rhea-fiber, *n.* See RAMIE, in SECTION 11.

Rhen'ish, *a.* (*Geog.*) That relates to the Rhine.

—*n.* Wine of the vineyards near the Rhine.

Rheingau, (*rīn'go,*) a district of Prussia, stretching along the right bank of the Rhine, forming the S.W. portion of the former duchy of Nassau, is about 12 m. long, and 6 broad. The principal town is Elteld, with abt. 2,200 inhabitants. This district, one of the richest in Germany, protected by mountains from the N. and E. winds, and exposed to the midday sun, produces wines of the best quality.

Rhen'ish Prus'sia. See PRUSSIA.

Rheom'etry, *n.* (*Math.*) The differential and integral calculus; fluxions.

Rhetian, (*re'she-an,*) *a.* (*Geog.*) Relating to the ancient Rhætii, or to the country RHÆTIA, *q. v.*

Rhetor, (*re'tor,*) *n.* [Lat., from Gr. *retor.*] A rhetorician.

Rhetoric, (*rĕt'o-rik,*) *n.* [Fr. *rhetorique*, from Gr. *retorike*, from *retor*, a public speaker.] In the widest sense

in which the word is occasionally used by modern writers, the *art of prose composition* generally. In the most restricted and most etymological sense, the *art of oratory*, or of addressing public assemblies. In an intermediate sense, in which, perhaps it is most commonly employed, the *art of argumentative composition*. This comes nearest to the signification which Aristotle, the earliest extant writer of a formal treatise on *R.*, attached to the title of his subject, when he defined it to be the art of discovering and employing topics of persuasion He arranged these topics, or means of persuasion, under three heads. First, those which arise from the character of the orator himself; *i. e.*, the character in which, by what must be termed *rhetorical artifice*, he places himself before his hearers. It is obvious that a speaker addressing an assembly, who is known by them to be actuated by honest motives, and to understand the subject on which he speaks, advances, by the mere possession of these adventitious attributes, a long way towards the end and aim of oratory, viz., *persuasion*. Hence it is that Aristotle presents, as one of the chief branches of *R.*, the art by which a speaker or writer, as it were, invests himself with these attributes, and thus insures a more favorable reception to his argument. The art of moving the passions by the use of such arguments and representations as are proper to excite each, belongs also, in Aristotle's arrangement, to this division of his subject. In his second division he treats of argument itself, considered with respect to its cogency or inconclusiveness in point of form; and hence *logic*, in this point of view, becomes ancillary to, or a subdivision of *R.* The third division of the subject exhibits the modes of persuasion arising from style, arrangement, delivery, and action; and to this third branch modern writers, who have treated of *R.* in its more limited sense, have usually confined themselves.

Rhetor'ical, *a.* Pertaining to rhetoric; containing the rules of rhetoric; oratorial.

Rhetor'ically, *adv.* In the manner of rhetoric; according to the rules of rhetoric.

Rhetor'icalness, *n.* The state or quality of being rhetorical.

Rhetorician, (*ret-o-rish'an,*) *n.* [Fr. *rhétericien.*] One who teaches the art of rhetoric, or the principles and rules of correct and elegant speaking; one well versed in the rules and principles of rhetoric.—An orntor.

Rhet'orize, *v. a.* To represent by nfigure of oratory.(R.)

Rhett, (*ret,*) in *California*, a lake of Sis Kiyou co.; Lat. 41° 50′ N., Lon. 121° 30′ W. It covers an area of nbt. 100 sq. m., and its outlet empties into Klamath River.

Rheum, (*rûm,*) *n.* [Gr. *reuma*, from *reo*, to flow.] (*Med.*) Any thin, watery discharge from the mucous membranes or skin, as the thin discharge from tho air-passages arising from cold.

Rheum, *n.* [Said to be derived from the *Rha* (now Wolga), from whose banks it was first brought.] (*Bot.*) Rhubarb, a genus of the order *Polygonaceæ*. Tho species of this genus are all more or less remarkable for their purgative and astringent properties; and their roots, which contain the largest proportion of the active principles, are largely used as medicinal agents. The exact source of our officinal rhubarb has not been definitely ascertained. Dr. Royle states that the rhubarb country, whence Turkey or Russian rhubarb is derived, is in the heart of Thibet, within 95° of E. Lon., and 35° of N. Lat.; but, as no naturalist has visited this part, and as neither seeds nor plants have been obtained thence, it is as yet unknown what species yields the rhubarb. It is known that the greater part of the rhubarb of commerce is grown in this district, and is obtained in summer, from plants six years of age. When dug up, it is cleansed, peeled, and cut into pieces; these are bored through the centre, strung on a string, and dried in the sun. In the autumn, the rhubarb is conveyed to Sinin, where the Bukharian traders reside, and thence to the Russian frontier-town of Kiachta, and to Pekin, Canton, and Macao. This is unquestionably the best kind of rhubarb. Chinese, or East Indian rhubarb, is the produce of an unknown species of *R.*, cultivated in the Chinese empire. Himalayan rhubarb is obtained from several species, particularly *R. moorcroftianum*, *webbianum*, and *emodi*. English rhubarb is the root of *R. rhaponticum;* it is now extensively employed in the hospitals of this country and in England, but it is not so active as the officinal rhubarb. The so-called "genuine Turkey rhubarb" sold in the streets by itinerant venders is almost invariably English rhubarb. The leaf-stalks of *R. rhaponticum* and other species are largely employed as a substitute for fruit in pies and puddings. Their pleasant acidity is due to the presence of oxalic and malic acids. The leaf-stalks of *R. ribes* are used in the East in the preparation of sherbet. Crystals of oxalate of lime occur abundantly in the roots of the species of this genus.

Fig. 2251.—RHUBARB.

Rheumatic, (*ru-mat'ik,*) *a.* [Gr. *reumatikos*, subject to a discharge.] Pertaining to rheumatism, or partaking of its nature.

Rheumatism, (*ru'ma-tizm,*) *n.* [Gr. *rheumatismos*, a defluxion.] (*Med.*) A painful disease characterized by an inflamed state of the fibrous tissue,—and wherever fibrous tissues are found there may be *R.*; but it principally affects the larger joints and places covered by muscles, as the wrists, elbows, knees, hip-joint, back, and loins. When the joints about the back and loins are affected, it is called *lumbago;* when the pain is in the hip-joint, *sciatica;* and when the muscles of the chest are affected, *pleurodyne*. *R.* may occur either with fever or without it, being in the former case termed *acute*, in the latter *chronic*. Acute *R.*, or *rheumatic fever*, may happen at any time, but occurs more particularly in autumn, and affects chiefly such as are in the prime of life. It is generally occasioned by exposing the body to cold air immediately after having been heated, and commences with chilliness and shivering, which are soon followed by heat, restlessness, and other feverish symptoms. An acute pain is soon after felt in one or other of the limbs. This quickly increases, and in a short time is accompanied with swelling and great tenderness of one or more of the large joints, with much constitutional disturbance. The patient's sufferings are now of the most agonizing character. He is restless, and yet dare not or cannot move; even the weight of the bed-clothes can scarcely be borne. The pulse is full and bounding, the skin is generally bathed in perspiration of a disagreeable sour odor, the bowels are constipated, the urine scanty and high-colored, loaded with uric acid, or urates. This disease varies considerably in intensity and duration, and may terminate in a few days, or endure for several months. Its average duration, however, when uncomplicated with other diseases, is from ten to eighteen days. One remarkable feature of it is its tendency to move from one part to another, often suddenly leaving one joint and making its appearance in another, and again going back to its original seat. It is seldom, if ever, a fatal disease, except when it attacks some vital organ, as the heart, which in severe cases it is very apt to do. It is a constitutional disease, arising from a poison circulating in the blood. This poison constitutes that predisposition to the disease without which it would not occur, and the cold probably exercises its injurious influence by checking the elimination through the skin, and other emunctories, of the poisonous principle as it forms, and by thus accumulating it in the blood. Medical men are by no means agreed as to the treatment best adapted for this complaint. In general, however, when the patient is young and robust, and when the inflammatory fever is high, bleeding from the arm is recommended. Whenever the pain is very acute, opium will be found to be a very useful and necessary remedy. The free administration of active purgatives, particularly at the outset of the disease, is found to be very beneficial. Alkaline drugs are by many strongly recommended in this disease as being chemical antagonists of the poison. The chronic form of *R.* is sometimes the sequel of the acute, but it is more commonly a separate constitutional affection, coming on independently of any previous acute attack. There is commonly little constitutional disturbance, but the sufferer is constantly annoyed, and his existence made miserable, with chronic pains, which destroy his comfort by day and render him restless by night. In some instances, the pains are worst at night, being aggravated by the warmth of the bed; in others, warmth affords the greatest relief. The cure of this complaint is tedious, and often very difficult. It frequently involves and cripples some of the smaller joints, especially those of the knuckles and fingers, rendering them knobby, and distorting their form and position. It is of the utmost importance in such cases that the patient be protected from the vicissitudes of the weather by warm clothing; and those who can afford it do well by taking up their residence in a warm climate. Warm bathing, vapor and hot-air baths, with frequent friction and the use of the flesh-brush, are of great service, and stimulating internal medicines, as turpentine, are often of use. Cod-liver oil is also sometimes recommended, with bark, wine, iron, and other tonics, for invigorating the system. Persons subject to chronic *R.* should also be very careful in their diet, as there is little doubt that many of the paroxysms of this disease are brought on by a disordered state of the digestive organs. Salicylic acid has of late been recommended as a cure for *R.*

Rheumy, (*rûm'y,*) *a.* [From *rheum.*] Full of rheum or watery matter; partaking of the nature of, or affected with, rheum; causing rheum; abounding with serous moisture; as, *rheumy* eyes.

Rhe'xia, *n.* (*Bot.*) A gen. of plants, ord. *Melastomaceæ*. *R. Virginia*, the Meadow Beauty or Deer-grass, and *R. mariana*, the Maryland Deer-grass, are perennial herbs, growing in wet grounds and sandy bogs in all the States.

Rhinal, (*ri'nal,*) *a.* [Gr. *rhis, rhinos*, the nose.] Pertaining, or having reference, to the nose.

Rhinan'thus, *n.* [Gr. *rhis, rhinos*, snout, and *anthos*, flower.] (*Bot.*) A genus of annual weeds, order *Scrophulariaceæ*. The common species *R. crista galli*, or *R. minor*, which grows in pastures throughout the United States, is known as the Yellow Rattle.

Rhin, (Bas,) [Fr. Lower Rhine,] a former N.E. dept. of France, now part of the German Reichsland of Alsace-Lorraine, bounded W. by the depts. of Moselle, Meurthe, and Vosges; *area*, 1,755 sq. m. The surface is diversified, well wooded, and generally fertile. *Rivers.* Lauter and Moder. *Prod.* The usual cerealia, vegetables, and fruits; also, tobacco and hemp. Large quantities of Rhine-wine are produced. *Min.* Iron and coal. *Manuf.* Woollen, cotton, and other fabrics, arms, machinery, &c., are very extensive. *Cap.* Strasburg. *Pop.* 588,970.

Rhine, Reom, (*rin,*) *n.* A ditch; a gully; a water-course.

Rhine, (The,) (*rine.*) [Anc. *Rhenus.*] One of the most important rivers in W. Europe, rising on the N. side of the Alps, flowing through Switzerland and Germany, and falling into the North Sea, or German Ocean, between Lat. 46° 30′ and 52° N., and Lon. 3° 40′ and 9° 50′ E. *Length*, measured along the stream, 950 m. It originates in two principal streams, which have their sources on the N. side of the Peninne Alps: the principal of these, called by the Germans *Vorder-Rhine*, is formed by the junction of two small streams flowing from the N. side of Mount St. Gothard, at an elevation of 6,581 ft. above the sea; Lat. 46° 32′ N., Lon. 8° 53′ E.; only a few miles from the source of the Rhone. Hence the main stream, which soon becomes enlarged by the affluence of numerous brooks and mountain torrents, takes at first a N.E. direction through the magnificent and stupendous ravine of the Rheinwald, enclosed on both sides by almost perpendicular rocks, rising 3,000 ft. above the river, and clothed to their very summit with stately firs. At the lower end of this valley, and only a few miles above Chur, near Reichenau, the river is joined by its E. branch, the *Hinter-Rhine*, which rises on the side of the Moschelhorn or Vogelsberg, near the Pass of St. Bernard. At Chur the river deflects N., maintaining that general direction through a fertile and romantic valley, abounding with vineyards, as far as the Lake of Constance, into which it pours its waters, their level at this point being 1,255 ft. above the sea, or 5,326 ft. below the source. The river, leaving this beautiful lake at its W. end, near the town of Constance, enters a small expanse of water, called the Unter or Zetter See, in which is the island of Reichenau, and thence, narrowing its channel, runs W. to Schaffhausen; 3 m. below which the stream, pent between lofty rocks, and divided by craggy islets, falls over a ledge of rocks 76 ft. in height, forming one of the most celebrated European cataracts. (See SCHAFFHAUSEN.) The channel, from this point to Basle, is extremely tortuous, winding through lofty rocks, which confine the waters within a narrow compass, and consequently increase the rapidity of the current. At Zuzach, about 1 mile above the confluence of the Aar, occurs a second fall, down which, however, the natives venture their loaded barks, except during the spring floods. The river maintains its W. direction through a rocky valley, interrupted with frequent crags rising above the stream, as far as Basle, where it is crossed by a bridge 600 ft. in length. Here commences the navigation of the river, its level at this point being 827 ft. above the German Ocean. Basle seems to be the proper point of division between the Upper and Lower Rhine; for the navigation above this town is so interrupted by falls and rocks as to be scarcely of any importance, whereas from hence to the mouth boats pass at almost all seasons of the year. Assuming at Basle a pretty constant N. course, the Rhine becomes the boundary between France and the Grand-duchy of Baden, and afterwards between Baden and Rhenish Bavaria, the cities and towns in this part of its course being Manuheim, on the E. bank, at the confluence of the Neckar, and Strasburg, Spires, Oppenheim, and Mayence, on the W. bank. At the last of these towns, at the junction of the Mayn, the stream takes a sudden turn W. to Bingen (Fig. 2252), on the W. bank,

Fig. 2252.—BINGEN ON THE RHINE.

from which point the course of the river is pretty uniformly N.W. to the delta at its mouth. Coblentz, at the confluence of the Moselle, Bonn, Cologne, and Clèves, are the chief towns on the W. bank; those on and near the E. side comprising Wiesbaden, Düsseldorf, Wesel, and other places of inferior size. The delta of the Rhine is the largest in Europe, not even excepting that of the Wolga: it extends, with its ramifications, 110 m. along the coast, from the E. shore of the Znyder-Zee to the S. branch of the Maas; and the distance from the apex, about 10 m. below Emmerich, being 72 m., the total area of the country comprised within its limits is 4,150 sq. m. When the river divides, the left or S. arm takes the name of *Waal;* and the other, retaining that of the Rhine, is connected, a little farther N., by an artificial canal, with the Yssel. Still lower down the Rhine takes the name of the *Leck*, in order to distinguish it from the old Rhine, now sanded up, which passed by Utrecht and Leyden to the sea at Catwyk. The Rhine has at present three months. About two-thirds of its waters flow to the sea by the Waal, the remainder being carried partly to the Znyder-Zee by the Yssel, and partly to the ocean by the Leck and Maas, on which is the great Rhenish port of Rotterdam. These branches, however, are so interlaced with natural and artificial channels, and there are so many lagoons and marshes in this district, that a map becomes indispensable to any detailed description. The scenery of the Rhine has been justly admired by travellers. Wildness and rude grandeur characterize it in the defiles above the Lake of Constance; and the country from the Unter-See westward, as far as Rheinfelden, 6 m. above Basle, is almost equally

romantic. But at this point the character of the scenery changes, and the river, formerly an inconsiderable feature in the landscape, becomes a broad and majestic stream, flowing as far as Mannheim through a rich open valley from 30 to 50 m. in breadth. The banks there begin to be more bold and rocky, but the scenery most generally admired is between Mayence and Coblentz. The Rhine here pursues a meandering course, pent between lofty and craggy mountains, and resembles rather a succession of lakes than a river. The mountains, however, are only mountains in miniature. The groves on the hill-sides are few and far between; but there is no grove without a church spire rising in the midst, and overtopping the trees. Frequently, a daring and fantastic cliff, crowned by an ancient castle (see Fig. 2171), frowns over the river, or rises majestically from the brow of the steep. The Rhine, with its various affluents, comprises a navigation of about 1,500 m., and in a commercial point of view, is perhaps the most important river in Europe, owing to the numerous states to which it affords a water conveyance. The *navigation of the Rhine* has always been of considerable importance, but since the employment of steamers, and the abolition of the tolls, and other political obstacles to its free use, its importance as a channel of navigation and traffic has been immeasurably increased. Vessels of large burden ascend the river to Cologne, Strasburg, and Rotterdam, and a vast increase has taken place in the number of passengers in recent years, despite the lines of railway which run along the banks of the river.

Rhine, in *Wisconsin*, a post-township of Sheboygan co.

Rhine'beck, in *New York*, a post-village and township of Dutchess co., abt. 55 m. S. of Albany. The township also contains the village of Rhinebeck Landing, on the Hudson River.

Rhine'land, in *Missouri*, a post-village of Montgomery co., abt. 75 m. W. of St. Louis.

Rhine'-wine, *n.* The name properly given to the wines produced in the Rheingau, the most valued and costly of which are the Schloss-Johannisberger, Hochheimer, Kloster-Erbacher, Rudesheimer, Steinberger, Gräfenberger, Lauterbrunner, Rothenberger, Scharlachberger, and Markobrunner. The red Rhine-wines, of which the Asmannshäuser is the most celebrated, are not nearly so much prized as the white; neither have they the strength or bouquet of the latter. The wines of the Lower Rhine, from Düsseldorf downwards, are generally of inferior quality. The term *Rhine-wine*, in its general signification, includes the Pfalz and Moselle wines. It is now generally held in Germany that Rhine-wines that have been properly kept for three or four years are in the most wholesome condition for use.

Rhin, (Haut,) [Fr. Upper Rhine,] a former N.E. dept. of France, now part of the German Reichsland of Alsace-Lorraine, h. W. by the French territory; *area*, 1,585 sq. m. The surface is diversified, well wooded, and fertile. *Rivers.* Principally, the Ill. *Prod.* Various kinds of grain, tobacco, hemp, linseed, beet-root, &c. *Min.* Silver, lead, iron, coal, asphalte, and granite. *Manuf.* Silks, cottons, and a variety of others. Rhine-wine is extensively raised. *Cap.* Colmar. *Pop.* 530,285.

Rhino, (*rī'no,*) *n.* [Scot. *rino.*] A cant term for money, cash, coin; as, plenty of ready *rhino*, i. e., ready money.

Rhinocerial, Rhinocerical, (*-sē ri-al, -sĕr'ik-al,*) *a.* [From *rhinoceros.*] Pertaining or relating to, or resembling, the rhinoceros.

Rhinoc'eridæ, *n. pl.* (*Zoöl.*) The Rhinoceros family, including large and uncouth-looking pachydermatous animals, which inhabit the hotter regions of Asia and Africa, and, next to the elephant, contains the most powerful quadrupeds. The common Indian rhinoceros (*R. unicornis*), is usually about 12 feet long from the tip of the nose to the insertion of the tail. Its height is about 7 feet, and the circumference of its body is nearly equal to its length. The back, instead of rising, as in the elephant, sinks in considerably. The head is moderately large and long. The upper lip protrudes considerably, and being extremely pliable, answers the end of a small proboscis; but its most distinguishing mark is the possession of a solid, slightly curved, sharp-pointed horn, which rests on a strong arch formed by the nasal bones. This horn is sometimes, but not generally, as much as 3 feet in length, and 18 inches in circumference at its base, and is used as a most powerful and effective weapon. The animal is also characterized by having 7 molars on each side above and below, with only 4 incisors, and no canine teeth. The ears are moderately large, upright, and pointed; the eyes small and half closed. The skin is thick and coarse, with a knotty or granulated surface, and so impenetrable on the body and limbs as to resist either the claws of the lion or the tiger, the sword or the shot of the hunter. About the neck, the skin is disposed in several large plaits or folds. Another fold passes from the shoulders to the fore legs, and another from the hind part of the back to the thighs. The tail is slender, flattened at the end, and covered on the sides with very stiff and thick black hairs. The belly is somewhat pendulous, the legs very short, strong, and thick, and the feet divided into 3 large hoofs, all standing forwards. In India, the rhinoceros leads a tranquil, indolent life, wallowing on the marshy borders of lakes and rivers, and occasionally bathing itself in their waters. Its movements are usually slow; and it carries its head low, like the hog, ploughing up the ground with its horn, and making its way by sheer force through the jungle. It is naturally of a quiet and inoffensive disposition, but very furious and dangerous when provoked or attacked, charging with great impetuosity, and trampling down or ripping up with its horn any animal which opposes it. The bones of the *R.*, like those of the elephant, are often found in the fossil state in various parts of the world; and in the year 1772 an entire *R.* was found buried in the banks of a Siberian river, in the ancient frozen soil, with the skin, tendons, and some of the flesh in the highest state of preservation. — The Two-horned *R.* (*R. bicornis*) (Fig. 2021), is found in various parts of Africa, and seems to have been the kind known to the ancient Romans. In size it equals the common species; and its habits and manner of feeding are the same; but it differs greatly in the appearance of its skin, which, instead of the vast and regularly marked armor-like folds of the former, has merely a slight wrinkle across the shoulders and on the hinder parts, with a few fainter wrinkles on the sides, so that, in comparison with the common *R.*, it appears almost smooth. The skin, however, is rough or tuberculated; but what constitutes the specific or principal distinction is, that the nose is furnished with *two* horns, one of which is smaller than the other, and situated higher up, and that they are fixed to the nose by a strong apparatus of muscles and tendons, so that they are loose when the animal is in a quiescent state, but become firm and immovable when he is enraged.

Rhinoceros, (*rī-nŏs'e-rŏs,*) *n.* [Fr., from Gr. *rhīnokerōs—rhin*, or *rhis, rhinos*, the nose or snout, and *keros*, a horn.] (*Zoöl.*) One of the *Rhinocerida*.

Rhinoc'eros-bird, *n.* (*Zoöl.*) See Bucerida.

Rhinoplas'tic, *a.* [Fr. *rhinoplastique*, from Gr. *rhis, rhinos*, the nose, and *plassein*, to mould, form.] Forming or constituting a nose.

R. operation. (*Surg.*) An operation which supplies an artificial in lieu of a natural nose, or which renews the latter.

Rhinoplas'ty, *n.* [Gr. *rhin, rhinos*, the nose, and *plasso*, to form.] (*Surg.*) The operation for forming a new nose, which dates far back. Three chief methods have been described: — 1. The *method of Celsus*, which consists in bringing forward the skin of the cheeks, and forming a septum, if necessary, from the upper lip. 2. The *Italian*, or *Tuliacotian method* or *operation*, called, also, the *German method*, on account of the application made of it by Von Gräfe, which consists in paring the edges of the nostrils, and uniting them to a graft taken from the arm, but left attached to it until union has taken place. 3. The *Indian method*, practised for ages in the East Indies, where cutting off the nose has been a common punishment for criminals, in which the graft is taken from the forehead. This method is the one now generally practiced.

Rhipid'ura, *n.* (*Zoöl.*) See Fantail.

Rhizan'theæ, *n. pl.* (*Bot.*) Same as Rhizogens, *q. v.*

Rhizobola'ceæ, *n.* [Gr. *rhiza*, a root.] (*Bot.*) The Souri-nut family, an order of plants, alliance *Guttiferales.* — Diag. Digitate opposite leaves; symmetrical flowers; equilateral petals; sessile stigmas; solitary seeds; and an embryo with an enormous radicle. — They are large trees, native of the forests of the hottest parts of S. America. Some are valuable for their timber, others yield an excellent oil, and some edible nuts. The order contains 2 genera and 8 species. See Cartocar.

Rhi'zogens, Rhizan theæ, *n. pl.* [Gr. *rhiza*, a root, and *gennao*, to produce.] (*Bot.*) The third class of the vegetable kingdom, including parasitical plants destitute of true leaves, in room of which they have cellular scales. Their stem is either an amorphous fungous mass, or a ramified mycelium appearing to be lost in the tissue of the plants. No instance of green color is known among them; but they are brown, yellow, or purple. They are furnished with true flowers, having genuine stamens and carpels, and surrounded by a trimerous or pentamerous calyx, or absolutely naked. The true nature of their seeds is in most species quite unknown. The *R.* are separated into the three orders Balanophoraceæ, Cytinaceæ, and Rafflesiaceæ, *q. v.*

Rhizo'ma, Rhi'zome, or Root'stock, *n.* [Gr. *rhizos*, to support by roots.] (*Bot.*) A thick fleshy stem, lying on the surface of the earth, or partly beneath it, giving forth roots from its lower side, and shooting forth leaves every spring. It is commonly mistaken for a root. It is conspicuous in the Iris (Fig. 2253), and in Solomon's seal.

Fig. 2253.—Rhizoma of Iris.

Rhizoph'ora, *n.* [Gr. *rhiza*, a root, *phero*, to bear or carry.] (*Bot.*) The typical genus of the natural order *Rhizophoraceæ.* The species *R. mangle* is the Mangrove-tree of tropical sea-shores. It is remarkable for the aërial roots thrown off from the stem, which, fixing themselves into the mud, act as props to keep the tree in an erect position. It frequently happens that these aërial roots form the entire support of the stem, in consequence of this decaying at its lower part. The bark of the Mangrove-tree is used as a tanning material. The fruit is sweet and edible, and its juice, when fermented, forms a kind of wine. See Mangrove.

Rhizophora'ceæ, *n.* (*Bot.*) The Mangrove family, an order of plants, alliance *Myrtales.* Diag. A plurilocular ovary, polypetalous flowers, valvate calyx, indefinite stamens, and flat cotyledons much shorter than the radicle, which germinates before the fruit falls. They are trees or shrubs, native of the muddy sea-shores in the tropics, and are generally remarkable for their astringent properties. The order contains 5 genera and 20 species. See Rhizophora.

Rhizopo'da, *n.* [Gr. *rhiza*, root, and *pous*, foot.] (*Zoöl.*) A division of the *Protozoa*, including minute animals of the lower degree, possessing a power of locomotion by means of minute tentacular filaments. The *R.* comprise the animals which constructed the *miliola* shells found in such large quantities in the strata of many quarries near Paris. The class also includes some other microscopic foraminiferous shells.

Rho'da, an island of Egypt, in the Nile, opposite Cairo, containing the Pasha's gardens. It is 2 m. long.

Rhode Isl'and, the smallest State of the American Union, is situated in New England, and comprises a territory on both sides of Narragansett Bay, having N. and E. Massachusetts, W. Connecticut, and S. the Atlantic Ocean. It lies between Lat. 41° 18′ and 42° 3′ N., and Lon. 71° 8′ and 71° 53′ W. *Area*, 1,054·6 sq. m. To this land area may be added a water area of 360 sq. m., comprising the waters of Narragansett Bay. The State is 48 m. long from north to south, and 35 m. wide east to west.—*Gen. Desc.* The State derives its name from an Island in Narragansett Bay, probably named from some supposed resemblance to the island of Rhodes in the Mediterranean, though some derive it from the Dutch word *roodt*, "red," referring to the color of the soil. Narragansett Bay divides the State into two unequal portions, that lying east being quite small. Though the ocean coast line of the State is only about 45 m., that of Narragansett Bay, which penetrates some 30 m. inland, and has numerous inlets and islands, affords about 350 m. of shore line. Limited as the State is in area it has a considerable diversity of soil, and even of climate. In some parts — those of the north and east — the surface is quite hilly, though nowhere mountainous, while southward it slopes to a level region. Of the elevations which have received titles may be mentioned Woonsocket Hill, Diamond Hill, Hopkins Hill, and Mount Hope, the last having a historical interest as the scene of the death of the Indian King Philip. The soil is also diversified, being dry and sandy in some localities, wet and heavy in others. West of Point Judith extends a low, sandy coast, with many fine beaches, and salt-water ponds and marshes. Further west the sea is faced by high rocky cliffs, between which are beaches of sand. The abundance of salt water tempers the climate, which is agreeable in summer, and in winter milder and more equable than in the inland portions of New England. The principal rivers are the Seekonk, Pawtuxet, and Pawcatuck. These and the minor streams are of little value for navigation, but are of high importance for their water power, and have played an important part in the development of the active manufacturing interests of the State. *R. I.* possesses some of the most famous seaside resorts in the U. S., including Newport, Narragansett Pier, and Watch Hill. Block Island, which lies in the Atlantic, about 10 m. S. W. of Point Judith, is also a favorite summer resort.—*Geol.* The western part of the State is characterized geologically mainly by the Montalban gneiss, which extends through much of southern New England. But this Archæan formation is succeeded eastward by a Carboniferous one, which extends under the bay and through the eastern part of the State into Massachusetts. Its coal, of which some 750,000 tons have been mined, is of the anthracite variety, but inferior in quality. The only other important deposit is one of magnetic oxide of iron. Limestones and granite of excellent quality occur. The terminal moraine of the Glacial period has left its marks in this State, in a stony soil that interferes in many places with agriculture. —*Agric.* The soil is better adapted to grazing than to tillage, though corn, rye, barley, and oats, and in some places wheat, are raised in sufficient quantity for home use. The soil is in many parts too rough and difficult for cultivation, and has been planted with introduced grasses, on which cattle of fine breed are fed. The apple crop is sufficient to yield cider for transportation. The most fertile sections are on the islands in Narragansett Bay, where market gardening is the leading agricultural interest. The State in 1890 had in all 5,500 farms, with 469,281 acres of improved land, and a yield valued at $4,218,300. The inhabitants, generally, have applied themselves rather to commerce, manufactures and the fisheries, than to agriculture.—*Manuf. R. I.*, while the smallest State in the Union, is the most densely peopled, having a population of 318 to the square mile. This density results from its manufacturing activity, in which it holds a high rank among the States, its products including cotton and woollen textiles, iron and steel goods, and manufactures of brass, gold, silver, rubber, and many other materials. The manufacture of cotton in the U. S. had its origin in *R. I.*, the first cotton mill being built at Pawtucket Falls, by Samuel Slater, in 1790. Here also originated the bleaching and calico-printing industries in America. The industries named still hold the leading place among those of

Fig. 2254.—Seal of the State.

the State, while those of woollen and iron goods come second, especially screws, firearms and locomotives. Other important industries are those of jewelry, rubber and leather goods. The water-power of the State is largely utilized in those various manufactures, though largely supplemented by steam-power.—*Commerce.* Narragansett Bay invites commerce by its extensive area of safe anchorage, the harbor of Newport being one of the best in the world, while Providence, Warren, and Bristol have also excellent harbors. At ous times the State enjoyed a large foreign commerce, but it disappeared after the War of 1812, and the commerce of the State is now confined to a coasting trade, it having been dwarfed by the great development of the manufacturing interests.—*Pol. Div.* The State is divided into 5 counties, as follows: Bristol, Kent, Newport, Providence, and Washington. It has 2 State capitals, Providence and Newport. Other towns of importance are Bristol, Pawtucket, Lonsdale, Woonsocket, Natick, Warren, &c.—*Gov.* The governor and lieutenant-governor are elected annually. The assembly, composed of two chambers, holds its regular session at Newport, beginning in May, and a session, by adjournment, at Providence in the following January. The judicial power resides in a Supreme Court, and such inferior courts as the General Assembly shall from time to time establish.—*Educ.* The common school system is of a high order, yet much illiteracy prevails, on account of the number of foreigners drawn to the centers of manufacture and the difficulty of getting their children to attend school. There are a number of meritorious private institutions, while Brown University, at Providence (founded in 1764), is one of the best colleges in the country.—*Hist.* It is claimed that the Northmen visited this region about 1,000 A. D., and certain antiquities have been ascribed to them, but the question of the location of *Vinland* seems never likely to be definitely settled. The first English settlement was made at Providence in 1636, by Roger Williams, whose religious opinions had caused his expulsion from Massachusetts. He and other settlers bought lands from the Indians, and an unwonted degree of religious toleration was established. The charter granted by Charles II. to the colony was so liberal in its provisions that it remained the fundamental law of the State until 1843. *R. I.* was firm in opposition to the King Philip War, yet that State suffered more severely therefrom than any of her sister colonies. King Philip himself was killed in what is now the town of Bristol. The great "swamp fight" occurred (1675) in the Narragansett country, where more than a thousand Indians were killed. The charter was temporarily suspended (1686–87) by Sir Edmund Andros, who, however, was never able to gain possession of the original document. Sir Edmund was deposed in 1690, and a new government was immediately organized under the old form. This continued until, in 1841, a legally unauthorized people's convention met and framed a new constitution, which action precipitated a crisis, culminating in the "Dorr rebellion," and adoption of a new constitution in 1842, this going into effect in 1843. Under this charter suffrage was limited, about 9,500 men composing the electorate in 1840 out of a pop. of 109,000. The present suffrage laws were adopted in 1888. *R. I.* was the last of the States to ratify the Federal Constitution (1790). It took an active part in the Revolutionary War, being long held by the English. *Pop.* (1870) 217,356; (1880) 276,531; (1890) 345,506; (1900) 428,556.

Rhodes, (*rōdz,*) an island in the Mediterranean, appertaining to Asiatic Turkey, near the coast of Asia Minor; lies in Lat. between 35° 53′ and 36° 24′ N., Lon. between 27° 40′ and 28° 12′ E. It is 40 m. long, with a breadth of 18 m. at its widest point; has an area of 441 sq. m., and is traversed by a range of mountains, on which grow forests of pine, in great request for ship-building. Beneath this range rises a tract of lower hills, on which a species of the vine is largely cultivated, which produces the perfumed wine so much praised by the ancients. The tract beneath forms the greatest portion of the island, and, sloping gradually down to the sea, is watered by numerous streams, which renders it capable of producing the most luxuriant crops. A great part of the island is uncultivated, but it yields corn, olives, pomegranates, lemons, wine, wax, honey, and figs. The manufactures are silk, shoes, red leather, and umber. Its exports are wax, honey, figs, and other fruits. Imports —colonial produce, woollens, iron, nails, shot, soap, cordage, hardware, coals, horses, cattle, carpets, and corn. *Pop.* 30,000

Rhodes, the capital of the former island, and situated at the N.E. extremity of the island. It is defended by towers about 800 feet distant from each other, while in the centre of the mole there is a square bastion 120 feet high. *R.* presents at present very few vestiges of its ancient grandeur; its streets are narrow and winding, and devoid of elegance or regularity. It has two good harbors, separated only by a mole running obliquely out into the sea. The principal manufactures are red leather and shoes. It was at the entrance to the harbor of this city that stood the celebrated *Colossus,* q. v. *Pop.* 20,000.—*Hist.* The ancient Rhodes was taken possession of by a branch of the Doric race, who held it at the time of the Trojan war, B. C. 1184. It was of small political importance among the states of Greece till the city of Rhodes was built and made the capital of the island, B. C. 408. In the war between Cæsar and Pompey, the Rhodians, who had long held supremacy at sea, took part with the former, B. C. 50; and continuing their aid to Cassius, were defeated by the Romans and completely subjugated, B. C. 42. They then held their liberties by the caprice of the emperors, and their city was made, by Constantine I., the metropolis of the Provincia Insularum in 330. It was taken by Chosroes II., King of Persia, in 616; by the Saracens in 651; and by the Knights of St. John, Aug. 15, 1309 (See HOSPITALLERS.) Mohammed II. besieged it ineffectually in 1480, and the

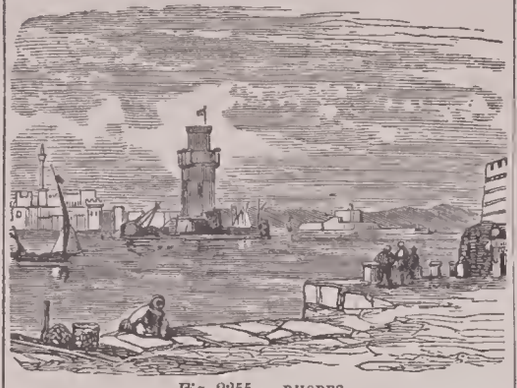

Fig. 2255.—RHODES.

Sultan Solyman I. compelled it to capitulate after a vigorous siege and brave defence, that lasted from June to Dec., 1522. An earthquake which occurred in Rhodes, April 22, 1863, destroyed 2,000 houses, and swallowed up or otherwise killed and wounded thousands of the inhabitants.

Rhodez, or **Rodez,** (*ro′dat,*) a town of France, cap. of the dept. of Aveyron, 85 m. N.W. of Montpellier; *pop.* 10,300.

Rhodium, (*ro′de-um,*) *n.* [Gr. *rhodon,* a rose, on account of the red color of some of its salts.] (*Chem.*) *R.* is one of the rare metals found in platinum ores. It is very hard, white, and brittle, and, with the exception of iridium, one of the most infusible of metals. When pure, it is insoluble in acids, but when alloyed with platinum, bismuth, or copper, it is dissolved with them in aqua regia. Heated in contact with chloride of sodium in a current of chlorine, the double chloride of *R.* and sodium is formed. The only use to which *R.* has been applied, is to form the nibs of metallic pens, for which it is extremely well fitted, from its hardness and unalterability. It forms four definite oxides—RhO, Rh_2O_3, RhO_2, and RhO_3. The first two are insoluble in the strongest acids. *R.* forms 2 sulphides, RhS and Rh_2S, and 1 chloride, Rh_2Cl_6. *R.* was discovered by Wollaston in 1804, associated in small quantity with native platinum. The salts formed by the chloride crystallize in cubes of a delicate rosy hue, hence the name. *Equiv.* 52; *spec. grav.* 12·1; *sym.* Rh.

Rhod′izite, *n.* [Gr. *rhodizein,* to make red.] (*Min.*) A species of Lime-boracite, which, when heated before the blow-pipe, colors the flame first green, but afterwards red. It is found in minute translucent and shining crystals, which are white, or inclining to yellow or gray, near Mursinsk in the Ural.

Rhododen′dron, *n.* [Gr., from *rhodon,* a rose, *dendron,* a tree.] (*Bot.*) A genus of shrubs belonging to the natural order *Ericaceæ.* Many species are largely cultivated in this country on account of the beauty of their flowers. The narcotic properties which characterize the whole genus are particularly evident in the flowers of *R. arboreum,* which are eaten by the hill people of India, and in all parts of *R. chrysanthum,* a Siberian plant. The powdered leaves of *R. panulatum* are used as snuff in some parts of India. The brown pulverulent substance found on the petioles of some rhododendrons and kalmias is also used in the American States as snuff. See ERICACEÆ.

Rhodome′nia, *n.* [Gr. *rhodos,* red, *hymen,* a membrane.] (*Bot.*) A genus of *Algæ,* or sea-weeds. *R. palmata* is the *dulse* of the Scotch, and the *dillesk* of the Irish. It is very nutritious and wholesome.

Rhodomontade, (*rŏd-o-mon-tād′,*) *n.* See RODOMONTADE.

Rhodomontad′er, *n.* Same as RODOMONTADER, *q.v.*

Rho′donite, Ro′doise, *n.* [Gr. *rhodon,* the rose.] (*Min.*) A silicate of manganese or manganese-augite, sometimes used in a polished state for inlaying. *Comp.* Protoxide of manganese 54·1, silica 49·9 = 100. It is found in New Jersey.

Rhodori′za, *n.* (*Bot.*) A genus of plants, order *Convolvulaceæ.* The volatile oil, called *oil of rhodium,* is obtained from species of this genus. The powdered wood is used for fumigation and as snuff.

Rhomb, Rhom′bus, (*rŏmb,*) *n.* [Fr. *rhombe;* Lat. *rhombus;* Gr. *rhombos,* from *rhembō,* to turn or whirl round.] (*Geom.*) A quadrilateral figure whose sides are equal, and the opposite sides parallel, but whose angles are not right angles.

(*Crystall.*) A rhombohedron.

Rhomb-solid. (*Geom.*) A solid formed of two equal right cones united together at their bases.

Fresnel's rhomb. (*Optics.*) To obtain a ray of circularly polarized light, it is sufficient to decompose a ray of plane polarized light in such a manner as to produce two rays of light of equal intensity polarized in planes at right angles to each other, and differing in their paths by a quarter of an undulation. Fresnel effected this by means of a rhomb, which has received his name. It is made of glass; its acute angle is 54°, and its obtuse 126°. If a ray, *a,* Fig. 2256, of plane polarized light falls perpendicularly on the face A B, it will undergo two total internal reflections at an angle of about 54°, one at E, and the other at F, and will emerge perpendicularly. If the plane A B D C be inclined at an angle of 45° to the plane of polarization, the polarized ray will be divided into 2 coincident rays, with their planes of polarization at right angles to each other, and it appears that one of them loses exactly a quarter of an undulation, so that on emerging from the rhomb the ray is circularly polarized.

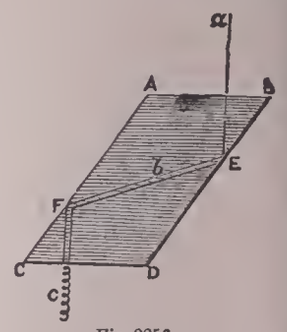

Fig. 2256.

Rhom′bic, *a.* Having a rhomb-like configuration.

Rhombohe′dral, *n.* [Fr. *rhomboedrique.*] (*Geom. and Crystallog.*) Pertaining or relating to, or presenting forms derivable from, a rhombohedron.

Rhombohe′dron, *n.* [Fr. *rhomboédre,* from Gr. *rhombos,* and *hedra,* base.] (*Geom. and Crystallog.*) A solid contained by six equal rhombic planes.

Rhom′boid, *n.* [Gr. *rhombos,* and *eidos,* form.] (*Geom.*) A quadrilateral figure whose opposite sides and angles are equal, but which is neither equilateral nor equiangular.

Rhom′boid, Rhomboid′al, *a.* [Fr. *rhomboïdal.*] Approaching the shape of a rhomb; in geometry, a term used to denote an oblique-angle parallelogram.

R. muscle. (*Anat.*) A square-shaped muscle of the back, serving to move the scapula, or shoulder-blade and arm.

Rhomb′-spar, *n.* (*Min.*) Same as MAGNESITE. *q. v.*

Rhom′bus, *n.; pl.* RHOMBI. [Lat.] (*Geom.*) See RHOMB.

Rhône, (*rōn,*) (anc. *Rhodanus,*) a river of S.W. Europe, rising in the Rhone Glacier, Switzerland, at the foot of Mount Furca, five miles from the source of the Rhine, and at the height of 5,500 feet. It flows in a western direction, through a long and winding valley of the Swiss canton of the Valais, and, after being swelled by a variety of mountain streams, passes through the Lake of Geneva, flowing southwards, enters France, where, after being joined by the Saone at Lyons, and by the Durance, it discharges itself, after a course of 650 m., by three mouths, into that part of the Mediterranean called the Gulf of Lyons.

Rhône, a dept. in the S.E. of France, having N. the dept. of Saone-et-Loire, E. Ain and Isere, S. and W. Loire; *area,* 1,050 sq. m. The surface is mostly mountainous or hilly. *Prod.* Principally corn, the vine, and mulberry trees. The wines are famous for their excellent quality. *Min.* Iron, copper, and coal. *Manuf.* Silks, cotton, linen, glass, paper, and hats. *Cap.* Lyons. *Pop.* 678,648.

Rhu′barb, *n.* (*Bot.*) See RHEUM.

Rhu′barby, *a.* Like rhubarb.

Rhumb, (*rŭm,*) *n.* [From Gr. *rhombos,* a rhomb.] (*Nav.*) A vertical circle of any given place, or the intersection of a part of such circle with the horizon. Rhumbs coincide with the points of the horizon, and are distinguished like those of the compass. A *rhumb-line* cuts all the meridians under the same angle.

To sail on a rhumb, to sail constantly on one course.

Rhumb′-line, *n.* (*Navig.*) The course of a ship sailing on a rhumb. See RHUMB.

Rhus, (*rus,*) *n.* [Gr. *rhous,* the Attic contracted form of *rhoōs,* a stream, from the wide spreading of its roots.] (*Bot.*) The Sumach, a gen. of small trees or shrubs of

Fig. 2257.—RHUS GLABRA, (*The Smooth Sumach.*)

MASSACHUSETTS AND RHODE ISLAND

SCALE OF MILES
0 5 10 15 20 25 30

State Capitals ☆ County Seats ○
Places of 100,000 and over ___ BOSTON
" " 50,000 to 100,000 ___ Springfield
" " 25,000 to 50,000 ___ Taunton
" " 10,000 to 25,000 ___ Adams

BOSTON AND ENVIRONS

SCALE OF ONE MILE
0 ½ 1

Hammond's 8 x 11 Map of Massachusetts and Rhode Island.
Copyright, 1894, by C.S. Hammond & Co., N.Y.

RHODE ISLAND

Land surface,
Sq. m. 1,053
Water surface,
Sq. m. 197
Pop 1900....428,556
White.... 419,050
African . ..9,092
Indian..... 35
Chinese,.....366
Japanese. .. 13
Native-born,
294,037
Foreign-born,
134,519
Males 210,516
Females..218,040

COUNTIES.

Bristol.... ... J 6
Kent ... .H 6
Newport..... .J 6
Providence...H 5
Washington..H 7

CITIES-TOWNS

Pop. Thousands.	
175	Providence J 5
39	Pawtucket J 5
28	Woonsocket H 5
22	Newport. ..J 7
21	Warwick ...J 6
18	Central Falls J 5
13	Cranston ...J 5
12	E. Providence J 5
8	Lincoln .. ...J 5
8	Cumberland.J 5
7	Westerly....G 7
6	Bristol .. .J 6
5	Coventry....H 6
5	Warren ....J 6
4	Johnston ...H 5
4	N. Kingston H 7
3	Scituate ....H 5
2	Tiverton....K 6
2	East Greenwich H 6
2	Hopkinton..G 7
2	North Smithfield.H 5
2	Smithfield ..H 5
2	Portsmouth. J 6
1	Narragansett J 7
1	Richmond ..H 7
1	Jamestown. .J 6
1	Gloucester...H 5
1	Middletown..J 6
1	Foster. . ..H 5
1	Barrington . J 6
1	Lit.Compton K 6

Pop.	Hundreds.	
9	Charlestown	H 7
8	Exeter .....J 6	
7	West Brownsville..	
6	W. Greenwich	H 6

the order *Anacardiaceæ*. The species, chiefly American, are occasionally characterized by poisonous properties and a milky juice, which becomes black on exposure to the air. *R. toxicodendron* is the Poison-oak or Poison-ivy. Its leaves contain a peculiar acrid principle, and are thought to be useful in the treatment of old paralytic cases and chronic rheumatism. A twining variety of this species, with similar properties, has been given the scientific name of *R. radicans*. *R. venenata*, the Poison-ash, or Poison-elder, like the former species, is extremely poisonous. When in a fresh condition, all parts of the above plants require to be very carefully handled, as their juices frequently excite violent erysipelatous inflammation. The bark of *R. coriaria* is a powerful astringent, and is used for tanning; its fruit is acidulous, and is eaten by the Turks. The dried and powdered leaves of the *R. cotinus*, and *R. glabra* (Fig. 2257), constitute the well-known tanning and dyeing agent called *shumac*, or *sumach*, which has been in use for ages. The wood of the same species is also known in commerce as *Young fustic*, or *Zante fustic*. It is used in dyeing to produce a rich yellow. *R. metopium*, a native of Jamaica, furnishes the *hog-gum* of that island, which is said to be astringent, diuretic, and purgative, when used as an internal medicine, and to act as a vulnerary when applied externally to wounds and bruises. The substance called *Japanese wax*, now largely used as a candle material, is obtained from the fruits of *R. succedaneum* and other species.

Rhyme, (*rim*,) *n.* [A. S. *rim*; Fr. *rime*; Ger. *reim*.] (*Poet.*) The consonance of sounds in the last words or syllables of verses. In the former cases it is called *male* rhyme, in the latter *female*. There are rhymed verses in the Latin classical poets, where the jingle seems intentional, and more distinct examples of it in the fragments of Roman military songs, &c., which have come down to us. But in the earlier period of the decay of the Latin language, when accent was substituted for metre in the rhythmical arrangement of the verse, rhyme made its way into the composition of church hymns, &c. It has been attempted, but with little success, to deduce this innovation from the Goths and from the Arabians; but the former, like the old Teutonic races, probably used alliteration, but no rhyme, in their verses; and the latter could not have influenced European literature until a period long after that in which rhyme first appears. It has been proved, beyond the possibility of doubt, that rhymed Latin verse was in use from the end of the fourth century. — See PROSODY.

Rhyme or reason, number or sense.

—*v. n.* To make verses. — To accord in sound.

—*v. a.* To put into rhyme. — To influence by rhyme.

Rhymeless, (*rim'less*,) *a.* Destitute of rhyme; not having consonance of sound.

Rhym'er, *n.* One who makes rhymes; a versifier; a poor poet; a balladeer.

Rhym'ery, *n.* The act of making rhymes; — used in contempt.

Rhymic, (*rim'ik*,) *a.* Relating to rhyme.

Rhym'ist, Rhym'ster, *n.* One who makes rhymes; a poet, in contempt.

Rhythm, (*rith'm.*) *n.* [Gr. *rhythmos*, from *rheo*, *rheusomai*, to flow.] (*Pros. and Mus.*) The metrical arrangement of speech, denoting the measure of the feet, or the number and combination of long and short syllables, called also *metre* and *quantity*. But the most common application of this term is to express the *time* or duration of many sounds heard in succession, whether these sounds are musical, and such as are produced by voices and instruments, or without a determinate tone, as in the strokes of a hammer upon an anvil, and in the articulations of the voice in common speech in repeating poetry or pronouncing an oration.

Rhyth'mic, Rhyth'mical, *a.* Pertaining to rhythm; having rhythm.

Rhyth'mically, *adv.* With rhythm.

Rhyth'mics, *n. sing.* (*Mus.*) That department of the science which treats of the length of sounds.

Rhythm'ing, *a.* Writing or composing rhythm.

Rhythm'less, *a.* Without rhythm.

Rhythmom'eter, *n.* [Gr. *rhythmos*, rhythm, and *metron*, measure.] An instrument for marking time to movements in music.

Rhyth'mus, *n.* [Lat.] Rhythm.

Ri'al, *n.* (*Numis.*) A Spanish coin. Same as REAL, *q. v.* — A gold coin current in the reigns of Henry VI. and Elizabeth of England; under the former its value was ten shillings, under the latter fifteen shillings.

Riant, (*re'ong*,) *a.* [Fr., from *rire*, to laugh.] Laughable; droll.

Riazan, (*re-a-zan'*.) a govt. of European Russia, having N. Vladimir, E. and S. Tambov, and W. Moscow and Tula; *area*, 16,227 eq. m. It is low and sandy in the N., and the S. portion is elevated and very fertile. *Rivers*. Oka and Don. *Prod.* Wheat, rye, oats, millet, buckwheat, and vegetables. *Min.* Iron and limestone. *Manuf.* Needles, cottons, glass, leather, and iron-ware. *Cap.* Riazan. *Pop.* 1,418,293.

RIAZAN', a town of European Russia, and cap. of above govt., on the Troubege, a tributary of the Oka, 110 m. S.E. of Moscow. The town has greatly increased in size within the last 50 years; but most of the houses and pavements remain of wood.

Rib, *n.* [A. S.] (*Anat.*) One of the long curved bones which form the walls of the chest. They extend in an oblique direction from the vertebræ of the back to the sternum in front. There are usually twelve on each side; but in some rare cases thirteen have been found, in others only eleven. They are distinguished into *true* and *false*; the former being the seven upper ribs, which are articulated to the sternum; the latter the five lower ones, which are not immediately attached to that bone. The use of the ribs is to cover and defend the lungs and heart; and their articulations with the vertebræ and

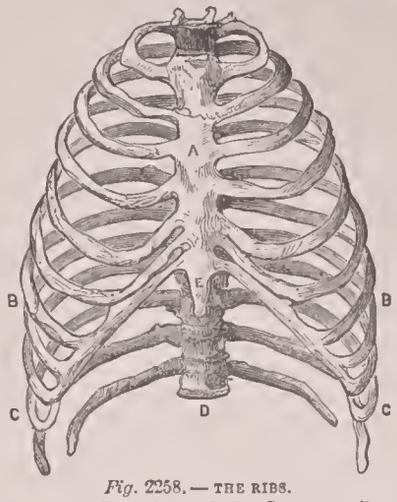

Fig. 2258. — THE RIBS.

A, Sternum, or Breast bone; B, The Seven true ribs; C, The Five false ribs; D, The Spine; E, The Ensiform cartilage, or continuation of the sternum.

sternum admitting of a slight motion, they assist in respiration. See ANATOMY, THORAX.

(*Ship-building*.) One of the timbers of a ship, which have their bass in the keel as a back-bone, and serve to maintain generally the cavity of the vessel.

(*Arch.*) One of the curvilinear timbers to which, in an arched or covered plaster ceiling, the laths are nailed.

(*Bot.*) The principal vein or nervure which proceeds from the petiole into the blade of a leaf.

(*Mining.*) A pillar of coal left for the support of the roof of a mine.

—A prominent line or rising in cloth, like a rib. — Something long, thin, and narrow; a strip.

—A vulgar name for a wife; — in allusion to Eve, who was made from one of Adam's *ribs*.

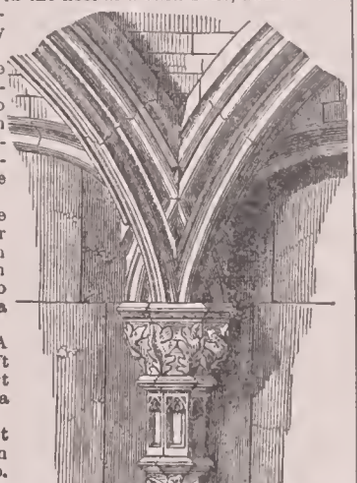

Fig. 2259. — A RIB.

—*v. a.* To furnish with ribs; to form with rising lines and channels. — To incloss with ribs.

Rib'ald, *n.* [Fr. *riband*, from L. Lat. *ribaldus*, a light-armed soldier.] A low, brutal, vulgar, foul-mouthed wretch; a lewd fellow.

—*a.* Low; base; filthy; obscene.

Rib'band, *n.* (*Ship-building.*) One of the longitudinal bands of comparatively thin timber stretching from stem to stern at different distances from the keel. They are bolted on outside the ribs, in order to preserve the proper curvature, and to impart stability to the vessel while yet in skeleton.

Rib'bing, *n.* An assemblage of ribs for a vault or covered ceiling.

Ribbie, (*rib'bl*,) a river of England, rising in the W. part of the co. of York, and falling into the Irish Sea, S.W. of Preston.

Rib'bon, *n.* (Written also *riban*, *riband*, and *ribband*.) [Fr. *ruban*.] A fillet of silk; a narrow band of silk, satin, &c., used for an ornament, as a badge, or for fastening some part of female dress. — A narrow, thin strip of anything. — The reins or lines used for holding a horse; as, to handle the *ribbons*. (Colloq.)

(*Her.*) A diminutive of the ordinary called the *bend*, of which it is one-eighth in width.

—*v. a.* To adorn with ribbons.

—To mark with stripes or lines to resemble ribbons.

Rib'bon-grass, *n.* (*Bot.*) The *Phalaris arundinacea*, a species of canary-grass with variegated leaves.

Rib'bonism, *n.* The principles of a secret association formed among Roman Catholics in Ireland towards the beginning of this century, the direct and immediate object of which was antagonism to the Orange Confederation, to which, in some respects, it bore considerable resemblance. From the absence of all statistical information, and from the rude and illiterate material out of which it was chiefly formed, it is impossible to offer any estimate of its number and extent.

Ribeauville, (*re'bo-veel*.) a town of France, dept. of Haut-Rhin, 6 m. S. of Schelestadt. *Manuf.* Calicoes. *Pop.* 7,500.

Ribe'ra, José, (called SPAGNOLETTO,) an eminent Spanish painter, born at Jativa, in Valencia, 1588. He was at first a pupil of Ribalto, but went early to Italy, and had for his master Caravaggio, whose bold naturalistic style was the model of his own. He visited Parma and Modena, and thence went to Naples, where the viceroy named him his painter. According to some accounts, he left his house suddenly in 1648, and was never again heard of. Others state that he D. at Naples, in 1656. His historical pictures are chiefly representations of martyrdoms, tortures, &c.; the genius of Spagnoletto, in fact, seemed to revel in scenes of horror and cruelty. *R.* was one of the three artists who conspired to secure to themselves the art patronage of Naples, expelling all competitors. Among his pupils were Luca Giordano, and Salvator Rosa.

Ribes, (*ri'beez*,) *n.* [An Arabic name, properly belonging to an acid-leaved species of *Rheum*, but which, for about two hundred years, has, by mistake, been applied to the Currant and Gooseberry tribe.] (*Bot.*) A genus of the order *Grossulariaceæ*. Some of the species are remarkable for their agreeable and wholesome acid fruits, and are, on this account, much cultivated in our gardens. *R. grossularia* is the source of the numerous varieties of gooseberries, so much used, both in the ripe and unripe conditions, for tarts and puddings, for making wine, and for dessert. *R. rubrum* yields both red and white currants, and *R. nigrum*, black currants, or cassis. These are used for the same purposes as gooseberries, and are particularly adapted for making jams and jellies. An infusion of black currants is much used, under the name of *black-currant tea*, as a cooling drink in fevers.

Fig. 2260. — CURRANTS.

Rib'less, *a.* Without ribs.

Rib'roast, *v. a.* To beat soundly; — a burlesque word.

Rib'-supported, *a.* Supported by ribs.

Ric, [A. S.] A termination, signifying authority or jurisdiction over; originally, a rich, powerful, or valiant man.

Ricasoli, BETTINO, BARON, an Italian statesman, B. in Tuscany, 1809, and educated at Florence, early devoted his attention to politics, and always advocated moderation. He took an active part in the liberation of Tuscany after the campaign against Austria in 1859. An unsuccessful attempt was made to assassinate him in 1860, and, in March, he filled an important post in the administration. After the death of Count Cavour, in 1861, he became prime-minister of the new kingdom of Italy, in which situation he endeavored to follow the policy of his predecessor, but, unable to secure the confidence of parliament, resigned the premiership, March 2, 1862, and was succeeded by Signor Rattazzi. He again acceded to power as prime-minister June 20, 1866, and retired in 1867. D. October 21, 1880.

Riccia, (*rit'cha*,) a town of S. Italy, prov. of Molise, 12 m. S.E. of Campo-basso; *pop.* 4,700.

Riccia'ceæ, *n.* (*Bot.*) The Crystal-wort family, an order of plants, allianc *Muscales*. DIAG. Spore-cases valveless, without operculum or slaters. — They are terrestial herbs of diminutive size, inhabiting mud or water, swimming or floating, usually annual. The plants are found in America, and at the Cape of Good Hope. Their uses are not known. The order includes 8 genera and 29 species.

Ricc, *n.* [Fr. *riz*; Ger. *reiss*; Lat. and Gr. *oryza*.] (*Bot.*) The common name of the genus *Oryza*, order *Graminaceæ*. *O. sativa*, the Rice-plant, the grain of which is more largely used than any other cereal. *R.* is extensively cultivated in Italy, India, China, Japan, and America, chiefly in low grounds, near large rivers, which are liable to be annually inundated and enriched by the deposition of mud. In the South'nStates it has long been a staple commodity.— From 40 to 50 varieties of the rice-plant are known and cultivated in different countries. As an article of food rice appears to be less nutritive than the other cereal grains; it is of a binding nature; — hence its use in diarrhœa

Fig. 2261. — RICE.

Spirit is sometimes distilled from the fermented infusion of rice; this spirit is frequently called *arrack*; but that name is properly applied only to spirit distilled from palm-wine. Starch of excellent quality for laundry purposes is now manufactured from rice.

Rice, in *Minnesota*, a S.E. co.; *area*, abt. 500 sq. m. *Rivers.* Cannon and Zumbro rivers, and several lakes. *Surface*, mostly level or undulating; *soil*, generally fertile, producing large crops of wheat, corn, and oats. *Cap.* Faribault.

Rice, in *Ohio*, a twp. of Sandusky co.

Rice'-bird, Rice'-bunting, *n.* (*Zoöl.*) The Bob-o-link, *q. v.*

Rice'borough, in *Georgia*, a post-village of Liberty co., abt. 32 m. S.S.W. of Savannah.

Rice City, in *Rhode Island*, a post-village of Kent co., abt. 19 m. W. by S. of Providence.

Rice Creek, in *Michigan*, enters the Kalamazoo River from Calhoun co.

Rice'-paper, *n.* The produce of the *Aralia papyrifera*, a low shrub, with large leaves, from Formosa, where it is wild and abundant. The trunk and branches resemble those of the elder. The pith, dried and rolled, or hammered, and pared by sharp knives, forms the paper. It is dyed of different colors, and large sheets are obtained by pressing the smaller pieces together. It is usually sold in small squares of about four inches, made up into packets of 100 each.

Rice-milk, n. Boiled milk, thickened with rice.

Rice'ville, in *Pennsylvania*, a post-village of Crawford co., abt. 20 m. N.E. of Meadville.

Riceville, in *Virginia*, a post-village of Pittsylvania co., abt. 150 m. S.W. of Richmond.

Rice'-weevil, *n.* (*Zoöl.*) See Calandra.

Rich, *a.* [A. S. *ric, rice*; Sw. *rik*; Ger. *reich*; Fr. *riche.*] Abounding in money, cattle, goods, or land; wealthy; opulent. — Abundant in materials, or in valuable ingredients or qualities; precious; sumptuous; costly. — Yielding great quantities of anything valuable; fertile; fruitful. — Abounding with nutritious qualities; highly seasoned; abounding with a variety of delicious food. — Affording abundance; plentiful; as, a *rich* entertainment. — Vivid; strong; as, a *rich* color. — Full of beautiful scenery; abounding with elegant effects. — Full of sweet or harmonious sounds; as, *rich* music. — Affording entertainment; abounding in humor; as, a *rich* scene.

Richard I., King of England, surnamed the *Lion-hearted*, or *Cœur-de-Lion*, succeeded his father, Henry II., in 1189, at the age of thirty-two, his own disobedient conduct and rebellious practices having greatly hastened that event. He was born at Oxford, 1157. His reign commenced with a fearful riot and massacre of the Jews. In 1190, Richard joined the crusade with Philip Augustus of France, but, a division soon taking place between them, the two kings separated, Philip returning to France, and Richard remaining in the East, where he displayed the most impetuous valor against the celebrated Saladin, whom he defeated near Cæsarea, and, having made a truce, embarked in a small vessel, which was wrecked on the coast of Italy. He then travelled in disguise through part of Germany; but, being discovered by his enemy, Leopold, Duke of Austria, he was made prisoner, confined in a castle in the Tyrol, and bound with chains, but was at length ransomed by his subjects for 100,000 marks, and landed at Sandwich, in 1194, after which he was again crowned. Philip of France having, contrary to treaty, seized on part of Normandy, Richard invaded France with a large army, but peace was concluded in 1196; the truce was, however, a short one, for in 1199 war was again renewed, and Richard, in besieging the Castle of Chalus, in Aquitaine, received a wound from an arrow, of which he died in 1199. His character was strongly marked, presenting much to admire and much to condemn. He was of the bravest among the brave; frank, liberal, and often generous; at the same time, he was haughty, violent, unjust, and sanguinary; uniting, as Gibbon observes, "the ferocity of a gladiator to the cruelty of a tyrant." His talents were considerable, both in the cabinet and in the field; neither was he deficient in the art of poetry, as some of his compositions, preserved among those of the Troubadours, bear witness.

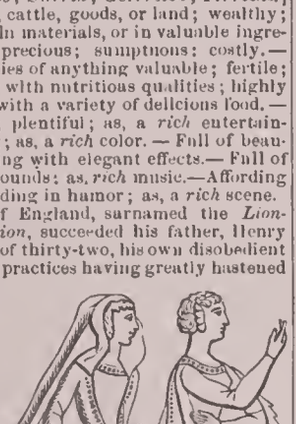

Fig. 2262. — FEMALE COSTUMES, (Reign of Richard I.)

Richard II., was the son of the renowned Edward, the Black Prince, and succeeded his grandfather, Edward III., at eleven years of age. This weak and unfortunate prince ascended the English throne in the year 1377. During his minority he evinced considerable ability, and displayed great promptitude in quelling the dangerous insurrection headed by Wat Tyler, in Smithfield, and, when that insurgent was slain by Walworth, Lord-Mayor of London, the young king, then about fifteen years of age, rode up to the irritated populace, and said, "Follow your king; I will be your leader and redress your grievances." The people, struck with astonishment, obeyed the call, and dispersed quietly to their own homes. When the government had thus quelled the revolt, no promises were kept, no grievances redressed, but, instead, more than 1,500 people were executed on the scaffold. The remainder of Richard's short reign was unfortunate. Discontents prevailed among the nobility, of which Henry, Duke of Lancaster, availed himself, and assumed the title of king. (See Henry IV.) Richard was betrayed into his hands by the Earl of Northumberland, and, in 1399, he was taken to London and confined in the Tower, where, before the assembled magnates of the kingdom, he abdicated the throne. He is supposed to have been poisoned at Pontefract Castle in 1400.

Richard III., b. at Fotheringay Castle, Northamptonshire, 1453, was the brother of Edward IV., and created Duke of Gloucester. He caused his nephews, Edward V. and Richard, Duke of York, to be secretly murdered in the Tower; after which he was himself proclaimed king in 1483. The Duke of Buckingham, who had assisted him in his usurpation, subsequently conspired against him, but was taken prisoner and beheaded. Henry, Earl of Richmond, afterwards Henry VII., of the house of Lancaster, was abroad, but returned privately and landed at Milford, in Wales, where he was joined by a few followers, who soon increased. He then marched against Richard III., whom he encountered at Bosworth Field, where, after performing prodigies of valor, the king was slain, and the crown being found, it was placed on the head of Henry. The character of Richard III. has been most variously represented by different historians; Walpole declares that all the crimes attributed to him were mere fabrications. It is, however, certain that he was a man as unscrupulous as he was energetic and determined. Killed, 1485.

Rich'ardson, Dr. Charles, a modern English philologist, b. 1775. In 1805 he produced his *Illustrations of English Philology*, and subsequently undertook the lexicographical portion of the *Encyclopædia Britannica*. His greatest work was completed in 1837, under the title of *Richardson's Dictionary of the English Language*, which is, in many respects, superior to that of Dr. Johnson. D. 1865.

Richardson, Samuel, an English novelist, was born in 1689, in Derbyshire, and received his education at a common day-school. At the usual age he was bound apprentice to a London printer, and after the expiration of his time he worked as a compositor and corrector of the press for some years. At length he took up his freedom, and set up business for himself, first in a court in Fleet Street, afterwards in Salisbury Square, and became eminent in his profession. In 1740 he published *Pamela*, the popularity of which was so great, that it ran through five editions in one year, being recommended even from the pulpit. Two years later appeared the *Joseph Andrews*, of Fielding, written as a burlesque of the prolix details and high-flown moral sentiment of *Pamela*. In 1748, *Clarissa Harlowe* fully established the literary reputation of *R.*, and its pathos, its variety of character and minute development of the human heart, will cause it ever to be regarded as a work of genius. The *History of Sir Charles Grandison* appeared in 1753, and was received with great applause. Besides these works, *R.* published *Familiar Letters for the Use of Young People*, and *Æsop's Fables, with Reflections.* His *Correspondence* was published in 1804, with his *Life* by Mrs. Barbauld. He was pious and benevolent, but immensely vain, and lived surrounded by a circle of affectionate friends, mostly ladies, who valued him for his moral worth and amiable disposition. D. 1761.

Richardsonia, (*ritsh'ard-so-ne-ă.*) *n.* (*Bot.*) A gen. of plants, ord. *Cinchonaceæ*. *R. scabra*, or *brazi liensis*, contains the active principle *emetina* in its root, which is used in some parts as a substitute for the true ipecacuanha, under the names of *undulated*, *white*, and *amylaceous ipecacuanha.*

Rich'ardson's Creek, in *N. Carolina*, enters Rocky River from Anson co.—A post-village of Union co., abt. 167 m. S.W. of Raleigh.

Rich'ardsonville, in *S. Carolina*, a post-village of Edgefield dist., abt. 55 m. W. of Columbia.

Richardsonville, in *Virginia*, a village of Culpepper co., abt. 95 m. N.N.W. of Richmond.

Rich'borough, in *Pennsylvania*, a post-village of Bucks co., abt. 114 m. E. of Harrisburg.

Rich'burg, in *New York*, a post-village of Allegheny co., abt. 300 m. W.S.W. of Albany.

Rich'elieu, Armand Jean du Plessis, Cardinal, and Duke de, first minister of France under Louis XIII., was b. at Paris in 1585. Destined at first for the army, he turned to the church on his brother's resignation of the See of Luçon, studied theology at the college of Navarre, and was consecrated bishop of that see in 1607. He occupied himself with his episcopal functions, especially aiming at the conversion of Calvinists, till 1614, when he was chosen deputy to the state-general; and having attracted attention by his eloquence, he was charged to harangue the young king and was named almoner to the queen-mother, Marie de Medicis. Two years later he became secretary of state for war and foreign affairs. He had at this time the protection of the queen's favorite, the Marshal d'Ancre; after whose assassination, and the exile of the queen to Blois, he was banished from the court, first to his diocese, and then to Avignon, where he employed himself in writing theological works. He afterwards managed a formal reconciliation between the king and the queen; was created cardinal in 1622; and in 1624 took his place in the council of state as first minister, a post which he held for 18 years. He made himself absolute master of France, owning neither colleagues nor equals. His history for the rest of his life is the history of France, the government of which he chiefly contributed to make an absolute monarchy. In working out his policy, whether domestic or foreign, he was unscrupulous as to means. He broke the power of the nobility, put many of them to death, and imprisoned many more; he suppressed the Calvinists as a party in the state by his severe measures, and besieged and took Rochelle in 1628; while at the same time, to humiliate the house of Hapsburg, he aided the Protestants of Germany, Switzerland, and the Netherlands. *R.* meanwhile, like some other despotic ministers, distinguished himself by a liberal patronage of letters and the arts. In 1635 he founded the French Academy; he greatly improved the royal printing-office; built the Palais Cardinal, since called Palais Royal, and rebuilt on a grander scale the Sorbonne. By the imposition of additional taxes he excited in his latter years general discontent, and conspiracies were formed to assassinate him; in one of them Cinq-Mars and De Thou were implicated, and both perished on the scaffold in 1642. The queen-mother died the same year in want and misery at Cologne. *R.* had lost by death four years before his friend and diplomatic agent, the Père Joseph; and the cardinal himself died at Paris, December 4th, 1642, having recommended Cardinal Mazarin as his successor.

Fig. 2263. — CARDINAL RICHELIEU.

Rich'elieu, Louis François Armand du Plessis, Duke de, a marshal of France, descended from the same family as the Cardinal, was b. in 1696. After the death of Louis XIV., he was admitted into the court of the Regent; the Duke d'Orleans and he largely participated in its profligacy. He was sent to the Bastille in 1716, for fighting a duel with the Count de Gacé, and again in 1719, as an accomplice with the Spanish ambassador in a conspiracy against the Regent. He distinguished himself under Villars, and afterward at Kehl, Philipsburg, Dettingen, and Fontenoy; conquered Minorca, forced the Duke of Cumberland to submit to the capitulation of Kloster-seven, and devastated the electorate of Hanover. In 1781, he obtained the rank of dean of the French marshals; and he concluded his long career, varied with acts of heroism and villany, in 1788.

Rich'elieu, a S.W. co. of prov. of Quebec; *area*, about 373 sq. m. *Rivers.* St. Lawrence and Richelieu rivers. *Surface*, diversified; *soil*, generally fertile. *Cap.* Sorel. *Pop.* (1897) 22,180.

Rich'elieu, Sorel, St. John, or Chambly, a river of prov. of Quebec, rises in Lake Champlain, on the United States boundary, and flowing almost due N., joins the St. Lawrence River between the cos. of Richelieu and Vercheres. *Length*, abt. 80 m.

Rich'elieu Islands, a small group of pr. of Quebec, in Lake St. Peter (or St. Pierre), an expansion of the St. Lawrence, at the mouth of the Richelieu River.

Rich'es, *n. pl.* [A. S. and Fr. *richesse*; It. *ricchezza.*] Extensive possessions of lands, goods, or money; wealth; opulence; affluence. — Splendor; sumptuous appearance.

Rich'field, in *Illinois*, a post-township of Adams co.

Richfield, in *Michigan*, a post-village and township of Genesee co., abt. 11 m. N.E. of Flint.

Richfield, in *New York*, a post-township of Otsego co., contains the post-village of Ritchfield Springs, abt. 75 m. W. of Albany. These springs are recommended for rheumatism, skin diseases, &c., and are much resorted to.

Richfield, in *Ohio*, a township of Henry co. — A township of Lucas county. — A post-village and township of Summit county, abt. 134 m. N.E. of Columbus.

Richfield, in *Wisconsin*, a post-village and township of Washington co., abt. 23 m. N.W. of Milwaukee.

Rich'ford, in *New York*, a post-village and township of Tioga co., abt. 140 m. W. by S. of Albany. — A township of Otsego co.

Richford, in *Vermont*, a post-township of Franklin co.

Rich Hill, in *Ohio*, a township of Muskingum county.

Rich Hill, in *Pennsylvania*, a township of Greene co.

Richibuc'to, a town and port of entry of Kent co., New Brunswick, on a river of the same name, which here forms an excellent harbor, abt. 120 m. N.E. of St. John. It has an active trade, chiefly in lumber.

Rich'land, in *Arkansas*, a township of Jefferson co.—A township of Madison co.—A township of Newton co.—A post-township of Desha co.—A township of Searcy co.—A township of Washington co.

Richland, in *California*, a village of Sacramento co.

Richland, in *South Dakota*, a post-village of Union co.

Richland, in *Georgia*, a post-village of Stewart co., about 150 m. S.W. of Milledgeville.

Richland, in *Illinois*, a S.E. co.; *area*, about 361 sq. m. *Rivers.* Little Wabash river, and Fox and Bonpas creeks. *Surface*, mostly level; *soil*, fertile. The county is intersected by the Ohio & Mississippi and Grayville & Mattoon railroads. *Products.* Corn, wheat, oats, hay, and pork. *Cap.* Olney. *Pop.* (1897) 16,640.—A township of La Salle co.—A township of Marshall co.—A post-village of Sangamon co.

Richland, in *Indiana*, a township of De Kalb co.—A township of Fountain county.—A township of Fulton county.—A township of Grant county.—A township of Greene county.—A township of Jay county.—A township of Madison county.—A township of Miami county.—A township of Monroe county.—A post-village and township of Rush county, about 10 m. S.S.E. of Rushville.—A township of Steuben county.—A township of Whitley county.

Richland, in *Iowa*, a township of Adair county.—A township of Chickasaw county.—A township of Decatur county.—A township of Delaware county.—A township of Franklin county.—A township of Guthrie county.—A township of Jackson county.—A township of Jasper county.—A township of Jones county.—A post-village and township of Keokuk county, about 15 m. N. of Fairfield.—A township of Mahaska county.—A township of Tama county.—A township of Wapello county.—A township of Warren co.

Richland, in *Kansas*, a post-village of Shawnee co.

Richland, in *Kentucky*, a post-office of Hopkins co.

Richland, in *Michigan*, a post-village of Kalamazoo co.

Richland, in *Minnesota*, a post-office of Rice co.

Richland, in *Missouri*, a township of Gasconade co.—A village of Greene co., about 10 m. N. by W. of Springfield.—A post-town of Pulaski co.

Richland, in *Nebraska*, a post-village of Colfax co.

Richland, in *New York*, a post-town of Oswego co., about 42 m. N.W. of Rome.

Richland, in *Ohio*, a N. central co.; *area*, about 487 sq. m. *Rivers.* Huron river, and Black and Clear Forks of Walhonding river. *Surface*, level or gently undulating; *soil*, very fertile. The county is traversed by several railroads. *Cap.* Mansfield. *Pop.* (1897) 40,050.—A township of Allen co.—A village and township of Belmont co., about 14 m. W. of Wheeling, W. Va.—A township of Clinton co.—A township of Darke co.—A township of Defiance co.—A township of Fairfield co.—A township of Guernsey co.—A township of Holmes co.—A village and township of Logan co., about 125 m. N. by E. of Cincinnati.—A township of Marion co.—A village of Richland co., about 16 m. N. by W. of Mansfield.—A township of Vinton co.—A township of Wyandot co.

Richland, in *Pennsylvania*, a township of Bucks co.—A township of Cambria co.—A township of Clarion co.—A township of Venango co.

Richland, in *South Carolina*, a central co.; *area*, about 620 sq. m. *Rivers.* Wateree, Broad, and Congaree rivers. *Surface*, somewhat hilly; *soil*, mostly fertile. *Cap.* Columbia, which is also the seat of the State government. *Pop.* (1897) 37,670.—A post-office of Oconee co.

Richland, in *Texas*, a post-village of Navarro co.

Richland, in *Virginia*, a village of Stafford co.

Richland, in *Wisconsin*, a S.W. co.; *area*, about 570 sq. m. *Rivers.* Wisconsin, Eagle, and Kickapoo rivers. *Surface*, diversified; *soil*, generally fertile. Cap. Richland Center, about 128 m. W.N.W. of Milwaukee. *Pop.* (1895) 19,619. A natural bridge is in the county, situated on Pine creek.

Richland City, in *Wisconsin*, a post-village of Richland co., about 50 m. W. of Madison.

Richland Creek, in *Tennessee*, enters Elk river from Giles co.

Richland Grove, in *Illinois*, a village of Rock Island co., about 13 m. S.S.E. of Rock Island.

Rich'landtown, in *Pennsylvania*, a post-village of Bucks co., abt. 105 m. E. of Harrisburg.

Rich'ly, *adv.* With riches; with opulence; with abundance of goods or estate; wealthily.—Plenteously; abundantly; amply.—Truly; really; abundantly; —used ironically; as, he *richly* deserved a beating.

Rich'man, in *Iowa*, a township of Wayne co.; *pop.* 301.

Rich'mond, a town of England, co. of Surrey, on the Thames, 10 m. W. of St. Paul's Cathedral, London, and celebrated for its picturesque beauty; *pop.* 10,921.

Richmond, a town of England, co. of York, on the Swale, 42 m. N.W. of York. *Manuf.* Paper, leather, and hardware. *Pop.* 5,000.

Richmond, an E. co. of Nova Scotia, comprising the S. portion of Cape Breton Island. *Cap.* Arichat.

Richmond, a S. central co. of Quebec.

Richmond, a village of Carleton co., prov. of Ontario, abt. 73 m. N.N.E. of Kingston; *pop.* 500.

Richmond, in *Georgia*, an E. co., adjoining S. Carolina; *area*, about 329 sq. m. *Rivers.* Savannah river, and Brier, Butler's, MacBean's, and Spirit creeks. *Surface*, uneven; *soil*, in the vicinity of the streams, fertile. *Min.* Granite and burrstone. The county is intersected by the Georgia Central and other railroads. *Cap.* Augusta. *Pop.* (1897) 60,000.

Richmond, in *Illinois*, a village of Brown co., about 70 m. W. by N. of Springfield.—A post-village and township of McHenry co., about 75 m. N. W. of Chicago.

Richmond, in *Indiana*, a village of Decatur co., about 55 m. S.E. of Indianapolis.—A city, cap. of Wayne co., about 68 m. E. of Indianapolis. It has numerous manufactories, chiefly of cotton and woollen goods, paper, flour, and iron. *Pop.* (1897) 19,750.

Rich'mond, in *Kentucky*, a post-village, cap. of Madison co., about 50 m. S.S.E. of Frankfort. It is a handsome and thriving place. *Pop.* (1897) 5,100. Here, on Aug. 30, 1862, Gen. E. Kirby Smith, at the head of about 18,000 Confederate troops, attacked, and, after a desperate encounter of three hours, totally defeated a greatly superior Union army under Gens. M. D. Manson and William Nelson. The National loss was over 5,000 men killed, wounded, and prisoners, among the last of whom was Gen. Manson.

Richmond, in *Louisiana*, a village, former cap. of Madison parish, about 300 m. N. of Baton Rouge.

Richmond, in *Maine*, a post-village and township of Sagadahoc co., abt. 17 m. S. of Augusta.

Richmond, in *Massachusetts*, a post-vill. and township of Berkshire co., abt. 150 m. W. of Boston.

Richmond, in *Michigan*, a village of Allegan co., abt. 17 m. N.W. of Allegan.—A post-township of Macomb co.

Richmond, in *Missouri*, a city, cap. of Ray co., 150 m. N. W. of Jefferson City. *Pop.* (1897) 3,050.

Richmond, in *North Carolina*, a S. co., adjoining S. Carolina. *Area*, about 789 sq. m. *Rivers.* Yadkin, Lumber, and Little Pedee rivers. *Surface*, level or undulating; *soil*, fertile. *Cap.* Rockingham. *Pop.* (1897) 25,250.

Richmond, in *New Hampshire*, a post-township of Cheshire co.

Richmond, in *New York*, an extreme S. co., comprising Staten Island, and bordering on New Jersey, Newark Bay, New York Bay, and Raritan Bay. *Area*, about 61 sq. m. *Surface*, uneven and hilly; *soil*, generally fertile. *Min.* Iron. Until 1898 the capital was Richmond. This co. is now a part of New York city, and is to be known hereafter as Richmond. *Pop.* (1897) about 60,000.

Richmond, in *Ohio*, a township of Ashtabula county.—A township of Huron county.—A post-village of Jefferson county, about 11 miles north-west of Steubenville.—A village of Lake county, on Grand River, about 1 mile above its mouth.—A village of Ross county, about 14 miles south-east of Chillicothe.

Richmond, in *Pennsylvania*, a township of Berks county.—A township of Crawford county.—A post-village of Northampton county, about 12 miles N. of Easton.—A former village of Philadelphia county, now included within the limits of the city of Philadelphia, on the Delaware river, about 4 m. N. E. of the City Hall. It is also called Port Richmond, and is one of the largest shipping ports for coal in the world.—In *Rhode Island*, a township of Washington co.—In *Texas*, a post-town, cap. of Fort Bend co.—In *Vermont*, a post-village and township of Chittenden co.

Richmond, in *Virginia*, an E. co.; *area*, about 210 sq. m. *Rivers.* Rappahannock river. *Surface*, mostly level; *soil*, fertile. *Cap.* Warsaw. *Pop.* (1897) 7,450.

—A city and port of entry, cap. of Henrico co. and of the State of Virginia, on James River, about 150 m. from its mouth in Chesapeake Bay, and 100 S. S. W. of Washington. The situation of *R.* is very striking. The town is built on rising grounds of various shapes, descending to the eastward. The chief street is handsome and spacious, and there is a fine square, covering about 10 acres, planted with trees, and laid out in gravel-walks. In this square is the capitol, an elegant building, on the model of the *Maison carrée* at Nimes, erected shortly after the War of Independence. It has a statue of Washington, by Houdon. A public library has been established in the Senate hall, which has also a portrait of Jefferson. The churches are numerous, and one occupies the site of the theatre destroyed by fire, with great loss of life, in 1811. The Virginian armory, the penitentiary, and a new theatre, include the other chief objects of notice. The city is abundantly supplied with water. *R.* is favorably situated for commerce. It stands at the head of the tide-water, in James River, and is connected by James River Canal with Buchanan, 195 m. distant, and by railways with Aquia Creek and Petersburg. It is, consequently, the natural depot for the wheat, hemp, and other produce of a large extent of country. Immediately above the city are some falls, beyond which the river is navigable by boats for upwards of 200 m. The falls supply valuable water power, which is used to work flour, cotton, paper, and rolling mills. *R.* has also large iron works and tobacco factories. The suburb of Manchester is connected with *R.* by two bridges; and with some coal mines, 13 m. distant, by a railway. *R.* became the capital of the so-called Confederate States in July, 1861, and the Congress assembled July 20. The Nationals, under General Kilpatrick and Col. Dahlgren, attempted to seize the city, March 1, 1864, but were repulsed with great loss. It was eventually taken April 3, 1865. It was set on fire by Confederate hands, and a considerable part of the city was burned in the conflagration that followed, but in the interval that has succeeded the former beauty of the city has been restored, and its prosperity and importance greatly enhanced. An "agricultural, mechanical, and tobacco exposition" was held in 1888. The city occupies an area of 5½ sq. m. Its net public debt in 1897 was $7,202,682, and the assessed value of taxable property, $64,155,383. *Pop.* 1890, 81,388; 1897, about 100,000.

Richmond, in *Wis.*, a twp. of St. Croix co.—A twp. of Shawano co.—A post-vil. and twp. of Walworth co.

Richmond Dale, in *Ohio*, a post-village of Ross co.

Richmond Factory, in *Ga.*, a vil. of Richmond co.

Richmond'ville, in *New York*, a post-village and township of Schoharie co., about 48 m. W. of Albany.

Rich'ness, *n.* State of being rich.—Opulence; wealth.—Fertility; fecundity; fruitfulness.—Quality of abounding with something valuable; abundance of any ingredient or quality.—Abundance of nutritious qualities; repletion of high seasoning.—Profuseness of beautiful scenery, vividness, or whatever constitutes perfection.—Copiousness of imagery or striking ideas.

Rich'ter, JEAN PAUL FRIEDRICH, commonly called JEAN PAUL, a celebrated German humorist, b. at Wunsiedel, near Bayreuth, 1763. His father, a Lutheran village pastor, was so poor that his son's education was carried on with much difficulty; and, dying before Jean Paul reached the university, he left his family in great distress. The youth, bent on attaining scholarship, and intending at first to be a clergyman, struggled on for a while at Leipzig, often wanting bread; and in 1783 he found his way to the press with a work, the *Grönandische Prozessen*, which showed him to have already opened his peculiar vein. Another of his strange sketches, *An Extract from the Devil's Papers*, lay unpublished for several years, during which *J. P.* remained in the depths of penury. In 1793 he opened a school in the little town of Schwarzenbach, in his native province; and then also he attracted public applause for the first time, by the publication of *The Invisible Lodge*. Thus encouraged, he devoted himself entirely to authorship, poured forth his works with rapidity, and became one of the most celebrated among the German writers of his time. He shifted his residence often till 1803, and then settled at Bayreuth for the remainder of his life, which closed in 1825. *J. P.* wrote philosophical treatises, such as his *Levana, or the Theory of Education*, and the *Introduction to Æsthetics* (*Vorschule der Æsthetik*). But his fame rests on a kind of compositions which are almost, yet not quite, novels or romances. They unite narrative, description, and reflection; they pass from the wildest flights of grotesque and original humor to the depths of pathetic tenderness; they contain as much of striking thought as ever was embodied in any work of fiction, and as much of poetic imagination as ever was expressed in prose. His thinking is unsystematic, but often wonderfully suggestive as well as acute; and his style is entirely his own, and so eccentric, that his books are not less difficult for Germans than for foreigners. Among the works which fill his sixty volumes a few may be named:—*Hesperus; Quintus Fixlein; Biographical Diversions under the Skull of a Giantess; Flower, Fruit, and Thorn-Pieces; The Journey of the Regimental Chaplain Schmelzle; Titan; The Life of Fibel; The Comet, or Nicolaus Markgraf.*

Rich View, in *Illinois*, a post-village of Washington co., abt. 8 m. N.E. of Nashville.

Rich'ville, in *New York*, a post-village of St. Lawrence co., abt. 18 m. S.W. of Canton.

Rich'wood, in *Ohio*, a post-village of Union co., abt. 44 m. N.W. of Columbus.

Richwood, in *Wisconsin*, a post-village of Dodge co., abt. 6 m. N.W. of Watertown.—A township of Richland co.

Ricin'ic, *a.* [From Lat. *ricinus.*] Relating to, or procured from, castor-oil.

Ric'inus, *n.* [Lat., a tick, which its seed resembles.] (*Bot.*) A gen. of plants, ord. *Euphorbiaceæ*. *R. communis* is the Palma Christi, or Castor-oil plant (Fig. 1056), a native of the E. and W. Indies and Florida. Castor-oil is obtained from the seeds, either by expression with or without the aid of heat, or by decoction, or sometimes by the aid of alcohol. Castor seeds, when taken whole, are extremely acrid, and have produced death; but the expressed oil is a mild and most efficient non-irritating laxative. Its valuable properties are principally owing to the presence of an acrid resin. The so-called *concentrated castor-oil*, which is sold in gelatine capsules, is adulterated with croton-oil, and hence may produce serious effects when administered in certain cases. The Palma Christi has been recently cultivated in Algeria for the purpose of feeding silk-worms on the leaves.

Rick, *n.* [A. S. *hreac*, from *racian*.] A heap or pile of grain or hay in the field or open air, but commonly sheltered with a covering of some kind.—A small heap of corn or hay piled by the gatherer.

—*v. a.* To pile up, as hay or corn.

Rick'ets, Rack'itis, *n.* [Gr. *rachites.*] (*Med.*) A disease of the bones, in which they are of unnatural softness, and become bent under the weight of the superincumbent parts of the body. It is confined to the young, and commonly makes its appearance between the first and third year. As soon as the weight of the body is thrown on the limbs, they become bent and twisted in the most extraordinary manner; the joints become enlarged, the chest and pelvis deformed, and the head large and swollen. The bones in this disease are found to be soft and cellular, and deficient in earthy matter. In addition to this, the muscles are always pale and weak, with other signs of general debility; besides which the brain and organs contained in the chest and abdomen are liable to suffer. The nature of this disease requires that its treatment be directed chiefly to strengthening the general constitution by a good and well-regulated diet, pure air, warm clothing, bathing, and such active exercise as may be borne without fatigue.

Rick'ety, *a.* Affected with rickets.—Weak; feeble in the joints; imperfect.

Rick'mansworth, a town of England, on the Chess, 10 m. from St Albans. *Manuf.* Straw plait, paper, and flour. *Pop.* 5,000.

Rickreal, (*rik-re-awl.*) In *Oregon*, a small river, flowing from the Coast Range E. into the Willamette River, abt. 3 m. S. of Salem.

Ricochet, (*rik-o-shā'.*) *n.* [Fr., ducks and drakes.] (*Gun.*) A term applied to the repeated rebounding of a

shot or shell. *R. firing* is a method of firing with small charges from pieces of ordnance elevated at small angles. It is very destructive in its nature, as the rebound causes the shot or shell to pass along a considerable space, almost on a level with the ground, destroying all that it meets with in its path. The practice of ricochet firing was first tried by Vauban at the sieges of Philipsburg and Maunheim, in 1683. According to his own letters, its success was very great on the first trial; but it was much greater at the siege of Ath, which was conducted by Vauban during the same war. From experiments made at Woolwich in 1821, it would appear that the best elevation of ordnance for ricochet firing is that in which the axis of the piece is directed at an angle varying from 6° to 9° above a line drawn from the chamber of the gun to the crest of the parapet over which the projectile is to pass. In the rifled ordnance now so much employed, the rotation of the shot causes it to be deflected immensely when it touches the ground, so that hitherto very little good *R.* practice has been made with them. However, the service of artillery is now so precise, that when guns in an enemy's work can be seen, they can be as readily dismantled by direct firing as by the ricochet.

—*v. a.* To operate on by ricochet firing.

Ri'cord, Philippe, a French physician, b. at Baltimore, Md., in 1800, went to Paris in 1820. He was almost immediately admitted as an *interne;* was attached successively to the *Hôtel Dieu*, under Dupuytren, and to *La Pitié*, under Lefranc, and was appointed, in 1831, Surgeon-in-chief to the *Hôpital des Vénériens of the South*, which position he held till Oct., 1860, when he retired. This appointment secured *R.* the special reputation which he enjoys for his knowledge and treatment of that class of diseases to which it relates. *R.* discovered a cure for varicocele, &c., for which he received, in 1842, the Monthyon prize. He has been a member of the Imperial Academy (section of Snrgical Pathology) since 1850, and is attached, as consulting-surgeon, to the Dispensary of Public Health. By decree, July 28, 1862, he was appointed Physician-in-Ordinary to Prince Napoleon. He was promoted to the rank of Commander of the Legion of Honor Aug. 12, 1860, and has been decorated with numerous foreign orders. Among his various works may be named, *De l'Emploi du Spéculum* (1833); *De la Blennorrhagie de la Femme* (1834); *Emploi de l'Onguent Mercuriel dans le Traitement de l'Erésipèle* (1856); *Monographie du Cancre* (1837); *Traité des Maladies Vénériennes* (1838); *De l'Ophthalmie Blennorrhagique* (1842); *Clinique Iconographique de l'Hôpital des Vénériens* (1842–1851); and *De la Syphilisation et de la Contagion des Accidents Secondaires* (1853). Died Oct. 22, 1889.

Rid, *v. a.* [A. S. *ahreddan*, or *hreddan;* Dn. *redden;* Ger. *retten*, or *erretten.*] To liberate; to free; to deliver; to disencumber. — To make away; to remove by violence. (R.) — To dispatch; to get rid of. (R.)

To get rid of, to be freed from.

Rid'dance, *n.* A setting free; act of clearing away. —State of being free; disencumbrance.

Rid'der, *n.* The person who, or that which, rids.

Rid'dle, *n.* [A. S. *hriddel*, from *hriddan*, to free.] An instrument for separating grain from chaff.

—*v. a.* To separate, as grain from chaff, with a *riddle.* — To perforate with balls or shot; to make little holes in.

—*n.* [A. S. *rædelse*, from *ræda*, to read, conjecture, guess.] Something proposed for conjecture, or that is to be solved by guesswork; a puzzling question; an ambiguous proposition; an enigma. — Anything ambiguous or puzzling.

—*v. a.* To solve; to explain; to unriddle.

—*v. n.* To speak ambiguously or obscurely.

Rid'dler, *n.* One who speaks ambiguously, or in riddles.

Rid'dlingly, *adv.* In the manner of a riddle; secretly.

Ride, *v. n.* (*imp.* Rode; *pp.* Ridden.) [A. S. *ridan;* Ger. *reiten;* Sw. *rida.*] To be borne along in a chariot or other vehicle. — To be carried on horseback, or on any beast. — To be borne on or in a fluid. — To be supported in motion; to be upheld by something subservient; to sit. — To practise riding; to manage a horse well.

—*v. a.* To sit or to place one's self on, so as to be carried. —To control insolently at will.

—*n.* An excursion on horseback, or in a vehicle. — A road cut in a woods, or through a ground, for the amusement of riding; a drive: a riding.

Rideau, (*re-dō'*,) *n.* [Fr., a curtain.] (*Fort.*) A rising ground or elevation of earth, extending itself lengthwise on a plain, serving to shelter a camp from the approach of the enemy, or to give some other advantage to the position.

Rid'er, *n.* One who rides, or is borne on a horse or other beast, or in a vehicle. — One who breaks or manages a horse. — An addition to a manuscript, or other document, inserted, after its completion, on a separate piece of paper; an additional clause, as to a bill in Parliament.

(*Mining.*) A deposit of ore overlying the principal mineral.

(*Com.*) A traveller who carries patterns and samples; a commercial traveller; a riding-clerk.

Rid'erless, *a.* Without a rider.

Ridge, (*rij,*) *n.* [A. S. *hric, hricg, hrycce;* Du. *rug;* Ger. *rücken.*] The back, or top of the back.

—A long, or continued, range of hills or mountains; the upper part of such a range; a steep elevation, eminence, or protuberance.

—A strip of ground thrown up by a plough, or left between furrows.

(*Arch.*) The upper angle of a roof; the intersection of two surfaces forming a salient angle.

(*Fort.*) The uppermost part of the glacis proceeding from the salient angle of the covered way.

—*v. a.* (*imp.* and *pp.* Ridged,) (*rijd.*) To form into a ridge.

"Bristles that *ridge* the back of chafed wild boars." — *Milton.*

—To wrinkle; to crease.

(*Agric.*) To form into ridges with the plough, as soil.

Ridge, in *Ohio*, a township of Van Wert co.—A township of Wyandot co.

Ridge'-band, *n.* (Known also as Ridge-rope, Ridge-stay, and Ridger.) That part of a horse's harness which passes over the saddle, and serves to support the shafts of a cart, &c.

Ridge'bury, in *Connecticut*, a post-village of Fairfield co., abt. 35 m. W. by N. of New Haven.

Ridgebury, in *New York*, a post-village of Orange co., abt. 110 m. S.S.W. of Albany.

Ridgebury, in *Pennsylvania*, a post-township of Bradford co.

Ridge Farm, in *Illinois*, a post-village of Vermilion co., abt. 16 m. S. of Danville.

Ridge'field, in *Connecticut*, a post-village and township of Fairfield co., abt. 35 m. N. of New Haven. — Samuel P. Goodrich, the celebrated "Peter Parley," was b. in this village, in 1793.

Ridgefield, in *Ohio*, a township of Huron county.

Ridgel, (*rij'l,*) *n.* See Ridgil.

Ridgelet, (*rij'let,*) *n.* A small ridge.

Ridgely, (*rij'lee,*) in *Illinois*, a village of Madison co., abt. 64 m. S. by W. of Springfield.

Ridge'-pole, *n.* (Also called Ridge-plate or Ridge-piece.) (*Arch.*) The timber or beam forming the ridge of a roof, and into which the rafters are secured.

Ridge-rope, *n.* (*Naut.*) A rope on shipboard, serving to keep persons from falling overboard, or to secure an awning.

Ridge'ville, in *Alabama*, a village of Butler co., about 50 m. S. W. of Montgomery.

Ridgeville, in *Indiana*, a post-town of Randolph co., about 14 m. N. W. of Union City.

Ridgeville, in *Ohio*, a township of Henry county.—A township of Lorain county.—A village of Monroe county, about 33 miles N.E. of Marietta.—A post-town of Warren county, about 38 miles N. N. E. of Cincinnati.

Ridgeville, in *South Carolina*, a post-town of Colleton co., about 31 m. N. W. of Charleston.

Ridgeville, in *Wisconsin*, a post-township of Monroe county.

Ridge'way, in *Iowa*, a post-village of Winneshiek county.

Ridgeway, in *Kansas*, a post-village and township of Osage co., about 17 m. S. E. of Topeka.

Ridgeway, in *Michigan*, a post-village and township of Lenawee co., about 12 m. N. E. of Adrian.

Ridgeway, in *New York*, a post-township of Orleans county.

Ridgeway, in *North Carolina*, a post-village of Warren co., about 58 m. N. N. E. of Raleigh.

Ridgeway, in *Ohio*, a post-village of Hardin co., about 15 m. N. E. of Bellefontaine.

Ridgeway, or Ringway, in *Pennsylvania*, a post-borough, cap. of Elk co., about 160 m. N. W. of Harrisburg. It was laid out in 1843, and is a place of much business activity. *Pop.* (1897) 2,250.

Ridgeway, in *South Carolina*, a post-town of Fairfield co., about 24 m. N. of Columbia.

Ridgeway, in *Wisconsin*, a post-village and township of Iowa county, about 32 miles west by south of Madison.

Ridgil, Ridgling, (*rij'il,*) also Rengil, *n.* [Prov. Ger. *rigler*, a half-castrated cock.] The male of any aulmal half gelt.

Ridg'ingly, *adv.* So as to form ridges.

Ridgy, (*rij'y,*) *a.* Having a ridge, or ridges; rising in a ridge; as, *ridgy* waves.

Rid'icule, *n.* [Fr., from Lat. *ridiculus*, laughable — *rideo, resium*, to laugh at.] The expression of laughter, generally accompanied with some degree of contempt; wit of that species that excites laughter; remarks designed to excite derisive mirth; derision; banter; raillery; badinage; mockery; satire; persiflage; satirical merriment; as, to hold a person up to *ridicule.* — That kind of writing which excites derisive or contemptuous laughter, and which is not strictly *burlesque.*

—*v. a.* To expose to ridicule or derision; to laugh with expression of contempt; to treat with sarcastic or satirical merriment; to deride; to banter; to rally; to mock; to cover with badinage; as, to *ridicule* a shallow-brained Quaker.

Ridicul'er, *n.* One who ridicules or banters.

"The *ridiculer* shall only make himself ridiculous." *Lord Chesterfield.*

Ridic'ulous, *a.* [Lat. *ridiculus;* It. *ridicoloso.*] That may justly excite laughter with contempt or derision; ludicrous; laughable; droll; absurd; preposterous; odd; as, a *ridiculous* remark, *ridiculous* manners, notions, or dress — Involving ridicule. (R.)

Ridic'ulously, *adv.* In a manner provoking or exciting derisive laughter; oddly; absurdly; preposterously; as, a woman *ridiculously* conceited.

Ridic'ulousness, *n.* Quality of being ridiculous; absurdness.

Rid'ing, *a.* Used in, or pertaining to, riding; employed to travel on any occasion; as, a *riding* apparitor. — Adapted for equestrian exercise; as, a *riding* horse.

(Note. *Riding* forms sundry self-explaining compounds; as, *riding*-cape, *riding*-habit, *riding*-whip, &c.)

—*n.* Act of one who rides; as, to take a *riding.* — In England, a district visited by an officer; as, an excise-man's *riding;* — more frequently abbreviated *ride.* — A road cut in a wood, or through a park or pleasure-ground, for the diversion of riding therein; — more frequently called *ride.*

—[From A. S. *trithing*, or *triding*, third part.] In England, the term given to the three divisions of the county of York, viz., the North *Riding*, East *Riding*, West *Riding.*

Rid'ing-bitts, *n. pl.* (*Ship-building.*) Massive frames of wood or iron, round which the cable is coiled on shipboard when a ship rides at anchor. The bitts are bolted through two decks. Large vessels have two pairs, smaller craft one pair. In merchant-ships of inconsiderable tonnage, the windlass is made to do duty for riding-bitts.

Rid'ing-clerk, *n.* In England, one of the six clerks in Chancery.

Rid'ing-days, *n. pl.* Days of predatory excursion by moss-troopers or mounted horsemen; days of raid or foray.

Rid'ing-hood, *n.* A hood worn by female equestrians.

Rid'ing-house, Rid'ing-school, *n.* A place where the art of riding is taught or practised.

Rid'ing-mas'ter, *n.* A male instructor in the art of riding.

(*Mil.*) In the British army, a commissioned officer in regiments of cavalry and brigades of artillery. He holds the relative rank of *lieutenant.*

Rid'ing-mis'tress, *n.* An instructress in equestrianism.

Rid'ing-school, *n.* See Riming-house.

Ridley, in *Pennsylvania*, a township of Delaware county.

Ri'dott, or Ridotts, in *Illinois*, a post-village of Stephenson co., abt. 110 m. N.W. by W. of Chicago.

Ridot'to, *n.* [It., from L. Lat. *reductus*, a retreat.] A favorite public Italian entertainment, consisting of music and dancing; — held generally on fast eves.

—*v. n.* To attend ridottos. (R.)

Rie'glesville, or Rieole's Mills, in *New Jersey*, a village of Warren co., abt. 40 m. N.N W. of Trenton.

Rienzi, (*re-ain'dza,*) Nicola Gabrini, the Roman liberator, b. about 1310. He was of obscure birth; but having received an excellent education, which he improved by a strong will and vigorous understanding, he was sent by his fellow-citizens to Clement VI., at Avignon, in order to prevail upon that pontiff to return to Rome. His eloquence pleased the Pope, though it did not persuade him; and Rienzi on his return formed the design of making himself master of Rome, with the title of *tribune.* Having gained a considerable number of partisans, he entered the Capitol, harangued the people, and elevated the standard of liberty. He designed to unite the whole of Italy into one great republic, with Rome for its capital. For some time he was successful, his government was popular, and even Plutarch wrote in his favor, comparing him to Brutus. But at length a conspiracy was formed against him; and having lost the popular favor by his arrogance and tyranny, he was compelled to seek safety in flight, but was taken and cruelly put to death, 1352.

Riet'bok, *n.* [Ger. *ried*, reed, and *book*, buck.] (*Zoöl.*) An African species of antelope, *Elcotagus arundinaceus.*

Rieti, (*re-ai'te,*) a town of central Italy, prov. of Perugia, on the Velino, 42 m. N.E. of Rome. *Manuf.* Woollens. *Pop.* 12,000.

Riev'er, *n.* A raider; a marauder; a forayer.

Rifacimento, (*re-fas'e-ment-o.*) *n.* [It., reëstablishment.] (*Lit.*) A work or treatise, the materials of which have not been derived from original sources, or are collected for the first time.

Rife, *a.* [S. *ryf;* Ger. *rief*, ripe, mature; W. *rhwy*, superfinity.] Prevalent; common; prevailing; abounding; as, the plague was then *rife* in Hungary, discontent is *rife* among the people, &c.

Rife'ly, *adv.* Prevalently; frequently; abundantly.

Rife'ness, *n.* State of being rife; prevalence; frequency.

Riff'-raff, *n.* [It. *ruffa-raffa.*] The rabble; the mob; the dregs or scum of society; the canaille.

Rifle, (*ri'fl,*) *v. a.* [O. Fr. *rifler*, to spoil, to ransack, from L. Lat. *rieflare*, to ravage, from A. S. *reafian*, to spoil, to plunder.] To seize and bear away by force; to snatch away and carry off.

"Till time shall *rifle* every youthful grace."—*Pope.*

—To rob; to pillage; to plunder; to ransack; as, a footpad waylaid him and *rifled* his pockets.

Ri'fle, *n.* [Ger. *reifeln*, to channel, to flute, dimin. of *reifen*, to groove.] A gun, or small-arm, about the usual size of a musket, the inside of whose barrel is *rifled*, that is grooved, or formed with spiral chambers. — A sharpening instrument, or whetstone, for a scythe.

—*pl.* (*Mil.*) A regiment of soldiers armed with rifles; as, the Queen's Own *Rifles.*

—*v. a.* To groove; to channel; to flute: — particularly, to groove internally with spiral channels; as, to *rifle* the bore of a gun, or the tube of a musket.

Rifled ordnance, Rifled fire-arms. During the 17th century rifled arms came into use in several countries on the continent of Europe, and were, in particular, employed by the French carabineers in 1692. Of the ancient pieces still in existence, a rifled cannon of 13 grooves, bearing date 1664, and with the breech secured by means of a screw, is preserved at Berlin, while another at Munich possesses 8 grooves, with a bore of about 2 inches, and both are of such a size as to lead to the conclusion that the projectiles employed must have been leaden balls; but the principle would appear never to have been extended to guns of large calibre, whose chief service was for bombarding, for which balls of soft metal are without doubt unsuitable. Probably on this account it was that the English so sparingly used rifled ordnance during the American Revolutionary war. It is known, however, that they had 2-pounder pieces, which, with a range of 1,300 yards, gave a lateral deflection of only 2 feet, far surpassing in range and accuracy any other pieces of that period. It is also stated that they even used elongated bullets, and had employed conical

bullets as far back as the siege of La Rochelle, in 1627. Still the smooth-bore continued almost exclusively in use in Europe for small-arms as well as heavy guns. Arms of this character were more readily loaded, and consequently more rapid discharges were kept up with them, which seems to have been considered peculiarly important at that time, when it was not the general custom in warfare to take exact aim in firing. During the war of the Revolution, rifle corps were organized in the American army, and their effective use of the rifle, then for the first time practically adopted in military operations, gave to the foreign troops who encountered them ample evidence of its efficiency. From that time the *R.* began to be introduced into European armies, and, toward the close of the last century, a few German and English battalions were equipped with this class of weapon. Napoleon I., however, discouraged their use among his troops, and hence they were not considered of much value by other European powers. The Swiss alone in Europe fully appreciated their good qualities, and the backwoodsmen of America clung to the rifle as their most cherished arm. Rifled fire-arms may be said to date from about the commencement of the 17th cent., when an ingenious guasmith of Nüremburg, called Koster, first proposed grooving the bore of a musket, and making these grooves describe a circle, or indeed more than a circle, between the breech and the muzzle. The ball was also cast larger than the bore, so that it might forcibly receive indentations caused by the grooves in the act of loading. It was not long before those who used weapons of this description found that their bullets attained far greater accuracy than when fired from a smooth-bore. Nearly a century, however, elapsed before the true reason of this was discovered by Benjamin Robins, an Englishman, who, in 1742, showed that the spinning of a rifle-ball, like the rotary motion of an arrow, kept the axis of either in the same direction throughout their flight. After the system of rifle grooving had been adopted, nearly 200 years elapsed before any important change was made in the construction of the rifle. In 1826, however, a Frenchman, M. Delvigne, invented a chamber for the powder of smaller diameter than the rest of the barrel, and opening into this by a square shoulder all round the bore. The ball, of such size as would drop freely down, being introduced into the muzzle and resting on the shoulder, was then rammed by a heavy ramrod till the lead was forced into the grooves. This form was tried for some years by the French army in Algeria, but was eventually abandoned in consequence of the liability of the piece to become foul by the powder lodging upon the shoulders In 1842 Col. Thouvenin substituted for the depressed chamber a steel stem, which projected into the barrel far enough to contain the charge of powder around it, and it was solid enough to afford a firm support to the ball, which, being dropped down upon it, was hammered by the ramrod as in the other case. Delvigne then invented a conical bullet, with a cylindrical extension for its base, and also a ramrod hollowed at the end to fit the point of the bullet. This piece is the *carabine-à-tige* of the French, and is still employed by their infantry, though partially subject to the same objections as Delvigne's chambered rifle. (See CARABINE-À-TIGE.) The next improvement in the rifle was that effected by Capt. Minié, in 1847 (see MINIÉ). Next came the *Zündnadelgewehr* of the Germans (see NEEDLE-GUN), the English Enfield, Whitworth, and Jacob rifles, and the American Snider. (*q.v.*) (See JACOB RIFLE, WHITWORTH RIFLE.) *The Snider-converted Enfield rifle*, which has now supplanted the former kinds of arm in the English infantry service, is a simple, safe, and comparatively cheap weapon. In this country, the breech-loading pieces may be included in three varieties. The first is the *revolver*, of which Colt's is the best known (see REVOLVER). The next is the *hinge* variety, which includes the rifle invented by Gen. Burnside of the U. S. army, and many others which differ only in the manner in which a portion of the breech or the barrel is made to turn upon a hinge or pivot, so as to present the chamber for receiving the cartridge. A third variety, including several important rifles, are constructed on the *slide* system. The Prussian needle-gun is made on this plan. So, also, is the American carbine known as *Sharps' rifle*, a very effective piece invented by Mr. Sharps of Philadelphia. The breech of this is secured by a sliding block of metal, or *cut-off*, which being drawn down near the yard, exposes a cavity on the upper side leading into the bore. The cartridge is introduced, and the block is pushed up, cutting off the rear end of the cartridge. The *Greene carbine* also belongs to the slide system It is provided with 2 triggers. By pulling the forward one the barrel is unlocked from the breeching, when a twist to the left and a forward pull cause it to slide on a pivot, so that the cartridge may be introduced; the barrel is then immediately returned and locked by a reverse motion. The chamber for the charge contains a sliding-tube, with its bore in the breech-end contracted, so as to present a levelled or conical surface or shoulder. The force of the explosion acting against this, throws the tube back, greatly adding to the tightness of the joint. This, like other rifles employed in the U. S. service, is provided with the *Maynard primer*, which is a detonating pill, or small dot, numbers of which are attached in succession upon a flexible tape-like holder, which is coiled up in the breech of the piece, and brought forward with each cocking of the lock, presenting a pill upon the end of the nipple. In the Greene carbine, the lower end of the nipple tube is extended a little way forward of the breech, so that when the barrel is returned to its place the cartridge is punctured by this tube, which then terminates in the midst of the powder. Other improved American arms are the *Remington rifle*, and the *Ward-Burton breech-loading rifle*, originally the invention of Mr. Bethel Burton, of Brooklyn, N. Y., and since greatly developed and improved by Brig.-Gen. W. G. Ward. It is constructed on the bolt, or needle-gun, system, and is operated by holding the piece in the left hand below the lower band, in the position known in the manual for muzzle-loading arms as *prime*, and seizing the handle of the breech with the right hand, nails uppermost. The breech is then opened by turning the handle up and withdrawing it to its full extent of motion, a cartridge taken from the pouch with the right hand and dropped bullet-end to the front in the now open receiver, and the breech closed by reversing the motions required to open it. By the motion of opening the breech to reload, the empty cartridge-shell will be ejected. The breech, however, may be closed during the act of raising the gun to the position of aim. A manual to load and fire by command in six motions may thus be readily devised. Practically, to load and fire requires but four motions. In Fig. 2264, representing this gun, *b* shows the enlargement of the cover-slide; *C*, the cover-slide; D, recoil-block, in one piece; *d*, ejector; d^2, projection for receiving the shock of the

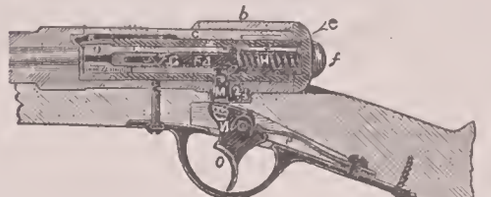

Fig. 2264. — WARD-BURTON BREECH-LOADING RIFLE.

recoil and steadying the finger; E, steady pin, forming a portion of D, the recoil-block; *e*, turning stud; F, breech-pin sleeve; *f*, handle of the same in one piece; f^2, stud withdrawing firing-pin; G, hammer and firing-pin in one piece; *g*, inclined shoulder on the same; g^1, cocking shoulder; g^2, cam groove in connection with f^2, *e*, and g^2, withdrawing firing-pin from contact with cartridge; g^4, rotating stud; H, main-spring; K, extractor; L, slot in breech-pin sleeve; *m*, safety notch in the same; N, slot in trigger; O, trigger; P, trigger spring. The piece, altogether, consists of 15 pieces, which, with some addition to its cost, might be reduced to 11 pieces. This rifle has been fired 25 times per minute, and 17 shots have been placed in the same time in a target 12 × 12 inches in size, at a distance of 50 yards. It has been submitted to the severest tests of rusting, has been filled with sand and dirt, and thoroughly tried with defective cartridges, without in the least affecting its perfect working. The machinery required for the manufacturing of the breech mechanism of these rifles is simple, and cheaper, it is claimed, than any other known; in fact, the parts can be made with ease in any shop having a lathe and scraper. This rifle was satisfactorily tested before the New York State Board in 1867; Massachusetts State Board in 1868; the Naval Board in 1869: and in April, 1870, before the Army Board in session at St. Louis, Mo. — *Rifled ordnance.* The object of rifling a gun of heavy calibre is to give the projectile a rotation round an axis coincident with that of the bore. This insures greater accuracy of fire. If a *spherical* projectile be employed, no other advantages follow; but if an *elongated* projectile be used, as it can be when thus given, a rotation round its longer axis, not only is accuracy increased, but we gain all the other advantages due to this form. Elongated projectiles have, therefore, entirely superseded spherical projectiles for rifled guns. The groove of a rifled gun is simply a portion of the thread of a female screw with a long pitch. If A B C be a right-angled triangle (1, Fig. 2265), in which B C equals the circumference of the bore of the gun, and A B the length of the bore — suppose the triangle A B C wrapped round the surface of the bore (2, Fig. 2265), then A C is the *helix* of curve of the groove. But in most rifled guns the *twist*, or inclination of the grooves, is much less than one turn in the length of the bore, and is measured in terms of the length in which one turn is completed. When A C in a straight line, as (1, Fig. 2265), the twist is *uniform*; but if A C be curved, as in 3, Fig. 2265, the groove will have an *increasing* or *gaining* twist, the *angle of twist*, C A B, becoming greater towards the muzzle. In this case the projectile is easily started, gaining a greater velocity of rotation as it proceeds towards the muzzle of the gun. The conditions which a rifled cannon should fulfil are: (1) to insure accuracy of fire; (2) to give as high velocity as possible; (3) to remain uninjured by much work; (4) to be simple in construction. To insure accuracy of fire, a rotatory motion must be given to the projectile round an axis coincident with that of the bore; the axis of the shot must be stable on leaving the piece; and the shot must have sufficient velocity of rotation (depending on its form, length, and weight,) to counteract the tendency which it has to turn over. To give the projectile a high velocity, the gun must be able to stand a large charge of powder; and in order to do this, remaining uninjured, a very strong construction is required. This strength will depend on the quality of the metal used, on its being distributed so as best to resist the strains to which the different parts are subjected, and on the method of rifling, not exerting undue strain on the gun. The construction should be so simple that the gun may be easily and rapidly worked, and not liable to derangement. *Breech-loading* and *muzzle-loading* ordnance have each their advocates. The advantages of the former are that a projectile of larger diameter than the bore can be used, and so its axis will be perfectly stable; that the gun can be loaded when run up (the gunners being thus less exposed), and can be easily examined and cleaned; and that a shot is sure to be *home*. Their disadvantages, as compared with muzzle-loading guns, are that the construction is necessarily more complicated; with large guns the breech-loading apparatus is heavy; and they are weaker, weight for weight. Wrought-iron and steel are the metals now almost universally employed for rifled guns. Wrought-iron is exceedingly tough, and not liable to snap or to fly into destructive pieces, but it is rather too soft for the bore of a gun, and it is very difficult to obtain thoroughly sound forgings of great size. Cast-steel, well hammered, is hard and elastic, but is liable to snap without warning, and fly into pieces; it is rendered harder and tougher by being tempered in oil, but there is great difficulty in obtaining large castings of thoroughly uniform quality. Steel is also very expensive. In the U. States, we have a great variety of rifled ordnance, although the naval authorities still favor cast-iron smooth-bored guns of large calibre Some 20-inch guns have been made in this country, a pair of which are fitted to the "Puritan" iron-clad, a park of them being also in readiness for land-service; but these will only stand comparatively small charges, although by a method of cooling from the interior, invented by Rodman, greater strength is obtained in the cast-iron of which they are made. The rifled Parrott guns, which are made of cast-iron strengthened with wrought-iron hoops, were of much service during the late war, though several cases of bursting occurred. (See PARROTT GUN.) A committee on ordnance some time ago recommended the *Ames gun*, which is built up of wrought-iron. No breech-loading system is, however, in favor in the U. States, the plan generally adopted being, as in the Parrott gun, a ring of brass at the base of the projectile, which is expanded by the gas into the grooves, or, as in the Schenkel system, a papier-mâché detached wad, which takes the rotation, and transfers it to the projectile. The various descriptions of rifled guns belonging to this country will be found elsewhere noted under their respective heads. In England, the Whitworth, Armstrong, Blakely, and Lancaster guns (all of which see), are held in high estimation, as, also, improved kinds, such as the Palliser, Mackay, and Fraser guns. The French field-guns are of bronze; the *canon de 4-rayé*, which is their general service field-gun, has the same calibre as the old brass 4-pounder; it has 6 deep grooves, and the projectile has 2 rows of studs. Their heavy guns are principally cast-iron hooped with steel, and muzzle-loaders, with a gaining twist applied to the system above-described. The Austrian field-guns are bronze muzzle-loaders, and the projectiles are covered with tin and zinc of the same shape as the bore, but 1-12 of an inch less in diameter. They have lately made a number of breech-loading cast-iron field-guns for siege and garrison purposes, on the old Prussian system, the *Kolben verschluss* of Wahrendorff. The Prussians have a few 24-pounder breech-loaders on their new system (Krainer's), throwing shell weighing about 60 lbs.; for field-guns, they have entirely adopted the breech-loading system and steel gune. The latter are cast and hammered by Krapp, of Essen, and afterwards bored and rifled at Spandau, near Berlin. The International Rifle Contest of Sept., 1877, between the English and American teams, exhibited the superiority of the breech-loading rifle over the muzzle-loader of the English, and the shooting was the best ever done. Out of a possible 3,600 points, the English scored 3,242, and the Americans 3,334, the latter leading 92 points. For description of later models, see MAGAZINE GUNS.

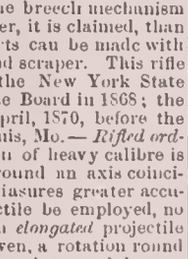

Fig. 2265.

Ri'fleman, *n.*; *pl.* RIFLEMEN. A civilian or soldier armed with a rifle; a sharpshooter; as, to send out *riflemen* as skirmishers.

Ri'fle-pit, *n* (*Mil.*) A pit or trench dug for the shelter of sharpshooters. Rifle-pits are usually about 4 feet long and 3 feet deep, forming, with the earth thrown out in front of them, cover for two men. There is, generally, a loop-hole on the top of the breastwork.

Ri'fler, *n.* One who rifles; a foot-pad; a robber: a thief.

Rift, Reft, *n.* (*pp.* of RIVE, *q. v.*) An opening made by riving or splitting; a cleft; a fissure; a crevice. — A ford in a stream; a crossing-place.

—*v. a.* To rive; to split; to cleave; as, to *rift* a tree.

—*v. n.* To be riven; to burst open; to split, as, *rifted* rock. — To poop; to belch; to break wind. (Prov. Eng.)

Rig, *v. a.* (*imp.* and *pp.* RIGGED,) (*rĭgd*) [A. S. *wrigan*, to cover, clothe.] To clothe; to dress; to apparel: — particularly, in an odd, or a quaint or fanciful manner. — To accoutre; to fit with tackling; to furnish with gear or apparatus; as, to *rig* a purchase.

To rig a ship. (*Naut.*) To fit the standing and running rigging to their respective masts and yards.

—*n.* Dress; apparel:—particularly, odd, quaint, or fanciful attire; as, a man-o-war's man's *rig*.

(*Naut.*) The peculiar manner of fitting the masts and rigging to the hull of any vessel: thus the terms *ship rig*, barque *rig*, schooner *rig*, &c., imply the masts and sails of such vessels irrespective of the hull. — A woman of loose morals; a wanton: a prostitute. — A frolic; an antic; a sportive trick: a practical joke.

To run the rig, to play a sportive trick, or practical joke.

To run the rig on or upon, to practise a sportive trick, &c., upon; as, don't *run the rigs upon* me.

—*v. n.* To trick; to frolic; to play practical jokes upon; also, to banter; to chaff; as, to be *rigged* concerning one's sweetheart.

Ri'ga, a city of European Russia, and the capital of Livonia, situate about 9 miles from the sea, in a large plain on the Dwina, or Duna, which is here, in summer, crossed by a bridge of pontoons, 25 miles from Mittau; Lat. 56° 5′ 1″ N., Lon. 24° 7′ 45″ E. Duriug the wiuter the river is crossed on the ice. The town stands on the right, the suburbs on the left bank of the river. Without being a regular fortress, Riga has cousiderable strength. The entrance of the river is guarded from maritime attacks by the fortress of Dunamunde. Of the public buildings, the principal are the Town-house, the Exchange, the House of Assembly for the states or representatives of Livonia, the arsenal, the hospital of St. George, and the Catharinehof, a public library, academy, cabinet of natural history, an observatory, aud a society of Lithuanian literature. Tbe church of St. Peter is remarkable for its fine tower, commanding a magnificent view of the harbor. The export trade is chiefly managed by English and Scottish houses; the principal articles being timber, flax, hemp, and corn. The manufactures are insignificaut.

Ri'ga, in *Michigan*, a post-township of Lenawee county.

Riga, in *New York*, a post-township of Monroe county.

Riga, (Gulf of,) an inlet in the N.E. of the Baltic Sea, between the coasts of Courland, Livonia, and Esthonia. It is 100 m. long from N. to S. and 70 m. broad. The Dwina is the principal river that flows into it. The navigation is dungerous, owing to sandbanks.

Rigadoon', *n.* [Fr. *rigandon*, from *ric-din-don*, the retrain of an old dancing-song.] (*Dancing.*) A lively dance, — for a long time out of fashion, — performed by one couple, and somewhat resembling a jig or reel.

Ri'gel, *n.* (*Astron.*) Same as REGEL, *q. v.*

Rig'ger, *n.* One who rigs or dresses; — especially, one whose occupation is to fit tbe rigging aud apparel of a ship.

(*Mech.*) A wheel with a flat or slightly curved rim, moved by a leather hand.

Rig'ging, *n.* Dress; apparel; as, to buy new *rigging*. (Colloq.)

(*Naut.*) The system of cordage and tackling hy which the masts are supported and the sails extended, taken in, or arranged to the disposition of the wind. It is consequently divided into *standing rigging* and *running rigging*. The standing rigging is that which is used to sustain the masts, and remains in a fixed position, as the *shrouds*, *stays*, and *back-stays*; the running rigging is that which is fitted to arrange the sails, by passing through different blocks, in various places about the masts, yards, shrouds, &c., as the *braces*, *sheets*, *halyards*, *clew-lines*, &c.

Rig'ging-loft, *n.* The room, or rooms, in which rigging for ships is prepared and tested.

Rig'gle, *v. a.* Written more correctly WRIGGLE, *q. v.*

Righi, (The,) (*re'ge,*) a mountain of Switzerland, canton of Schwyz, 5 m. from Schwyz. *Height*, 5,905 feet.

Right, (*rīt,*) *a.* [A. S. *riht, geriht*; Ger. *recht*; Lat. *rectus*, straight.] Straight; not crooked; as, a *right* line; — hence, hy implication, most direct; shortest; as, tbe *right* way from Boston to New York. — Erect; upright; perpendicular; not oblique; as, *right* ascension.— Henco, by aualogy, upright in mind or morals; according to the standard of truth and justice, or the will of God; just; true; not swerving or deviating; corresponding with truth aud duty; — opposed to *wrong*. — Fit; suitable; becoming; proper; as, to put the *right* man in the *right* place. — Passing a judgment according to truth; correct; not mistaken or wrong; lawful.— Denoting truth, reality, genuineness, or actuality; unquestionable; veritable; as, he knew he was *right*. — Most happy, favorable, efficacious, or convenient: as, the *right* side of anything. — Not left, but its opposite; most convenient, expert, or dexterous; as, one's *right* hand, as being more apt or useful of the two. — Orderly; well regulated: properly placed, disposed, or adjusted; suitably performed; as to do a thing in the *right* way. — Being on the right hand of a person whose face is toward the embouchure of a river; as, the *right* bank of the Mississippi. — Denoting the side which was designed to go or be worn outward; as, the *right* side of a garment.

(*Geom.*) A term applied to certain figures which are deemed to he the simplest of their kind; straight; perpendicular from a base; possessing an upright axis, as, a *right* angle.

At right angles, so as to form a right angle, as when one line intersects another perpendicularly.—*On the right*, on the same side as the right hand. — *Right and left*, on all sides; in all directions; as, to spend money *right and left*. (Colloq.)—*Right angle.* (*Geom.*) An angle formed by two straight lines, which intersect each other in such a way as to divide the whole angular space around their point of intersection into four equal parts. — *Right ascension.* (*Astron.*) See ASCENSION.—*Right cone, right cylinder, right prism, right pyramid*, a cone, cylinder, prism, or pyramid, the axis of which is perpendicular to the plane of the base. — *Right* or *left side, extreme right, extreme left*, terms derived from certain legislative assemblies, where the adherents of government occupy the *right* side of the chamber, and the party in opposition the *left*.

(NOTE. *Right* is often used in an elliptic sense for *it is right, you are right*, &c.; as, "*Right*, cries his lordship." —*Pope.*)

Right, *adv.* In a right manner;—particularly, in a right or straight line; directly; immediately; as, he walked *right* ahead of me.— According to any rule of art. — According to fact, truth, or reality; as, to repeat a lesson *right*.— Consonant to the will of God, or to the standard of truth aud justice; as, to act *right*. — In a great or considerable degree; very; as, *right* noble. *right* happy, *right* fit, &c. — Exceedingly; very; superiorly; — used as a prefix to titles; as, the *right* honorable gentleman, the *right* reverend father in God, the *right* worshipful master. — Positively; veritably; actually; really; as, I am *right* sure about it.

Right away, right off, at once; straightway; on the spur of the moment; immediately; as, let this he done *right away*. (An American colloquialism.)

Right, *n.* That which is right, straight, or correct; as, (1.) The direct course; conformity to the divine or moral law; accordance with the standard of truth or justice; obedience to lawful authority, divine or human; adherence to duty; freedom trom guilt or error. — (2.) That which is due, just, or proper; justice; integrity; uprightuess; as, to do *right* by one. — (3.) Conformity with truth or fact; freedom from error or falsehood; adhesiou to veracity or authenticity.

"He can't be wrong whose life is in the *right*." — *Pope.*

—That which is claimable; as, (1.) Just claim; legal title; ownership; as, *rights* have correspondiug duties. —(2.) Legal power or authority; as, a magistrate has the *right* to sentence a criminal.—(3.) Just claim by courtesy, customs, or the principles of civility and decorum. — (3.) Just claim by prescription, prerogative, or sovereignty; as, "The *right* divine of kings to govern wrong." *Pope.* — (4.) Immunity, privilege, or prescription granted by authority. — (5.) Legal power of exclusive possession or enjoyment; title; iuterest; ownership; share.

"They made a digest of anarchy, called the *Rights* of Man." *Burke.*

—That which is opposite to the *left*, or on the right side; as, he had a lady on his *right* during dinner. — The finer, outward surface, as of a piece of cloth; as, the *right* side.

(*Law.*) Whatever may be maintained or enforced by law. It hence follows that every right presupposes tho existence of positive law. Rights may be acquired in a variety of ways, as hy contract, gift, succession, &c. Rights are also of several kinds, as, *personal rights*, or such as regard a man's own person; *rights in property*, regarding his dominion over the external and sensible things by which he is surrounded; *rights of private relations*, as a uember of a family; aud *public rights*, regarding his social condition as a member of the community. Rights necessarily imply *duties*; for whatever is due to one man, or set of men, is necessarily due to another. Rights are further distinguished as *natural*, or those which a man has a natural or just claim to, as his life, liberty, the produce of his labor, &c.; and *adventitious*, or those derived from human appointments, as the right of a king over his subjects, of a general over his soldiers, &c. Every one, when he becomes a member of a civil community, alienates a part of his natural rights. Right is also sometimes used in a secoudary sense, to signify not legal, but *moral* claims; *i. e.*, such as are enforced by moral sanction, but ure of no legal obligation.

Bill of rights. See BILL.—*By rights*, or *by good rights*, properly; correctly; duly; as, I should have had a fortune *by good rights*.— *To rights*, in a direct line; straight. (R.)

"The whole tract sinks down *to rights* in the abyss."—*Wordward.*

—Soon; shortly; directly. (R.) —*To set to rights*, or *to put to rights*, to rectify; to regulate; to adjust; to place in good order or condition that which was in disorder; as, he *puts* things *to rights* promptly.— *Writ of right.* (*Law.*) See WRIT.

—*v. a.* [A. S. *rihtan.*] To make or cause to be right; to make right or straight, as that which was before wrong or crooked; to set upright, as a ship. — To do justice to; to make reparation to; to relieve from wrong or injustice; as, to *right* one who is injured. — *To right a ship.* (*Naut.*) To cause her to resume an upright position after careening, or after being partially capsized at sea. — *To right helm*, to bring it even with the middle of the ship.

—*v. n.* To recover the natural or proper position; to become upright; — especially, to rise with the masts erect, as a ship, after having been pressed down on one side.

Right-angled, (*rīt-ăng'gld,*) *a.* Having a right angle, or right angles; as, a *right-angled* figure.

Righteous, (*rī'chŭs,*) *a.* [A. S. *riht-wis.*] Accordant to justice or desert; just; rightful; equitable; — especially, upright in conduct; pious; honest; virtuous; accordant to the divine law, or to the principles of rectitude; godly; holy; free from guilt or sin; as, a *righteous* man, a *righteous* cause.

Righteously, (*rī'chŭs-tly,*) *adv.* In a righteous manner; with rectitude; justly; equitably; in accordance with the laws of justice; as, a decision *righteously* given.

Righteousness, (*rī'chŭs-nes.*) *n.* State or quality of being righteous; exact rectitude; purity; as, the *righteousness* of a claim.

(*Theol.*) Conformity of heart and life to the divine law; — when applied to God, the perfection of his nature; purity of heart and rectitude of conduct; uprightness; holiness; godliness; integrity.

"Learn *righteousness*, and dread th' avenging deities."—*Dryden.*

Right'er, *n.* One who, or that which, sets right, or restores to order; one who does justice or redresses wrong.

Rightful, (*rīt'ful,*) *a.* Having the right or just claim according to established laws; as, the *rightful* heir to an estate. — Just; consonant to justice; as, a *rightful* cause. — Being hy right, or hy true or just claim; as, she is my *rightful* wife.

Right'fully, *adv.* According to right, law, truth, or justice.

Right'fulness, *n.* Quality of being rightful; justice; retribution; accordance with the rules of right; as, the *rightfulness* of a claim.

Right'-hand, *n.* The hand opposite to the left, and generally more used, as being stronger, and more convenient, ready, expert, or dexterous;—hence, by analogy, an individual who stands in the position of one's secoud self, or is highly valuable or indispensable; as, he is my *right-hand* in the business.

Right'-hand'ed, *a.* Using the right-hand invariably, or more readily than the left; as, to deliver a *right-handed* blow.

(*Conch.*) With the convolutions turning from right to left, as certain shells.—*Right-handed screw*, a screw, the threads of which course spirally from left to right.

Right'-hand'edness, *n.* State of being right-handed;—hence, implicatively, skill; expertness; dexterity

Right'-heart'ed, *a.* Possessing right dispositions.

Right'less, *a.* Lacking right.

Rightly, (*rit'ly,*) *adv.* In a right manner; according to truth or justice; consonant to the divine law or moral rectitude; honestly; uprightly; as, an action *rightly* done. — Fitly; properly; suitably; appropriately; evenly; as, he is *rightly* called a fool. — In accordance with truth, fact, or reality; exactly; not errouously; as, I did not *rightly* understand you.

Right'-mind'ed, *a.* Possessed of a right or well-balanced mind.

Right'-mind'edness, *n.* State of being right-minded; rectitude of mind or morals.

Right'ness, *n.* Quality of being right, straight, or direct; as, the *rightness* of a line. — State of being right; conformity to truth or justice, or to the divine will, which is the staudard of moral rectitude; correctuess; as, *rightness* of conscience.

Right'-running, *a.* Straight-running.

Right'ward, *a.* To the right; toward the right hand or right side; — opposed to *leftward*.

Right'-whale, *n.* (*Zoöl.*) See BALÆNIDÆ, and WHALE.

Rigid, (*rij'id,*) *a.* [Fr. *rigide*, from Lat. *rigidus* — *rigo*, to be stiff or numb; allied to Gr. *rhigos*, frost, cold.] Unyielding to pressure; not pliant or easily bent; stiff; — correlative to *flexible*; as, a *rigid* body. — Hence, hy implication, characterized hy opinion, practice, demand, or discipline, or by severity of temper; unbending; inflexible; not lax or indulgent; harsh; strict; austere; rigorous; severely just, as a doom or sentence; as, *rigid* discipline, a *rigid* officer, a *rigid* master.

Rigid'ity, *n.* [Fr. *rigidité*; Lat *rigiditas.*] State or quality of being rigid or unyielding. — Quality of being stiff or constrained in appearance or manner; want of ease or airy elegance.

(*Mech.*) Resistance to change of form. In theoretical investigations respecting the application of forces through the intervention of machines, the latter are frequently assumed to be perfectly rigid, so far as the forces employed are able to affect their integrity of form and structure Rigidity is often, in the arts, called *stiffness*, and is opposed to *flexibility*.

Rig'idly, *adv.* Stiffly; not pliantly; severely; strictly; exactly; without laxity, indulgence, or abatement.

Rigid'ness, *n.* State or quality of being rigid; rigidity.

Rig'let, *n.* (*Printing.*) Same as REGLET, *q. v.*

Rig'marole, *n.* Nousense; bosh; humbug; senseless or confused talk; blarney; frivolous language.

—*a.* Consisting of, or expressed in, rigmarole; nonsensical; absurd; silly; frivolous.

Rigolet's (*rig'o-lai's*) **Bayou,** in *Louisiana*, connects Lake Washa and Little Lake in Jefferson parish.

Rig'oll, *n.* (A corruption of REGAL, *q. v.*) An old-time musical instrument, composed of, and played upon by, sticks.

Rig'or, Rig'our, *n.* [Lat. *rigor*; Fr. *rigueur.*] State of being, or becoming, stiff or rigid; stiffness; hardness; rigidness; numbness.

—Quality of being severe or very cold; as, the *rigor* of a climate or season. — Quality of being stiff or severe in opinion or temper; strictness; severity; sternness.

—Quality of being severe in life; austerity; voluntary submission to pain, abstinence, or mortification; as, the *rigor* practised by a Capuchin. — Quality of being strict or exact, without allowance, latitude, or indulgence; as, to execute a law or command with *rigor*.

(*Med.*) Sensation of cold, with involuntary shivering or shaking of the whole body. It is generally one of the earliest symptoms in the coming on of a severe attack of illness.

Rigor mortis. [Lat.] (*Physiol.*) The general stiffening of the body produced by the simultaneous contraction of all the muscles of the trunk after death. The muscular coat of the arteries also contracts after death, on division and mechanical irritation, on the application of cold, and under the stimulus of electricity.

Rig'orism, *n.* Rigidness in principles or practice. — Harshness or rigidity, as of style, manner, &c.

Rig'orist, *n.* [Fr. *rigoriste.*] A very rigorous person; — a term occasionally applied to an extreme Jansenist.

Rig'orous, *a.* [Fr. *rigoureux*, from L Lat. *rigorosus*, from Lat. *rigor.*] Full of rigor; rigid; stiff; inflexible; unyielding; allowing no abatement or mitigation; as, a *rigorous* disciplinarian; severe; exact; strict; stern; without abatement or relaxation; as, *rigorous* criticism; scrupulously accurate; as, a *rigorous* definition; very cold; severe; intense; as, a *rigorous* climate.

Rig'orously, *adv.* Severely; in a rigorous manner; without relaxation, abatement, or mitigation; rigidly; strictly; exactly; with scrupulous nicety.

Rig'orousness, *n.* State or quality of being rigorous.
Rile, *v. a.* To roil; to stir up; to render muddy or turbid; to chafe, as the temper; to vex; to make angry; to exasperate; to provoke; as, it takes very little to *rile* him. (Colloq. Am.)
Ri'ley, in *Illinois*, a post-village and township of McHenry county, about 65 miles north-west by west of Chicago.
Riley, in *Indiana*, a post-township of Vigo co.
Riley, in *Iowa*, a post-village of Clarke co., abt. 8 m. S. W. of Osceola.
Riley, in *Kansas*, a N. E. co.; *area*, about 612 sq. m. *Rivers*. Kansas, Big Blue, and Republican rivers. *Surface*, diversified; *soil*, very fertile. *Min.* Limestone. The county is traversed by the Kansas Pacific R. R. *Cap.* Manhattan. *Pop.* (1895) 12,394.
Riley, in *Michigan*, a post-township of Clinton co.
—A township of St. Clair co.
Riley, in *Ohio*, a township of Putnam co.
—A township of Sandusky co.
Riley Center, in *Kansas*, a village of Riley co., about 15 m. N.W. of Manhattan.
Ri'leyville, in *Pennsylvania*, a post-village of Wayne co., abt. 190 m. N.E. of Harrisburg.
Rilie'vo, *n.* [It.] Same as RELIEVO, *q. v.*
Rill, *n.* [Ger. *rille.*] A small brook; a rivulet; a streamlet.
" A thousand *rills* their mazy progress take."—*Gray.*
—*v. n.* To run in a small stream, or in streamlets.
Rill'et, *n.* A rivulet; a small stream.
Ri'loughs, in *Georgia*, a district of Lumpkin county.
Rim, *n.* [A. S. *rima*, *reoma*, from *rum*, room.] The limit of the extension of anything; the border, edge, brim, or margin which surrounds a thing; as, the *rim* of a hat.
—*v. a.* (*imp.* and *pp.* RIMMED,) (*rĭmd.*) To supply with a rim.
Ri'ma, *n.* [Lat.] (*Anat.*) A slit or opening; —applied to the narrow opening into the larynx, or organ of voice, which, bounded on each side by vocal chords, is protected above by the small, oval cartilage called the *glottis*, the opening receiving the name of the *rima glottidis.*
Ri'mac, a river of Peru, flowing W. into the Pacific Ocean at Callao, abt. 4 m. W. of Lima; *length*, abt. 75 m.
Ri'man-Da'han, *n.* (*Zoöl.*) See LEOPARD.
Rim'base, *n.* (*Gun.*) A short cylinder connecting a trunnion with the body of a piece of ordnance.
Rime', *n.* [A. S. *hrim*; D. *rijm*; O. Ger. *rime.*] White or hoar-frost; congealed dew or vapor.
—*v. n.* To freeze or congeal with hoar-frost.
Rime, *n.* A rung of a ladder.
Rim'er, *n.* A tool for shaping the rimes of a ladder.
Rimini, (*re'me-ne.*) [Anc. *Arminum.*] A city of central Italy, prov. of Forli, on the Marecchia, and two miles from the Adriatic. The streets are clean and straight, and contain several beautiful mansions and churches, built of Italian marble. The cathedral is also ornamented with very handsome marbles. The church of St. Francis, a fine edifice of the fifteenth century, has a profusion of sculptures, statues, and bas-reliefs, and there are several valuable remains of Roman antiquities. *Manuf.* Silk, glass, and earthenware. *Pop.* 17,412.
Rimini, FRANCESCA DI. See MALATESTA.
Rimose', **Ri'mous,** *a.* [Lat. *rimosus*, from *rima*, a chink.] Full of crevices, chinks, or crannies.
(*Bot.*) Full of parallel fissures or chinks, like those in the bark of trees.
(*Zoöl.*) Applied to the surface or part of an animal, when it has numerous minute, narrow, and nearly parallel excavations which run into each other, resembling the bark of a tree.
Rimos'ity, *n.* State of being rimose.
Rimouski (*re-moos'kee*), a co. of prov. of Quebec, bordering on the St. Lawrence river; *area*, about 4,931 sq. m. *Cap.* Rimouski, about 180 m. N.E. of Quebec. *Pop.* (1897) 29,400.
Rim'ple, *n.* Same as RUMPLE, *q. v.*
Rim'y, *a.* [From *rime.*] Characterized by rime; frosty; as, *rimy* weather.
Rind', *n.* [A. S. *hrind*; Ger. *rinde*; Gr. *rimos*, the hide of a beast.] The skin or coat of fruit that may be pared or peeled off; the peel; —also, the bark of trees; the shell, as of a nut; the external covering of flesh, as the skin.
Rind'erpest, [Ger.,] or CATTLE-PLAGUE, *n.* (*Farriery.*) A contagious disease, much resembling *murrain*, almost entirely confined to ruminating animals, and by far less common in the sheep and goat. It does not seem to have made its appearance on this side of the Atlantic, but it wrought extensive mischief in England in 1866, and reappeared in 1870 in many parts of Germany, and was introduced into France with the Prussian armies. No unfailing specific has been discovered, but some facts have been ascertained which throw considerable light on the pathology of this disorder. It appears within forty-eight hours of the time when the animal has imbibed the disease, the temperature of the body rising from two to three and a half degrees of the thermometer. The period of incubation is thus shown to be shorter than was generally supposed, and this rise of temperature is especially valuable as furnishing a means of separating sick from healthy cattle, and shortening the time of quarantine. The whole course of the disease is seven days; but hitherto it has been erroneously treated as beginning, when it has already existed for four days, and obtained a fatal hold on its victim. It is said to be propagated only by contagion, and to consist in a poison generated in the blood, and capable of being conveyed by inoculation, the increase of the poisonous matter when the disease is once established being marvellously rapid. Inoculation and vaccination with the matter of the cow-pox have been tried as a preventive, but without success. All strong medicines, it is asserted, heighten the mortality; and the only remedies suggested are cleanliness, ventilation, disinfection, and careful feeding.
Rindge, (*rinj,*) in *New Hampshire*, a post-township of Cheshire co.
Rin'dle, *n.* [From A. S. *rennan*, to run, to flow.] A small channel for water; a small gutter.
Rind'less, *a.* Without a rind.
Rind'y, *a.* Thin-rinded; thick-skinned.
Rinforzando, (*-fort-san'do,*) *a.* [It., from *rinforzare*, to reinforce.] (*Mus.*) A direction to the performer of a piece of music, denoting that the sound is to be increased. It is marked thus <; and is also expressed by the abbreviation *rf.*
Ring, *n.* [A. S. *hring*, *hrinc*; Icel. *hringr.*] A circle, or a circular line, or anything in the form of a hoop or circular line.— Specifically, a circle of gold, or of some other material, worn as an ornament. The practice of wearing rings has been very prevalent in different countries and at different periods. Rings have been used to decorate the legs (Fig. 133), ears (Fig. 898), fingers, toes,

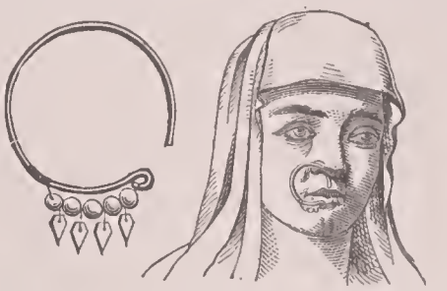

Fig. 2266. — ISRAELITISH RING, AND MODE OF WEARING.

and nose, which last fashion was very prevalent among Israelitish women (Fig. 2266). Various explanations have been given on the connection of the ring with marriage. It would rather appear that *wedding-rings* were worn by the Jews prior to Christian times. It has been said that as the delivery of the signet-ring to any one was a sign of confidence, so the delivery of a ring by the husband to the wife indicated that she was admitted into his confidence. Another explanation is, that the form of the ring symbolizes eternity and constancy; and it has been alleged that the left hand was chosen to denote the wife's subjection to her husband, and the third finger, because it thereby pressed a vein which was supposed to communicate directly with the heart. The third finger has always been selected as the finger on which official rings are to be worn. Bishops, on their consecration, receive a ring to be worn on the third finger of the right hand, in order to indicate ecclesiastical authority; and doctors were formerly expected, for a similar reason, to wear a ring on the same finger. A ring has been much used at betrothal as well as marriage, and in many countries a wedding-ring is worn by the husband as well as the wife.
—A circular course; a circular arena, or area, in which a race is run, or exercises are performed; — especially, the place in which pugilists meet to encounter; as, to form a *ring.*—A circle of persons grouped together.— Hence, a particular class of persons or people; as, the whisky *ring.* — The practice of boxing, or the class of pugilists in general; as, a hero of the *ring.*
(*Geom.*) A solid body generated by a circle whose centre describes a closed curve to which the plane of the circle is always normal. The radius of the generating circle is usually constant, so that the ring is enclosed by a tubular surface. Ordinarily, too, the locus of the centre of the generating circle is itself a circle.
(*Astron.* and *Nav.*) An instrument for measuring the sun's altitude, &c.
Ring-dropper, in England, one who drops a ring or other article of apparent value, but really worthless, and who black-mails the finder by claiming a share of the value, and receiving it in money.
Ring of an anchor. (*Naut.*) See ANCHOR.
Rings of Saturn. (*Astron.*) See SATURN.
—*v. a.* To encircle; to surround, as with a ring. — To furnish with rings; as, to *ring* the fingers, to *ring* a hog's snout.
(*Hort.*) To decorticate, as bark.
Ring, *v. a.* (*imp.* RANG, or RUNG; *pp.* RUNG.) [A. S. *ringan*, *hringan*; Ger. *ringen.*] To cause to sound, particularly by striking, as a bell or metallic body.
—*v. n.* To sound, as a bell or other sonorous body, particularly a metallic one. — To practise the art of campanology — To sound; to resound; to utter, as a bell.
" With sweeter notes each rising temple *rung.*" — *Pope.*
—To tinkle; to vibrate; to have the sensation of a sound continued.
" My ears still *ring* with noise." — *Dryden.*
—To be filled with report or talk; as, Europe *rings* with his fame.
—*n.* The sound of a sonorous body of a circular form. — A sound, particularly a metallic sound, as the *ring* of a bell.—Any loud sound, or the sound of numerous voices; sound continued, repeated, or reverberated; as, the *ring* of applause. — A chime, or set of bells harmoniously tuned; as, a *ring* of bells.
Ring'-armor, Ring'-mail, *n.* (*Archæol.*) Armor composed of small rings of steel sewn edgewise upon a strong garment of leather or quilted cloth. *Banded ring-mail* is a variety in which the rings were attached to straps or bands of leather; and these, again, were fastened to some under-lining of strong material. Ring mail differs from *chain-mail* in the rings of the latter being interlaced with each other, and strongly fastened with rivets. These kinds of armor were worn in the 13th, and during part of the 14th centuries.
Ring'-blackbird, *n.* (*Zoöl.*) Same as RING-OUSEL.
Ring'-bolt, *n.* (*Naut.*) A strong iron ring, passing through a hole at the end of an iron pin, which is clinched through the beams of a ship's deck or side. Its principal use is to give bearing to the tackle for running the guns in and out.
Ring'-bone, *n.* (*Far.*) A callus growing above a horse's coronet.
Ring'-chuck, *n.* (*Mach.*) A form of chuck for lathes, having a sliding-ring to render it tight or loose, as occasion may require.
Ring'-dial, *n.* A pocket sun-dial of circular form.
Ring'dove, (*-dŭv,*) *n.* (*Zoöl.*) See PIGEON.
Ringed, (*ringd,*) *a.* Having a ring; furnished with a ring, or rings; as, *ringed* fingers, a *ringed* hog.
(*Bot.*) Encircled by lines upon the surface of the bark, as a tree.
Ringent, (*-jent,*) *a.* [Fr.; Lat. *ringens.*] (*Bot.*) Having the lips gaping apart; as, a *ringent* bi-labiate corolla.
Ringer', *n.* One who rings; — especially, one who rings chimes on bells; a campanologist.
(*Mining.*) A crow-bar.
Ring'-fence, *n.* A fence encircling an estate within an enclosure.
Ring'-finger, *n.* The third finger of the left hand, on which the marriage-ring is placed and worn.
Ring'gold, in *Georgia*, a post-village, cap. of Catoosa co., abt. 287 m. N.W. of Augusta. On Nov. 27, 1863, (the day following the signal Union victory at Missionaries' Ridge,) the Confederate army, under Gen. Bragg, having retreated through this village, his rear-guard, commanded by Gen. Cleburne, was here overtaken, and, after an obstinate and sanguinary encounter of several hours, defeated by Gen. Hooker. The Union loss was abt. 450 killed and wounded; that of the enemy, 130.
Ringgold, in *Illinois*, a village of Cook co., abt. 33 m. W.N.W. of Chicago.
Ringgold, in *Indiana*, a village of La Grange co., about 45 m. N.N.W. of Fort Wayne.
Ringgold, in *Iowa*, a S.S.W. co., adjoining Missouri; *area*, about 545 sq. m. *Rivers*, East and West Forks of Grand river. *Surface*, mostly level; *soil*, fertile. *Cap.* Mount Ayr. *Pop.* (1895) 14,065.
Ringgold, in *Ohio*, a post-village of Morgan co., abt. 33 m. W.N.W. of Marietta.
Ringgold, in *Pennsylvania*, a post-township of Jefferson co.
Ringgold, in *Virginia*, a post-village of Pittsylvania co., abt. 5 m. E. of Danville.
Ring'-head, *n.* An instrument for stretching woollen cloth.
Ring'lead, *v. a.* To lead; to conduct. (R.)
Ring'leader, *n.* The leader of a ring or circle of persons; — especially, the leader of any body or association of persons engaged in violation of law, or in an illegal enterprise, as rioters, mutineers, and the like.
Ring'let, *n.* [dim. of *ring.*] A small ring or circle. (R.)—A curl; a wavy tress of hair; as, to dress one's hair in *ringlets.*
Ring'-mail, *n.* See RING-ARMOR.
Ringoes, (*ring'goz,*) in *New Jersey*, a post-village of Hunterdon co., abt. 6 m. S. of Flemington.
Ring'-onsel, Ring'-blackbird, *n.* (*Zoöl.*) A species of European thrush common in England.
Ring'-ropes, *n. pl.* (*Naut.*) Auxiliary ropes bearing on ring-bolts in a ship's deck, and temporarily fastened to the cable at different parts in very heavy weather, to furnish a more powerful hold on it, while diminishing the strain on the riding-bitts.
Ring'-sail, *n.* (*Naut.*) A small and light sail set on a mast on the taffrail; — also, a studding-sail set upon the gaff of a fore-and-aft sail, and stretched on the ring-sail boom. It is very rarely used, and is sometimes termed *ring-tail.*
Ringsted, an ancient town of Denmark, on the island of Zealand, 36 m. W.S.W. of Copenhagen; *pop* abt. 1,450.
Ring'-tail, *n.* (*Zoöl.*) The female of the Hen-harrier, *Circus cyaneus*; — so called from its whitish tail.
(*Naut.*) See RING-SAIL.
Ring'-tailed, *a.* Having a tail striped annularly.
Ring'-tailed Eagle, *n.* (*Zoöl.*) See GOLDEN EAGLE.
Ringwood, a town of England, co. of Hants, on the Avon, 30 m. from Winchester; *pop.* 4,000.
Ringwood, a small river rising in Orange co., New York, and flowing S into New Jersey, joins Pequannock Creek from Passaic co.
Ringwood, in *Illinois*, a post-village of McHenry co., abt. 56 m. N.W. of Chicago.
Ringwood, in *New Jersey*, a village of Passaic co., abt. 24 m. N.W. of Hackensack.
Ring'worm, *n.* [Lat. *porrigo.*] (*Med.*) An eruptive disease of the skin, more particularly on the head, and of which there are several kinds. The most common kind commences with clusters of small light-yellow pustules, which soon break and form thin scabs, which, if neglected, become thick and hard by accumulation. When removed, they appear again in a few days; and by these repetitions the incrustations become thicker, and the area of the patches extends, so as, if unchecked, to affect the whole head, and extend also to the forehead and neck. The patches are of an irregular circular form. This disease occurs generally in children of three or four years and upwards, and often continues for several years. It is said to occur spontaneously in children ill-fed and uncleanly, and is readily propagated by conta-

gion. The principal local treatment, when the patches are in an inflamed and irritable condition, consists in regular washing or sponging with warm water, or some emollient fomentation. When the inflammatory state is diminished, and a dry scaly scab appears, active stimulants are required to effect a change in the disorder. Further, a nutritious diet, warm clothing, tonics, and regular exercise are necessary.

Rino'sa, in *Illinois*, a post-village of Kankakee co., abt. 60 m. S.S.E. of Chicago.

Rinse, (*rĭns,*) *v. a.* [Fr. *rincer*; L. Lat. *resincerare—re,* and *sincerus,* pure.] To wash lightly with water: to cleanse with a second repeated application of water after washing; as, to *rinse* one's hands.—To cleanse by the introduction of water, applied particularly to hollow vessels; as, to *rinse* a basin.

Rins'er, *n.* One who rinses.

Rin'sones, or RINCONES, in *Colorado*, a village of Conejos co., abt. 35 m. S. of Fort Garland.

Rio, (*rē'o,*) in *Georgia*, a village of Coweta co., abt. 120 m. W. by N. of Milledgeville.

Rio, in *Illinois*, a township of Knox co.

Rio, in *Wisconsin*, a post-village of Columbia co., abt. 14 m. S.E. of Portage City.

Rio Arriba (*rē'o ar-ree'ba*), in *New Mexico*, a N. co., adjoining Colorado; *area*, 7,150 sq. m. *Rivers.* Rio Colorado and Rio Del Norte. *Surface*, much diversified and in some parts mountainous; *soil*, generally fertile, but better adapted to grazing. *Cap.* Tierra Amarilla. *Pop.* (1·97) 2,150.

Rio'bamba, (Nuevo,) (*nwē'vo,*) a town of Ecuador, abt. 84 m. N.E. of Guayaquil. About 9 m. from here are the ruins of Riobamba Vieja, (old Riobamba,) destroyed by an earthquake in 1797.

Rio Bonito, (*re'o bo-nee'to,*) a town of Brazil, abt. 23 m. E.N.E. of Rio de Janeiro.

Ri'o Bran'co, or PARIMA, ("White River,") a river of Brazil, rises on the S. slope of the Serra Pecaraima, and flowing a general S. course, joins the Rio Negro a few m. above Mour. Its waters are of a whitish tint, and almost opaque. Navigation is impeded by numerous falls and rapids. *Length*, abt. 700 m.

Ri'o Bra'vo del Nor'te, a river of N. America. See RIO GRANDE.

Ri'o Colora'do. See COLORADO RIVER.

Rio Colorado Chiquito, (*che-kē'to,*) or LITTLE COLORADO RIVER, in *Arizona Territory*, is formed by the confluence of numerous branches in the N.E. central part of the territory, and flowing N.W., enters the Colorado River abt. 40 m. S.E. of Grafton, Utah.

Ri'o de Cont'as, a town of Brazil, abt. 230 m. S.S.W. of Bahia.

Ri'o de Janeiro, (*ja-nā'ro,*) the metropolitan prov. of Brazil, taking its name from the river Janeiro, which runs through it. It is bounded N. by the prov. of Espiritu Santo, E. and S. by the Atlantic Ocean, and W. by the extensive region of Minas-Geraes; Lat. between 21° 23′ and 23° 20′ S., Lon. between 40° 53′ and 44° 40′ W.; *area*, 26,634 sq. m. *Desc.* Extremely fertile, producing sugar in great abundance, which is accordingly one of its chief exports. The other products are coffee, cotton, maize, rice, indigo, cacao, and fine woods. The country is mountainous, and is well wooded and watered. *Pop.* (1897) 1,220,410.

RIO DE JANEIRO, or simply RIO, a city and seaport, cap. of Brazil and of the above prov., and the largest and most important commercial city of S. America, is situate on the W. side of one of the finest bays in the world, 80 m. W. of Cape Frio, in Lat. 22° 54′ S., Lon. 43° 7′ 15″ W. The city stands on a tongue of land close to the shore, on the W. side of the bay, at the foot of several high mountains which rise behind it. The houses are generally built of stone or brick. The streets are straight, well paved, and have excellent foot-paths. The convents and churches are numerous, but none of them can be called fine buildings. The cathedral is of a superior style of architecture. Parallel with the beach runs the main street, called *Rua de Direita*, from which the minor streets branch off at right angles, and are intersected by others at regular distances. The imperial palace skirts the beach, and is seen to great advantage from the landing-place, which is within sixty yards of its entrance. The other public buildings are the naval and military arsenal, a public hospital, a national library containing abt. 100,000 vols., colleges, and other educational establishments. It has, besides, several scientific institutions, a museum of natural history, a botanic garden, and a theatre. The harbor is one of the finest known, and indeed can scarcely be excelled for capaciousness, and the security which it affords to vessels of every description. The entrance into it from the sea does not exceed a mile from point to point; it afterwards widens to abt. 3 or 4 m., and is commanded in every direction with heavy batteries—all the numerous little islands with which it is interspersed being crowned with artillery. This city is the chief mart of Brazil, and especially of the provs. of Minas-Geraes, S. Paulo, Goyaz, Matto-Grosso, and Curitiba. The mining districts, being most populous, require the greatest proportion of consumable goods, and in return send the most valuable articles of commerce; hence, innumerable troops of mules are continually travelling to and from those districts. *Imp.* These consist in immense quantities of dried beef, tallow, hides, grain, salt, provisions, flour, household furniture, pitch, tar, wax, oil, sulphur, woods, slaves, and wine. *Exp.* Cotton, sugar, rum, ship-timber, various fine cabinet-woods, hides, tallow, indigo, and coarse cotton cloths. Among the more precious articles are gold, diamonds, topazes of various colors, amethysts, tourmalines, chrysoberyls, aqua-marines, and wrought jewelry. *Pop.* (1897) 510,500.

Fig. 2267. — RIO DE JANEIRO.

Ri'o de las Ca'sas Gran'des, or RIVER OF THE GREAT HOUSES, a river of Mexico, state of Chihuahua, flowing N. into Lake Guzman. It derives its name from the ruins of an Aztec city on its bank.

Ri'o del Nor'te, ("North River") See RIO GRANDE.

Ri'o de los Mar'tires, or RIVER OF MARTYRS, in *California*, enters the Pacific Ocean abt. Lat. 33° 20′ N.

Ri'o del Rey, (*re'o-del-rai,*) ("King's River,") a river of W. Africa, the most S. of the estuaries which fall into the Gulf of Benin; Lat. 4° 30′ N., Lon. at its mouth, 8° 5′ E.

Ri'o de San Juan, (*hŭ'an,*) rises in the N.W. part of New Mexico, and flowing N.W. through a portion of Arizona, enters Utah and joins the Colorado River from Kane co.

Ri'o de São Lourenço, (*sai'yoo-rān'so,*) a river of Brazil, rises among the Maracayou Mountains, and flowing W., joins the Paraguay River in the Xarayes Marsh.

Ri'o Doce, (*dō'se,*) in Brazil. See DOCE.

Ri'o Frio, (*frē'o,*) or COLD RIVER, in *Texas*, enters the Nueces River from Nueces co.

Ri'o Grande, ("Great River,") a river of W. Africa, rising in Lat. 11° 20′ N., Lon. 11° W., and falling into the Atlantic between the Casamanza and the Nunez rivers.

Rio Grande, two rivers of Brazil.—1. Rises in the prov. of Minas-Geraes, and flowing W., enters the Parnahyba, abt. Lat. 20° 30′ S. *Length*, abt. 600 m.—2. Flowing into the Rio São Francisco at the town of Barra-do-Rio-Grande. *Length*, abt. 250 m.

Rio Grande, or SARA, a river of Bolivia, rises in the eastern chain of the Andes, and flowing circuitously S. E., E., N.E., then N.W., receives the name of MAMORE. *q. v.*

Rio Grande, a river of the Republic of Colombia, flowing into the Pacific Ocean abt. 2 m. S.W. of Panama.

Rio Grande, a river of Nicaragua, flowing into the Caribbean Sea abt. 30 m. N. of Pearl Key Lagoon.

Rio Grande, a river of Mexico, rises in Lake Chapala, and flowing N.W., enters the Pacific Ocean from the State of Jalisco.

Rio Grande, RIO BRAVO DEL NORTE, RIO GRANDE DEL NORTE, or RIO DEL NORTE, a river of North America, rises in the Rocky Mountains of Colorado and flows a general S. course through New Mexico. Crossing the S. border of the latter Territory at Franklin, it turns to the S.E., and following that direction in a somewhat tortuous manner, forms the entire boundary between Texas and Mexico, entering the Gulf of Mexico near Lat. 26° N., Lon. 97° 15′ W.. *Length*, about 1,800 miles. Navigation is much impeded by rapids and shallows.

Ri'o Grande City, in *Texas*, a city, port of entry, and the cap. of Starr co., on the Rio Grande, about 550 m. S. by W. of Austin. *Pop.* (1897) 2,260.

Rio Grande do Nor'te, ("Great River of the North,") a prov. of Brazil, bordering on the Atlantic Ocean; *area*, 22,784 sq. m. *Rivers.* Rio Grande, Serido, and Appody. *Surface*, much diversified; *soil*, generally fertile, producing cotton, rice, sugar, and a superior quality of Brazil wood. There are also large exports of salt, drugs, and cattle. *Chief towns.* Natal (the cap.), Villa Flor, Arez, Anucu, Porto Alegre, Villa Nova da Princeza, and Villa Nova do Principe. *Pop.* abt. 290,000.

Ri'o Grande do Sul, ("Great River of the South,") SAO PEDRO DO RIO GRANDE, or SAO PEDRO DO SUL, an extreme S. prov. of Brazil, bordering on the Atlantic Ocean, Uruguay, and the Argentine Republic; *area*, 93,756 sq. m. *Rivers.* One, Taquari, Uruguay, Tebiguari, and Tahuuas rivers. There are also several lakes, as Patos, Viamao, and Mirim. *Surface*, generally elevated; *soil*, fertile, producing all the finer fruits of temperate climates, besides wheat and the other cereals, flax, rice, and coffee. Cattle is raised in immense droves. *Min.* Gold, silver, iron, sulphur, and a superior quality of porcelain-clay. *Cap.* Porto Alegre. *Pop.* 455,000.—A town of Brazil, in the above prov., at the S. extremity of Lake Patos; Lat. 32° 7′ S., Lon. 52° 8′ W; *pop.* 4,500.

Ri'o Hach'a, or RIO DE LA HACHA, in the Republic of Colombia, a river flowing N. into the Caribbean Sea, abt. 90 m. E.N.E. of Santa Marta. *Length*, abt. 120 m.—A town on the above river, abt. 200 m. E.N.E. of Cartagena; Lat. 11° 33′ N., Lon. 72° 52′ 30″ W.

Rioja, or LA RIOJA, (*re-o'ha,*) a W. prov. of the Argentine Republic, adjoining Chili; *area*, abt. 31,500 sq. m. *Rivers.* Bermejo and Angualasta rivers, besides several considerable lakes. *Surface*, hilly or mountainous, the Andes forming the W. boundary of the prov.; *soil*, generally fertile, and adapted to the culture of cereals, especially wheat. *Cap.* Rioja, on an extensive plain abt. 120 m. S.S.W. of Catamarca. *Pop.* (of town) 4,000, (of prov.) 40,000.

Ri'olite, *n.* [Named after *Del Rio*, by whom it was analyzed.] (*Min.*) A native selenite of silver found at Tasco in Mexico.

Riom, (*re'om,*) a town of France, dept. of Puy-de-Dôme, 8 m. N.N.E. of Clermont. *Manuf.* Linen, cotton, leather, and brandy. *Pop.* 8,206.

Ri'o Ne'gro ("Black River"), or SAUCES, a river of South America, which rises on the E. slope of the Andes of the Argentine Republic, flows N.E.E. and then E.S.E. to the Atlantic, which it enters near Lat. 41° S., taking its course through the Patagonian district of Argentina. It is about 640 m. long, and is navigable almost through its whole course for vessels of light draught.

Rio Negro, a river of Uruguay, rises near the N.E. border, and flowing S.W. enters the Uruguay river at its mouth. *Length*, about 250 m.

Rio Negro, a river of Paraguay, flowing into the Tebicuary, about Lat. 26° 25′ S.

Rio Negro, GUIANA, or PARANA, a river of S. America, rises in the S.E. central part of the Republic of Colombia, about Lat. 2° N., Lon. 72° 30′ W., and flowing a general E. and N.E. course into Venezuela, turns to the S.E. and S., and enters Brazil. Thence turning to the E.S.E. it enters the Amazon at Manaos. *Length*, about 1,000 m. In Venezuela it communicates with the Orinoco by the Cassiquiare River (*q. v.*). It receives the Ubaupes, Cababuri, Padaviti, and Rio Branco.

Rionero, (*-nai'ro,*) a town of S. Italy, prov. of Potenza, 5 m. S. of Melfi. *Manuf.* Snuff-boxes. *Pop.* 13,804.

Rio Pecos, (*pā'kos,*) a considerable river rising in San Miguel co., New Mexico. Flowing a tortuous S. course into Texas, it turns to the S.E., and again to the S., and enters the Rio Grande on the E. border of Presidio co., abt. Lat. 29° 40′ N., Lon. 102° W. *Length*, abt. 700 m.

Ri'o Pre'to, two towns of Brazil,—1, abt. 380 m. W. N.W. of Bahia;—2, abt. 35 m. N.E. of Diamantina.

Ri o Sala'do, ("Salt River,") two rivers of the Argentine Republic,—1, flows into La Plata, abt. 95 m. S.S.E. of Buenos Ayres. *Length*, abt. 400 m.—2. Flows into the La Plata, abt. 210 m. N.W. of Buenos Ayres. *Length*, abt. 1,000 m.

Rio Seco, or DRY RIVER, (*rē'o sa'ko,*) in *California*, a post-village of Butte co., abt. 10 m. W. of Oroville.

Ri'ot, *n.* [A. S. *wreotan, reotan,* to make a cracking noise; Fr. *rioter*; It. *riottare.*] Uproar; tumult; unruly or unrestrained behavior; as, headlong *riot.*—A disorderly, tumultuous excess of mirth, revelry, licentiousness, or dissipation; carousal; wild and noisy festivity; excessive and costly feasting.

(*Law.*) A tumultuous disturbance of the peace by three persons or more assembling together of their own authority in order to assist each other, against any one who shall oppose them, in the execution of a private purpose, and afterwards executing the same in a violent and turbulent manner. A *rout* is said to be a disturbance of the peace by persons assembled together to do a thing, which, if executed, would make them rioters, and making some motion towards that object; an *unlawful assembly* is a similar disturbance by persons who neither execute their purpose, nor make any actual motion towards the execution of it.

To run riot, to act wildly, loosely, or unrestrainedly; to revel in.

—*v. n.* To be mutinous or insubordinate with clamor; to banquet with uproarious mirth: to run to excess in feasting, drinking, or other sensual indulgences.

"He *riots* in pleasure, and neglects the law."—*W. Daniel.*

—To raise an uproar or seditious disturbance.—To be wildly excited.

"No pulse that *riots*, and no blood that glows."—*Pope.*

Ri'oter, *n.* One who riots.

(*Law.*) One who takes part in a riot; one of three or more persons who, being met together for the purpose, commit a breach of the peace by engaging in tumult or seditious disturbance.

Rio Tinto, (*teen'to,*) a river of Central America, flowing into the Caribbean Sea from the Mosquito Territory, abt. Lat. 15° 54′ N., Lon. 84° 55′ W.

Ri'otous, *a.* Practising, or involving, or pertaining to riot; also, pertaining to reckless sensual indulgence or loose festivity; as, *riotous* living.—Partaking of the nature or character of an unlawful assembly; seditious; tumultuous; turbulent: as, *riotous* proceedings.

Ri'otously, *adv.* In a riotous manner; with excessive or licentious luxury; in the manner of an unlawful assembly; seditiously; tumultuously; turbulently; as, a mob *riotously* inclined.

Ri'otousness, *n.* State or quality of being riotous.

Ri'otry, *n.* Act or practice of rioting; riot.

Ri'o Vermejo, (*varr-mā'ho,*) or RIO GRANDE, a river of the Argentine Republic, flowing S.E. into the Paraguay River, abt. 14 m. S.W. of Neembucu. *Length*, abt. 750 sq. m.

Ri'o Verme'lho, in Brazil, a town abt. 80 m. E.N.E. of Serro; *pop.* 5,000.—A village on the island of Catharina, abt. Lat. 27° 30′ S.; *pop.* 1,500.

Ri'o Vis'ta, in *California*, a post-village of Solano co., abt. 70 m. N.E. of San Francisco.

Rip, *v. a.* (*imp.* and *pp.* RIPPED.) (*ript.*) [A. S. *rypan, ryppan, hyppan,* to spoil, to rob.] To separate the parts of by cutting or tearing; to tear, or cut open, or off; to tear off, or out, by violence; as, to *rip* open the seams of a garment, to *rip* open a sack, to *rip* up a floor, to *rip* off the skin of a beast;—generally employed with

out, off, open, or *up.*—To take out or away by cutting or tearing.—To tear up for search, scrutiny, or disclosure, or for alteration; to search to the bottom; — with *up.*

To rip out. See RAP, *v. a.*

—*n.* A tear; a rent caused by ripping; a laceration. — A mean or vicious thing or person; as, a good-for-nothing *rip.* — A fisher's creel.

Riparian, *a.* [Lat. *riparius,* from *ripa,* a bank.] Pertaining, or relating, to the bank of a river.

R. proprietor. (*Law.*) One who owns the land bounding upon a water-course. Each *R.* proprietor owns that portion of the bed of the river (not navigable) which is adjoining his land *usque ad filum aquæ,* i. e., to the thread or central line of the stream.

Ripe, *a.* (*comp.* RIPER; *superl.* RIPEST.) [A. S.; Du. *rijp;* Ger. *reif.*] Fit to be cut or gathered, as grain; brought to perfection in growth or completeness of good quality; mature; — said of that which is for edible uses; as, *ripe* fruit. — Fit for use; advanced to perfection; as, *ripe* cheese. — Matured; suppurated to the highest degree; as, a *ripe* abscess. — Finished; consummate; matured; perfected; as, a *ripe* scholar. — Ready; prepared; fully qualified by improvement; as, matters looked *ripe* for a quarrel. —Resembling the ruddy and plump characteristics of ripened fruit; as, the *ripe* lips of a young and pretty woman.

Ripe'ly, *adv.* Maturely; at the fit time or proper season.

Ripen, (*rīp'n,*) *v. n.* [A. S. *ripian.*] To grow ripe; to become fit for reaping, as grain; to be matured, as fruit. — To be fitted or prepared; to advance or come to perfection.

—*v. a.* To make ripe, as grain or fruit; to mature; as, a *ripening* rose. — To fit or prepare; to mature; to bring to perfection; as, *ripened* schemes, *ripened* judgment.

Ripe'ness, *n.* State of being ripe, or of being brought to that degree of perfection which fits for use; maturity; full growth; perfection; completeness; fitness; qualification; a state of preparation; complete maturation or suppuration, as of an ulcer or abscess; as, the *ripeness* of grain, fruits, mental powers, schemes, &c.

Ripheau, (*-fē'an,*) *a.* [Lat. *Riphæus.*] (*Geog.*) Pertaining, or relating, to a certain chain of mountains in the north of Asia.

Ripid'olite, *n.* [Gr. *ripis, ripidos,* a fan, and *lithos,* stone.] (*Min.*) A green chlorite occurring in grouped folia. It is a hydrated silicate of alumina, and protoxide of iron and magnesia.

Ripieno, (*-ā'no,*) *a.* [It.] (*Mus.*) Full; — a term used in compositions of many parts, to distinguish those which fill up the harmony and play only occasionally, from those that play throughout the piece.

Rip'ley, ELEAZAR WHEELOCK, an American general, B. in Hanover, N. H., 1782, who, during the second war against England (1812–1815), greatly distinguished himself in the battles of Chippewa and Lundy's Lane, and in the sortie from Fort Erie, Nov. 3, 1814. Died in Louisiana in 1839.

Ripley, in *Illinois,* a post-village and township of Brown co., about 8 m. N.E. of Mount Sterling.

Ripley, in *Indiana,* a S.E. co.; *area,* about 450 sq. m. *Rivers.* Laughery creek, and Graham's Fork of White river. *Surface,* nearly level; *soil,* generally fertile. *Products.* Corn, wheat, hay, oats, pork, &c. *Cap.* Versailles. *Pop.* (1897) 21,050.

—A township of Montgomery co.

—A township of Rush co.

Ripley, in *Iowa,* a township of Butler co.

Ripley, in *Maine,* a post-township of Somerset co.

Ripley, in *Minnesota,* a township of Dodge co.

—A township of Morrison co.

Ripley, in *Mississippi,* a post-town, cap. of Tippah co., about 210 m. N. by E. of Jackson.

Ripley, in *Missouri,* a S.S.E. co., adjoining Arkansas; *area,* about 640 sq. m. *Rivers.* Current and Little Black rivers, and Fourche, Dumas, and Davies creeks. *Surface,* uneven; *soil,* in some parts fertile. *Cap.* Doniphan. *Pop.* (1897) 9,380.

Ripley, in *New York,* a post-village and township of Chautauqua co., abt. 65 m. S.W. of Buffalo.

Ripley, in *Ohio,* a post-village of Brown co., abt. 56 m. S.E. of Cincinnati.—A township of Holmes co.—A township of Huron co.

Ripley, in *Tennessee,* a post-village, cap. of Lauderdale co., abt. 195 m. W. of Nashville.

Ripley, formerly JACKSON COURT-HOUSE, in *W Virginia,* a village of Jackson co., about 36 m. N. of Charleston.

—A village of Tyler co., about 50 m. S. of Wheeling.

Rip'on, a city of England, co. of York, at the confluence of the Ure and Skell, 23 m. N.W. of York. *Manuf.* Machinery, saddle-trees, varnish, &c. *Pop.* 6,172.

Ripon, in *Wisconsin,* a city and township of Fond du Lac co., 20 m. N.W. of Fond du Lac. *Pop.* (1895) 4,380.

Riponnuy, RIPUNUNY, or RUPUNUNY, a river of British Guiana, flowing N. into the Essequibo, abt. Lat. 3° N., Lon. 58° 12′ W. *Length,* abt. 250 m.

Ripos'to, a town of Italy, on the E. coast of the island of Sicily, 10 m. S.W. of Taormina; *pop.* 4,000

Rip'per, *n.* One who rips, tears, or cuts open.

Rippey, in *Iowa,* a post-village of Greene co., abt. 45 m. N.W. of Des Moines.

Rip'ping, *n.* A tearing; a lacerating.

Rip'ple, *v. n.* [Of the same origin as RUMPLE, *q. v.*] To become roughened or ruffled on the surface; to fret on the surface, as water when agitated; to be rimpled or rumpled; to have undulations; as, a *rippling* brook.

—*v. a.* To ruffle or agitate, or fret or dimple, as the surface of water; to cover with small wavy undulations. — To comb flax by means of a *ripple.*

—*n.* The ruffling, fretting, or rimpling of the surface of water; a little, curling or undulating wave. — A kind of comb with long wire teeth, through which flax plants are passed in order to remove the capsules containing the seed.

Rip'ple-grass, *n.* (*Bot.*) A species of plantain, *Plantago lanceolata.*

Rip'ple-mark, *n.* The peculiar undulated mark left by the receding waves on the sea-beach, or on sand- or mud-banks.

(*Geol.*) A mark found occasionally in some of the older strata of rocks, and which is considered as announcing the action of sea-water at some remote period.

Rip'ple-marked, (*-märkt,*) *a.* Presenting ripple-marks.

Rip'plet, *n.* A small ripple.

Rip'plingly, *adv.* After the manner of ripples; as, her voice sounded *ripplingly.*

Rip'rap, *n.* (*Civ. Eng.*) A base or parapet of stones thrown together pell-mell, as in deep water or a soft bottom.

Rip'rap, *v. a.* (*imp.* and *pp.* RIPRAPPED,) (*-răpt.*) To make a riprap in or upon.

Rip'saw, Rip'ping-saw, *n.* A coarse-toothed hand-saw, employed for cutting wood in the direction of the fibre.

Rip'ton, in *Vermont,* a post-township of Addison county.

Ris'don, in *Illinois,* a post-village of St. Clair co., abt. 22 m. S. by E. of Belleville.

Risdon, in *Ohio,* a village of Haucock co., abt. 93 m. N. by W. of Columbus.

Rise, (*rīz,*) *v. n.* (*imp.* ROSE; *pp.* RISEN; *ppr.* RISING.) [A. S. *arisan.*] To move upward; to pass upward in any manner; to ascend; to mount up; to become elevated above the level or surface, as of the ground; to reach a height; as, (1.) To get up or move from any recumbent or sitting posture to an erect posture; to assume an upright position; as, to *rise* from a chair. (2.) To ascend or go upward by a saltatory, volant, ascensional, or other voluntary motion; as, a balloon *rises* in the air, a fish *rises* to the bait. (3.) To ascend or float in a fluid, as gases in air, cork in water, &c. (4.) To grow upward; to arrive at a given height; as, a chimney *rises* one hundred feet. (5.) To attain a higher level in any contracted space by increase of bulk, quantity, or volume; as, a lake *rises* in its bed. (6.) To arise; to get up; to leave the place of sleep or rest; as, to *rise* from one's bed. (7.) To be elevated above the level or the surface; to tower up; to be heaved up; as, the Andes *ris* high above the sea. (8.) To slope upward; as, the surface *rises* in a northerly direction. (9.) To abandon; to retire from; as, *rising* from a siege. (10.) To swell up; to upheave in the process of fermentation; to become light or puffy, as dough, and the like. — To have the appearance or effect of rising; as, (1.) To seem to rise; to appear above the horizon; to become more apparent by occupying a higher elevation; as, the *rising* sun. (2.) Hence, to appear; to come forth; to emerge into view; as, the land *rises* into view on approach from the sea. (3.) To begin to exist; to originate; to proceed; to have a beginning; as, the river *rises* in a mountain lake, he *rose* from nothing, *rising* emotions of love, &c.

—To enlarge, increase, or expand in force, size, effect, or value; to proceed toward a climax or consummation; as, (1.) To increase in power or rage; — used with reference to winds or a storm, and hence, implicatively, to the passions; as, a *rising* gale, *rising* indignation. (2.) To be advanced in price; to increase in cost; — said of salable articles; as, bread has *risen* four cents a loaf, gold is *rising* rapidly. (3.) To swell; to expand; to become larger; as, a *rising* tumor. (4.) To acquire greater intensity; — applied to rank, property, or estimation; as, his *rising* fortunes are owing to the royal favor, my salary *rose,* &c. —(5.) To become elevated in pitch, or louder; as, his voice *rises* in anger. — To enlarge; to become of additional amount; as, his profits *rose* above his anticipations.—Hence, figuratively, (1.) To be excited or roused into action, particularly, hostile action; as, the people *rose* in revolt. (2.) To gain elevation in rank, fortune, or public estimation; to be promoted; to succeed; to excel; as, that officer *rose* from the ranks. (3.) To elevate in style or manner; to become more and more dignified and forcible; to increase in interest or excellence; as, his declamation often *rises* to eloquence. (4.) To come by chance to recollection; to occur; to be suggested; as, an idea *rose* in his mind. (5.) To offer itself; to come to hand; a new opportunity has *risen.*

—To come back to life; to be resuscitated from the dead; to revive.

"After I am *risen* again, I will go before you." — *Matt.* xxvi.

— To adjourn; to close a sitting or session; as, the house *rose* after a protracted debate.

(*Mus.*) To ascend on the diatonic scale; as to *rise* a semi-tone.

(*Printing.*) To be able to be safely taken from the imposing-stone; — expressing a form from which, when lifted, none of the types drop out.

Rise, *n.* Act of rising, either in a literal or figurative sense; state of being risen; ascent. — Act of springing or mounting from the ground. — Distance through which anything rises; as, the *rise* of the barometer was six degrees. — That which rises or appears to rise; elevation or degree of ascent; any place elevated above the common level; an ascent; an acclivity; as, the *rise* of a mountain. — Spring; source; origin; commencement; beginning; as, the river takes its *rise* in the mountains, authorship has its *rise* in education. — Increase in price or value; advance; augmentation; as, a *rise* in public securities.

Ris'er, *n.* One who rises.

(*Arch.*) An upright piece of wood or stone which supports a stairs.

Risibil'ity, *n.* [Fr. *risibilité,* from L. Lat. *risibilitas.*] State or quality of being risible; quality of laughing, or of being capable of laughter; liability to laugh.

Ris'ible, *a.* [Fr.; Lat. *risibilis,* from *rideo, risum,* to laugh.] Having the faculty or power of laughing. (R.) —Capable of exciting laughter; laughable; ludicrous.

Ris'ibleness, *n.* State or quality of being risible; risibility.

Ris'ibly, *adv.* In a risible manner; so as to awaken laughter.

Ris'ing, *a.* Increasing in wealth, power, or distinction. —Growing or advancing in adult years, and to the state of active life. — Older than; exceeding; as, a horse *rising* three years old.

—*n.* Act of rising, or of getting up from any recumbent or sitting posture. — A tumor on the body.

Ris'ing Sun, in *Indiana,* a post-village, cap. of Ohio co., abt. 90 m. S.E. of Indianapolis. It contains several extensive manufactories.

Rising Sun, in *Iowa,* a post-village of Polk co., abt. 10 m. E. of Des Moines.

Rising Sun, in *Kansas,* a village of Jefferson co., on the Kansas River, opposite Lecompton.

Rising Sun, in *Pennsylvania,* a former village of Philadelphia co., now included within the limits of the city of Philadelphia, abt. 5 m. N. of the State House.

Risk, *n.* [Fr. *risque,* from L. Lat. *riscus,* danger, peril.] Hazard; danger; peril.

(*Com.*) Chance of loss or damage.

To run a risk, to be exposed to hazard or danger. — *To take a risk,* to imply danger; — hence, in commerce, to insure, as goods or ships.

—*v. a.* [Fr. *risquer.*] To expose to injury or loss, as life or property; to hazard; to peril; to endanger; to jeopardize; to venture; to dare to undertake.

Risk'er, *n.* (*Com.*) A person who takes risks; an underwriter.

Risk'y, *a.* Accompanied with danger; hazardous.

Riso'rial, *a.* [Lat. *risus,* laughter.] Relating to laughter.

Risot'to, *n.* [It.] (*Cooking.*) An Italian dish, of which rice is the principal component. Onions are shred into a frying-pan, with plenty of butter, and then fried together until the onions become very brown, and communicate their color to the butter. The butter is then run off, and to this is added some rich broth, slightly colored with saffron, when the whole is thickened with well-boiled rice, and served up as a pottage, instead of soup, at the commencement of a dinner.

Rissole, *n.* [Fr. *rissolé.*] (*Cooking.*) A culinary preparation used as an *entrée.* It consists of meat, or fish, of any kind finely minced and made into small forms, which are then coated with a very thin crust either of pastry or of bread-crumbs, mixed with yolk of egg, and fried. There are great varieties of this dish.

Risto'ri, ADELAIDE, an Italian tragic actress, B. at Cividale, in Friuli, in 1821, being the child of a poor actor, was trained at a very early age for the stage. She appears to have risen through a long series of struggles to the eminence she ultimately attained. Upon her marriage with the Marquis del Grillo, she retired from the stage, but, in 1849, having played on one occasion for the benefit of one of her old friends, her fondness for her former profession returned with a force which resisted all considerations of rank and family. Having accepted in 1855 an engagement in Paris, she sought the favor of a French audience as an interpreter of the Tragic Muse at the very time when Rachel was in the zenith of her fame. Her appearance at such a period was regarded by the French as an open challenge to contest the supremacy of their tragic queen, and they assembled much more disposed to criticise than to applaud. The genius of Ristori, however, triumphed, and from that moment her position was unassailed. Her reception in England was equally enthusiastic, and after that time she visited Spain, Holland, Russia, Constantinople, the United States, and other countries, with unabated success. Died October 9, 1906.

Ri'sus Sardon'iens, [Lat., a sardonic laugh.] (*Med.*) A sardonic or convulsive laugh, smile, or grin, giving a peculiarly horrible expression to the countenance, chiefly observed in cases of tetanus and inflammation of the diaphragm.

Ritardan'do, *a.* [It.] (*Mus.*) Slower and slower.

Ritchie, (*ritch'ee,*) in *California,* a village of Napa co., abt. 55 m. N. of San Francisco.

Ritchie, in *W. Virginia,* a N.W. co.; *area,* abt. 480 sq. m. It is washed by Hughes River. *Surface,* uneven; *soil,* generally fertile. *Cap.* Harrisville.

Ritch'ieville, in *Virginia,* a post-village of Dinwiddie co., abt. 41 m. S. of Richmond.

Rite', *n.* [Fr. *rit, rite;* Lat. *ritus.*] The manner of performing a divine or solemn service as established by law, precept, or custom; formal act of religion or other solemn duty; form; ceremony; observance.

Ritornelle, Ritornello, (*rit-or-nell'.*) *n.* [Fr. *ritournelle;* It. *ritornello,* dim. of *ritorno,* return.] (*Mus.*) Properly, a short repetition, such as that of an echo, or of the last words of a song, especially if such repetition be made after a voice by one or more instruments. But by custom this word is now used to denote all symphonies played to a song before the voice begins, or after it ends.

Rit'tenhouse, in *Pennsylvania,* a village of Montgomery co., abt. 4 m. N.W. of Norristown.

Rit'tenhousetown, in *Pennsylvania,* a suburban village included within the incorporated limits of the city of Philadelphia, abt. 2 m. W. of Germantown.

Ritual, (*rit'yu-al,*) *a.* [Lat. *ritualis,* from *ritus,* a rite.] Pertaining to rites; consisting of rites.—Prescribing rites.

(*Eccl.*) A book or manual, in which are given the

order and forms to be observed in the celebration of divine service, the administration of the sacraments, &c., in any particular church.

Rit'ualism, *n.* [Fr. *ritualisme.*] The system of rituals, or prescribed forms of religious worship. —Observance of prescribed forms in religion.

Rit'ualist, *n.* One skilled in, or who adheres to, or treats of, the ritual, or rituals.

Rit'ualistic, *a.* Relating to, or in accordance with, a ritual.

Rit'ually, *adv.* In accordance with the ritual; by rites, or by a particular rite.

Ri'va, a town of Italy, on the Lake of Como, 6 m. from Chiavenna; *pop* 5,000.

Riv'age, *n.* [Fr. *rivage,* from Lat. *ripa,* bank, shore.] A bank; a coast. (a.)

Ri'val, n. [Fr, from Lat. *rivalis,* from *rivus,* a book.] One who is in pursuit of the same object as another; one striving to reach or obtain something which another is attempting to obtain, and which one only can possess; a competitor; as, *rivals* in love.

—*a.* Having the same pretensions or claims; standing in competition for superiority; as, *rival* candidates.

—*v. a.* To stand in competition with; to strive to gain the object which another is contending for. — To strive to equal or excel; to emulate.

Ri'valry, *n.* State or quality of being a rival; an endeavor to equal or surpass another in some excellence; competition; contest.

Ri'valship, *n.* Rivalry; contention for superiority; emulation.

Rivan'na, In *Virginia,* a small river flowing into James River from Fluvanna co.

Rive, *v. a.* [A. S. *reofan,* to break, to split.] To cleave; to rend asunder by force; to split.

—*v. n.* To be split or rent assunder.

Rive-de-Gier, (*reev-de(r)-zhe'aï,*) a town of France, dept. of Loire, on the Gier, 13 m. N E. of St. Etienne, and 23 m. S.W. of Lyons. *Manuf.* Glass, steel, and hardware. *Pop.* 13,752.

Ri'ver, *n.* A person who splits or rives.

Riv'er, n. [Fr. *rivière,* from L. Lat. *rivaria* = Lat. *rivus,* from Gr. *rheō.*] (*Geog.*) A flowing stream or current of water; a large stream of water flowing in a channel on land towards the ocean, a lake, or another river; a stream larger than a brook or rivulet.

—Hence, copious flow; abundance; as, *rivers* of wine.

(NOTE *River* frequently forms self-explaining compounds; as, *river*-bank, *river*-bed, *river*-channel, *river*-craft, *river*-water, &c.)

Riv'erdale, in *Indiana,* a village of Lawrence co., abt. 25 m. S.W. of Seymour.

Riverdale, in *New York,* a post-village of Westchester co., abt. 14 m. N. of New York city.

Riv'er-del'ta, *n.* A delta formed by the current of a river.

Riv'er-dragon, *n.* A crocodile; — a term applied by Milton to the king of Egypt.

Riv'er-driver, *n.* In the U. States, a lumber-man.

Rivered, (*riv'erd,*) *a.* Having rivers; as, a well-*rivered* country.

River Falls, in *Wisconsin,* a city and township of Pierce co., 10 m. N.E. of Prescott. *Pop.* (1895) 1,919.

Riv'er Fish'eries, *n. pl.* (*Com.*) The river and lake fisheries of the United States are of great importance. There are valuable shad fisheries in the Connecticut, Hudson, Delaware, Potomac, and other rivers falling into the Atlantic. The great lake fisheries are those of Erie, Huron, Michigan, and Superior. The white fish is the principal object of pursuit, though trout and pickerel are caught in large quantities. The amount taken annually is estimated at 45,000 barrels, which are worth nearly $500,000. From the rivers flowing into the lakes, about 10,000 barrels of pickerel, worth $35,000, are annually taken. The river fisheries of the Pacific coast of the United States have proved especially rich in salmon, which are annually taken in great quantities. Shad have been planted in some of these streams.

Riv'er-god, *n.* The suppositious tutelary divinity of a river.

Riv'erhead, in *New York,* a post-village and township, cap. of Suffolk co., abt. 74 m. E. by N. of New York city

Riv'erhood, *n.* State or quality of being a river.

Riv'er-horse, *n.* (*Zoöl.*) See HIPPOPOTAMUS.

Riv'erside, in *Wisconsin,* a village of La Fayette co., abt. 7 m. S.E. of Darlington.

Riv'ertou, In *Iowa,* a village and township of Floyd co., abt. 8 m. S.E. of Charles City.

Riv'erton, in *New Jersey,* a village of Burlington co., abt. 8 m N E. of Camden.

River Trent, or FORT TRENT, a village of Northumberland county, Upper Canada, abt. 12 m. W. of Belleville.

Riv'er-weed, *n.* (*Bot.*) See PONOSTEMACEÆ.

Rives', in *Michigan,* a township of Jackson county.

Rives, in *Ohio,* a post-village of Richland co., about 79 m. N.N.E. of Columbus.

Rivesaltes, (*reev'salt,*) a town of France, dept. of Pyrénées-Orientales, 5 m. from Perpignan; *pop.* 4,000.

Rives'ville, in *W. Virginia,* a post-village of Marion co., abt. 4 m. N. of Fairmount

Riv'et, *v. a.* [Fr. *river*; It. *ribadire,* to clinch, from Lat. *re,* back, and *batuo, batuere.*] To fasten with a rivet, or with rivets; as, to *rivet* two pieces of iron — To clinch; as, to *rivet* a bolt. — Hence, by implication, to fasten firmly or securely; to make firm, strong, or immovable; as, to *rivet* one's affections upon an object.

—*n.* A pin of iron, or other metal, inserted into a hole at the junction of two pieces of metal or wood, and after insertion, hammered broad at the ends, so as to keep the pieces closely bound together.

Rivet'ing, *n.* Act or operation of joining with rivets. — The entire set of rivets taken collectively.

Rivière-au-Bœuf, (*ree-ve-aïr'-o-buf,*) in *Missouri,* a small stream flowing into the Missouri River from Franklin co.

Rivière-au-Cuivre, (*-kē'vr.*) or COPPER RIVER, in *Missouri,* rises in Audrain co., and flowing E.S.E., enters the Mississippi between St. Charles and Lincoln cos.

Rivière' des Acadiens, (*daz a-ka-de-ang',*) in *Louisiana,* a small stream flowing into Lake Maurepas from Ascension parish.

Rivière' du Loupe en Bas, (*du-loo-ong-ba,*) a village and seigniory of Lower Canada, on the St. Lawrence, abt. 114 m. below Quebec.

Rivière' du Loupe en Haut, (*-ong-ho,*) a village and seigniory of Lower Canada, abt. 58 m. N.E. of Montreal.

Rivière' Ouelle (*oo-ell'*), a village and seigniory of Quebec, about 80 m. below Quebec city. *Pop.* 4,500.

Rivière' Pilote, a town on the S. coast of the island of Martinique, W. Indies; *pop.* 4,500.

Rivière' Salée, (*sa-la',*) the strait which separates the island of Guadeloupe, W. Indies, into two parts. — A town on the S.W. coast of that island; *pop.* 2,800.

Rivoli, (*re'vo-le,*) a town of Italy, prov. of Turin, on the Dora, 9 m. W. of Turin. *Manuf.* Linen, woollens, and silk. *Pop.* 10,200.

Rivoli, a small place of N. Italy, on the Adige, 12 m. from Verone, near which, Jan. 17, 1797, the French, under General Bonaparte, defeated the Austrians under Alvinzi.

Rivoli, in *Illinois,* a post-village of Mercer co., abt. 12 m. E. of Aledo.

Rivose', *a.* [Lat. *rivus,* a channel.] (*Zoöl.*) A term signifying that the surface of an animal, or part, is marked with furrows which do not run in a parallel direction, and are rather sinuate.

Rixa'trix, n. [Lat.] (*Law.*) A common scold.

Rix'-dollar, *n.* [Swed. *riksdaler;* Dan. *rigsdaler;* Du. *rijksdalder;* Ger. *reichsthaler,* dollar of the realm.] A silver coin of Germany, the Netherlands, Denmark, and Sweden, of different value in different places, and varying, according to the country where coined, from 60 cents to $1.08. As money of account at the Custom-house, the rix-dollar of Bremen is deemed to be of the value of 78¾ cents.

Rix'eyville, in *Virginia,* a village of Culpeper co., abt. 100 m. N N.W. of Richmond.

Rizah, or **Rizeh,** (*re'za,*) a seaport-town of Asiatic Turkey, on the Black Sea, 35 m. S.E. of Trebizond. *Manuf.* Hempen fabrics. *Pop.* 30,000.

Rizzered, (*riz'erd,*) *a.* Half-dried by smoking; cured by salting; as, a *rizzered* salmon or haddock.

Rizzio, or **Riccio,** DAVID, (*rit'si-o,*) an Italian musician and linguist, who became private secretary to Mary Queen of Scots, and was murdered at Holyrood House by Lord Ruthven, and the other accomplices of Darnley (*q. v.*), 1566. It was pretended by the enemies of the Queen that an improper intimacy existed between her and Rizzio, but all the probabilities are opposed to such a belief.

R. N. Abbreviation of *Royal Navy.*

Roach, (*rōch',*) *n.* [A. S. *reohche.*] (*Zoöl.*) A European fresh-water fish, *Cyprinus rutilus* of Linnæus, from *Cyprinidæ.* It is characterized by having 12 reddish rays to the anal fin, and the ventral fins very obtuse.

(*Naut.*) The curve, or arch, which is generally cut in the foot of some square sails, from one clew to the other, to keep the foot clear of stays and ropes.

—A cockroach.

As sound as a roach, a colloquialism implying a state of perfect soundness; — generally supposed to have been originally written *as sound as a rock.*

Road, (*rōd',*) *n.* [A. S. *rad, rade;* Ger. *ritt;* Icel. *reid;* Dan. *ridt;* Du. *rid,* all signifying a riding.] Ground appropriated for travel, forming a communication between one city, town, or place, and another; a highway; a thoroughfare; a pathway; a way, route, passage, or course.

Road', Road'stead, *n.* [A. S. *rād;* Fr. *rade.*] A place of anchorage for ships, distinguished from a harbor by being at some distance from the shore. *A good roadstead* is one protected from the prevailing winds, and from ocean swells; an *open roadstead,* one without such protection. A vessel when at anchor is termed a *roader,* or *roadster,* in contradistinction to another under sail.

Road'-bed, *n.* The bed or foundation on which the superstructure of a railway rests.

Road'-book, *n.* An itinerary; a guide-book for roads.

Road'-metal, *n.* The broken stone, or gravel, used in macadamizing roads.

Road'ster, *n.* A horse suitable for undertaking journeys.

(*Naut.*) See ROAD.

Roads'town, in *New Jersey,* a post-village of Cumberland co., abt. 6 m. W. of Bridgeton.

Road'way, *n.* A highway; the part of a road travelled by carriages.

Roak', *n.* See ROKE.

Roam, (*rōm,*) *v. n.* (*imp.* and *pp.* ROAMED,) (*rōmd.*) [A. S. *ryman,* to make room, *rumian,* to give way; Ger. *räumen.*] To move or wander over an extent of space or room; to walk or move about from place to place without any certain purpose or direction; to wander; to rove; to stroll; to ramble; to stray; as, *roaming* over foreign countries.

—*v. a.* To range; to wander over; as, to *roam* by night, as about the streets.

Roam, *n.* A wandering; the act of roaming.

Roam'er, *n.* One who roams; a rover; a wanderer; — also, a vagrant.

Roan, (*rōn,*) *a.* [Fr. *rouan;* Sp. *ruano.*] Of a color between yellow and gray; of a bay, sorrel, or dark color, with spots of gray or white thickly interspersed; of a mixed hue, having a decided shade of red; as, a *roan* horse.

—*n.* A roan color; tawny-gray. — A roan horse; as, he drives a team of *roans.* — A kind of leather used in book-binding, made from sheep-skin, in imitation of morocco.

Ro'ane, in *Arkansas,* a township of Lafayette co.

Roane, in *Tennessee,* an E. central co.; *area,* about 450 sq. m. *Rivers.* Tennessee, Clinch, and Holston. *Surface,* much diversified, the Cumberland Mountains forming the N.W. boundary of the co.; *soil,* generally fertile. *Min.* Iron and coal in abundance. *Cap.* Kingston. *Pop.* (1897) 18,180.

Roane, in *West Virginia,* a W. central co.; *area,* about 350 sq. m. *Rivers.* Pocatalico river, and West Fork of the Little Kanawha river. *Surface,* hilly and broken; *soil,* in some parts fertile. *Cap.* Spencer. *Pop.* (1897) 15,990.

Roanne (*ro-an'*), a town of France, dept. of Loire, on the river Loire, 40 m. N.W. of Lyons. It is the entrepôt of an extensive commerce. *Manuf.* Cottons, muslins, paper, and jewelry. *Pop.* 14,500.

Roanoke (*ro-an-ōk'*), in *Illinois,* a post-township of Woodford co.

Roanoke, in *Indiana,* a post-town of Huntingdon co., about 16 m. S.W. of Fort Wayne.

Roanoke, in *Missouri,* a post-town of Howard co., about 75 m. N.N.W. of Jefferson City.

Roanoke, in *New York,* a village of Genesee co., about 30 m. W. S.W. of Rochester.

Roanoke, in *North Carolina,* a village of Martin co., about 82 m. E.N.E. of Raleigh.

Roanoke, in *Virginia,* a W. S.W. co.; *area,* about 321 sq. m., washed by Staunton river. *Surface,* generally hilly, and in the E. mountainous; *soil,* very fertile. *Min.* Limestone. *Cap.* Salem. *Pop.* (1897) 31,438.

Roanoke' Bridge, in *Virginia,* a village of Charlotte co., abt. 89 m. S W. of Richmond.

Roanoke' Island, in *N. Carolina,* a strip of land off Tyrrel co., between Albemarle and Pamlico Sounds. *Length,* abt. 13 m. This island having been strongly fortified and manned by the Confederates, prescnted a formidable barrier against invasion from the Union naval forces. On Jan. 11, 1862, a powerful expedition under Gen. Burnside, consisting of over one hundred steam- and sailing-vessels, with 16,000 troops and a battery of artillery, left Hampton Roads, and after encountering a severe gale, in which several vessels were lost, arrived at *R. I.* On the night of Feb. 7, the fleet having been placed in position, 11,000 troops, under Gen. Foster, were safely landed, and early next morning commenced the attack. Batteries had been erected at all the favorable points by the Confederates, and much severe fighting ensued. However, aided by the fire from the fleet, the superior numbers of Union forces had an overwhelming advantage, and before night every battery and fortification had either surrendered unconditionally, or been carried by assault. The loss in killed and wounded was severe on both sides. The Confederate prisoners numbered abt. 4,000.

Roanoke' River, formed in Mecklenburg co., Virginia, by the union of the Dan and Staunton rivers, and flowing E.S.E. into N. Carolina; thence pursuing a tortuous S E. and E. course, it enters Albemarle Sound between Bertie and Washington cos. It is a remarkably rapid stream, and flows through a very fertile region. *Length* of main stream, abt. 250 m.; including the Staunton River, abt. 450 m.

Roar, *v. n.* [A. S. *rarian;* Lat. *rugio,* to roar.] To cry with a full, loud, continued sound; — particularly, to bellow, as a beast; as, a *roaring* lion; also, to cry aloud, as in distress; to bawl, as a child; — again, to cry loudly, as in anger; as, he *roared* at his servants. — To make a loud, confused, obstreperous sound, as passing vehicles, a shouting, tumultuous crowd; winds, waves, &c. — To be disorderly; to engage in riotous proceedings; as, those fellows had a *roaring* time of it. — To guffaw; to laugh out loudly and continuously; as, they fairly *roared* with merriment. — To make a loud rasping noise in breathing, as horses when under the influence of a certain disease.

Roaring boy, a rattling, rantipole fellow.

—*v. a.* To utter or proclaim loudly. (R.)

—*n.* A full, loud sound of some continuance; as, the *roar* of the wind, &c.

"The cannon's opening *roar.*" — *Byron.*

—The sound of roaring, as the bellow or loud cry of a beast; as, the *roar* of a gorilla; — also, the loud cry of one in distress; as, the *roar* of a child when beaten. — Clamor; outcry of joy, mirth, or laughter.

"Merriment, that was wont to set the table on a *roar.*" — *Shaks.*

Roar'er, *n.* One who, or that which, roars; — particularly, a rantipole, noisy, loud-voiced fellow; as, mohocks and *roarers;* a horse subject to roaring.

Roar'ing, *n.* A loud, continuous sound, as of a beast, or of one in distress, pain, anger, mirth, &c.; also, the loud, continued sound of the billows of the sea, or of a tempest.

(*Far.*) A disorder of a horse's windpipe, causing a peculiar, loud, wheezy noise in breathing under exertion; also, the making of the noise so caused.

Roar'ing Creek, in *N. Carolina,* enters the Yadkin River from Wilkes co.

Roaring Creek, in *Pennsylvania,* enters the North

RIVER SYSTEMS OF THE WORLD

EUROPE

LENGTH MILES		AREA OF BASINS SQ. MILES
450	Seine	48,000
850	Dniester	49,000
550	Tagus	50,000
480	Ebro	51,000
510	Duna	55,000
490	Douro	60,000
520	Rhone	61,000
500	Niemen	63,000
550	Oder	66,000
620	Loire	75,000
720	Elbe	90,000
690	Vistula	120,000
800	Rhine	140,000
960	Ural	160,000
1,020	Petchora	200,000
1,100	Dwina	220,000
1,200	Don	270,000
1,250	Dnieper	320,000
1,800	Danube	450,000
2,300	Volga	850,000

ASIA

LENGTH MILES		AREA OF BASINS SQ. MILES
1,700	Euphrates	430,000
1,800	Indus	600,000
2,500	Hoang	610,000
1,800	Ganges	660,000
3,100	Yangtse	1,000,000
2,700	Amur	1,250,000
2,800	Lena	1,450,000
3,200	Yenisei	1,670,000
3,200	Ob	1,900,000

Brahmaputra · Shilka · Kerulen · L. Baikal · Tobol · Irtich

AUSTRALIA

LENGTH MILES		AREA OF BASINS SQ. MILES
1,700	Murray	550,000

Darling

AFRICA

900	Senegal	
1,300	Orange	
1,600	Zamoezi	
2,700	Niger	
3,800	Nile	
2,900	Kongo	2,250,000

Victoria Nyanza · White Nile · Blue Nile · Kassai · Ubangi

AMERICA

LENGTH MILES		AREA OF BASINS SQ. MILES
1,700	Rio Grande	350,000
1,400	Columbia	370,000
1,600	Colorado	410,000
2,000	Yukon	500,000
1,400	Orinoco	570,000
1,500	Nelson	730,000
2,300	St.Lawrence	800,000
2,400	Mackenzie	1,000,000
2,300	Plata	1,900,000
3,200	Mississippi	2,000,000
4,200	Amazon	4,200,000

Saskatchewan · L. Winnipeg · Athabasca · Mississippi · Missouri

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Branch of the Susquehanna River from Columbia co.—A post-township of Columbia co.—A village of Montour co., abt. 10 m. S. by W. of Pottsville.

Roar'ingly, *adv.* In a roaring manner.

Ro'ark, in *Missouri*, a township of Gasconade county.

Roar'y, Ror'y, *a.* [Lat. *ros, roris*, dew.] Dewy; as, "with *roary* May-dews wet." — *Fairfax.*

Roast, (*rōst,*) *v. a.* [Ger. *rösten;* It. *arrostire;* Fr. *rôtir.*] To cook, dress, or prepare meat for the table by exposing it to heat before a fire, as on a spit, in a bake-pan, in an oven, or the like. — To prepare for food by exposure to heat; as, to *roast* apples, eggs, chestnuts, &c. — To dry and parch by the application of heat; as, to *roast* coffee. — Hence, to heat to a degree of violence or excess; as, "*roasted* in wrath and fire." (*Shaks.*)—To jeer; to chaff; to banter with some degree of sarcasm; as, to *roast* mock modesty.

(*Metal.*) To dissipate the volatile parts, as of ore by heat.

—*v. n.* To undergo the process of roasting, as meat, &c.

—*n.* That which is roasted, or suitable to roast; as, a *roast* of beef.

To rule the roast, to domineer; to take the lead; to have the supreme control of; as, his wife *rules the roast* at home.

—*a.* (for *roasted.*) Roasted.

Roast'er, *n.* One who cooks meat by roasting. — A contrivance for roasting meat; a jack. — A pig, or other animal, fit to be roasted whole.

Roast'ing, *n.* The act of one who roasts.

(*Metal.*) The protracted application of heat to metallic ores, below their fusing points. It is generally resorted to to expel volatile matters, especially sulphur, arsenic, carbonic acid, water, &c., and is generally performed in a current of air, so as to effect simultaneous oxidation.

Rob, *n.* [Fr. and Sp.; Pers. *rub.*] The thin extract or inspissated juice of ripe fruit, reduced to syrupy consistence.

—*v. a.* (*imp.* and *pp.* ROBBED,) (*rōbd.*) [A. S. *reafian;* Ger. *rauben.*] To take away from by unlawful violence; to reave; to seize and carry either by open force or secret theft; to strip by pillage; to plunder; as, to *rob* a bank. — To take from; to deprive; as, laughter *robs* the mind of its gravity.

(*Law.*) To take away from the person of by open and violent assault; as, to *rob* a traveller; to take away by oppression or by force; as, to *rob* a man of his rights.

Rob'and, *n.* (*Naut.*) Same as ROPE-BAND, *q. v.*

Robb, in *Indiana*, a twp. of Posey co.

Rob'ber, *n.* [Ger. *rauber.*] One who robs; a plunderer; a pillager; a despoiler; one who takes goods or money from the person of another by force or menaces, and with a felonious intent; one who takes that to which he has no right; one who steals, plunders, or strips by violence and wrong; a thief; a highwayman; a footpad: a pirate; a bandit; a brigand; a rifler; a depredator.

Rob'bery, *n.* (*Law.*) The unlawful taking away of money or goods of any value from the person of another, or in his presence, either by violence or by putting him in fear. Hence, in order to constitute *R.*, there must be, 1. An unlawful taking; 2. The thing must be of some value, but it is immaterial, as constituting the offence, whether it be a cent or a dollar; and, 3. The taking must be by force, or a previous putting in fear. It is this last which distinguishes *R.* from other larcenies, and makes the violation of the person more atrocious than private stealing. The taking must also be either directly from the person or in his presence, or it is not *R.* The thing taken must have been in the possession of the thief, and if he once has it in his possession, even though he immediately restore it, he is still guilty of *R.* This offence is punishable by penal servitude for life, or for any term of not less than seven years, or by imprisonment for any term not exceeding three years. Assaulting, with intent to rob, or demanding any property of a person by menaces or force, is made punishable by imprisonment for any term not exceeding three years; and upon an indictment for *R.*, or any other offence which includes assault, the jury may acquit of the felony and find guilty of the assault, for which the party indicted may be sentenced to imprisonment for any term not exceeding three years. Where the crime of *R.* is attended with, or immediately followed by, stabbing, cutting, or wounding, it is a capital offence.

Rob'bin, *n.* The spring of a carriage.

(*Com.*) In the East Indies, a certain kind of package in which pepper and dry-goods are sometimes exported. The *robbin* of rice as exported from Malabar weighs about 84 lbs.

Rob'binston, in *Maine*, a post-township of Washington co.

Robe, *n.* [Fr., from L. Lat. *rauba*, spoil, the taking of one's garments.] A kind of gown, or long, loose garment, worn over other dress, particularly by persons in a high station of life; as, the *robes* of a Knight of the Garter; a splendid gown, dress, or garment worn by women; as, a velvet *robe*; — hence, any elegant dress or article of splendid attire.

—In the U. States and Canada, a skin of the bear, wolf, buffalo, &c., dressed and prepared for use.

Master of the Robes, in England, an officer of the royal household, whose duty consists in ordering the sovereign's robes; now usually termed *Groom of the Stole.*

Mistress of the Robes, in England, a lady who holds the highest rank of all ladies attached to the Queen's household, and who has the charge of her robes.

Robe-de-chambre. [Fr., literally, a chamber-gown.] A dressing-gown; a morning-gown.

Robe, *v. a.* To put a robe upon, or to dress with magnificence; to array; to attire; to invest, as with beauty or elegance; as, trees *robed* with leaves.

Rob'ert I., King of France, was the second son of Robert "the Strong." He was chosen king at Soissons, in 992, to the prejudice of Charles "the Simple," but was killed during the following year at the battle of Soissons. He was the father of Hugh "the Great," and grandfather of Hugh Capet.

ROBERT II., surnamed *The Sage and Devout;* b. about 970. He was an accomplished prince, and succeeded his father, Hugh Capet, in 996. He married his cousin Bertha, but Pope Gregory V. declared the marriage void, and excommunicated the king, who took for his second wife the daughter of the Count of Arles and Provence. D. 1031.

Rob'ert I., King of Scotland. See BRUCE.

ROBERT II. and III. See STUART.

Rob'ert I., Duke of Normandy, surnamed the "Magnificent," though more familiarly called *Robert the Devil*, succeeded his father, Duke Richard II., whom he is reported to have poisoned. He repressed several revolts in his dominions, assisted Baudouin VI., Count of Flanders, and attempted to defend Alfred and Edward, the sons of Edmund, who had been excluded from the English throne by Canute. To expiate the errors of his youth, he made a pilgrimage to the Holy Land, but died upon his return, it is supposed from poison. He left one son, the celebrated William "the Conqueror." Died at Nicœa, 1035.

Rob'ert, LEOPOLD, a French painter, b. 1797, studied under Gérard and David, and perfected his talents in Italy, where he executed many of his finest pictures. His greatest works are, the *Neapolitan Improvisatore*, *The Reapers*, and the *Venetian Fishermen.* Committed suicide in Venice, 1835.

Rob'ert, (Le,) a town on the E. coast of the Island of Martinique, W. Indies; *pop.* 5,000.

Rob'erts, in *Illinois*, a township of Marshall co.; *pop.* abt. 1,500.

Rob'ertson, WILLIAM, a British historian, b. 1721, at Borthwick, or Edinburgh, where his father was minister. Having completed his theological studies at Edinburgh, he obtained a license to preach, and in 1743 was presented to the living of Ghidsmuir, in East Lothian. He soon became distinguished by his eloquence as a preacher; but it was not till 1759 that, by his *History of Scotland*, he acquired a place among British classical writers. The distinction he acquired by this work, which reached a fourteenth edition before his death, appeared in his successive preferments. He became King's chaplain in 1761, principal of the University of Edinburgh in 1762, and Historiographer-Royal of Scotland in 1764. His other works are: *History of Charles V.; History of America;* and *An Historical Disquisition concerning the Knowledge which the Ancients had of India.* D. 1793. As a historian, Dr. Robertson is admired for luminous and skilful arrangement, graphic description, and a singularly perspicuous style.

Rob'ertson, in *Tennessee*, a N. co., adjoining Kentucky; *area*, abt. 500 sq. m. *Rivers.* Red River and Sycamore Creek. *Surface*, uneven; *soil*, fertile and well adapted to grain. *Cap.* Springfield. *Pop.* (1897) 22,050.

Robertson, in *Texas*, an E. central co.; *area*, about 850 sq. m. *Rivers.* Brazos and Navasoto rivers. *Surface*, level or slightly undulating; *soil*, generally fertile. *Cap.* Franklin. *Pop.* (1897) 27,180.

Rob'ertsville, in *Connecticut*, a post-village of Litchfield co., abt. 28 m. N.W. of Hartford.

Robertsville, in *Ohio*, a post-village of Stark co., abt. 10 m. E.S.E. of Canton.

Robertsville, in *Pennsylvania*, a village of Indiana co., abt. 70 m. N.E. of Pittsburg.

Robertsville, in *Tennessee*, a village of Anderson co., abt. 166 m. E. of Nashville.

Rob'eson, in *North Carolina*, a S. co., adjoining South Carolina; *area*, about 1,040 sq. m. *River.* Lumber river. *Surface*, nearly level; *soil*, fertile, yielding considerable crops of corn and cotton. *Cap.* Lumberton. *Pop.* (1897) 32,220.

Robeson, or ROBESONIA, in *Pennsylvania*, a post-village and township of Berks county, about 12 miles west of Reading.

Robespierre, FRANÇOIS MAXIMILIEN JOSEPH ISIDORE, (*robes'preair,*) a famous French revolutionist, b. at ARRAS, 1759, was the son of a provincial advocate, and was educated at the expense of the bishop of Arras. After completing his studies at Paris, he entered upon the profession of the law, but with no great success. Upon the outbreak of the Revolution, he became a member of the National Assembly, and in a short time rose to be chief of the Jacobins. He declared that "France must be revolutionized," and was soon named Public Accuser. Having risen to power, he, to maintain it, had recourse to the most cruel expedients. The prisons were crowded with unfortunate victims of all ages and of both sexes. Numbers were daily put to death, and the streets were deluged with blood. At length a conspiracy was formed against him.

Fig. 2268. — ROBESPIERRE.

He was accused of seeking his own aggrandizement by getting rid of his old colleagues, and was condemned to death. He was taken, but contrived to effect his escape, and marched against the Convention; yet he had not sufficient personal courage to turn the tide once more in his own favor, and was again taken prisoner. His jaw was broken by a pistol shot, if from his own hand, or from an assailant, is not known, but he was, with 22 of his associates, dragged to the scaffold. His character has been decried, but deservedly so. He was cowardly and cruel, but eloquent and not mercenary. His partisans surnamed him the "Incorruptible"; and at his death he was worth but 50 francs. His mean and low qualities were so greatly in excess of the better faculties, that he rendered himself as great a foe to democracy as to monarchy and aristocracy. Guillotined, 1794.

Rob'in, *n.* [From Lat. *rubeo*, to be red.] (*Zoöl.*) The name given in different countries to red-breasted birds belonging to different genera of the family *Turdidæ.* The common Robin (*Turdus migratorius*) of all North America, is about 10 inches long, and is so well known that it needs no further description. This is one of the most common and most interesting birds, coming to the temperate districts early in the spring, and remaining late in the autumn. Some remain through the whole winter even in New England, but keep in the thick swamps and on the sunny sides of woods. The song of the robin at the close of the early days of spring is among the sweetest that issues from our groves and orchards. — The Robin-redbreast of Europe (*Erythaca rubecula*, or *Motacilla rubecula*) is also familiar to every one, at least by name. This pretty little bird is from 5 to 6 inches long, brownish-gray above, the throat and breast red, and belly white. It delights in the presence of man, and often enters his dwelling. In the cold weather, it sometimes takes up its abode in houses, and, selecting a perch, warbles its song when the day is clear, or the fire burns brightly.

Rob'in Good'fellow, *n.* Same as PUCK, *q. v.*

Rob'ing-room, *n.* In England, a room where state dignitaries, members of knightly orders, or lawyers, put on their robes; as, the *robing-room* of the House of Lords.

Rob'in Hood, a celebrated hero in English ballad poetry. He was the captain of a band of outlaws, who made Sherwood Forest, in Nottinghamshire, their haunt, and from whence they made excursions into different parts of England. He had as his second a celebrated character called *Little John;* and, according to Stowe, they continued their marauding course of life from 1188 to 1247, without being brought to justice. The most complete edition of the ballads in which his deeds are sung is that of Gutch, 1847.

Robin'ia, *n.* (*Bot.*) A genus of plants, order *Fabaceæ.* The species *R. pseud-acacia* is known as the Locust-tree, and frequently cultivated on account of its flowers and its hard and durable wood. It must not be confounded with the useful West Indian Locust-tree (see HYMENÆA), or with the plant producing the so-called locust-bean. See CERATONIA.

Rob'inson, EDWARD, a distinguished American philologist and biblical scholar, was born at Southington, Conn., 1794. He studied at Hamilton College, and graduated in 1816 with the highest honors. Continuing his studies diligently, he became associated, in 1822, with Professor Stuart, at Andover, in preparing a new edition of his *Hebrew Grammar*, and soon after was appointed Assistant-instructor in Sacred Literature, a post which he filled for four years. He visited Europe in 1826; and on his return to America, in 1830, he was appointed Professor-extraordinary of Biblical Literature at Andover, where in the following year he established the *Biblical Repository*, which he edited for four years. In consequence of failing health, he removed, in 1834, to Boston, still devoting himself to work in his chosen field. He was chosen, in 1837, Professor of Biblical Literature in the Union Theological Seminary of New York, but, before entering on his new office, visited Palestine, for the purpose of geographical exploration, and then spent two years at Berlin in the preparation of his *Biblical Researches in Palestine*, which appeared in 1841. It gained him a European reputation, and also, by its courageous disregard of ecclesiastical traditions, provoked much bitter controversy. He received one of the gold medals of the Royal Geographical Society of London, and was created D. D. by the University of Halle. He visited Europe again in 1851, and Palestine in 1852. The latter years of his life were devoted to the preparation of a great work on the physical and historical geography of Palestine, the first portion of which appeared in 1865. Dr. *R.* was author of the well-known *Greek and English Lexicon of the New Testament*, the first edition of which appeared in 1836, and a second, revised, in 1850. He published translations of Hahl'a *Clavis Nori Testamenti*, Buttmann's *Greek Grammar*, and Gesenius' *Hebrew Lexicon*, of which five editions have appeared. He originated the *Bibliotheca Sacra* in 1843, and published a *Harmony of the Four Gospels* in Greek, in 1845. His name is held in high honor as one of the soundest and most accomplished scholars of his age. Died at New York, January 25th, 1863. In 1828, Dr. *R.* married for his second wife Teresa, daughter of Professor Von Jacob, of Halle, who has distinguished herself as a writer under the assumed name of "Talvi."

Robinson, in *Illinois*, a city, cap. of Crawford co., on the C., C., C. & St. L. and Ind. & Ill. Southern R. Rs., 44 m. W. of Terre Haute, Ind. *Pop.* (1897) 1,520.

Robinson, in *Indiana*, a township of Posey co.

Robinson, in *Kansas*, a post-village of Brown co., about 26 m. N.W. of Atchison.

Rob'inson, in *Michigan*, a post-township of Ottawa county.

Robinson, in *Missouri*, a former township of Greene county.

Robinson, in *Oregon*, a village of Lane co.

Robinson, in *Pennsylvania*, a township of Allegheny county.—A village and township of Washington county, about 20 miles S.S.W. of Pittsburg.

Robinson's River, in *Virginia*, enters Rapidan River between Madison and Orange cos.

Rob'in's-plan'tain, *n.* (*Bot.*) See ERIGERON.

Rob'orant, *a.* [From Lat. *roborare*, to strengthen.] Strengthening.

—*n.* (*Med.*) A tonic; a medicine to strengthen the bodily system.

Rob Roy, or ROBERT THE RED, was a celebrated Highland freebooter, whose true name was Robert Macgregor, but who assumed that of Campbell, on account of the outlawry of the clan of Macgregor by the Scotch Parliament, in 1662. He was B. about 1660, and, like other Highland gentlemen, he was a trader in cattle previous to the rebellion of 1715, in which he joined the adherents of the Pretender. On the suppression of the rebellion, the Duke of Montrose, with whom Rob Roy had previously had a quarrel, took the opportunity to deprive him of his estate; and the latter began to indemnify himself by a war of reprisals upon the property of the Duke. An English garrison was stationed at Invers-naird, near Aberfoyle, the residence of Rob Roy; but his activity and courage saved him from the hands of his enemies, from whom he continued for some time to levy black-mail. D. about 1735. The story of Rob Roy furnished Scott with the theme of one of his most fascinating novels.

Rob Roy, in *Indiana*, a post-village of Fountain co., abt. 12 m. N.E. of Covington.

Robust', *a.* [Fr. *robuste*, from Lat. *robustus*.] Indicating strength; denoting vigorous health; strong; sinewy; muscular; sound; lusty; stout; sturdy; as, a *robust* constitution. — Boisterous; rough; rude; robustious; as, *robust* gallantry.—Demanding or necessitating strength or vigor; as, *robust* exercise.

Robustious, (*-bŭst'yus,*) *a.* Rough; rude; boisterous; as, a *robustious* young fellow. (B.)

Robust'ly, *adv.* With great strength; muscularly; in a robust manner.

Robust'ness, *n.* State or quality of being robust; strength, vigor, or the condition of the body when it has full, firm flesh, and sound health.

Roc, *n.* [Ar. and Pers. *rukh.*] A monstrous bird of Arabian mythology, of the same fabulous species with the *simurg* of the Persians.

Roc'ambole, *n.* (*Bot.*) The common name for *Allium scorodoprasum*, a plant closely resembling the garlic, *A. sativum*. The bulbs, which are cultivated for the same purposes as those of the latter species, are said to have a more delicate flavor.

Ro'cas, an island in the Atlantic Ocean, abt. 125 m. N.E. of Cape St. Roque; Lat. 3° 55′ S., Lon. 33° 43′ W.

Roccel'la, *n.* (*Bot.*) A genus of lichens. The species are known under the common name of *Orchella* weeds, and are extensively used in the manufacture of the purple and red dyes called *archil*, or *orchil*, and cudbear. In Holland, the blue dye-stuff called *litmus* is also prepared from these lichens. Orchella weeds are exported from various parts of the world; as the Canary and Cape de Verd Islands, the Azores, Angola, Madagascar, Mauritius, Madeira, S. America, and the Cape of Good Hope. In commerce, the different kinds are distinguished by the names of the countries whence they are derived. It is remarkable that there is no coloring matter ready formed in these lichens; it is produced by the combined action of air and ammonia upon some colorless principles contained in them. See ARCHIL, LECANORA, LITMUS.

Roccel'lic, *a.* (*Chem.*) Pertaining or relating to, or obtained from, *Rocella tinctoria*.

Rochambeau, (*rŏsh-am-bō',*) JEAN BAPTISTE DONATIEN DE VIMEUR, COUNT DE, Marshal of France, B. at Vendôme, 1725. He entered the army at the age of 16, greatly distinguished himself in several battles, and, having been made lieutenant-general, was, in 1780, sent with an army of 6,000 men to the assistance of the U. States. Having embarked in Rhode Island, he acted in consort with Washington, first against Clinton, in New York, and then against Cornwallis. *R.* was raised to the rank of marshal by Louis XVI., and, after the Revolution, he was appointed to the command of the army of the north; but he was superseded by more active officers, and retired to his estate, near Vendôme, where he died, 1807. His *Mémoires* were published in 1809.

Roch'dale, a town of England, co. of Lancaster, on the Roch, 12 m. N.N.E. of Manchester. *Manuf.* Flannels, kerseys, calicoes, haizes, fustians, hats, and machinery.

Roche-a-Gris, (*rosh-a-grē',*) in *Wisconsin*, a small river flowing into the Wisconsin River from Adams co.

Roche'-alum, Rock'-alum, *n.* (*Chem.*) Alum deprived of part of its water of crystallization by heat.

Rochefort, (*rosh'for,*) an important seaport and naval arsenal of France, dept. of Charente-Inférieure, on the Charente, 5 m. from its mouth, and 18 m. S.E. of La Rochelle; Lat. 45° 56′ 6″ N., Lon. 57′ 7″ W. It is the third port of France in importance, and contains numerous public works. *Manuf.* Cordage, stone-ware, oil, and sugar refining. *Pop.* 30,151.

Rochelle. See LA ROCHELLE.

Rochelle, in *Illinois*, a city of Ogle co., at junction of C. & N.W. and the Chic., B. & Quincy R. Rs., 75 m. W. of Chicago; contains some fine edifices, and is the center of a large agricultural trade. *Pop.* (1897) 2,150.

Rochelle Salt, *n.* [From the town of *Rochelle*, France.] (*Chem.*) The tartrate of soda and potassa. It is a double salt, composed of 2 atoms of tartaric acid, 1 of potassa, and 1 of soda. Its crystals, which are large and well-defined prisms, often presenting 8, 10, or 12 sides, include 8 atoms of water.

Roche Percée, (*rosh per'sa,*) in *Missouri*, a small river flowing into the Missouri River from Boone co.

Roche'port, in *Missouri*, a p.-vill. of Boone co., abt. 40 m. N. W. of Jefferson City.

Rochester, a city of England, co. of Kent, on the Medway, 30 m. S.E. of London; *pop.* abt. 20,000; in *Ill.*, a p.-vill. of Sangamon co., abt. 6 m. S.E. of Springfield; in *Ind.*, a vill. of Franklin co., abt. 76 m. E.S.E. of Indianapolis.—A p.-vill. and twp., cap of Fulton co., 92 m. N. of Indianapolis; *pop.* abt. 3,000.—A vill. of Noble co., abt. 130 m. N.N.E. of Indianapolis; in *Iowa*, a p.-vill. and twp. of Cedar co., abt. 20 m. E. of Iowa City.

Rochester, in *Kentucky*, a post-village of Butler co., abt. 30 m. N.W. of Bowling Green.

Rochester, in *Massachusetts*, a post-township of Plymouth co.

Rochester, in *Michigan*, a post-village of Oakland co., abt. 28 m. N. of Detroit.

Rochester, in *Minnesota*, a city, cap. of Olmsted co., on the Chicago & Northwestern R. R., 40 m. S. of Red Wing; has several flour mills, and is the trade center of a flourishing agricultural region. *Pop.* (1895) 6,429.

Rochester, in *Missouri*, a post-village and township of Andrew co., about 62 m. N. by W. of Independence.

Rochester, in *New Hampshire*, a post-town of Strafford co.

Rochester, in *New York*, a city on the Genesee River, 7 m. from its embouchure in Lake Ontario, and 260 m. N.W. of New York. It is remarkable, even in this country, for the rapidity of its growth, which increase has been owing, in part, to the advantageous situation of the city for an emporium, from its easy communication with the lakes by means of the Genesee River, which is navigable to within 2 miles of the town, and with the country traversed by the Erie Canal, and by various railways, which either terminate in or pass by the town; but principally, perhaps, to its immense command of water-power, the various falls of the Genesee River within its limits, amounting in all to 268 feet in perpendicular height; it has several large flour mills, and was at one time the principal seat of the flour trade of the country. It has a variety of large establishments, the moving power in which is supplied, wholly or in part, by water—such as fulling-mills, woollen and cotton factories, iron foundries, &c. Its principal industries are the manufacture of ready-made clothing and boots and shoes; these two branches alone give employment to over 7,000 persons. *R.* is well built, having wide streets, large stores and warehouses, and many neat, and some superior dwelling-houses, with shrubberies attached. Being the cap. of a co., it has a court-house, jail and other county buildings; numerous schools, academies and churches; a collegiate institution and museum; various public banks, and one of the largest savings' banks in the State. It was incorporated as a city in 1834. *Pop.* (1870) 62 385; (1880) 89,363; (1890) 138,896; (1897) 151,400; (1900) 162,435.

Rochester, in *Ohio*, a post-village and township of Lorain co., abt. 94 m. N.N.E. of Columbus. *Pop.* (1897) 910.

—A village of Noble co., about 30 m. E.S.E. of Zanesville.

—A small village of Warren co.

Rochester, in *Pennsylvania*, a post-borough of Beaver co., abt. 25 m. N.W. of Pittsburg.

Rochester, in *Vermont*, a post-township of Windsor co.

Rochester, in *Wisconsin*, a post-village and township of Racine co., abt. 24 m. W. of Racine.

Roch'ester Col'ony, in *Michigan*, a village of Clinton co., abt. 28 m. N.E. of Lansing.

Rochet, (*rŏtch'et,*) *n.* [Fr., from L. Lat. *rochetum*, an external garment.] A vestment made of white linen, and worn by priests and bishops when officiating. It differs from the surplice by being gathered at the wrists, and having tight-fitting sleeves.

—In England, a mantelet worn by the English peers at state ceremonies.

Rochlitz, (*rŏk'litz,*) a town of Germany, in Saxony, on the Mulda, 28 m. E. of Leipsic; *pop.* 4,500.

Rock, *n.* [Fr. *roc*, *roche;* A. S. *roc;* It. *rocca*] A vast mass of stone, of broken surface, rugged and steep; a large mass of stony matter, either bedded in the earth, or resting on its surface. — Hence, analogically and figuratively, that which resembles a rock in stability; a defence; a means of safety or security; a protection; an asylum; as, the *rock* of faith. — Hence, also, that by which any disaster is occasioned in a manner like that by which a ship is wrecked by striking upon a rock.

(*Geol.*) All mineral masses underlying the soil and sub-soil of any part of the earth are designated, by the geologist, *rocks*. *R.* are either *fossiliferous* or *non-fossiliferous*, the former being for the most part *stratified* and of aqueous origin, and the latter frequently *unstratified*. Of the latter, some appear to have distinct reference to the action of heat, or have been apparently so far altered as to be, with manifest reason, called *igneous* or *crystalline*. Among the former are lavas and basaltic rocks; among the latter, granites and porphyries. There is a large intermediate class, called *metamorphic*, including slates and schists. The essential basis of stratified *R.* is always either limestone, sandstone, or clay. Unstratified *R.* present modifications of the same materials. Stratified *R.* often contain numerous organic remains, which are rarely found in unstratified *R.* *R.* present many mechanical modifications, resulting from the conditions to which they have been exposed.

(NOTE. *Rock* forms the prefix of numerous self-explanatory compounds; as, *rock*-bound, *rock*-hearted, *rock*-ribbed, &c.)

Rock, *n.* [Ger. *rocken.*] A distaff used in spinning; — specifically, the staff or frame about which flax or wool is arranged, from which the flax is drawn in spinning.

Rock, *v. a.* [Ger. *rücken*, to push, move, from *ruck*, a wrench.] To move backward and forward, as a body resting on a foundation; to move backward and forward, as in a chair, cradle, &c. — To set to sleep by rocking; — hence, to still; to quiet; to tranquillize.

"Sleep *rock* thy brain." — *Shaks.*

—*v. n.* To reel; to totter; to oscillate; to be moved backward and forward; as, the *rocking* motion of an earthquake.

Rock, in *Iowa*, a township of Mitchell co.

Rock, in *Wisconsin*, a S. co., adjoining Illinois; *area*, abt. 770 sq. m. *Rivers.* Rock and Sugar rivers. *Surface*, mostly undulating; *soil*, very fertile, producing abundant crops of grain and fruit. *Minerals.* Blue limestone. *Cap.* Janesville. *Pop.* (1895) 48,414.

—A township of the above county.

Rock'-alum, *n.* See ROCHE-ALUM.

Rock'away, *n.* A low, four-wheeled, two-seated carriage for riding in, with full standing top.

Rock'away, in *New Jersey*, a town and township of Morris co., abt. 9 m. N. of Morristown. It owes its importance chiefly to the rich iron mines in the vicinity, and the extensive iron manufactories established here. *Pop.* abt. 7,000.

Rockaway, in *New York*, a post-village of Queen's co., abt. 24 m. E.S.E. of New York city.

Rockaway River, in *New Jersey*, enters the Passaic between Morris and Essex cos.

Rock Bluff, in *Nebraska*, a post-village of Cass co., abt. 6 m. S. by E. of Plattsmouth.

Rock'bridge, in *Virginia*, a W. co.; *area*, abt. 780 sq. m. *Rivers.* North and James rivers. *Surface*, diversified, the Blue Ridge forming the S.E. boundary of the co.; *soil*, exceedingly fertile. In this co. is the remarkable NATURAL BRIDGE, *q. v. Cap.* Lexington.

Rockbridge, in *Wisconsin*, a post-village and township of Richland co., abt. 33 m. W. of Baraboo. The name is derived from a curious natural bridge at the W. Branch of Pine River.

Rock Castle, (*rok kas'sel,*) in *Kentucky*, a S.E. central co.; *area*, abt. 300 sq. m. *Rivers.* Dick's and Rock Castle rivers. *Surface*, hilly; *soil*, not very fertile. *Prod.* Corn, grass, and pork. *Min.* Bituminous Coal. *Cap.* Mount Vernon.—A post-village of Trigg co., abt. 240 m. W.S.W. of Frankfort.—A small river flowing S.S.W. into Cumberland River between Pulaski and Laurel cos.

Rock'cork, *n.* (*Min.*) Same as MOUNTAIN-CORK.

Rock Creek, in *California*, enters the Sacramento River between Tehama and Butte cos.

Rock Creek, in the *District of Columbia*, enters the Potomac River at Georgetown.

Rock Creek, in *Illinois*, a post-twp. of Carroll co. —A twp. of Hancock co.

Rock Creek, in *Indiana*, enters the Wabash River from Carroll co.—A post-township of Bartholomew county.—A township of Carroll county.—A township of Huntington county.—A township of Wells county.

Rock Creek, in *Kansas*, a township of Jefferson co.—A township of Nemaha co.

Rock Creek, in *Kentucky*, a post-village of Lewis co., abt. 125 m. E.N.E. of Frankfort.

Rock Creek, in *Pennsylvania*, enters Monocacy River from Adams co.

Rock Creek, in *Wisconsin*, a township of Dunn county.

Rock'-crys'tal, *n.* (*Min.*) A common term applied to transparent, crystallized silica. It is also called QUARTZ, *q. v.*

Rock'dale, in *Pennsylvania*, a village of Chester co., abt. 40 m. W. by N. of Philadelphia. — A post-township of Crawford co.

Rock Dell, in *Minnesota*, a post-township of Olmstead co.

Rock'er, *n.* One who rocks, as a chair or cradle.—The curving piece of wood on which a cradle or chair rocks. —Any instrument capable of a rocking or oscillatory motion; as, a *rocker* for separating gold-dust from earth, &c.

Rock'ery, *n.* A hillock formed of stones, earth, &c., for plants; rock-work.

Rock'et, *n.* [Dan. *raquette.*] (*Pyrotechny.*) A cylindrical case of paste-board or metal, attached to one extremity of a light wooden rod, and containing a composition which, being fired, shoots the whole of the arrangement through the air, by that principle that an unbalanced reaction from the heated gases which issue from openings in fire-works gives them motion in the opposite direction. As signals between persons who were unable to communicate with each other on account of darkness or some other cause, *R.* have long been employed. They were also used for the important service of determining the difference of longitude between two places. In signal-rockets, the composition with which the case is filled consists generally of saltpetre, sulphur, and charcoal, or gunpowder; the whole is reduced to a *mealed* state, and well mixed together, the annexed being the proportions: — saltpetre, 4 lbs.; sulphur, 1 lb.; and charcoal, 1 lb. 8 oz. The mixture for producing *R.* with stars, consists of, saltpetre, 8 lbs.; sulphur, 2 lbs.; sulphide of antimony, 2 lbs.; mealed powder, 8 oz.; and isinglass, 3¾ oz. The last ingre-

dient is dissolved in a quart of vinegar, after which 1 pint of spirits of wine is added, and then the mealed composition is mixed with the liquid till the whole mass comes to be of the consistency of thick paste. After being moulded into short cylinders and carefully dried, these cylinders are packed into the head with a small bursting charge. As soon as the *R.* is shot off and burned out, the bursting charge opens the head and sets free the lighted stars. The force by which a *R.* ascends is similar to that by which a gnu recoils when it is fired. The rod serves to guide the *R.* in its flight, the common centre of gravity of the *R.* and rod being a little below the top of the latter. The distance at which signal-rockets can be seen varies between 35 and 40 miles; and the times of ascent from seven to ten seconds. At the beginning of this century Sir William Congreve converted the *R.* into a terrible projectile of war, with ranges which no ordnance of that day could attain. Discarding the small sizes, he made 12-lb., 18-lb., and 32-lb. *R.*, which he charged with canister-shot, bullets, and other missiles. The stick for a 32-lb. *R.* is 18 ft. in length, and the maximum range 3,500 yards. The range can be also increased by discharging the *R.* from a cannon, with a time-fuse to ignite it at the cannon's utmost range, when the rocket commences its own course. As missiles, these *R.* are found to annoy most seriously the defenders in any fortified work, and, in a bombardment, they speedily set houses and buildings on fire. In the field, also, the plunging, ricochetting motion of the *R.* greatly disturbs both cavalry and infantry. The Congreve *R.* were first tried in actual service, and with fatal effect, at the attack on Copenhagen, in 1807.

—A piece of wood employed to blunt the end of a lance in a tourney, to prevent it from doing hurt.

—[Fr. *roquette*, from Lat. *eruca*.] (*Bot.*) See HESPERIS.

Rock Falls, in *Wisconsin*, a post-village of Dunn co., abt. 16 m. S.E. of Menomonie.

Rock'field, in *Indiana*, a post-village of Carroll co., abt. 7 m. N.E. of Delphi.

Rock'fish, *n.* (*Zoöl.*) A fish of the family *Gobidæ*, the Black-fish, *Gobius niger*, found on sea-coasts.

Rock'fish, in *Virginia*, a village of Nelson co., abt. 36 m. N.N.E. of Lynchburg.

Rock'fish Gap, in *Virginia*, a pass through the Blue Ridge, abt. 16 m. S.E. of Staunton.

Rock'ford, in *Alabama*, a post-village, cap. of Coosa co., abt. 40 m. N. by E. of Montgomery.

Rockford, in *Illinois*, a city, cap. of Winnebago co., on Rock River, abt. 92 m. W.N.W. of Chicago. It contains some extensive manufactories, and is a place of active and increasing business.

Rockford, in *Indiana*, a post-village of Jackson co., abt. 60 m. S. of Indianapolis. —A village of Wells co., abt. 100 m. N.E. of Indianapolis.

Rockford, in *Iowa*, a post-township of Floyd co.—A township of Pottawattomie co.

Rockford, in *Minnesota*, a post-village of Wright co.

Rockford, in *North Carolina*, a village, former cap. of Surry co., about 145 m. W. by N. of Raleigh.

Rockford, in *Ohio*, a village of Tuscarawas co., abt. 40 m. W. by N. of Steubenville.

Rockford, in *Tennessee*, a post-village of Blount co., abt. 10 m. S. by W. of Knoxville.

Rock Grove, in *Illinois*, a post-village and township of Stephenson co., abt. 55 m. E. by N. of Galena.

Rock Grove, in *Iowa*, a twp. of Floyd co.

Rock Hall, in *Maryland*, a post-village of Kent co., abt. 25 m. N.E. of Annapolis.

Rock Hill, in *Missouri*, a post-village of St. Louis co., abt. 10 m. W. by S. of St. Louis.

Rock'hill, in *Pennsylvania*, a borough of Huntingdon county.

Rock House Prairie, in *Missouri*, a village of Buchanan co., about 44 m. N.N.W. of Independence.

Rock'iness, *n.* State of abounding with rocks.

Rock'ing-chair, *n.* A chair mounted on rockers.

Rock'ingham, in *Iowa*, a village and township of Scott co., about 55 m. E.S.E. of Iowa City.

Rock'ingham, in *Kansas*, a former village and township of Pottawatomie county, about 11 miles N. E. of Manhattan.

Rockingham, in *North Carolina*, a N. co., adjoining Virginia; *area*, about 608 sq. m. *Rivers.* Dan and Haw rivers. *Surface*, elevated and hilly; *soil*, fertile. *Cap.* Wentworth. *Pop.* (1897) 26,120.—A post-village, cap. of Richmond co., about 105 m. S.W. of Raleigh.

Rockingham, in *New Hampshire*, a S.E. co., bordering on the Atlantic Ocean and Massachusetts; *area*, abt. 750 sq. m. *Rivers.* Lamprey, Beaver, Piscataqua, and Exeter rivers. Great Bay and Massabesic Lake are also in this co. *Surface*, uneven and hilly; *soil*, fertile and well cultivated. The co. is traversed by several railroads. Seats of justice, Exeter and Portsmouth.

Rockingham, in *Vermont*, a post-village and township of Windham county, about 82 miles S. by E. of Montpelier.

Rockingham, in *Virginia*, a N.W. co., adjoining W. Virginia; *area*, abt. 900 sq. m. *Rivers.* Shenandoah River and its North Fork, Dry, and North rivers. *Surface*, diversified; having the Shenandoah Mountains on the N.W., and the Blue Ridge on the S.E.; *soil*, generally very fertile. *Cap.* Harrisonburg.

Rock'ing-horse, *n.* A wooden horse, mounted on rockers, for the pastime of children.

Rock'ing-shaft, *n.* (*Mech.*) The shaft, with levers on it, which works the side-valves in some steam engines. The eccentric-rod drops on to a stud fixed in one lever, and the links of the side-valve rod are attached to the opposite lever on the same shaft.

Rock'ing-stone, LOGGING-STONE, *n.* (*Archæol.*) A Druidical stone, sometimes of an immense size, at others of ordinary dimensions, so placed and accurately adjusted on the point or edges of another stone, or stones, that, when touched by the lightest finger, the upper or logging-stone will rock or oscillate without the slightest tear of its fall or displacement. Sometimes these remarkable stones consist of one immense mass of rock, with a rude kind of cone or projection for its base, which, resting on or in a sort of socket of the rock below, becomes so evenly poised that, though 20 horses could not displace the stone, a baby's hand can make it oscillate. They are common in Brittany (France), and in Cornwall (England).

Rock Island, in *Illinois*, a N.W. co., adjoining Iowa; *area*, about 440 sq. m. *Rivers.* Mississippi and Rock rivers. *Surface*, diversified; *soil*, fertile. *Min.* Stone-coal. *Cap.* Rock Island. *Pop.* (1897) 43,400.

—A city, cap. of the above co., on the Mississippi river, about 182 m. W. by S. of Chicago. It is finely situated at the foot of the Upper Rapids, which extend 15 m. up the river, and afford immense hydraulic power for manufacturing purposes. Rock Island in the Mississippi, nearly opposite the city, contains an extensive arsenal and government emporium for the fabrication of arms and ammunition. *Pop.* (1897) 15,100.

Rockland, in *Illinois*, a village of Lake co., about 30 m. N. by W. of Chicago.

Rockland, formerly EAST THOMASTON, in *Maine*, a city, cap. of Knox co., on the S.W. shore of Penobscot Bay, abt. 40 m. S.E. of Augusta. It contains some extensive manufactories, and is a place of much business activity. Ship-building is carried on to a considerable extent, and the inhabitants are largely engaged in fishing and commerce.

Rockland, in *Michigan*, a post-village and township of Ontonagon county, about 13 miles S.S.E. of Ontonagon.

Rockland, in *New York*, a S.E. co., adjoining New Jersey; *area*, abt. 200 sq. m. *Rivers.* Hudson, Hackensack, and Passaic rivers. *Surface*, uneven, and in the E. part mountainous; *soil*, very fertile, especially in the valleys. *Min.* Iron and sandstone. The co. is intersected by the Erie R. R. and the Northern N. J. *Cap.* New City. *Pop.* (1897) 37,750.

—A post-town of Sullivan county.

Rockland, in *Pennsylvania*, a township of Berks co.

—A post-township of Venango co.

Rockland, in *Washington*, a village, former cap. of Klikitat co., about 100 m. E. of Portland, Oregon.

Rockland, in *Wisconsin*, a township of Brown co.

—A township of Manitowoc co.

Rock'less, *a.* Without rocks.

Rock'-milk, *n.* (*Min.*) See AGARIC MINERAL.

Rock'-moss, *n.* (*Bot.*) *Lecanora tartarea.* See LECANORA.

Rock'-oil, *n.* Same as PETROLEUM (*q. v.*).

Rock'port, in *Arkansas*, a village, former cap. of Hot Springs co., about 50 m. W.S.W. of Little Rock.

Rockport, *Illinois*, a post-village of Pike co., about 80 m. W. by S. of Springfield.

Rockport, in *Indiana*, a post-town, cap. of Spencer co., about 50 m. S.S.E. of Evansville.

Rockport, in *Maine*, a post-village of Knox co., about 7 m. N. by E. of Rockland.

Rockport, in *Massachusetts*, a post-village and township of Essex co., about 32 m. N.E. of Boston.

Rockport, in *Missouri*, a post-village, cap. of Atchison co., about 60 m. N.W. of St. Joseph.

Rockport, in *Ohio*, a village of Allen co., about 10 m. N.N.E. of Lima.

—A post-village and township of Cuyahoga co., about 7 m. S.W. of Cleveland.

Rock Prairie, in *Wisconsin*, a post-village of Rock co., about 8 m. E. of Janesville.

Rock River, rises in Washington co., Wisconsin, and flows S. into Illinois; thence pursuing a S.S.W. and S.W. course, it enters the Mississippi river from Rock Island co. *Length*, about 330 m.

Rock'roc, in *Arkansas*, a township of Monroe county.

Rock'-rose, *n.* (*Bot.*) Two plants of the genera *Cistus* and *Helianthemum.* See CISTACEÆ, and HELIANTHEMUM.

Rock'-ruby, *n.* (*Min.*) A name sometimes applied to a dark-red variety of garnet.

Rock Run, in *Illinois*, a post-township of Stephenson co.

Rock'-salt, *n.* (*Min.*) Common salt, or chloride of sodium, occurring as a mineral and in a solid form. It is always mixed with various impurities. It is found massive or crystallized, its crystals generally cubes, its masses very often either granular or fibrous. It is white, gray, or, owing to the presence of impurities, more rarely red, violet, blue, or striped. For its chemical and other qualities, see SALT. It is a very extensively-diffused mineral, and in some places forms great rock and even mountain masses. A hill of *R.-S.* near Montserrat, in Spain, is 500 feet high. The island of Ormus, in the Persian Gulf, is formed of *R.-S.* The Indus, in the upper part of its course, forces its way through hills of rock-salt, rising in cliffs ten feet above the river. In many parts of the world, *R.-S.* is found in beds under the soil of other rocks.

Rock'-shell, *n.* (*Conch.*) See MUREX.

Rock'-soap, *n.* (*Min.*) A hydrated silicate of alumina resembling Bole, and used for crayons and for washing cloth. It is found in basalt in the Isle of Skye, and in greenish-gray or brown nodules in the trap-rocks of Antrim, Ireland.

Rock Stream, in *New York*, a post-village of Yates co., abt. 27 m. N. of Elmira.

Rock'-tar, *n.* See PETROLEUM.

Rock'ton, in *Illinois*, a post-village and township of Winnebago county, about 16 miles north of Rockford.

Rockton, in *New York.* See LITTLE FALLS.

Rockton, in *Pennsylvania*, a post-village of Clearfield co., abt. 14 m. W.N.W. of Clearfield.

Rock'town, in *New Jersey*, a village of Hunterdon co., abt. 7 m. S. of Flemington.

Rock'vale, in *Illinois*, a township of Ogle county.

Rock'ville, in *California*, a post-village of Solano co., abt. 9 m. N. by E. of Vallejo.

Rockville, in *Connecticut*, a city of Tolland co., about 14 m. N.E. of Hartford. *Pop.* (1897) 8,150.

Rockville, in *Illinois*, a post-village and township of Kankakee co., abt. 22 m. S. of Joliet.

A village of Will co., abt. 162 m. N.E. of Springfield.

Rockville, in *Indiana*, a post-village, cap. of Parke co., abt. 60 m. W. of Indianapolis.

Rockville, in *Maryland*, a post-village, cap. of Montgomery co., abt. 16 m. N.N.W. of Washington, D. C.

Rockville, in *Massachusetts*, a post-village of Norfolk co., abt. 26 m. S. of Boston.

Rockville, in *Minnesota*, a post-village and township of Stearns co., abt. 11 m. S.W. of St. Cloud.

Rockville, in *N. Carolina*, a post-village of Rowan co., abt. 10 m. S.E. of Salisbury.

Rockville, in *New York*, a village of Alleghany co., abt. 35 m. S.E. of Buffalo.

Rockville, in *Ohio*, a village of Adams co., abt. 90 m. E.S.E. of Cincinnati. —A village of Muskingum co., abt. 17 m. E.S.E. of Zanesville.

Rockville, in *Pennsylvania*, a post-village of Chester co., 45 m. W. by N. of Philadelphia. —A village of Dauphin co., abt. 5 m. N. of Harrisburg.

Rock'well, in *Illinois*, a village of Bond co., abt. 70 m. S. of Springfield.

Rock'-wood, *n.* The common name for ligniform asbestos. It is chiefly found at Sterzing, in the Tyrol.

Rock'wood, in *Iowa*, a village of Hardin co., abt. 44 m. W. of Cedar Falls.

Rockwood, in *New York*, a post-village of Fulton co., abt. 40 m. E. of Utica.

Rock'-work, *n.* (*Arch.*) Masonry wrought in imitation of rough stone, in various arrangements, and used chiefly in the basement of houses, or in such situations as require the effect of solidity and massiveness.

(*Gardening.*) A quantity of stones, fragments of rock, or even vitrified bricks, piled together in such a manner as to form a nidus for the growth and display of alpine plants.

Rock'y, *a.* Full of rocks; as, the *Rocky* Mountains. —Consisting or formed of rocks; as, *rocky* pillars. —Resembling a rock; as, the *rocky* orb of a shield. (*Milton.*) —Having the characteristic qualities of rock; very hard; stony; unsusceptible of impression; unfeeling; as, a *rocky* bosom.—*Shaks.* See ROCK-WORK.

Rocky Bar, in *Idaho*, a post-village of Elmore co., about 100 m. E. by N. of Boisé City.

Rocky Bayou, in *Arkansas*, a village and township of Izard co., abt. 10 m. E. of Mount Olive.

Rocky Comfort Creek, in *Georgia*, enters the Ogeechee River from Jefferson co.

Rocky Creek, in *Georgia*, enters the Ohoopee River from Tatnall co.

Rocky Hill, in *Connecticut*, a post-village and twp. of Hartford co., abt 7 m. S. of Hartford.

Rocky Hill, in *New Jersey*, a post-village of Somerset co., abt. 4 m. N. of Trenton.

Rocky Mount, in *Georgia*, a post-village of Meriwether co., abt. 95 m. W. of Milledgeville.

Rocky Mount, in *Missouri*, a post-village of Miller co., abt. 30 m. S.W. of Jefferson City.

Rocky Mount, in *N. Carolina*, a post-village of Edgecombe co., abt. 56 m. E. of Raleigh.

Rocky Mount, in *Virginia*, a post-village, cap. of Franklin county, about 180 miles west by south of Richmond.

Rock'y Moun'tains, (The,) a chain of mountains in the central and W. portions of the N. American continent, are a prolongation of the great Mexican Cordillera, extending from the N. frontier of Mexico northward in several ranges, one of which, the eastern, passing through British N. America, reaches the Arctic Ocean in about Lat. 70° N.; while the western, passing near the Pacific coast, terminates near Prince William's Sound, in about Lat 60° N. The territory occupied by the *R. M.* extends from the Californian shores of the Pacific to about Lon. 105° W., or it may be considered as extending 125 m. further E., including the Black Hills of Nebraska. The whole area properly included by the mountains and their intervening valleys and desert lands in the country belonging to the U. States is estimated at about 980,000 sq. m. The mountainous belt of E. New Mexico and of the State of Colorado, first met with in crossing the great plains that lie along the head-waters of the rivers which flow S.E. into the Mexican gulf, and E. toward the Mississippi, has a general N. and S. direction. Santa Fé, the cap. of New Mexico, is situated on this belt, and further N. it includes territorially the Spanish peaks. On its E. margin stands Pike's Peak, while in Colorado and Nebraska are those portions of the chain known as the Three Parks, and the Medicine Bow Mountains. From Long's Peak, in about Lat. 40°, the range trends N.W., connecting with the Wind River Mountains, which latter includes Fremont's Peak, 13,870 feet above sea-level. Beyond that peak to the northern boundary of the U. S., the range separates Dakota and Washington, and the Pass known as *Lewis and Clark's*, in Lat. 47°, is the

most N. pass of its system in the Union, and is the one followed by the Northern Pacific Railroad. In British North America the "Rockies" divide the waters of the Pacific from those which flow into Hudson's Bay, as the Saskatchewan, Athabaska, &c., and also from Mackenzie's River, whose outlet is the Arctic Ocean. The next great range of this mountain system toward the W. is that called the *Wahsatch* Mountains, lying S. from great Salt Lake, and toward the N.W. this region is traced along the W. bank of the Colorado towards the Sierra Nevada, which forms the E. boundary of California, and the watershed of the Colorado, and Lewis's Fork of the Columbia River, in Lat. 37° and 46° respectively. Nearly the whole area between these points, and for a breadth of about 10 degrees of Lon., stretching E. from the Sierra Nevada, is a vast and partially explored territory, from 4,000 to 5,000 feet above sea-level, which receives the streams that fall on the W. slope of the Wahsatch range and the E. slope of the Sierra Nevada. In British America this section of the chain interlocks with the main trunk of the *R. M.* The western portion of the chain commences at the S. extremity of the Lower Californian peninsula, then passing through California it bifurcates into two ranges, known, respectively, as the *Sierra Nevada*, at a distance of about 160 m. from the coast, and the *Coast Range*, skirting the shores of the Pacific from 10 to 50 m. inland, till it reconnects with the Sierra Nevada in N. California, in which section Mount Shasta attains an altitude of about 14,000 feet above tide-water. Throughout all of Oregon and Washington, the distinction is still maintained between the main range (Sierra Nevada), here called the *Cascade Mountains*, and the Coast Range. The latter traverses the central portion of Vancouver's Island for its whole length, and on the main land in British Columbia, the Sierra Nevada proceeds N., and is crossed by Fraser's River. Though the Sierra Nevada in its range between California and Nevada is intersected by no rivers, several of the streams which flow down its E. slopes have their sources high upon the summits, in the vicinity of those which feed the W. watershed. Several depressions are met with at these points, which serve as passes for the routes from Sonora, Sacramento, and Marysville to the E. By the cañon of Carson River, the range is crossed at an elevation of about 7,250 feet; and by the Truckee Pass the elevation is about 6,000 feet. From these passes the route is N.E. to the main road which crosses the Sierra Nevada in the N. portion of California, and which eastwardly passes by the Humboldt Mountains to Salt Lake City. To the E. of Salt Lake this route continues across the Wahsatch range to the great South Pass of the Wind River Mountains, immediately S. of Fremont's Peak, and thence down the Sweetwater to the N. fork of the Platte. A more S. route connects Pike's Peak with the Utah Basin, and thence turning S. W. crosses the Sierra Nevada near its junction with the Coast Range in N. California, meeting at this point the route from Santa Fé through New Mexico, and the still more S. one from Texas, which follows the valley of the Gila, and crosses that river and the Colorado at their junction. Mount St. Elias, in Alaska, is 18,100 feet in height, being one of the highest peaks of this extensively ramified mountain system, though claimed to be surpassed in height by the neighboring Mount Logan. The mineralogical, geological, and botanical characteristics of the various ranges of the *R. M.*'s chain are treated in this work under the names of the several States, Territories, and regions with which it has connection. The *R. M.* were first partially explored by Lewis and Clark's expedition in 1804. Subsequently explorations were made by Harman, Long, Schoolcraft, Nicollet, Bonneville, and, particularly, by Fremont, and since 1844 quite a number of expeditions have been engaged in the work of further exploration. The Union Pacific Railroad crosses the *R. M* first at Bridger's Pass, in Wyoming, next the Bear Range, before reaching Salt Lake City, and the Sierra Nevada, to the W. of Carson City, near the frontier of Nevada and California.

Rock'y River, in *Michigan*, enters St. Joseph's river in St. Joseph's co.

Rocky River, in *North Carolina*, enters the Yadkin river between Stanley and Anson cos.

—Enters Deep river from Chatham co.

Rocky River, in *South Carolina*, enters the Savannah river from Abbeville co.

Rocky River, in *Tennessee*, enters Caney Fork of Cumberland River between Warren and Van Buren counties

Rocky Run, in *Illinois*, a township of Hancock county.

Ro'coa, *n.* [Fr. *roncon;* Sp. and Pg. *urucu.*] The cruda substance of ANNOTTO, *q. v.*

Roco'co, *a.* and *n.* [Etymol. uncertain.] (*Arch.*) A florid, debased kind of ornamentation, which succeeded the styles current in France during the times of Louis XIV. and XV., and which exaggerated the main features and peculiarities of those modes. It is chiefly remarkable for the lavish abundance of its details, which are thrown together without propriety and due connection. Scroll and shell ornaments abound; sometimes rock-work pavilions, birds, and fish, combine with enormous flowers, purposely defying all constructive harmony, and all meaning or individuality is sacrificed to a profuse or overloaded effect. This term, and the word *baroque*, are also employed adjectively to denote a bad taste in design and ornamentation generally.

Roc'roy, a small fortified town of France, dept. of Ardennes, 15 m. from Mezières; *pop.* 1,500.— Here a great victory was gained by the French, under the youthful Prince de Condé, over the Spaniards and Walloons, under Don Francisco de Melo, May 19, 1643. In this battle, which laid the foundation of Condé's military renown, 9,000 Spaniards and Walloons were slain.

Rod, *n.* [A. S. *rod;* Ger. *ruthe;* Gr. *rhabdos.*] A branch, or a stem of a shrub; the shoot or twig of any woody plant; as, a *rod* of hickory, hazel, &c. — Something long and slender in the form of a wand; as, (1.) An instrument of castigation or correction; — hence, chastisement; discipline. — (2.) A pole for supporting a line for angling; as, a fishing-*rod.* — (3.) A staff or wand, as a badge of authority; a sceptre; as, the *rod* of empire. — (4.) A shepherd's crook. — (5.) A flail, or instrument for thrashing.

—A sprout; whence, a family; a line; a race.

—A measure of length, otherwise called a *pole*, containing 5½ yards, or 16½ feet; and four of these make the GUNTER'S CHAIN, *q. v.*

Rode, *imp.* and *pp.* of RIDE, *q. v.*

Ro'dent, *a.* [Lat. *rodens*, from *rodo*, to gnaw.] Gnawing; a term having reference to the *Rodentia;* as, a *rodent* animal.

Roden'tia, *n.; pl.* RODENTS. (*Zoöl.*) An order of mammiferous quadrupeds, occupying, in many respects, an intermediate place between the purely carnivorous and purely herbivorous mammalia, and so forming the connecting link between them. The order embraces rats and mice, hares, rabbits, guinea-pigs, and other well-known animals. These animals have two great incisor teeth in each jaw, separated from the molar by a wide space, with which they could hardly seize a living prey, or rend flesh; they could not even cut aliments, but they might serve for reducing them, by continued labor, into fine molecules — in a word, by gnawing them; whence the term *Rodents*, or *Gnawers*, applied to this order. The characteristic of this order is that the lower jaw has no horizontal movement except from behind forwards, and *vice versâ*, convenient for the action of gnawing; the molars of the *R.*, consequently, have flat crowns, the enamelled eminences of which are always transversal, so as to be in opposition to the horizontal movements of the jaw, and to be better adapted for trituration. The hinder parts of the body of the rodents in general exceed their anterior. The brain of the rodents is nearly smooth, and without convolutions; the eyes are entirely directed laterally; the jaws are weak, and the forearms have scarcely any rotatory motion, and their two bones are nearly united. In the greater part of the details of their organization, the inferiority of the animals is displayed; but some of them enjoy a certain dexterity, using their forefeet for carrying their food to their mouth; while others again (the squirrels), climb trees with facility. *R.* are most abundant in temperate regions. In N. America there are 99 species, 19 genera: 81 species, 16 genera in Europe and the north of Asia; in Africa, 53 species, 16 genera; in India and its islands, 58 species, 10 genera; in South America and West India Islands, 89 species, 25 genera.

Fig. 2269. — SKULL OF THE BEAVER, SHOWING THE DENTITION.

Rodez. See RHODEZ.

Rodgers, (*rŏj'ers,*) JOHN, a commodore in the U. S. navy, B. in Maryland, 1771. He entered the navy as a lieutenant, 1798, and from that time till 1814, took an active and glorious part in the naval operations against the French, Tripoli, and the English. From April, 1815, to Dec., 1824, he served as president of the Board of Navy Commissioners, and from 1824 to 1827, in command of the squadron in the Mediterranean. On his return from this command he was again appointed to the Board of Navy Commissioners, which he relinquished in 1837. D. 1838. His son John, an Admiral in the U. S. Navy, B. in Md., 1812, served with great distinction in the Civil War, receiving the thanks of Congress. D. 1882.

Rod'man, in *N. Y.*, a p. v. and twp. of Jefferson co.

Rod'ney, GEORGE BRYDGES, LORD, an English admiral, B. at Walton-upon-Thames, 1708. He was created rear-admiral in 1759, and distinguished himself in several expeditions. In 1780 he defeated the Spanish fleet and took several ships. This was followed soon after by a more splendid victory, and the capture of the Spanish admiral, Don Juan de Langara. But the most important achievement of this brave admiral was the defeat of the French fleet under Count de Grasse in the West Indies in 1782, when the French admiral and a number of his ships were taken. D. 1792.

Rod'ney, in *Mississippi*, a post-town of Jefferson co., about 40 m. N.E. of Jefferson.

Rodney, in *Ohio*, a post-village of Gallia co., abt. 7 m. W.N.W. of Gallipolis.

Rodolph I., Emperor of Germany, and founder of the imperial house of Austrin, was B. in 1218, being the eldest son of Albert IV., Count of Hapsburg and Landgrave of Alsace. He first served under Ottocar, King of Bohemia, against the Prussians, and distinguished himself by his prudence, valor, and the spirit of justice with which he protected the inhabitants of the town from their baronial oppressors. In 1273, as he was encamped before the walls of Basle, he received the unexpected intelligence that he was elected King of the Romans and Emperor in preference to Alphonso, King of Castile, and Ottocar, King of Bohemia, the latter of whom opposed his election, and refused to do homage for his estates. But *R.*, supported by powerful allies, made war on him, and compelled him to submit. Ottocar afterwards made another attempt to recover what he had lost, but in Aug., 1278, was defeated and slain. After a reign of 19 years, *R.* expired, in 1291, aged 72. He was brave, indefatigable, affable, magnanimous, intelligent, and just.

RODOLPH II., B. at Vienna, 1552, was crowned King of Hungary 1572, King of Bohemia and King of the Romans 1575, and emperor on the death of his father, Maximilian II., 1576. He lost the kingdoms of Hungary and Bohemia by the revolt of his brother, Mathias. After a long and inglorious reign of 26 years, this weak-minded prince D., 1612.

Rod'omel, *n.* [Gr. *rhodon*, rose, and *meli*, honey.] The juice of roses mixed with honey into a syrup.

Rod'omont, *a.* Bragging; blustering; idly boasting.

Rodomontade', **Rhodomontade',** *n.* [Fr., from *Rodomont*, a boisterous character in the *Orlando Furioso.*] Vain boasting; empty bluster or braggadocio; rant; bosh.

—*v. a.* To talk loud or blusteringly; to boast loudly; to rant; to brag; to bounce.

Rodomontad'ist, *n.* A braggart; an empty boaster; a braggadocio; a ranter; a vaunter.

Rodos'to, a town of European Turkey, in the eyalet of Roumania, near the Sea of Marmora; *pop.* 18,000.

Rodriques, (*ro'dre-gais,*) an island in the Indian Ocean, belonging to Great Britain, 330 m. E.N.E. of Mauritius: Lat. 19° 4′ S., Lon. 63° 25′ E. *Ext.* 12 m. long, with a breadth averaging from 3 to 6 m.

Roe, *n.* [A. S. *ra*, *raa.*] A ROEBUCK, *q. v.*

—The female of any cervine species.

—[Ger. *rogen;* Icel. *hrogn;* Dan. *rogn.*] The seed or spawn of fishes; — the roe of the male is termed *soft roe*, or melt; of the female, *hard roe*, or spawn.

—The mottled appearance of mahogany, and certain other woods.

Roeb'ling, JOHN A., an American engineer, B. in Muhlhaussen, Prussia, 1806. Emigrating to the U. States in 1831, he obtained his first situation in America as assistant-engineer on the slack-water navigation of the Beaver River, a tributary of the Ohio. Afterwards entering the service of the State of Penna., he was employed for three years in surveying and locating three lines of railway across the Alleghany Mountains, from Harrisburg to Pittsburg, the road being ultimately built by the Penna. Central Railroad Company. In the year 1844, at Pittsburg, the wooden aqueduct of the Penna. Canal across the Alleghany River having become so unsafe as to require its removal, and the erection of a new structure on the old piers, the time being limited to nine months, including the winter season of 1844–45, the work was let by contract to the lowest bidder, who proved to be *R.* It was carried to a successful completion by him within the time specified, and opened to commerce in May, 1845. This aqueduct comprised seven spans of 162 feet each, consisting of a wooden trunk to hold the water, and supported by a continuous wire cable on each side of seven inches diameter. Following the building of the aqueduct came the erection of the Monongahela Suspension Bridge at Pittsburg. In 1848 *R.* undertook the construction of a series of five suspension aqueducts on the line of the Delaware and Hudson Canal, connecting the anthracite coal regions of Penna. with the tide-water of the Hudson River. They were all completed in the course of two years. During this period *R.* removed from the West, and established his works at his residence at Trenton, in the State of New Jersey. Public attention had for some time past been directed to the problem of connecting the New York Central and Great Western Railway of Canada by bridging the chasm of the Niagara River, a problem which, from the nature of the locality, admitted of no other solution than by a railway suspension bridge. *R.* was invited to make plans and estimates for the bridge, and was at the same time appointed the engineer. For four years, commencing with 1851, the work was continued without interruption, until, in March of 1855, the first locomotive and train crossed a railway suspension bridge. In the fall of 1856 the foundations of the towers of the Ohio bridge, at Cincinnati, were laid, but the bridge was not finally finished until 1867. The last and crowning triumph of engineering by *R.* is the bridge over the East River at New York, an enterprise of the most gigantic proportions. This bridge was commenced Jan. 3d, 1870, and completed under the supervision of the son of *R.*, also a distinguished engineer, and opened for travel in May, 1883. The length of river span is 1,596 ft., total length of bridge 5,989 ft., height of towers above high-water mark 278 ft.; total cost about $15,500,000. D. 1870.

Roebuck, (*ro'bŭk,*) *n.* [Dan. *raabuk.*] The *Cervus capreolus* of Linnæus, the most light and handsome of all the European deer. It is very small, weighing only about 60 pounds, and inhabits the high mountains of the temperate parts of Europe.

Roed, (*rōd,*) *a.* Filled or impregnated with roe.

Roermond, or **Ruremonde,** (*rer-mond,*) a town of Holland, prov. of Limburg, on the Meuse, 28 m. N E of Maestricht. *Manuf.* Cottons, woollen cloth, paper, leather, pipes, soap, &c. *Pop.* 9,500.

Roe'-stone, *n.* (*Geol.*) See OÖLITE.

Ro'gasen, a town of Prussian Poland, on the Wetna, 24 m. N. of Posen. *Manuf.* Woollens, linens, and leather. *Pop.* 5,000.

Rogation, (*-gā'shun,*) *n.* [Fr., from Lat. *rogatio*, from *rogo*, to ask.] Litany; supplication; an asking.

Rogation Days. (*Eccl.*) The three days immediately

before the feast of Ascension;—so styled as being days of supplication.

Rogation Week, the second week before Whit-Sunday, or that in which Rogation Days occur.

Rog'er's Farm, in *Illinois*, an unimportant village of McLean co.

Rog'ersville, in *Alabama*, a post-village of Lauderdale co., abt. 24 m. E. of Florence.

Rogersville, in *Indiana*, a post-village of Henry co., abt. 9 m. N. by E. of Newcastle.

Rogersville, in *Ohio*, a post-village of Tuscarawas co., abt. 90 m. E.N.E. of Columbus.

Rogersville, in *S. Carolina*, a post-village of Anderson dist., abt. 131 m. W.N.W. of Columbia.

Rogersville, in *Tennessee*, a post-village, cap. of Hawkins co., abt. 255 m. E. of Nashville.

Rogue, (*rōg,*) *n.* [A. S. *earg*, idle, weak, evil; Fr. *rogue*, proud, haughty, supercilious.] An idle, slothful, inactive person;—in the legal sense, a vagrant; a vagabond; a sturdy beggar.—A knave; a rascal; a wilfully dishonest person; a cheat; a trickster.—A name of slight tenderness or endearment for one who is mischievous or frolicsome: as, a wicked *rogue* (in irony).

—*v. a.* To play knavish tricks; to act as a rogue; to cheat; to trick; as, to *rogue* a person out of money.

Rogue River, in *Oregon*, rises among the Cascade Range in Jackson co., and, flowing a tortuous W. course, enters the Pacific Ocean from Curry co.

Roguery, (*rōg'er-y,*) *n.* Knavish tricks; cheating; fraud; dishonest practices.—Waggery: arch tricks; frolicsome practices; mischievousness; as, he is full of *roguery*.

Rogue'ship, *n.* The qualities or personage of a rogue.

Rogue's'-march, *n.* (*Mil.*) Derisive music played when a soldier is drummed out of a regiment.

Rogue's'-yarn, *n.* (*Naut.*) A yarn of a different twist and color from the rest, and inserted in the cordage of the British navy, to identify it in case of theft.

Roguish, (*rōg'ish,*) *a.* Pertaining, or relating, to a rogue; knavish; trickish; rogue-like; fraudulent; dishonest; as, *roguish* malpractices.—Waggish; wanton; frolicsome; slightly mischievous; espiégle; as, that girl has a *roguish* pair of eyes.

Rog'uishly, *adv.* Like a rogue; knavishly; wantonly; waggishly.

Rog'uishness, *n.* Qualities of a rogue; knavery; dishonesty.—Archness; espiéglerie; mischievousness; frolicsomeness; sly cunning.

Rohan, Louis Réne Edouard, (*ro'an,*) Prince de, Cardinal-archbishop of Strasburg, was b. 1734. He became coadjutor to his uncle in the See of Strasburg, and afterwards his successor; was sent in 1772 as ambassador to Vienna, where he displayed the most ridiculous luxury, but vainly sought to obtain the favor of the Empress Maria Theresa. As coadjutor, he had ceremonially received the Princess Maria Antoinetto on her entrance into France. On the death of Louis XV. he returned to Paris, and for ten years bent all his energies and efforts to winning the favor of the Queen, but all in vain. Nevertheless, he had meanwhile become, in spite of his known profligacy, archbishop, grand-almoner, cardinal, and commendator of St. Wast of Aeras, one of the richest benefices in France. Associate of the quack Cagliostro, and of the infamous Madame Lamotte, he was duped by a forged letter with the signature of the Queen, and induced to buy of Boehmer, the court jeweller, the now too celebrated diamond necklace, in the name of the Queen. The necklace was placed in the hands of Madame Lamotte, forged autograph messages from the Queen followed, and an interview in the Park of Versailles, between the cardinal and a fair adventuress personating the Queen. On the discovery of the fraud, *R.* was summoned before the king, answered vaguely and unsatisfactorily, and was arrested and imprisoned in the Bastille, August 15th, 1785. After a year's proceedings he was acquitted and released, but at the same time exiled from the court, and deprived of his grand-almonership. He was deputy to the States-general in 1789; was afterwards accused of various disloyal intrigues and maladministration; gave up his See in 1801, and d. in 1803.

Roh'rersville, in *Maryland*, a post-village of Washington co., abt. 80 m. W.N.W. of Annapolis.

Rohrs'burg, in *Pennsylvania*, a post-village of Columbia co., abt. 88 m. N.N.E. of Harrisburg.

Roil', *v. a.* [A corruption of *broil.*] To make turbid by stirring up the lees or sediment of; as, to *roil* bottled wine.—To exasperate; to excite some degree of anger or disturbance in; to rile.—To bother; to perplex; to worry. (Prov. Eng.)

—*v. n.* To romp; to act in a boidenish manner. (Used as provincial English.)

Roil'y, *a.* A colloquialism for turbid; disturbed; muddy;—also, skittish.

Roint', *interj.* Same as Avoynt, *q. v.*

Roist', Roist'er, *v. n.* [From Lat. *rusticus*, clownish.] To bluster; to swagger; to talk big; to act the braggadocio; to be bold, noisy, or turbulent; as, a *roistering* fellow.

Roist'er, Roist'erer, *n.* A bold, blatant, loud-voiced, hectoring fellow; a rakehelly.

Roist'erly, *a* Blustering; turbulent; with braggadocio.—*adv.* In a bullying, blustering, devil-me-care manner.

Roke', Rook', Rouk', *n.* Reek; mist; vapor; smoke. (Prov. Eng.)

(*Mining.*) A vein of ore.

Roke'age, Rokée, *n.* In the U. States, a term applied to a preparation of parched maize, pounded up and mixed with sugar.

Roke'lay, *n.* Same as Roquelaure, *q. v.*

Roke'by, in *Ohio*, a village of Morgan co., about 24 m. S. by E. of Zanesville.

Ro'land, a celebrated hero of chivalric romance. He was one of the paladins of Charlemagne, whose nephew he is by some stated to have been. His character was that of a brave warrior,—devoted and loyal. Charlemagne appointed him commandant of the Marches of Brittany, and afterwards took him with himself to the conquest of Spain. Returning from that expedition, he fell into an ambuscade at Roncesvalles, where, together with the flower of the French chivalry, he perished in 778. His adventures are celebrated in the famous continental romance entitled the *Chanson of Roland*. He is also the hero of the *Roland Amoureux* of Boïardo, and of the *Orlando Furioso* of Ariosto. The town of Rocamadour, in France, pretends to be in possession of the "Durandal," or the celebrated sword, of Roland.

Ro'land, in *Illinois*, a post-village of White co., 14 m. S.S.W. of Carmi.

Role (*rōl*), *n.* [Fr.] The specific part undertaken by an actor or public performer;—hence any notable action or prescribed duty carried out by anyone; as, Garrick's best *rôle* was Richard III., his *rôle* is politics, &c.

Roles'ville, in *North Carolina*, a post-village of Wake co., about 16 m. N.N.E. of Raleigh.

Rolet'ta, in *Missouri*, a village of Pettis co., about 36 m. S.E. of Lexington.

Rolfe, in *Iowa*, a post-village, former cap. of Pocahontas co.

Roll, *v. a.* [Fr. *rouler*; Sp. *arrollár*; Du. and Ger. *rollm.*] To cause to turn on the surface, or with a circular motion; to cause to revolve, or turn on its axis; to move in a circular or rotary manner or direction; as, to *roll* a wheel, to *roll* a ball.—To inwrap; to bind or involve in a bandage, or the like; as, to *roll* a piece of rag round a cut finger.—To form into a spherical or cylindrical body; to form by rolling into round masses; as, to *roll* a bundle of manuscript, to *roll* a snow-ball.—To drive and impel with a circular motion, or to drive forward with force or violence; as, to *roll* a stone down a mountain.—To spread with a roller or rolling-pin; to press or level with a roller; as, to *roll* paste, to *roll* a grass-plot, &c.—To produce a periodical revolution; to move, or cause to be moved, upon, or by means of, rollers or small wheels.—To sound a *roll* upon, as a drum.

To roll one's self, to wallow.

—*v. n.* To move by turning on the surface, or with the successive application of all parts of the surface to a plane; to move, turn, or run on an axis, as a wheel; to run on wheels; to turn over and over; as, a *rolling* ball.—To keep falling over and over; as, a *rolling* cataract.—To turn; to move circularly, or in a rotatory manner; as, his eyes *rolled* with rage.—To be tossed about; to move, as waves or billows, with alternate swells and depressions;—hence, to rock or move from side to side; as, a ship *rolling* in a heavy sea.—To move tumultuously; to fluctuate; as, certain thoughts *roll* in one's head.—To run on wheels; as, the *rolling* stock of a line of railroad.—To wallow; to tumble; as, being drunk he *rolled* into the gutter.—To be formed into a ball or cylinder; as, *rolled* calico.—To spread under a roller or rolling-pin; as, she *rolls* paste deftly.—To beat a drum with excessive rapidity of strokes, so as to produce a rumbling sound on the ear.

—*n.* Act of rolling, or state of being rolled; as, the *roll* of a wheel, the *roll* of a ship in a heavy ground-swell.—A roller; anything which rolls; as, a heavy cylinder of stone, wood, or metal used for crushing clods;—also, plurally, a set of rollers in a rolling-mill.—Anything which is rolled up; as, (1.) A quantity of cloth wound up into a cylindrical form; as, a *roll* of flannel. (2.) A cake, or small loaf of bread, generally of an oblong circular form; as, we had French *rolls* for breakfast. (3.) Any paper, manuscript, or document which may be rolled up; a scroll; as, a *roll* of music;—hence, an official or public document; a register; a record;—also, a catalogue; a list; as, the *Rolls* of Parliament, the *roll* of an army, &c. (4.) A cylindrical twist of tobacco; as, a *roll* of pig-tail.

—The regular beating of a drum with strokes so rapid as scarcely to be distinguished by the ear.—A chronicle; history; annals; as, his name is inscribed in the *roll* of Fame.

Long-roll. (*Mil.*) A prolonged roll of the drums, as the signal of attack by the enemy, and for the troops to form into line; as, to beat the *long-roll*.—*Master of the Rolls.* (*Eng. Law.*) See Master.—*Rolls of Parliament, of court*, or of any *public body*, parchments officially engrossed, recording the acts and proceedings of that assembly or body, which, being kept in *rolls*, are deposited in the archives.

To call the roll, to recite a roll of names of persons who constitute an organized body or assembly, in order to ascertain from the response who are absent and who present; as, to *call the roll* of a ship's company.

Rol'la, in *Missouri*, a city and township, cap. of Phelps co., about 113 m. S.W. of St. Louis. *Pop.* (1897) 1,695.

Roll'able, *a.* That may be rolled.

Roll'-call, *n.* Act, or time, of calling over a list of names, as of soldiers on parade.

Roll'er, *n.* That which rolls; that which revolves on its own axis;—especially, a solid cylinder of metal, wood, stone, &c., used in agriculture and the arts.

(*Print.*) A wooden cylinder coated with a composition of treacle and glue, and revolving upon an iron rod running through it, with which to ink the form of type previous to taking an impression. The introduction of *composition rollers* in place of *pelt-balls* has been the cause of a complete change in printing. But for this invention, machine- or cylindrical-printing could never have been accomplished, as all the early attempts with sheep-skins failed, from the necessity of joining the edges.

—*pl.* (*Ord.*) Cylinders of wood, used in mounting guns on their carriages, shifting them from one carriage to another, or moving them on the ground.

—*pl.* (*Naut.*) In nautical parlance, a term applied to unusually heavy waves, which set in upon a coast or island without wind. They are frequent at the Island of Ascension.—On ship-board, certain cylindrical pieces of timber placed so as to revolve horizontally or vertically. Their object is to lessen the friction on the hawsers in passing any angle.

(*Surg.*) A bandage, or fillet, used in surgical operations.

(*Zoöl.*) See Coracias.

Roll'er-bolt, *n.* In England, the bar, or whiffle-tree, of a carriage, to which the traces are fastened.

Roll'ersville, in *Ohio*, a post-village of Sandusky co., abt. 42 m. N. of Columbus.

Roll'ey, in *Iowa*, a village of Jackson co., abt. 22 m. N.W. of Lyons.

Roll'ic, Roll'ick, *v. n.* (*imp.* and *pp.* rollicked,) (*rōl'likt.*) [Perhaps a corrupt combination of *roll* and *frolic.*] To move about in a swaggering manner, or with a rolling gait; to frolic; to sport; to carry a jaunty air; as, a *rollicking* sailor.

Roll'in, Charles, a French professor, rhetorician, and historian, b. at Paris, 1661. This excellent man and great scholar, after studying in the College of Plessis and at the Sorbonne, became Professor of Rhetoric in the College of Du Plessis. In 1694 he was appointed Rector of the University of Paris, where he revived the study of Greek, and introduced many important regulations in the academical exercises. His principal works were an edition of *Quintillian*; *Treatises on Studying and Teaching the Belles-Lettres*; *Ancient History of the Egyptians, Carthaginians, and Babylonians*; *History of Rome*; and, *Miscellaneous Pieces.* D. 1741.

Roll'in, in *Michigan*, a post-village and township of Lenawee co., abt. 17 m. W. by N. of Adrian.

Roll'ing, *p. a.* Turning over; revolving; moving on wheels, or as if on wheels; as, a *rolling* stone gathers no moss.

—In the U. States, undulating, like the waves of the sea; presenting a succession of round eminences and depressions; as, a *rolling* prairie.

(*Mech.*) This term is used when all the parts of the surface of one body come into successive contact with those of another, under such conditions that at every instant the portion of the two surfaces which *have been* in contact are exactly equal. When this condition is not fulfilled, the one side to slide upon the other. The friction of bodies in *rolling* is much less than in that of *sliding*; and hence the advantage of wheels to all kinds of carriages.

(*Naut.*) The lateral oscillation of a ship. This motion, which is often very great when the vessel is running before the sea, endangers the masts, strains the sides, and loosens the decks at the water-ways; it also tends to cause the guns (if any) to break adrift. When the centre of gravity is too low, the oscillations begin and end violently. Rolling is, in fact, an oscillation or partial revolution round the centre of gravity of the ship. Of course, if the centre of gravity be too high up, the vessel's tendency will be to capsize; but, on the other hand, if it be below the load-water-line, there remains so little depth of vessel and keel for the water's resistance to operate on, in opposition to the height of hull and masts above the centre of gravity, that the rolling will necessarily be violent and considerable. The least rolling is experienced when the centre of gravity coincides nearest with the load-water-line.

Rolling circle of a paddle-wheel, the circle described by the point whose velocity equals the velocity of the ship. (*Bourne.*)—*Rolling curves.* See Roulette.—*Rolling fire.* (*Mil.*) A discharge of musketry in rapid succession, by troops in line, and in the order in which they stand.—*Rolling stock*, or *railway plant*, the locomotives, cars, trucks, &c., employed on a railroad.—*Rolling machine*, an invention for making the brass mouldings in feuders, and the brass-work in grates.—*Rolling-pendulum*, a cylinder caused to oscillate in small spaces on a horizontal plane.—*Rolling tackle.* (*Naut.*) A tackle, or pulley, hooked to the weather quarter of a yard, and to a lashing or strap round the mast near the slings or parrel of the yard; the object of it is to keep the yard constantly over to leeward, thereby depriving it of play and friction when the ship rolls to windward.

Roll'ing-mill, *n.* A mill for reducing masses of iron, copper, or other metals, to even parallel bars or thin plates. This is effected by passing the metal, while red-hot, between two cylindrical rollers of steel, put in motion by the mill, and so mounted in a strong metal frame that they cannot recede from each other.

Roll'ing-pin, *n.* A cylindrical piece of wood, with which paste or dough may be rolled out and reduced to a proper degree of thickness or tenuity.

Roll'ing Prairie, in *Wisconsin*, a post-village of Dodge co., abt. 5 m. W. of Horicon.

Roll'ing-press, *n.* A press or machine consisting of two or more rollers, or cylinders, revolving very nearly in contact with each other, used for taking impressions from plates, or for rolling iron or other metal into plates, or for other purposes.

Roll'ing Stone, in *Minnesota*, a post-township of Winona co.

Rol'lo, a chieftain of Norway, who, being driven from that country by the King of Denmark, landed in Normandy, which was ceded to him by Charles the Simple in 911. Rollo embraced the Christian religion in the following year, and was baptized by the name of *Robert.*

He assumed the title of Duke of Normandy, married Giselle, the daughter of the French king, and was the ancestor of William the Conqueror. D. either in 920 or 927.

Roll'y-po'ly, Ro'ly-po'ly, *n.* A kind of pudding made of a surface of paste spread with jam, &c., and rolled up into a cylindrical, oblong form.

—*a.* Shaped like a rolly-poly pudding; — hence, pursy; portly; having a round body; as, a *rolly-poly* little woman.

Roll'y-po'ly, *n.* A game wherein a ball, rolling into a certain place, wins, as in roulette.

Ro'ma, in *Texas,* a post-village and port of entry of Starr co., abt. 550 m. S. by W. of Austin.

Romagna, *(ro-mahn'ya,)* a large and fruitful tract of country in Central Italy, formerly included in the Papal legations of Bologna, Ravenna, Ferrara, and Forli. The name has been long obsolete, except as relates to that strip of territory along the Adriatic, whose inhabitants are still called *Romagnoli.*

Roma'ic, *n.* [Fr. *Romaïque;* Mod. Gr. *Romaikos.*] The language of the modern Greeks, who call themselves *Romans,* an appellation which has survived the overthrow of the Roman Empire of the East established at Constantinople. The language differs from the ancient Greek chiefly by the abbreviation of words, indifference to the old inflexions, and the infusion of foreign words and expressions.

—*a.* Belonging, or having relation, to modern Greece, or to its language.

Romal, *(ro-mawl',) n.* [Hind. and Per. *rumal,* a handkerchief.] A kind of silk-stuff brought from the East Indies.

Ro'man, *a.* [Lat. *Romanus,* from *Roma.*] Pertaining to Rome, or to the Roman people.

—Pertaining to, or professing, the Roman Catholic religion.

(Print.) Erect; upright; perpendicular; — referring to the letters ordinarily used, as distinguished from *Italic* characters. — Expressed in letters, not in figures, as I. V., l. v., &c.; — said of numerals, as distinguished from the *Arabic* numerals, I, 5, &c. — *R. balance,* a form of balance somewhat resembling the modern steelyard. — *Roman candle.* *(Pyrotech.)* A fire-work in the form of a candle, which throws out bright stars in succession. — *Roman cement.* See CEMENT. — *Roman ochre,* or *Italian earth.* *(Paint.)* A pigment of a rich deep and powerful orange-yellow color, transparent, and durable. It is used both raw and burnt, in oil and water-color painting. — *Roman white.* *(Paint.)* A pigment of the purest white color, differing from the *blanc d'argent* only in the warm flesh-color of the external surface of the large square masses in which it is usually prepared.

—*n.* A native citizen, or permaneut denizen, of Rome.

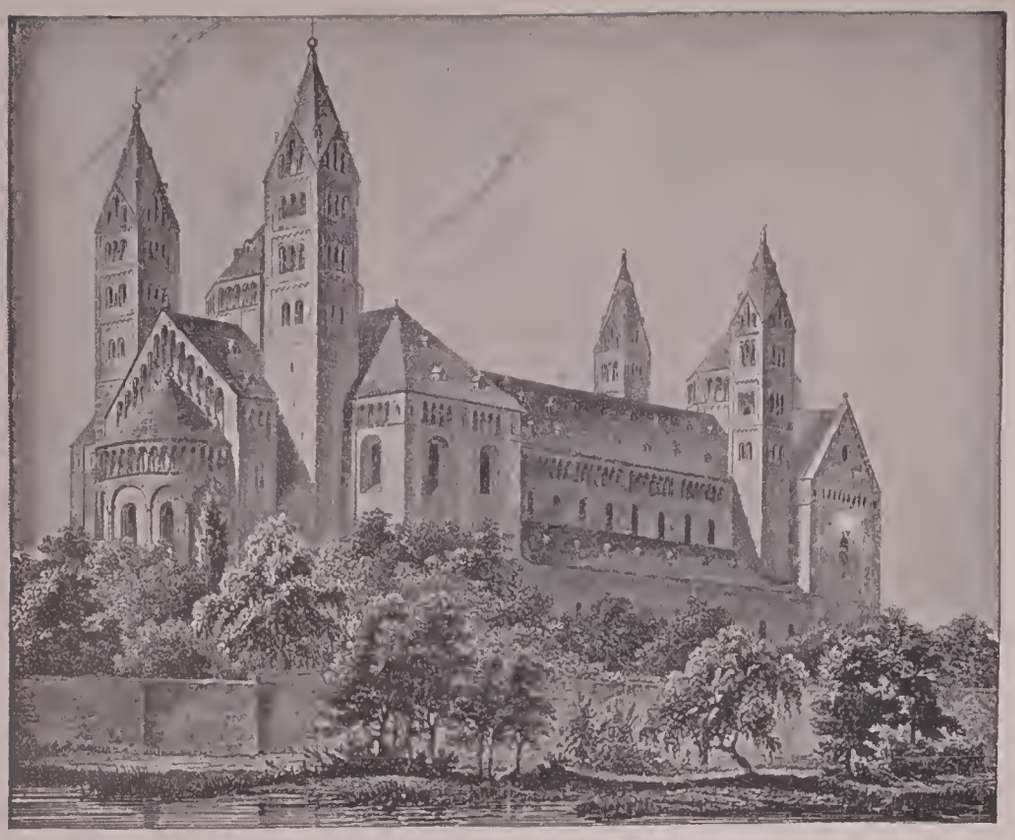
—*pl.* Specifically, the members of the Christian Church at Rome, to which Paul addressed an Epistle.

Ro'man Architec'ture. It can hardly be said that the early Romans had any style of architecture of their own, since they borrowed their ideas of building first from the Etruscans, and afterwards from the Grecks. In the time of Romulus, their dwellings were of the rudest description, being chiefly composed of straw; and at a later period, their temples were only small square buildings, scarcely large enough to contain the statues of their deities. The first king who constructed works of a large class requiring architectural skill was Ancus Martius. His first attempt was the building of the city and port of Ostia, at the mouth of the Tiber. During the time of Tarquin the Elder, the city was much improved by the skill and enterprise of the Etruscans, the great Circus was built, and the walls of the city constructed of large hewn stones. The great Cloaca, or public sewer, was also commenced, together with the temple of Jupiter Capitolinus. The decoration and improvement of the city was greatly increased during the reign of Tarquinius Superbus; but the Capitol was not finished till after the expulsion of the kings. During the first two Punic wars, many temples were erected; but they do not appear to have been of great magnificence. Altogether, very little taste had been shown in the Roman buildings till their conquests extended, and they became intimate with the more costly buildings of their enemies. Metellus Macedonicus, the contemporary of Mummius, the victor of Corinth, was the first who built a temple of marble at Rome; but from that time most of the larger edifices were built of that material. Grecian art and architects were also introduced about the same period. Under Julius Cæsar, many new and magnificent buildings were erected; and during the Golden Age, under Augustus, most of the finest edifices were built; architects flocked from all quarters, and especially from Greece, to beautify the city. It was said of Augustus, "that he found Rome built of brick, and left it of marble." Under Vespasian and the Antonines, architecture flourished, as the remains of the Coliseum and the Temples of Antoninus and Faustina testify. After this period, however, architecture declined till Constantine transferred the seat of government to Byzantium, when a new style was introduced. (See BYZANTINE ARCHITECTURE.) In comparing Greek and Roman architecture, there can be no doubt that the former greatly excels in matter of taste. Among the Greeks, moreover, religion was almost the sole purpose for which architecture seemed to exist; while, among the Romans, their temples were neither so extensive nor so numerous as their buildings of public utility or convenience. Besides a large number of engineering works, there are still the remains in Rome of fora, baths, palaces, circi, theatres, amphitheatres, libraries, halls of justice, triumphal arches, commemorative columns, mausolea, and similar buildings. The requirements of such edifices as these naturally led to the practice of composition and grouping, as one uniform plan of building would not have been suitable for such a variety of purposes. Another cause of variety lay in the employment of the arch, which allowed much greater latitude in compositions than the entablature of the Greeks. The semi-circular form of the arch next led to quite a new feature in architectural design — namely, the dome, — a feature which gave a totally distinct character to the buildings in which it was employed. The Pantheon

Fig 2270. — TOMB OF CÆCILIA METELLA, (ROME.)

(Fig. 2239), is the most remarkable example of this arrangement. The circular plan of building became also a favorite one for tombs and mausolea. Among the most noted of these was the mausoleum of Hadrian, the remains of which form the well-known castle of St. Angelo; and the tomb of Cæcilia Metella (Fig. 2270). A characteristic feature in Roman architecture, and one that entered largely into the system, is the employment of order above order in the same building. While this arrangement is faulty, for it is incompatible with the requirements of the highest standard of taste, yet still, at the same time, it proves the Roman aptness of invention and versatility of design. The style of architecture called the *Roman order* was invented by the Romans from the Ionic and Corinthian orders; and hence it is sometimes called the *Composite order.*

Ro'man Cath'olic Church. The name commonly given to that system of Christianity which, regarding the bishop of Rome, or Pope, as its spiritual head, maintains that the title of *Catholic* or *Universal* belongs exclusively to itself, and has for followers the great majority of the whole body of Christians, its last statistics presenting a total of about 225,000,000, against about 150,000,000 Protestants of all denominations, and 100,000,000 belonging to the Eastern, or Greek, Church. Its history begins with the pastoral commission given after Christ's resurrection to the Apostle St. Peter, who, about the year 67, sealed his apostolic labors with martyrdom in the city of Rome, which event attached his office to this See. The relations of the bishops generally to Rome, on account of its higher chieftaincy, are distinctly stated, in the early part of the 2d century, by Irenæus, who, however, earnestly remonstrated with Pope Victor on his determination to cut off various Asiatic churches from communion, for their attachment to the usage of celebrating Easter on the same day as the Jews. In the year 325, and by mandate of the Emperor Constantine, a council was called at Nice, when 318 bishops proclaimed Christ to be God, consubstantial to the Father. The 5th cent. was illustrious for the pontificatiou of St. Leo. His expositiou of the mystery of the Incarnation crowned the efforts of his predecessors for the maintainance of the faith, and received the homage of the bishops assembled at Chalcedon. "This," they cried, "is the faith of the fathers. We all have this faith. Peter has spoken by the mouth of Leo." The accession of Gregory the Great to the Papal chair in 590 is the commencement of one of the most important æras in the history of the *R. C.* Church. The ancient Roman empire had finally disappeared, and new-born nations were struggling into life, and waiting for new institutions. Gregory saw the opportunity, and embraced it, and the supremacy of the Pope was acknowledged by all the sovereigns of the western nations. The claims advanced by the Papal See led to frequent contests with the secular powers; but the result invariably was the triumph of the Church and the depression of the secular power. To Gregory, the *R. C.* Church is indebted for the completion of the monastic system. In the 7th cent., the sovereigns of W. Europe submitted implicitly to the Roman See; in the 8th, the war of the Iconoclasts broke out, which eventually led to the separation of the Eastern and Western churches. The Patriarch of Constantinople had caused images to be removed from the churches, and an imperial edict was issued forbidding their worship; the consequence being that the people broke out into insurrection over the whole empire. Lombardy was still subject to the Greek empire, and its king, taking part with the emperor, forbade the use of images in the churches. Pepin, of France, marched with a numerous army across the Alps to the assistance of his spiritual sire, defeated the King of the Lombards, and compelled him to deliver up a part of his territories to the Roman pontiff. Thus was laid, in 755, the foundation of the temporal sovereignty of the Pope. The Lombards becoming troublesome to the Roman pontiff, he again supplicated the aid of France, and Charlemagne entering Italy in 774, at the head of an army, reduced them to subjection, visited the Pope at Rome, and ratified and confirmed the donations of his father, Pepin. A second time he had to march to save the Papacy from apparent destruction, and he conferred on the Roman See the territories which he subdued, including Corsica, Sardinia, Sicily, &c. In 800, Leo III. proclaimed Charlemagne Emperor of the West, and placed the crown upon his head. The ascent of Gregory VII., in 1073, inaugurated a new æra in Church history. He was a man of stern virtue, and determined, at every hazard, to root out scandal from the sanctuary. With all his zeal, and the authority of his office, he condemned the marriage of the clergy, which from toleration had gained a coloring of right. He resisted the Emperor Henry IV., who disposed of bishoprics, abbacies, and other high offices, for bribes and like corrupt considerations. The inveterate character of these abuses, and the imperial influence, involved the saintly pontiff in a long and fierce struggle, in which he seemed to succumb, dying an exile, but in reality overcame, leaving his successors to reap the fruits of his labors. The contest between the popes and emperors continued, with intervals of rest, throughout the 12th and 13th centuries. Investitures were the chief subject of disputes, the popes resisting the claims of the emperors to invest bishops with the temporalities of their sees, by delivering to them the ring and crosier, chief symbols of episcopal authority. The opportunity thus furnished for promoting unworthy men, courtiers, and favorites, determined the popes to vigorous resistance; and although Paschal II. yielded for a moment to imperial violence, on the recovery of his liberty he retracted his consent, and humbled himself for his weakness. Innocent IV., in the middle of the 13th cent., in the Council of Lyons, deposed the Emperor Frederic II. for various acts of simony, sacrilege, and tyranny, following out the principles and the example of Gregory VII., who was the first to proceed to a similar deposition. The 14th cent. is remarkable for the removal of the Papal chair to Avignou, by Clement V., whose example was followed by his successors for 70 years. The Greeks returned for a short time to the communion of the Roman See in the Council of Florence held in 1439, but were drawn back into the gulf of schism by the persevering efforts of Mark, bishop of Ephesus, who resisted every influence employed by his colleagues and by the emperor at the Council. Constantinople a few years afterward fell under the power of the Turks, and the degradation of the Eastern church and empire was alike consummated. As the Mediæval period came near its end, a marked growth in the feeling of nationality enhanced the power of the kings, while the authority of the popes over secular matters declined. But their spiritual supremacy remained intact, and it was not till the sixteenth century that any of the States of Europe withdrew from the ecclesiastical control of the Roman Catholic Church. Martin Luther inaugurated the revolt. The rivalry of two religious orders resulted in theological disputes, which, on the part of Luther, were marked by great boldness. He soon became a leader, and before he was fully aware, he was head of a sect inculcating principles subversive of the Papal authority. A swarm of minor sects soon appeared, and a vast portion of the Catholic world was drawn away from obedience to the pontiff. Henry VIII., King of England, ventured on the theological arena to drive back the daring monk beyond the ring, and received plaudits from Leo as Defender of the Faith; but he, also, from a champion became an enemy, when his desires for a union with Anne Boleyn were thwarted by Clement VII. The great Council of Trent met in 1545, sat, with intervals, for eighteen years, and did more to systematize, to define, and to present in popular form the doctrinal belief of Rome, than had been accomplished by the united efforts of the schoolmen of the three centuries which preceded the Reformation. The latter half of the 16th cent. was a period of new life in the *R. C.* Church. The celebration of local synods, the establishment of episcopal seminaries, the organizatiou of schools, and other provision for religious instruction, — above all, the foundation of religious orders of both sexes, in all which this active work of the church was one of the striking and prominent characteristics, had the effect of arresting in many countries the at first rapid progress of Protestantism; and Lord Macaulay has traced out with curious minuteness the line which marks in the several countries the origin and progress of this religious reaction. The subtleties of Jansenius, *q. v.*, annoyed the church in the 17th and 18th centuries; his followers, after his example, employing the authority of Augustine to countenance doctrines decidedly Calvinistic. The French Church especially was harassed by these innovators. The contentions which prevailed throughout the early part of the 18th cent. prepared the way for the triumph of infidelity in the Revolution. In the present cent. there is a manifest return to Catholic unity. The Church of France, after the endurance of a persecution of the most frightful character, stands in intimate union with the See of Peter. The same sentiments prevail throughout the Catholic portions of Germany, as also in the Spanish dominions; and in some Protestant countries, chiefly in England, the *R. C.* Church has regained of late years considerable advance. Even on this side of the Atlantic, and from the memorable day, Oct. 11, 1492, on which Columbus landed upon the island of San Salvador, and at the foot of the cross poured forth his fervent thanks to God for the success of his glorious enterprise, this



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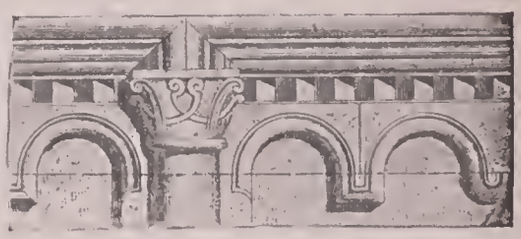
16

ROMANESQUE ARCHITECTURE.

1. Cathedral of Speyer (Ger.). 2. Interior of Capello P
column-bases (Ger.). 7. Pedestal from church at Heilig
Dalmatia (Ger.). 10. Capital from Minster of Basle (Ger.). 11. Arch-frieze, Church of the Holy Cross, near Vi
Portal of the Cathedral of Modena (It.). 15. Abbey of St. Etienne, Caen (Fr.). 16. Capital in Church of
Maulbronn (Ger.). 19. Capital from Church of the Holy Cross, near Vienna (Ger.). 20. Church of St. Gereon,



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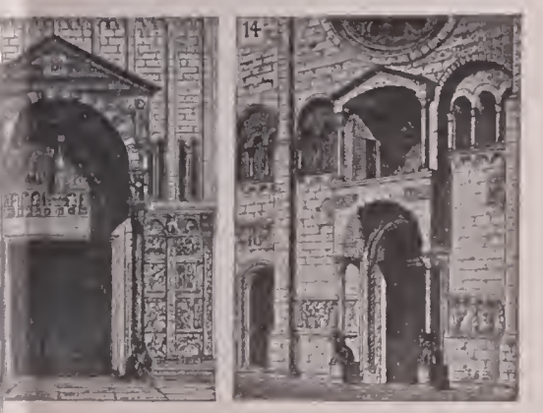

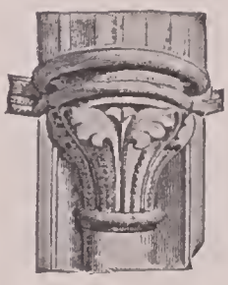

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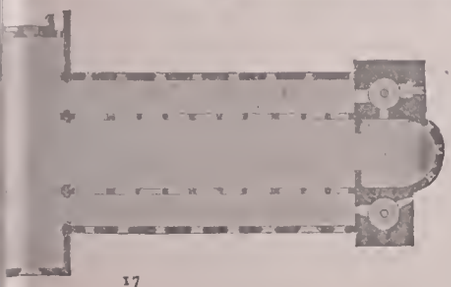

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tino in Royal Palace at Palermo (It.). 3. Cathedral and Campanile of Pisa (It.). 4, 5, 6. Corner ornaments of reuz (Ger.). 8. West end of Church of St. Zeno Maggiore, Verona (It.). 9. West end of cathedral at Zara, a (Ger.). 12. Portal of Cathedral of Verona (It.). 13. Portal of Church of St. Zeno Maggiore, Verona (It.). 14. Benoit-sur-Loire (Fr.). 17. Plan of Church of St. Godehard, Hildesheim (Ger.). 18. Capital from church at logne (Ger.).

Church has, amid many reverses, continued gradually to advance. In all the American continent there are about 4 Roman Catholics to 3 Protestants of all denominations; and though the proportion be by far less considerable in the U. States, their progress is here perhaps more rapid than in any other country, the body of *R. C.* having grown from about 1,200,000, in 1840, to above 7,750,000, in 1897.—The constitution of the *R. C.* Church, and the details of its discipline, are given elsewhere. Its doctrinal system may be best explained from her latest authentic creed, that known as Pius V.; a summary of the authoritative teaching up to that time, including the decrees of the Council of Trent, as follows: "I believe in one God, the Father Almighty, Maker of heaven and earth, of all things visible and invisible, and in one Lord Jesus Christ, the only-begotten Son of God, born of the Father, before all ages; God of God; Light of Light; true God of the true God; begotten, not made; consubstantial with the Father, by whom all things were made. Who for us men, and for our salvation, came down from heaven, and was incarnate by the Holy Ghost of the Virgin Mary, and was made man. He was crucified also for us under Pontius Pilate, suffered, and was buried. And the third day he rose again according to the Scriptures; he ascended into heaven, sitteth at the right hand of the Father, and shall come again with glory to judge the living and the dead; of whose kingdom there shall be no end. And in the Holy Ghost, the Lord and Giver of life, who proceeds from the Father and the Son, who, together with the Father and the Son, is adored and glorified, who spoke by the prophets. And in one holy, Catholic, and Apostolic Church. I confess one baptism for the remission of sins; and I look for the resurrection of the dead, and the life of the world to come. Amen. I most steadfastly admit and embrace the apostolical and ecclesiastical traditions, and all other observances and constitutions of the same church. I also admit the Holy Scriptures, according to that sense which our holy mother the Church hath held and doth hold: to whom it belongeth to judge of the true sense and interpretation of the Scriptures; neither will I ever take and interpret them otherwise than according to the unanimous consent of the Fathers. I also profess that there are truly and properly seven sacraments of the new law, instituted by Jesus Christ, our Lord, and necessary for the salvation of mankind, though not all for every one: to wit—Baptism, Confirmation, the Eucharist, Penance, Extreme Unction, Order, and Matrimony; and that they confer grace; and that of these, Baptism, Confirmation, and Order cannot be repeated without sacrilege. I also receive and admit the received and approved ceremonies of the Catholic Church, used in the solemn administration of the aforesaid sacraments. I embrace and receive all and every one of the things which have been defined and declared in the holy Council of Trent concerning original sin and justification. I profess, likewise, that in the Mass there is offered to God a true, proper, and propitiatory sacrifice for the living and the dead; and that in the most holy sacrament of the Eucharist there is truly, really, and substantially the Body and Blood, together with the soul and divinity of our Lord Jesus Christ; and that there is made a conversion of the whole substance of the bread into the Body, and of the whole substance of the wine into the Blood; which conversion the Catholic Church calleth Transubstantiation. I also confess that under either kind alone Christ is received whole and entire, and a true sacrament. I constantly hold that there is a Purgatory, and that the souls therein detained are helped by the suffrages of the faithful. Likewise, that the saints reigning together with Christ are to be honored and invocated, and that they offer prayers to God for us, and that their relics are to be held in veneration. I most firmly assert that the Images of Christ, of the Mother of God, ever Virgin, and also of other saints, ought to be had and retained, and that due honor and veneration are to be given them. I also affirm that the power of indulgences was left by Christ in the Church, and that the use of them is most wholesome to Christian people. I acknowledge the holy Catholic, Apostolic, Roman Church for the mother and mistress of all churches; and I promise true obedience to the Bishop of Rome, successor of St. Peter, Prince of the Apostles, and Vicar of Jesus Christ. I likewise undoubtingly receive and profess all other things delivered, defined, and declared, particularly by the holy Council of Trent; and I condemn, reject, and anathematize all things contrary thereto, and all heresies which the church hath condemned, rejected, and anathematized. I do at this present freely profess, and sincerely hold this true Catholic faith, out of which no one can be saved; and I promise most constantly to retain and confess the same entire and inviolate, by God's assistance, to the end of my life."—Since the compilation of the above creed, the *R. C.* Church has defined certain further articles in the controversy on grace, which are from the teaching of *Jansenius*, q. v.; still more recently that of the IMMACULATE CONCEPTION, *q. v.*; and, in 1870, the infallibility of the Pope, for which see ŒCUMENICAL COUNCIL, and PIUS IX.—The Catholic Church was first established in the English colonies of America by the settlers in Maryland, in 1634, and was long mainly confined to that State. The first Catholic bishop of the U. S. was Most Rev. John Carroll, of Baltimore, appointed in 1790. Under him were about 20 priests, and 30,000 church members, throughout the 13 States, but mainly in Maryland, Pennsylvania, and the Northwestern Territory. In 1803 the annexation of Louisiana added 30,000, so that in 1810, there were 90,000 native, and 30,000 foreign, Catholics in the country. In 1890 these had increased to about 7,000,000, and in 1900 to approximately 8,500,000. In 1893 an Apostolic Legation was established in Washington, with power to adjudicate many, if not all, questions of discipline arising in the Catholic dioceses of this country. The first legate was Monsignor Francis Satolli, titular archbishop of Lepanto. In November, 1895, he was raised to the dignity of cardinal, and recalled to Rome, being succeeded by Archbishop Sebastian Martinelli, who arrived Oct. 3, 1896. There are at present in this country 1 cardinal, 14 archbishops, and 82 bishops. In 1902 the priests numbered 12,113, the churches, 12,313, and the communicants 9,158,741.

Romance', *n.* [Sp.; It. *romanza;* Fr. *roman*, from L. Lat. *romancium*, from Lat. adv. *romanice*, in the language or manner of Rome.] (*Lit.*) Originally, a military fable of the Middle Ages; among the moderns, a fabulous relation or story of adventures and incidents, designed for the entertainment of readers; a narrative of extraordinary adventures, fictitious and often extravagant, usually a tale of love or war, subjects awakening the sensibilities of the heart, or the passions of wonder and curiosity; any wild, extravagant story or invention of the imagination; a work of fiction, in prose or verse, containing the relation of a series of adventures, either marvellous or probable; — a tale confined to the latter class of events has, indeed, been considered to be more strictly designated by the term *novel*. But, as our nomenclature for works of fiction is not very precise or accurate, the word *romance* is very frequently used to comprehend both; as, to write a *romance*, the "*Romance* of the Forest," &c.

(*Philol.*) A name given to those modern languages which are closely akin to the old language of the Romans, and which are modifications of the ancient Italian dialects; of these, six still remain literary dialects, viz., the languages of Portugal, Spain, France, Italy, Roumania, and the Grisons of Switzerland. The Provençal, or language of the Troubadours, is now a mere patois.

(*Mus.*) A small, song-like piece of vocal or instrumental music, somewhat in the character of a ballad; — also called *romanza*.

—*a.* Pertaining, or having reference, to the *Romance* language or dialects.

—*v. n.* To forge and relate fictitious stories, to deal in extravagant stories or romances; as, he *romanced* about his mistress as though she were a paragon.

Roman'cer, Roman'cist, (*-sist.*) *n.* A writer of romances; one who romances, or who invents fictitious stories.

Romancero, (*-sē'ro,*) *n.* (*Lit.*) The general Spanish appellation given to a collection of the national ballads or romances; — so called from the term *Roman*, or *Romanic*, which, in the early part of the Middle Ages, seems to have been the common designation of all the dialects spoken from the Alps to the western extremity of the Mediterranean. The *Romancero General*, the most celebrated of these collections, was published in 1604–1614.

Ro'manese, *n.* (*Philol.*) The language of the Wallachs, who call themselves *Români*, or Roumanians. It is spoken in Wallachia, Moldavia, and in parts of Hungary, Transylvania, and Bessarabia, and is divided by the Danube into two branches, the northern being to a certain extent a literary language; the southern has borrowed many Greek and Albanian words, and has never been fixed grammatically.

Romanesque, (*-ĕsk',*) *a.* [Fr.; It. *romanesco.*] Pertaining or relating to, or characterized by, romance; romantic.

(*Arch.*) A general term for all the debased styles of architecture which sprung from attempts to imitate the Roman, and which flourished in Europe from the period of the destruction of the Roman power till the introduction of Gothic architecture. It is thus described by Dr. Whewell: Its characters are a more or less close imitation of the features of Roman architecture. The arches are round; are supported on pillars, retaining traces of the classical proportions; the pilasters, cornices, and entablatures, have a correspondence and similarity with those of classical architecture; there is a prevalence of rectangular faces and square-edged projections; the openings in walls are small, and subordinate to the surfaces in which they occur; the members of the architecture are massive and heavy, very limited in kind and repetition, the enrichments being introduced rather by sculpturing surfaces, than by multiplying and extending the component parts. There is in this style a predominance of *horizontal* lines, or at least no predominance and prolongation of vertical ones. For instance, the pillars are not prolonged in corresponding mouldings along the arches; the walls have no prominent buttresses, and are generally terminated by a strong, horizontal tablet or cornice.

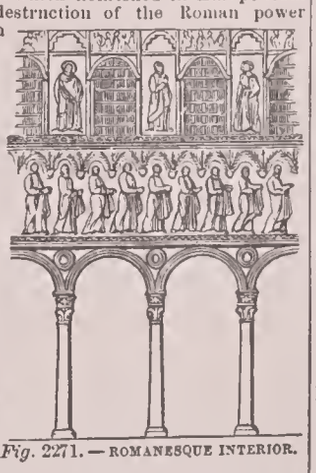


Fig. 2271. — ROMANESQUE INTERIOR.

(*Paint.*) Having reference to fable or romance in painting. In historical pieces, it consists in the choice of a fanciful subject, rather than one founded on fact. *Romanesque* differs from *romantic* in that the latter may be founded on truth, which the former never is.

(*Philol.*) The common dialect of Languedoc and other districts in the south of France. It is a remnant of the old Roman language. See ROMANCE.

Roman'ic, *a.* Pertaining, or relating, to Rome, or to its people. — Belonging or having reference to any or all of the various languages or dialects which, in the Middle Ages, sprung out of the old Roman. See ROMANCE. —Having relation to the Roman people by affinity; — said particularly of races and nations speaking any of the Romanic tongues.

Ro'manish, *a.* Pertaining, or relating, to Romanism.

Ro'manism, *n.* (*Theol.*) The religious tenets held by the Church of Rome.

Ro'manist, *n.* One who professes the religion of the Church of Rome; a Roman Catholic.

Ro'manize, *v. a.* To Latinize; to fill with Latin words or modes of speech; — also, to convert to the Roman Catholic religion or opinions; as, a *Romanized* pervert from the Episcopal ministry.

—*v. n.* To conform to Roman Catholic opinions, customs, or phraseology.

Ro'manizer, *n.* One who conforms to the Roman Catholic faith.

Ro'man Law, or CIVIL LAW. The name given to that body of laws principally declared in the *Pandects*, *Codes*, and *Institutes* of the Emperor Justinian; but these contain only a digest of a small portion of the laws which prevailed in the ancient Roman empire. "Inasmuch," to use the words of the learned judge, Sir John Holt, "as the laws of all nations are doubtless raised out of the civil law, as all governments are sprung from the ruins of the Roman empire, it must be owned that the principles of our law are borrowed from the civil law, therefore grounded upon the same reason in many things." The manner in which the Roman law has been introduced into the jurisprudence of modern Europe may be said to have been *twofold:* first, through the prevalence of Roman usages, derived from the times of the empire, among the population of various countries, especially that part of it which was collected in towns; secondly through the efforts of the ecclesiastics, who learned the civil law from the *Codex* of Theodosius, and from the works of Justinian, and introduced it, as far as their authority extended, into such branches of justice as they were permitted to administer, and especially into their canon law, which the various princes of Europe permitted to be binding, to a different extent in different countries, upon their lay, as well as clerical subjects. Thus, the Roman law is, in one sense, the oldest and fundamental part of public right in many countries; in another sense, it is a comparatively recent importation, altering the character of their respective legislations. The Roman law comprises what are termed the INSTITUTES, PANDECTS, CODE, and NOVELLÆ, *q. v.* These have been collected and published together, under the title of *Corpus Juris Civilis;* the best editions being those of Amsterdam (8vo. 1664), for the text, and of Gothofred (fol. Paris, 1628), for the text and notes. The most elaborate modern work on the history of the Roman law is that of Savigny.

Ro'man Lit'erature. See LATIN LITERATURE AND LANGUAGE.

Romanoff', or ROMANOV, MICHAEL, Czar of Muscovy, or Russia, was elected by a council of the states at Moscow in 1613, but had to combat the rival pretensions of Sweden and Poland. After a short war, he concluded a peace with Sweden in 1617, by which he ceded to Gustavus Adolphus a large portion of territory. In the following year he signed a truce with Ladislaus, King of Poland, who had advanced to the walls of Moscow. Directed by the sage counsels of his father, Michael would have advanced the civilization of his country, had not his death prematurely taken place in 1645. He left his throne to his son Alexis. The dynasty of Romanoff reigned in Russia from the year 1613 until 1732, when it became extinct, in the person of the Empress Elizabeth, who died without issue. It was succeeded by the dynasty of Holstein-Gottorp, with which it was connected by ties of marriage, Charles Peter Ulric, who reigned after Elizabeth, under the name of Peter III., being the son of her sister, Anna Petrowna, Duchess of Holstein-Gottorp, and daughter of Peter the Great.

Romans, (*ro'mawng,*) a town of France, dept. of Drôme, on the Isere, by which it is separated from Bourg-de-Péage, on the opposite side of the river, the communication between the two being maintained by a fine bridge, 12 m. N.E. of Valence, and 35 m. W.S.W. of Grenoble. *Manuf.* Silk and woollen fabrics, hosiery and gloves. *Pop.* 7,223.

Ro'mans, (Epistle to the.) (*Script.*) One of the books of the New Testament, written by the Apostle Paul, and addressed to the Christian Church at Rome. It is the fifth in order of time, though placed first among the epistles, either from the predominance of Rome, or because it is the longest and most comprehensive of the Apostle's epistles. It is generally agreed to have been written about A. D. 58, after he had passed through a lengthened period of experience. That it is the genuine and authentic production of the Apostle has rarely been called in question, and is supported by the strongest evidence. It was written from Corinth, and sent to Rome by one Phœbe, a servant or deaconess of the church at Corinth. The occasion of it was, doubtless, the disputes that began to prevail among the Christians at Rome. The Church there was composed of both converted Jews and Gentiles, and the former, attached to the Mosaic institutions, were desirous of

imposing upon their Gentile fellow-worshippers many of the Mosaic rites and ceremonies, especially that of circumcision. The Gentiles, on the other hand, despised the prejudices of the Jews; and hence, the divisions and contentions among them which called forth the admonitions and cautions contained in this epistle.

Romansch, *n.* [Gris. *Rumansch.*] (*Philol.*) The language spoken by the people of the Grisons, in Switzerland; — also written *Rumansch*, or *Rumonsch.*

Ro'man School, *n.* (*Painting.*) See PAINTING.

Ro'mansville, in *Pennsylvania*, a village of Chester co., abt. 10 m. W. of West Chester.

Roman'tic, *a.* [Fr. *romantique.*] Pertaining to romance, or resembling it; involving romance; belonging or appropriate to the style characteristic of the popular literature of mediæval times, as opposed to the *classical antique*; — hence, wild; fanciful; fabulous; extravagant; improbable or chimerical; fictitious; full of fantastic imagery; as, a *romantic* story, a *romantic* idea, a *romantic* enterprise, a *romantic* individual. — Characterized by novelty, oddness, or variety; wild; fantastic; quaintly picturesque; — applied to scenery; as, a *romantic* prospect.

Roman'tical, *a.* Romantic. (R.)

Roman'tically, *adv.* In a romantic manner; wildly; extravagantly.

Roman'ticism, (*-sizm,*) *n.* [Fr. *romantisme.*] (*Lit.*) State or quality of being romantic or fantastic; — a term of recent origin, applied chiefly to the fanciful and unnatural productions of the modern French school of novelists, at the head of which are Balzac, Victor Hugo, Sue, Alex. Dumas (*pere et fils*), Mme. Dudevant ("George Sand"), &c., and their imitators in France and other countries.

Roman'ticist, (*-sist,*) *n.* One imbued with romanticism.

Roman'ticness, *n.* State or quality of being romantic; fancifulness; fantasticness; wildness; extravagance.

Roma'nus I., Emperor of Constantinople and of the East, surnamed *Lecapenus*, was an Armenian soldier, who became the associate of Constantine X., in 919. He was dethroned by his sons, Stephen and Constantine, in 945, and died in a monastery, 948. — ROMANUS II., called *The Younger*, succeeded his father, son of Constantine X., 959, and died of intemperance, 963. — ROMANUS III., called *Argyrus*, became emperor by marrying the princess Zoë, 1028. He was murdered by his wife and her paramour, Michael (Michael IV.), 1034. — ROMANUS IV., surnamed *Diogenes*, was a condemned conspirator, who was married to Eudoxia, the widow of Constantine Ducas, and associated with her on the throne, 1068. Died, after being deposed and mutilated by Michael (Michael VII.), 1071.

Roman'za, *n.* [It.] (*Mus.*) See ROMANCE.

Roman'zieri, *n. pl.* [It.] (*Lit.*) In Italian literature, a series of poets who took for the subject of their compositions the chivalrous romances of France and Spain; and chiefly those relating to Charlemagne and his paladins: — of this school were Boiardo, Pulci, Berni, and Ariosto, the last of whom carried this class of poetry to the highest degree of perfection in his *Orlando Furioso.*

Roman'zoff, or ROMANZOW, PETER ALEXANDROVITCH, Count, a Russian general, born about 1730, succeeded Prince Galitzin as commander-in-chief against the Turks, 1770. He obtained many advantages, and concluded the treaty of Kainardji, 1774. Named general of the second army directed against the Turks, he threw up his command in 1789, in consequence of a quarrel with Potemkin. Died 1796. — His son and successor in the title, NICHOLAS, distinguished as a diplomatist, and for the devotion of his wealth to patriotic and benevolent objects, flourished 1753–1826. — MICHAEL PAUL, brother and heir of the latter, D. 1838.

Roman'zowite, *n.* (*Min.*) A brown, or brownish-black, variety of Lime-garnet. It is a triple silicate of lime, alumina, and iron.

Rombowline, (*-bō'lin,*) *n.* (*Naut.*) Old, refuse cordage, rope, &c., fit for use in chafing-gear only.

Rome. [Lat. *Roma.*] The most celebrated of European cities, famous alike in ancient and modern history; first, as the metropolis of the most powerful nation of antiquity, and afterwards, as the ecclesiastical capital of Christendom, now cap. of the kingdom of Italy, is situated on the Tiber, abt. 16 m. from its mouth, 115 m. N.E. of Naples, and 145 m. S.S.E. of Florence; Lat. 41° 53′ 52″ N., Lon. 12° 28′ 40″ E. The space inclosed by walls approaches to the form of a square, of three, or somewhat more than three, miles each way, the circuit of the walls being in all about 16 miles. This is equal to the circumference of Rome in its greatest splendor: but of the seven eminences on which the former city stood, several of them are now covered with vineyards, corn-fields, or villas, the close population being confined to the level tract between the eminences and the river, and occupying little more than a third of the space included within the walls. The most regularly built part of Rome is that which is adjacent to the northern gate, called *Porta del Popolo*, and the quarter Borgo, on the right of the river. The great drawback on its beauty as a city, is the mixed nature of its buildings, a mansion, entitled to the name of palace, being too often placed amidst a group of hovels. The points from which the city can best be viewed, are the Pincian Hill, Mount Janiculum, the tower of the Capitol, and the tops of the Trajan and Antonine columns. The streets have seldom any foot-pavement; they are in general narrow. Three of the finest are those which diverge from the Piazza di Popolo, near the northern gate; viz., the Corso, extending to the foot of the Capitol; the Strada del Babbuino, ending in the Piazza di Spagna, and the Strada di Ripetta, leading to the Tiber. The Corso is the great public walk of Rome, and the scene of carnival festivities. The squares are small, but numerous, and, in general, adorned with obelisks, fountains, or other monuments. The space in front of St. Peter's Church is a large area of an oval form, surrounded with a magnificent colonnade, the work of the celebrated Bernini. The Roman forum was anciently bordered with temples and lined with statues, and is now called Campo Vaccino

Fig. 2272. — CAMPO VACCINO. (*Ancient Forum*).

(Fig. 2272). Among the ancient edifices, the Pantheon, or Rotonda (Fig. 2039), a structure distinguished equally for solidity and elegance, is conspicuous. A still more imposing object is the Coliseum, or amphitheatre of Vespasian (Fig. 113), a structure of an oval form, 581 feet in length, 481 in breadth, and 1,616 in circumference; being the largest amphitheatre ever known. At a short distance from this, near the Viminal and Quirinal hills, stands a portion of the vast baths of Diocletian, now converted into a church. Of the triumphal arches of ancient Rome, the only one remaining entire is the arch of Constantine (Fig. 178), with its pillars, statues, and bas-reliefs, all of the finest marble. The arch of Septimus Severus is also of marble, but its bas-reliefs are much damaged. The arch of Titus has also suffered greatly. The Colonna Trajana, or Trajan's Pillar (Fig. 651), still stands on the spot where it was erected by that emperor, and is yet covered with admirable bas-reliefs. The pillar erected in honor of the Emperor Marcus Aurelius is of equal, or somewhat greater height, but of inferior execution. Of the ancient aqueducts, there remain only three; yet their supply of water is extremely copious. As to public baths, those great objects of Roman luxury, there remain of those of Caracalla little except the walls; but the baths of Titus are in better preservation. No city in Europe is superior to Rome in the number and magnificence of its churches. The church of St. Pietro, in Viucoli, is regarded as the most ancient in Rome, and is a noble hall, supported by 20 pillars of Parian marble, and adorned with elegant tombs. That of St. Martin and St. Silvester is built of part of the materials of the baths of Titus, and is a beautiful edifice. The church of St. Andrea, on the Monte Cavallo, though small, is highly finished; that of St Cecilia, in Trastevere, as well as the churches of St. Maria in the same quarter, St. Sebastiano, and St. Pietro in Montorio, are all of great antiquity. The last contained the famous picture of the Transfiguration, by Raphael, now in the Vatican. Santa Maria Egiziaca is supposed to be the ancient temple of Fortuna Virilis, and Santa Maria sopra Minerva a temple of that goddess, while the church of Ara Cœli is considered as occupying the site of the temple of Jupiter Capitolinus. The Pantheon (*q. v.*) and the seven patriarchal basilicæ, or cathedrals, are all remarkable for their architecture. Of the cathedrals, Santa Maria Maggiore, a noble structure, is situate on the Esquiline Mt., and has two fronts, each of modern architecture. St. Giovanni, in Laterano, is the regular cathedral of the bishops of Rome. See fig. 1525. Of the remaining churches, many of them are remarkable for architectural beauty, and altogether they number 354. In the church of St. Peter's (Fig. 2089), the arts of architecture, sculpture, and painting are all exhibited in the highest perfection. The patriarchal chair of St. Peter is a throne, elevated to the height of 70 feet. The high altar has below it St. Peter's tomb, above it a magnificent canopy of brass, towering to the height of 132 feet (Fig. 273). There are three palaces of the Pope; viz., the Lateran (Fig. 1525), the Quirinal, and the Vatican. The first is close to the patriarchal church of that name, and is striking by its size and height. The Quirinal palace has become, since the unification of the kingdom of Italy, the residence of the king. Its exterior presents two long fronts, plain and unadorned. The palace of the Vatican stands on an eminence, to the north-west of the city, near St. Peter's. Its exterior presents neither magnificence nor symmetry, having been erected by different architects at different æras, and forming, not one, but an assemblage of edifices. Its extent is immense, and the number of its rooms, great and small, is estimated at 4,422. Part of it is built with grandeur, and its walls are adorned with the cartoons of Raphael and Michael Angelo. Here also are collections of medals and other antiques, apartments cased with marble or paved with Roman mosaic, containing vases, candelabras, and altars, besides the celebrated statues of the Apollo Belvedere (Fig. 147), the Laocoon (Fig. 225), and the Antinous. The family mansions in Rome are termed *palazzi*, and are in great numbers; but the far greater part of them are less remarkable for their outward architecture, than for their size and internal decorations. The Palazzo Doria is one of the finest in the city, presenting three large fronts, inclosing a spacious court, surrounded with a piazza. It has a fine staircase, which leads to a magnificent gallery filled with pictures. The Palazzo Ruspoli has a still finer staircase, consisting of four flights, of thirty steps each, each step of a single piece of marble, nearly ten feet long and two broad. The Corsini palace is remarkable for its size, its furniture, and its gardens. The Palazzo Orsini, that of Ginstiniani, of Altieri, and of Salviati, are all distinguished buildings. The Palazzo Farnese is of great size, and occupies one side of a handsome square. There are various others, some of which are rich in the paintings of the first masters. Rome is well supplied with hospitals, but they are conducted on an antiquated plan, and very deficient in interior order and arrangement. The Tiber, though deep, is only about 200 feet wide, and is crossed at Rome by several bridges. Rome is the seat of various seminaries. The University is of the first rank, and was founded in 1244. The Propaganda, or College for the diffusion of the Christian faith, is on an extensive scale, containing a number of youths of different nations, and a press for printing books in more than thirty languages. There are likewise several literary associations. In the Ripa Grande 800 children are instructed in arts and trades, and there are numerous schools of painting, sculpture, and architecture. Of the libraries, by far the largest is that of the Vatican. The other libraries are those of the Augustines, of the Dominicans, of the Barberini, Chigi, Colonna, and Corsini families; also the Collegio Romano, with its museum of antiquities and cabinet of natural history. The University library is called, from its founder Pope Alexander VII., the *Alexandrine Library;* and the Library del Emo contains a collection of medals and mathematical instruments along with a museum of natural history. *Manuf.* Few, and chiefly consisting of woollens, silks, velvets, hats, gloves, stockings, liqueurs, pomade, and artificial flowers. — The Romans were always remarkable for their superstition and idolatry, and invested nearly every event of life, whether political, social, or domestic, with some religious ceremony; to such an extent was this carried, that nearly all the evil and good omens and superstitions that have sat like an incubus on the intelligence of western Europe for the last 2,000 years, date their origin from the Roman conquerors. The manner in which they declared war and proclaimed peace was marked by the most solemn rites and religious ceremonies. Their religious opinions, however, were remarkably tolerant, for they not only had an unbounded faith in their own mythology, and confidence in each particular divinity, male or female, who appertained to their Pantheon, but had an equal trust in the good offices of any strange god or goddess whom their friends or enemies worshipped, and with open arms accepted the celestials from the regions of the Nile, the Tigris, or the Oxus, and approached with the same veneration the altars of the Libyan, the Olympian, or the Capitoline Jupiter. From the founding of the city by Romulus, for a space of 245 years, or till 509 B. C., the Roman people submitted their political destinies to the rule of a succession of seven kings, the line terminating with Tarquinius Superbus, who, with his family, was deposed and expelled from Rome. After the deposition of their kings, the consular form of government was established, and, with a few short interruptions, as during the supremacy of the Decemviri, several dictators, and two triumvirates, continued till the year of the city 724, or 30 B. C., or for a space of 479 years; from this time a line of about sixty emperors assumed dominion, and for a term of 506 years, or A. D. 476, swayed with absolute power the destinies of the Roman world. During the first of these three epochs, the Romans firmly established their infant state, the city was greatly enlarged, civil law and order were established, a religious code was instituted, several of the neighboring states were humbled, many cities taken, and, while the population of Rome greatly increased, most of the conquered cities were admitted to all the benefits of Roman citizenship. In the second period, those great undertakings were effected which have, through all time, made Rome so celebrated — the broad, well-paved highways, like the *Via Appia*, extending from the city to the extremity of Calabria, numerous aqueducts, the *cloacæ*, or common sewers, so vast in size and length as to have become the wonder of the ancients themselves; so extensive were these underground channels, that in the time of Augustus the whole of Rome was subterraneously navigable. After these followed the temples, circuses, and baths. The wars undertaken in this epoch were some of the most important in the whole history of the people. The three Punic wars were fought and Carthage was exterminated, the whole of Italy was incorporated in the republic, the states of Africa subjugated, Greece converted into Roman provinces, Mithridates of Pontus defeated, and the kingdoms of Asia Minor made tributary; Spain, Gaul, and Britain were conquered and advanced to the grade of provinces, the boundaries of the republic

extending from Hibernia in the Atlantic to the Euphrates in the East, while the wealth and splendor of the city had advanced in a ratio equal with its territorial aggrandizement; and what had once been a town of bricks became a city of marble palaces, that could boast 420 temples, five theatres for the drama, two amphitheatres, seven circuses of vast extent, sixteen public baths, fourteen aqueducts, besides pillars, triumphal arches, porticoes, and lofty obelisks. During the third period Germany was added to the imperial realms, and the conquering eagles of Rome only ceased their flight on this side the Indus. All Syria, Persia, and Parthia fell before the conquering Roman till the overgrown empire, too vast for its own strength, and weakened by vice, riches, and conquest, fell into decay, and then commenced that downfall which has had no parallel in the annals of nations. It had been predicted by the augurs, from an omen of twelve ravens seen together as Romulus was marking out his infant city, that the state would endure for twelve centuries; and as the termination of that cycle of ages approached, the physical disasters that overwhelmed the people in all parts of the empire, the hordes of barbarians who on every quarter burst like a deluge on the land, the crimes of the emperors, the constant civil wars, and dire reverses encountered in the field, too plainly indicated the coming ruin of the once mistress of the world. So enervated and weak had the troops become, so greatly had they degenerated, that in the reign of Theodosius, about the year 390, the legions were no longer able to bear the fatigues of their armor and heavy military weapons, and throwing them aside, assumed the light and ineffective arms of the effeminate Persians, while the barbarians, adopting the heavy weapons of the Romans, were everywhere victorious. The division of the empire into *Eastern* and *Western* by Constantine, in 328, was the first fatal blow to the strength of the empire, while the feuds of the rival emperors, and the irruption of the Goths, the sack and burning of Rome in 410, completed the dismemberment. A few weak princes prolonged for half a century the shadow of a W. empire, till Romulus Augustulus, the last, bearing the same name as the founder of the state, laid down the insignia of the Roman empire at the feet of Odoacer, the barbarian king of Italy, A. D. 476. The Eastern empire endured for nearly 1,000 years longer, until finally overthrown by the taking of Constantinople by the Turks, in 1453. In the eighth century Rome was ceded to the Pope, and henceforth became the great ecclesiastical centre, and, though frequently subject to assaults in those warlike times, escaped pillage till 1527, when the army of De Bourbon stormed and sacked it, committing frightful horrors. In 1809 it was taken by the French, and continued under their sway for five years. In 1848 an insurrection broke out compelling the Pope to fly, when a republican government was established; a French force, however, soon after invested the city, which, after a lengthened siege, was obliged to capitulate, upon which the Pope returned in triumph to his capital. In Sept., 1870, after the breaking out of the Franco-Prussian war, the Emperor Napoleon III. found it necessary to withdraw the French troops from Rome; whereupon the city was invested by an Italian army, which, after a slight resistance offered by the Pontifical Zouaves and the Body-guard, capitulated to the National government. The Pope, however, after delivering a solemn protest against this forcible dethronement of his temporal sovereignty, still remained in the Holy City, "committing his cause to God" in the absence of interference in his behalf on the part of the great Powers of Europe. In Dec., 1870, Rome was made the cap. of Italy. On May 13, 1871, the Italian parliament passed the act known as the bill of papal guaranties, by which the Pope was to remain in possession of the *Leonine City* (the Vatican and dependencies), the Lateran, and the Castel Gandolfo. On July 2, Victor Emmanuel made his entry into Rome, and took up his residence at the Quirinal. The sanitary condition of *R.* has been much improved, and the death rate reduced from 27.81 per 1000 from 1861–71, to 21.43 in 1871–81. It is now one of the most healthful capitals of Europe. The healthiest part of *R.* is not, as has been popularly supposed, about the Trastevere and the Ghetto, but on the contrary, it is the new district, between Porta Pia and Santa Maria Maggiore and about the Piazza di Spagna.

Fig. 2273. — ROMAN WOMAN.

Rome, in *Geo*, a city, cap. of Floyd co., abt. 170 m. N. W. of Milledgeville. It is the principal depôt for the cotton raised in that region.—In *Ill.*, a p. v. of Peoria co., abt. 85 m. N. by E. of Springfield.—In *Ind.*, a v. of Jefferson co., abt. 9 m. E. by N. of Madison.—A p. v. of Perry co., abt. 45 m. E. of Evansville.—In *Iowa*, a p. v. of Henry co., abt. 36 m. W.N.W. of Burlington.—A twp. of Jones co.—In *Maine*, a p. twp. of Kennebec co.—In *Mich.*, a p. twp. of Lenawee co.

Rome, in *Missouri*, a village of Boone co., abt. 13 m. N. by E. of Columbia.

Rome, in *New York*, a city and township, semi-cap. of Oneida co., about 100 m. W.N.W. of Albany, and 14 m. N.W. of Utica, on the site of Fort Stanwix. It is a place of much business activity, and contains some extensive manufactories. *Pop.* (1897) 15,950.

Rome, in *Ohio*, a village of Adams co., abt. 84 m. S.E. of Cincinnati.—A post-village and township of Ashtabula county, about 190 miles north-east of Columbus.—A township of Athens county.—A village of Delaware county, about 22 miles north by east of Columbus.—A township of Lawrence county.—A village of Richland county, about 12 miles north of Mansfield.—A village of Seneca county, about 110 miles north of Columbus.

Rome, in *Pennsylvania*, a post-borough and township of Bradford co., about 9 m. N.N.E. of Towanda.—A township of Crawford co.

Rome, in *Wisconsin*, a post-village of Jefferson co., abt. 10 m. E. of Jefferson.

Rome, in *Tennessee*, a post-village of Smith co., abt. 45 m. E. of Nashville.

Ro'meine, *n.* (*Min.*) A native antimoniate of lime.

Ro'meo, in *Michigan*, a post-village of Macomb co., abt. 20 m. N.W. of Mount Clemens.

Romeo, in *Tennessee*, a post-village of Grsens co., abt. 14 m. N.W. of Greenville.

Rom'ford, a town of England, co. of Essex, 13 m. E.N.E. of London; *pop.* 6,000.

Rom'ish, *a.* Pertaining, or relating, to Rome, or to the religion professed by the people of Rome; Roman Catholic; Papal: as, the *Romish* Church.

Rom'ist, *n.* A Roman Catholic. (R.)

Rommalian Roy. See BRAHMO SOMAJ.

Rom'ney, in *Indiana*, a post-village of Tippecanoe co.

Romney, in *W. Virginia*, a post-vill., cap. of Hampshire co., abt. 120 m. S E. by E. of Wheeling.

Romorantin, (*rom'o-ran-ta,*) a town of France, dept. of Loire-et-Cher, on the Seudre, a tributary of the Loire, 24 m. S.E. of Blois; *pop.* 7,642.

Romp, *n.* [A different spelling of *rump*, q. v.] A rude girl, who leaps and frisks about, and indulges in boisterous play; a tomboy; a hoiden; a skittish lass. — Rude play; boisterous frolic; frisky recreation.

—*v. n.* To play rudely and boisterously; to leap and frisk about in sport; to act the tomboy.

Rompee', Rom'pu, *n.* [Fr. *rompu*, from Lat. *rompere*, to break.] (*Her.*) Cleft, as an ordinary; cut off, or broken at the top, as a chevron, bend, &c.

Romp'ingly, *adv.* In a romping, or rude and boisterous manner; rompishly.

Romp'ish, *a.* Inclined to romp; given to rude, boisterous sport.

Romp'ishly, *adv.* In a rude or boisterous manner; skittishly.

Romp'ishness, *n.* Quality of being rompish or tomboyish; disposition to boisterous play, or the practice of romping.

Rom'sey, or RUMSEY, a town of England, co. of Hants, on the Test, 6 m. N.W. of Southampton; *pop.* 6,000.

Rom'ulus, mythical founder and first king of Rome. According to the legends, he was the son of the vestal Rhea Sylvia by the god Mars, Sylvia being a daughter of Numitor, rightful heir of the King of Alba, but deprived by his brother. Exposed with his twin-brother Remus, the babes were suckled by a she-wolf, and afterwards brought up by a shepherd. Their parentage was discovered, and they determined to found a city on the banks of the Tiber, the scene of their exposure. The right to choose the site was acquired by *R.*; and Remus not acquiescing, in his disappointment, was slain. Inhabitants for the new city were found by establishing a refuge for murderers and fugitive slaves on the Capitoline hills, and by carrying off the Sabine maidens at a feast to which they were invited. This led to war with the Sabines, which ended, through the intervention of the Sabine women, in a union of Romans and Sabines, under their two kings, *R.* and Titus Tatius. The latter was soon slain, and *R.* reigned alone. He was regarded as the author of the fundamental division of the people into *tribes*, *curiæ*, and *gentes*, and of the institution of the senate and the *comitia curiata*. The date commonly assigned for the foundation of Rome is B. C. 753.

Romulus, in *New York* State, a township of Seneca county.

Ro'na, a small island in the Northern Ocean; Lat. 58° 32′ N., Lon. 6° W.—Also, a small island of the Hebrides.

Ron'ald, in *Michigan*, a post-township of Ionia co.; *pop.* abt. 1,400.

Ronaldshay, (North and **South,)** (*ron'ald-shai,*) two small islands of the Orkneys.

Roncesvalles, (*ronce'val,*) a village of Spain, in Navarre, 22 m. N N.E. of Pampuna. Here the rear-guard of the army of Charlemagne was destroyed in 778, and Roland, the famous paladin, fell in the action.

Ron'da, a town of Spain, prov. of Granada, on the Guadiaro, 40 m. N.W. of Malaga, and 48 m. N.N.E. of Gibraltar. *Manuf.* Silks, leather, &c. *Pop.* 19,334.

Rondache, (*rŏng-dash',*) *n.* (*Archæol.*) Anciently, a circular shield carried by foot-soldiers to protect the upper part of the person, which it entirely covered. It had a slit in the upper part for seeing through, and one at the side for the point of the sword to pass through.

Rond Bosse, *n.* [Fr.] (*Fine Arts.*) A term describing sculptured objects in their full forms, in contradistinction to those which are in *relief*, or attached more or less to a plane or ground.

Rondeau, Rondo, (*ron-dō.*) *n.* [Fr. *rondeau*, from *rond*, round.] (*Pros.*) A kind of poetry which returns, as it were, to the same point, or in which part is repeated, thus containing a refrain. In French poetry, the rondeau is a little composition of 13 verses, divided into 3 unequal strophes, with two rhymes (5 lines masculine and 5 feminine, or *vice versâ*). The first two or three words of the first verse serve as the burden, and recur in that shape after the 8th and 13th verses. There are also *double rondeaux* and *single rondeaux*; the latter an obsolete, but easier kind of verse.

(*Mus.*) A light form of composition, in which the subject or theme returns frequently; it usually forms the last movement of a symphony or sonata, but is also very common as a separate composition; a round.

Rondout', in *New York*, a post-village of Ulster co. Was annexed to Kingston in 1872.

Rondout Creek, in *New York*, enters the Hudson River from Ulster co.

Ronion, Ronyon, (*rŭn'yun.*) *n.* A mangy or scabby animal; also, a fat, pursy, bulky woman; as, a rumpled *ronyon*.

Rönne, (*ren'na,*) a town of the Danish Island of Bornholm, in the Baltic, 93 m. S.E. of Copenhagen. *Manuf* Woollens and tobacco. *Pop.* 4,500.

Ronneburg, (*ron'ne-boorg,*) a town of Germany, in Saxe-Altenburg, 4 m. E.S.E. of Gera. *Manuf.* Woollens, porcelain, and leather. *Pop.* 6,000.

Rood, *n.* [A different orthography of *rod*, q. v.] A rod: a perch; a pole; a lineal measure of 5½ yards. — The fourth part of an acre, or 40 square yards or poles; as, a *rood* of land.

Rood, *n.* [A. S. *rode*, or *rod.*] A cross or crucifix; a figure consisting of one rod laid at right angles over another; — specifically, a name formerly given to the figure of Christ on the cross, erected in Roman Catholic churches; as, the holy *rood*. — *By the rood*, by the cross; — a phrase formerly employed in taking oath or asseveration.

Rood'-beam, *n.* (*Arch.*) Formerly, the beam across the chancel, bearing the rood, in churches too poor to provide a screen.

Rood'-free, *a.* Exempt from punition. (R.)

Rood'-loft, *n.* (*Arch.*) A gallery which was generally placed over the chancel-screen in parish churches, and contained the rood and its appendages.

Roof, *n.* [A. S. *hrof*, *rof.*] (*Arch.*) The external covering on the top of a building; sometimes of stone, but usually of wood overlaid with slates, tiles, lead, &c. The form and construction of the timber-work of roofs differ materially according to the nature of the building on which it is to be placed, and any attempt to notice all the varieties would far exceed the limits of this work. The main portion of the framing, which in most cases are placed at regular intervals, are each called *a truss*, *principal*, or *pair of principals*; these, in ornamented open roofs, are the leading features, and in some ancient

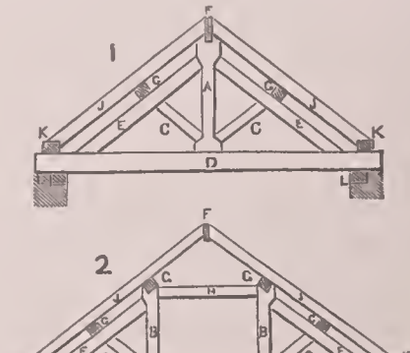


Fig. 2274. — 1. KING-POST ROOF. 2. QUEEN-POST ROOF.

A. King-post.
BB. Queen-posts.
CCCC. Braces, or struts.
DD. Tie-beams.
EEEE. Principal rafters, blades, or backs.
FF. Ridge-pieces.
GGGGGG. Purlins.
H. Collar.
JJJJ. Common rafters.
KKKK. Pole-plates.
LLLL. Wall-plates.

roofs are contrived with an especial view to appearance. We give (Fig. 2274) two of the simplest kinds of modern roofs, which will serve to explain the names of the most important timbers: a *king-post* roof has one vertical post in each truss, a *queen-post* roof has two. Since the introduction of iron in the construction of roofs, spaces of almost any width can be roofed over.

—That which resembles, or corresponds with, the cover of a building; as, the *roof* of the mouth, the *roof* of the firmament, &c.

(*Mining.*) That part above the miner's head; that part of the strata lying immediately upon the coal.

—*v. a.* To cover with a roof; as, to *roof* a building. — To shelter; to inclose in a house.

Roof'er, *n.* One who sets on roofs.

Roof'ing, *n.* The act of covering with a roof. — The materials of which a roof is constructed, or materials for a roof; as, *roofing*-slates. — Hence, by implication, the roof itself; shelter; covering.

Roof'less, *a.* Without a roof; as, a *roofless* church. —Unsheltered; having no house or home; as, a *roofless* vagabond.

Rooflet, *n.* A small roof or covering.

Rooi'-tree, *n.* The beam in the angle of a roof; hence, the roof itself;—also, by implication, home; house; shelter; as, he sleeps under his own *roof-tree*.

Roof'y, *a.* Possessing roofs. (R.)

Rook', *n.* [A S. *hroc;* formed from the sound which the bird utters.] (*Zoöl.*) A European species of crow (*Corvus frugilegus*, Linn.), resembling in size and color the Carrion-crow, but differing in having the base of the bill whitish and scurfy, and bare of feathers. The rook is gregarious at all seasons, resorting constantly to the same trees every spring to breed, when the nests may be seen crowded one over another upon the upper branches. After their young have taken wing, they all forsake their nest-trees, returning to them again in October to roost; but as winter comes on, they generally select more sheltered places at night in some neighboring woods, to which they fly off together.

—A cheat; a trickster; a rapacious fellow;—also, one who acts as decoy-duck to gaming-houses.

—*v. n.* To cheat: to swindle; to defraud;—also, to decoy.

—*v. a.* To cheat: to defraud by cheating or trickery.

Rook, *n.* [It. *rocca*, from L. Lat., a castle built on a rock.] (*Games.*) In chess, one of the four pieces placed on the corner squares of a chess-board; a castle.

Rook'ery, *n.* A place where rooks congregate and build their nests, as a wood, coppice, &c.

Rook'-pie, *n.* (*Cookery.*) A pie made of young rooks dressed and seasoned; — a dish much esteemed by English gourmets.

Rook's Creek, in *Illinois*, a post-village and township of Livingston county, about 130 miles S.W. by S. of Chicago.

Rook'y, *n.* Populated by rooks; as, a *rooky* wood.

Room, *n.* [A. S. *rum;* Goth. *rums*, place, space; probably allied to the Heb. *rum*, to be afar off, remote.] Place; space; compass; extent of place, great or small, which has been set apart or appropriated to any purpose. — Particularly, space partitioned off in a building; an apartment in a house; as, they occupy different *rooms*. — Practicability of admission; possibility to allow; fit occasion; liberty to act; as, there is ample *room* for improvement. — Place unoccupied; as, to find *room* for a lady. — Place of another; stead; as, he took him in *room* of the other. — In British North America, a fishing station.

To give room, to withdraw; to leave space unfilled, for others to pass or to be seated. — *To make room*, to remove obstructions; to open a space, way, passage, or opportunity; as, *make room*, gentlemen! — *Room and space.* (*Ship-building.*) The technical expression for the distance from the joint or moulding edge of one floor-timber to the other, which, in all ships that have ports, should be so disposed that the scantling of the timber of each side of the port, and the breadth of the port fore and aft (the openings between the timbers of the frames, if any, included), be answerable.

Room, *n.* A dye of a deep blue color brought from Assam, and extracted from a plant of the genus *Ruellia*.

Room, *v. n.* To lodge; to occupy, as a room or apartment; as, he *rooms* at the Astor House.

Room'ful, *n.; pl.* ROOMFULS. As much, or many, as will fill a room; as, a *roomful* of people.

Room'ily, *adv.* Spaciously.

Room'iness, *n.* State of being roomy; spaciousness; large extent of space or room.

Room'y, *a.* Having ample room; spacious; capacious; wide; large; as, a *roomy* house, a *roomy* ship between decks.

Roon, *a.* Red; resembling the color of vermilion. (R.)

Roop, now WASHOE, in *Nevada*, an extreme N.W. co., adjoining Oregon and California; *area*, about 5,620 sq. m. The county contains several considerable lakes, of which Pyramid Lake is the largest. *Surface*, mountainous; *soil*, in some parts fertile. See WASHOE.

Roor'bach, *n.* An American term for a false story or canard circulated for purposes of political intrigue.

Roo'sa Oil, Roo'sa Grass-oil, *n.* An oil distilled from the leaves of *Andropogon calamus aromaticus*. It has a strong rose scent, and is used for adulterating attar of roses.

Roost, *n.* [A. S. *hrost;* Ger. *rüste;* allied to *rest.*] The pole, or perch, or other support, on which birds rest at night — A number of fowls reposing together. — *At roost*, in a state of repose and sleep; as, a cock *at roost*.

—*v. n.* To rest, sit, or sleep, as birds on a pole, perch, or tree, at night; to perch. — Hence, by implication, to lodge; as, where do you *roost?*

Roost'-cock, *n.* The male of the domestic fowl; a rooster.

Roost'er, *n.* An Americanism for a cock, or male of the domestic fowl

Root, *n.* [Dan. *rod?*] (*Bot.*) The descending axis, or that portion of the axis of a plant which passes, at its first development, in an opposite direction to the stem, or ascending axis. The extension of this organ is effected by the addition of new matter, not at its base, or point of junction with the stem, but at that portion which adjoins the apex. *R.* are usually subterranean; but some merely float in water, and others hang loosely in the air. They have no leaves, and generally no buds, and they appear to divide and subdivide irregularly, unlike stems, which always ramify in a symmetrical manner. There are two classes of *R.*, — the *primary* or *true*, and the *secondary* or *adventitious*. The primary *R.* is produced by the direct elongation of the radicle. The part where the stem and primary *R.* unite is termed the *collum*, or *neck;* the portion of the latter organ adjoining this is called the *base*, and the opposite extremity the *apex*. The secondary root does not proceed from any definite point, and its development may be said to depend upon favorable external circumstances. The branches from a primary *R.*, and the *R.* produced from the different modifications of the stem — as the rhizome, the sucker, and the runner — are all of the secondary class. (See ADVENTITIOUS and AËRIAL ROOTS.) According to the duration of their existence, all *R.* have been divided into *annual*, *biennial*, and *perennial*. Annual *R.* are produced by those plants which spring from seed, and flower and die in the space of one year; as the oat and the balsam. Biennial *R.* are those of plants which live two years; as the carrot and the turnip. Perennial *R.* are those of plants which live for many years; in some such plants, as the dahlia and orchis, the roots are the only perennial portions, the stems dying every year. The *R.* assumes various forms, which are distinguished by special terms in descriptive botany. When the central axis of a plant goes deep into the ground without dividing, a *tap-root* is produced; the *R.* of the common Stock illustrates this generic form. If, instead of descending in a direct line, the tap-root takes a crooked curve, it is said to be *contorted*, or *twisted*, as in the bistort; if it ends abruptly, as though bitten off, it is termed a *truncated*, or *præmorse R.*, as exemplified in the Devil's-bit *scabiosa sussica*. The *conical R.* may be described as a tap-root, rather broad at the base, and tapering towards the apex; the *R.* of the horse-radish, parsnip, and carrot, are familiar examples. The *fusiform*, or *spindle-shaped R.*, is another variety of the tap-root. It swells out a little below the base, and tapers upwards and downwards; it is seen in the common radish. The *napiform*, or *turnip-shaped R.*, has a globular form, being much swollen at the base; the common turnip is its type. When the descending axis is very short, and at once divides into slender branches or rootlets, a *fibrous R.* is produced, as in many of the grasses. When the branches are short and fleshy, as in the dahlia, the *R.* is said to be *fasciculated;* and when some of the divisions are so swollen as to become egg-shaped, as in many orchids, and especially in the jalap-plant, the *R.* is *tuberculated*. To *R.*, which expand only at certain points, the terms *nodulose*, *annulated*, and *necklace-shaped*, have been applied. A few other forms have received separate names, but they are unimportant.

—An edible or esculent root, particularly of such plants as produce a single root, as of a turnip.

—That which resembles a root as a source of nutrition or basis of support; that from which anything proceeds, as if by growth or development; as, the *root* of one's nails, teeth, &c.; particularly, (1.) The first ancestor or progenitor; hence, a stem; as, "Adam, the *root* of all mankind" (*Sir J. Davies.*)—(2.) A primary form of speech; a radix; a radical, or whatever, in any language, cannot be reduced to a simpler or more original form, but serves as a common basis to words relating to the same emotion or idea, such as *ar*, *ak*, *frag*, &c. Roots are of two kinds. *roots demonstrative*, and *roots predicative*. The former are properly pronouns; the latter comprise all names, whatever may be the form assumed by them, and express invariably some sensible or material idea. Thus the words *mill* and *meal*, *milk*, *mild*, *immortal*, &c., are traced back to a root, *mar* or *mul*, which expressed originally the sound of crushing or grinding. From this root have sprung words which have apparently nothing in common with each other. — (3.) The original occasion or cause of anything; as, "the love of money is the *root* of all evil." — 1 *Tim.* vi. 10.

(*Mus.*) The fundamental note of any chord.—*Busby.*

(*Math.*) A number which, multiplied by itself a stated number of times, is equal to a given number; in other words, the number of which a given number is a stated power. Thus the fourth root of 16 is 2, and is denoted by the symbol $\sqrt[4]{16}$. In the most frequently occurring case of square root the index 2 is omitted, and the *radical sign* $\sqrt{\ }$ alone used. The more general and algebraic definition of a root, is any value of an unknown quantity which satisfies a given equation. See CUBE ROOT, SQUARE ROOT.

—That which is like a root in position; the bottom or lower part of anything; as, to go to the *root* of a matter.

Aërial roots. (*Bot.*) See AËRIAL.—*Primary roots*, the central, first-formed main root, from which branch off the rootlets.—*Root of a nail.* (*Anat.*) That part of a nail which is covered by the skin. — *To take root*, to become firmly implanted or established; as, an idea *takes root* in the mind.

—*v. n.* To fix the root; to enter the earth, as roots. — To sink deep; to be firmly fixed, implanted, or established; as, a *rooted* prejudice.

—*v. a.* To plant and fix deep in the earth by the roots;— used chiefly in the participle; as, *rooted* trees. — Hence, to impress deeply, durably, or radically; as, to *root* one's self in the estimation of another. — To uproot; to tear from the ground by the roots; hence, to exterminate; to extirpate; to eradicate; — used with a particle, as *up*, *out*, or *away;* as, to *root out* a nuisance, to *root up* a vegetable.

Root, *v. n.* [A. S. *wrotan;* Du. *wroeten.*] To turn up, as earth with the snout, in the manner of swine. — Hence, by analogy, to favor in a servile manner; to play the lickspittle; to act as a mean sycophant.

—*v. a.* To turn up with the snout; as, hogs *root* everywhere.

Root, in *Indiana*, a township of Adams co. *Pop.* (1897) 1,450.—A village of Allen co., about 110 m. N.E. by N. of Indianapolis.

Root, in *New York*, a prosperous township of Montgomery co.

Root'-crop, *n.* (*Agric.*) A crop of esculent or edible roots, particularly of such plants as yield single tubers, as beets, turnips, &c.

Root Creek, in *Wisconsin*, a post-village of Milwaukee co., abt. 11 m. S.W. of Milwaukee.

Root'eater, *n.* An animal that subsists on roots.

Root'edly, *a.* Deeply fixed or implanted; firmly; as to hate a person *rootedly*.

Root'edness, *n.* State or condition of being rooted; as, *rootedness* of love or enmity.

Root'er, *n.* One who, or that which, roots, or takes up by the roots.

Root'-house, *n.* A house constructed of roots; a place for keeping roots.

Root'less, *a.* Destitute of roots; as, a *rootless* tree.

Root'let, *n.* A little root; a radicle.

Root River, in *Wisconsin*, rises in Waukesha co., and flowing S.E. enters Lake Michigan from Racine co.

Root'-stock, *n.* (*Bot.*) Same as RHIZOMA, *q. v.*

Roots'town, in *Ohio*, a post-township of Portage co.

Root'y, *a.* Abounding with roots; as, *rooty* ground.

Rooze, *v. a.* To scatter; to shred; — used as provincial English.

Ropal'ic, *a.* [From Gr. *ropalon*, a club.] Club-shaped; bulging out toward the end.

Rope, *n.* [A. S. *rap;* Du. *reep;* Irish *rap;* Icel. *reip;* Ger. *reif.*] A large, stout, twisted cord of hemp, of not less, generally, than an inch in circumference. A certain proportion of hemp twisted together forms a *yarn*, and a number of yarns form a *strand*. Three strands twisted together form a *rope*. Rope is either *white* or *tarred*, the latter being the best if liable to exposure to wet, the former if not exposed. The strength of tarred rope is, however, only about three-fourths that of white rope, and its loss of strength increases with time. Rope is designated by its circumference, expressed in inches, and is issued in *coils* of 113 fathoms each; marline and hambroline in *skeins*, spun-yarn in *pounds;* the latter is made from old rope (junk). Government rope is distinguished by a colored thread,—red, blue, or yellow,— which runs through it. Rope used in the artillery service is coiled *with the sun*, *i. e.*, from left to right, in which direction the yarns are twisted so as to avoid *kinking*. The strength of white hempen rope may be approximately calculated by the following rule, viz.: square the circumference, and divide by five for the number of tons *dead-weight* that the rope will bear. The strain, however, caused by a sharp jerk upon a rope is very much greater than that of a dead-weight. It is stated, in this respect, that the strain upon a rope loaded with a weight of 200 pounds, and suddenly checked after a fall of 8 feet, is nearly equal to that which is caused by a dead-weight of 2 tons. — Other materials beside hemp are used in the manufacture of rope, but to a smaller extent.—*Coir-rope*, which comes from Ceylon and the Maldive Islands, is made from the fibrous husk of the cocoa-nut; *Manila-rope* from the fibres of a species of wild banana. *Wire-rope* both iron and steel, is also employed; on ship-board, particularly, to a considerable extent. — See CABLE, and CORDAGE.

—A row or string, consisting of a series of things connected; as, a *rope* of onions.

—*pl.* [A. S. *ruppus.*] The entrails of birds.

Rope of sand, a metaphorical simile, denoting a frail or insecure union or tie, or band readily broken.

—*v. n.* (*imp.* and *pp.* ROPED,) (*rōpt.*) To be formed into rope; to draw out into a filament or thread, by means of any viscous, glutinous, or adhesive quality; as, *roping* icicles.

—*v. a.* To draw by, or as by, a rope.

To rope in, to encircle with a rope, or ropes; as, *to rope in* a ring for pugilistic encounters. — To draw in by force, and collectively, as partisans.

Rope'-band, Ro'band, *n.* (*Naut.*) A small hank of marline or spun-yarn, used on shipboard to secure the head of the sail to the yard or gaff.

Rope'-dancer, *n.* [Gr. *skoinobates;* Lat. *funambulus.*] One who walks or dances on a rope placed in an elevated position in the air.

Rope'-ladder, *n.* A ladder formed of ropes.

Rope'-maker, *n.* A roper; one whose business is to make ropes or cordage.

Rope'-mat, *n.* A mat constructed of oakum or cordage.

Rope'-pump, *n.* (*Hydraul.*) A machine for raising water by means of an endless rope, which passes through the well or fountain, and brings up the water by the momentum it acquires when put in motion.

Rop'er, *n.* A rope-maker; also, a packer.

Rop'ery, Rope'-walk, *n.* A long covered walk, or building covering even ground, where ropes are manufactured.

Rope'-trick, *n.* A trick that merits the halter; a villainous act.

Rope'-walk, (*-wauk,*) *n.* See ROPERY.

Rope'-yarn, *n.* Yarn consisting of a single thread, used in the manufacture of ropes.

Rop'ily, *adv.* In a ropy manner; in a viscous manner, so as to be stretched out like a rope.

Rop'iness, *n.* Stringiness, or aptness to draw out in a string or thread, without breaking, as of glutinous substances; viscosity; adhesiveness.

Rop'ish, *a.* Ropy; tending to ropiness.

Rop'y, *a.* Stringy; adhesive; that may be drawn in a thread; viscous; tenacious; glutinous; as, *ropy* molasses, *ropy* lees of wine.

Roque, (*rōk,*) (**St.,**) a popular saint of the Roman Catholic Church in France, who is especially considered the patron of those sick of the plague. He was born of a noble family in Montpelier, about the end of the 13th century, and having undertaken a pilgrimage to Rome, was surprised upon his way through Italy by an outbreak of the plague at Piacenza, where he devoted himself with generous zeal to the care of the victims of this

pestilence. Falling sick of the plague himself, and abandoned by man, he contrived to drag himself to a neighboring woods, where a dog used to lick his sores; and it pleased God to restore him to health. He returned to France; and after a life of great sanctity, died at Montpelier, probably in 1327.

Roque, (St.,) a town of Spain, in Andalusia, 8 m. from Gibraltar; *pop.* 7,000.

Roquelaure, (*rōk'e-lōr,*) *n.* (Also written ROCKELAY.) [Fr., from the *Duc de Roquelaure*, reign of Louis XIV., who first introduced the garment.] A long, loose cloak, or surtout, made to button from top to bottom in front.

Roques, (Los,) (*loce ro'kes*), a group of islands in the Caribbean Sea off the coast of Venezuela; Lat. 11° 57′ 40″ N., Lon. 67° 40′ W.

Rorif'erous, *a.* [Lat. *ros, roris,* dew, and *ferre,* to bear.] Generating or yielding dew. (R.)

(*Med.*) Pouring or depositing exhaled fluids like dew upon the surfaces of organs.—Also used in referring to certain vessels.

Roroton'ga, an island in the S. Pacific Ocean, one of Cook's Islands group; Lat. 21° 16′ 5″ S., Lon. 159° 18′ W.

Rorqual, (*-kwal,*) *n.* (*Zoöl.*) See BALÆNIDÆ.

Ro'ry, *a.* Dewy. (R.)

Ro'sa, *n.* [Lat.; Ger. *rhodon,* a rose.] (*Bot.*) The Rose, a genus of plants, order *Rosaceæ*. The species and varieties are well known for the beauty and fragrance of their flowers. They are shrubs ranging from one foot to six or eight feet in height. The flowers in the wild species are usually single, but in the cultivated varieties semi-double, or double. The colors are red, white, purple, and rarely yellow; in numberless shades and mixtures. Botanists are not agreed as to the number of original species of *R.;* formerly all the cultivated *R.* were supposed to have a common origin, but they are now generally regarded as the descendants of numerous distinct species. *R. gallica*, a native of the south of Europe, is the species from which the greater number of garden varieties have been developed, particularly those with dark-red and purple petals. *R. damascena*, the Damask *R.* (Fig. 232), a native of the Levant, is another prolific species, having given the florist some lovely blush, white, and red roses. The so-called Monthly *R.*, the earliest to flower, are varieties of this species. The British species, *R. spinosissima*, or Scotch-rose, is the source of numerous choice, double *R.*, blush, red, marbled, white, and yellow. *R. centifolia*, the 100-leaved Provence, or Cabbage *R.*, a native of the south of Europe, is known under from 50 to 60 varieties, of which the beautiful Moss-rose is an especial favorite. *R. moschata*, the Musk-rose, a rambling shrub, native of N. Africa, has very fragrant white flowers, with the claws of the petals yellow. *R. indica*, the Chinese-rose, *R. semperflorens*, the ever-blowing rose, and other species from China, have also yielded beautiful varieties under the hand of the florist. The N. America species, and especially those of the U. States, are few. The Climbing-rose, *R. setigera*, is a fine species, sending up shoots 10 to 20 ft. high in a season; from it have originated numerous beautiful double-flowered varieties known in gardens as *Prairie-roses*, of which the Queen of the Prairies and the Baltimore Belle are instances. The Dwarf Wild-rose, *R. lucida* (Fig. 2275), has stems 1 to 2 feet high, and is common in dry soils, or on the borders of swamps, flowering in May and June. Other species are the Swamp-rose, *R. carolina*; the early Wild-rose, *R. blanda;* and the true Sweet-brier, *R. rubiginosa.*—In the culture of roses, much use is now made of the Dutch invention of forming standards, by budding on hardy woody stocks of the Dog-rose, *R. canina*, or the Tree-rose, *R. villosa*. The standards are budded at different distances from the ground, according to taste and the purposes in view, and form, after a few years, handsome round heads, which flower freely, and preserve the variety a longer time than in plants raised from cuttings or layers. They are particularly valuable for shrubberies and lawns, where the culture of the root required by dwarf-*R.* could not be given, and, if omitted, would occasion the degeneracy of the variety. New varieties of the *R.* are obtained from seed: but the usual mode of propagation is by layers. All will grow by cuttings, and some, as *R. sempervirens*, freely; but this mode is seldom resorted to. For preserving delicate varieties, the best plan is decidedly that of budding on hardier sorts. Most species of the *R.* in the wild state grow in sandy and rather poor soil, except such as are confined to woods, where the soil is comparatively rich and moist; but all cultivated *R.*, and especially the double-flowered kinds, require a rich loamy soil, inclining to clay rather than sand. The Dog-rose, or brier, *R. canina*, is the commonest European species, being found in hedges and thickets in almost every country of that continent. The fruits, commonly called *hips*, are employed in medicine for their refrigerant and astringent properties. The dried petals of the unexpanded flowers of *R. gallica* constitute the *red-rose leaves* of the shops; they are used medicinally as mild astringents and tonics. Rose-water is prepared by distilling the fresh petals of *R. centifolia* with water, to which a little spirit of wine has been added. For the mode of obtaining the fragrant volatile oil of *R.*, see ATTAR OF ROSES.

Fig. 2275. THE DWARF WILD-ROSE. (*Rosa lucida.*)

Ro'sa, (Mount,) a peak of the Pennine Alps. See ALPS.

Rosa, SALVATOR, a celebrated painter, poet, and musician, was b. near Naples, in 1615. After studying under Francaziani, and displaying his genius in many studies of wild landscape, he went to Rome. But his taste was formed more from the study of nature among the wilds of the Apennines, than from the lessons of other artists; and he delighted in delineating scenes of gloomy grandeur and magnificence. He also wrote plays, and performed parts in them; besides which he composed many cantatas. He was liberally patronized by the Grand-duke of Tuscany, and lived some years at Florence. *R.* executed many pictures for churches: but his principal merit lay in the representation of the wild scenery of nature, storms, &c. D. at Rome, 1673.

Rosa'ceæ, *n.* (*Bot.*) The Rose family, an order of plants, alliance *Rosales*. DIAG. Polypetalous flowers, and carpels both free from the calyx, and quite, or nearly so, from each other. They are trees, shrubs, or herbs, with alternate leaves and regular flowers; calyx 4-5-lobed — when 5, the odd lobe is posterior; petals 5 or none; stamens perigynous, distinct; anthers 2-celled; carpels generally superior, or occasionally more or less inferior; seeds 1 or few, exalbuminous; embryo straight. The order embraces abt. 500 species in 30 genera, the most numerous of which is ROSA, *q. v.*

Rosaceous, (*-zā'shus,*) *a.* Rose-like; relating or pertaining to roses.

(*Bot.*) Composed of several petals arranged in a circular manner, as in the rose.

Rosa'les, *n. pl.* (*Bot.*) An alliance of plants, sub-class *Perigynous exogens;* monochlamydeous flowers, distinct carpels, sutural placentæ, definite seeds, corolla, if present, polypetalous. The alliance includes seven orders: CALYCANTHACEÆ, CHRYSOBALANACEÆ, FABACEÆ, DRUPACEÆ, POMACEÆ, SANGUISORBACEÆ, and ROSACEÆ.

Rosaniline (*roze-ăn'e-leen*), *n.* (*Chem.*) Under this name we propose to give a succinct analysis of the principal dyes derived from ANILINE (*q. v.*). The first dye ever manufactured from aniline on a large scale was that known as *mauve*, or *aniline-purple*, which is obtained by dissolving aniline in diluted sulphuric acid, and adding solution of dichromate of potash, when the liquid gradually becomes dark-colored, and deposits a black precipitate, which is filtered off, washed, boiled with coal-naphtha to extract a brown substance, and afterward treated with hot alcohol, which dissolves the mauve. The chemical change by which the aniline has been converted into this coloring-matter cannot at present be clearly traced, but the basis of the color has been found to be a substance which has the composition $C_{27}H_{12}N_4$, and has been termed *mauvéine*. It forms black, shining crystals, resembling specular iron-ore, which dissolve in alcohol, forming a violet solution, and in acids, with production of the purple color. Mauvéine combines with the acids to form salts; its alcoholic solution even absorbs carbonic acid gas. The *hydrochlorate of mauvéine*, $C_{27}H_{12}N_4.HCl$, forms prismatic needles with a green metallic luster.—Very brilliant red dyes are obtained from commercial aniline by the action of dichloride (tetrachloride) of carbon, dichloride of tin, perchloride of iron, chloride of copper, mercuric nitrate, corrosive sublimate, and hydrated arsenic acid. It will be noticed that all these agents are capable of undergoing reduction to a lower state of oxidation or chlorination, indicating that the chemical change concerned in the transformation of aniline into aniline-red is one in which the aniline is acted on by oxygen or chlorine. The easiest method of illustrating the production of aniline-red, on the small scale, consists in heating a few drops of aniline in a test-tube with a fragment of corrosive sublimate (perchloride of mercury), which soon fuses and acts upon the aniline to form an intensely red mass composed of aniline-red, calomel, and various secondary products. By heating this mixture with alcohol, the red dye is dissolved, and a skein of silk or wool dipped into the liquid becomes dyed of a fine red, which is not removed by washing. On the large scale, *magenta* (as aniline-red is commonly termed) is generally prepared by heating aniline to about 320° F. with hydrated arsenic acid, when a dark semi-solid mass is obtained, which becomes hard and brittle on cooling, and exhibits a green metallic reflection. This mass contains, in addition to aniline-red, several secondary products of the action, and arsenious acid. On boiling it with water a splendid red solution is obtained, and a dark resinous or pitchy mass is left. If common salt be added to the red solution as long as it is dissolved, the bulk of the coloring matter is precipitated as a resinous mass, which may be purified from certain adhering matters by drying and boiling with coal-naphtha. The red coloring matter is a combination of arsenic acid with a colorless organic base, which has been called *rosaniline*, and has the composition $C_{20}H_{19}N_3$. If the red solution of arseniate of rosaniline be decomposed with hydrate of lime suspended in water, a pinkish precipitate is obtained, which consists of rosaniline mixed with arseniate of lime, and the solution entirely loses its red color. By treating the precipitate with a small quantity of acetic acid the rosaniline is converted into *acetate of rosaniline* ($C_{20}H_{19}N_3\,HO.C_2H_4O_3$), forming a red solution, which may be filtered off from the undissolved arseniate of lime. On evaporating the solution to a small bulk, and allowing it to stand, the acetate is obtained in crystals, which exhibit the peculiar green metallic luster of the wing of the rose-beetle, characteristic of the salts of rosaniline. The salt is the commonest commercial form of magenta; its coloring power is extraordinary, a very minute particle imparting a red tint to a large volume of water. Silk and wool easily extract the whole of the coloring matter from the aqueous solution, becoming dyed a fast and brilliant crimson; cotton and linen, however, have not so strong an attraction for it, so that if a pattern be worked in silk upon a piece of cambric, which is then immersed in a solution of magenta, and afterward washed in hot water, the color will be washed out of the cambric, but the red silk pattern will be left. If a boiling solution of the acetate of rosaniline be mixed with excess of ammonia, the bulk of the rosaniline will be precipitated; but if the solution be filtered while hot, it deposits colorless needles of rosaniline, which become red when exposed to the air, from absorption of carbonic acid, and formation of the red carbonate of rosaniline. For experimental illustration of the properties of rosaniline, the liquid obtained by boiling a solution of the acetate with a slight excess of lime diffused in water, and filtering while hot, is very well adapted. This solution has a yellow color, and may be preserved in a stoppered bottle without alteration. If air be breathed into it through a tube the liquid becomes red from production of carbonate of rosaniline. Characters painted on paper with a brush dipped in the solution are invisible at first, but gradually acquire a beautiful rose color. When the red solution of hydrochlorate of rosaniline is slightly acidified with hydrochloric acid, and placed in contact with zinc, the solution becomes colorless, the rosaniline acquiring two equivalents of hydrogen, and becoming *leucaniline*, $C_{20}H_{21}N_3$, the hydrochlorate of which ($C_{20}H_{19}N_3.3HCl$) forms a colorless solution. Oxidizing agents reconvert the leucaniline into rosaniline. It has been observed that *pure* aniline does not yield aniline-red when heated with corrosive sublimate or arsenic acid, it being necessary that it should contain another organic base, *toluidine* (C_7H_9N), which is derived from toluole (C_7H_8) in the same way in which aniline is derived from benzole. Since the benzene obtained from coal-naphtha almost invariably contains toluole, the aniline obtained from it is very seldom free from toluidine. What share the toluidine has in the production of the red color is not understood, but if the aniline be prepared with benzole derived from benzoic acid, and therefore free from toluole, no red is obtained. A mixture of 70 parts of toluidine with 30 of aniline is said to answer best for the preparation of the red and violet coloring matters. Such a mixture would contain two equivalents of toluidine (C_7H_9N) and one equivalent of aniline (C_6H_7N), or $C_{20}H_{25}N_3$, only requiring the removal of H_6 by an oxidizing agent to yield rosaniline $C_{20}H_{19}N_3$.—*Aniline-yellow*, or *chrysaniline* [from Gr. *chryskos*, golden], is found among the secondary products obtained in the preparation of aniline-red. It forms a bright-yellow powder resembling chrome-yellow, and having the composition $C_{20}H_{17}N_3$. It is nearly insoluble in water, but dissolves in alcohol. Chrysaniline has basic properties, and dissolves in acids, forming salts. On dissolving it in diluted hydrochloric acid, and mixing the solution with the concentrated acid, a scarlet crystalline precipitate of *hydrochlorate of chrysaniline* ($C_{20}H_{17}N_3.HCl$) is obtained, which is insoluble in strong hydrochloric acid, but very soluble in water. A characteristic feature of chrysaniline is the sparing solubility of its nitrate. Even from a dilute solution of the hydrochlorate, nitric acid precipitates the nitrate of chrysaniline ($C_{20}H_{14}N_3.NO_3$) in ruby-red needles.—*Aniline-blue* is produced when a salt of rosaniline (the commercial acetate, for example) is boiled with an excess of aniline, which converts the rosaniline ($C_{20}H_{19}N_3$) into *triphenylic rosaniline* ($C_{20}H_{16}(C_6H_5)_3N_3$), which may be regarded as having been formed by the introduction of three equivalents of the hypothetical radical *phenyle* (C_6H_5) in place of three equivalents of hydrogen, the latter having been evolved in the form of ammonia—$C_{20}H_{19}N_3.HCl$ (*hydrochlorate of rosaniline*) + 3[($C_{16}H_5$)H_2N] (*aniline*) = $C_{20}H_{16}(C_{16}H_5)_3N_3.HCl$ (*hydrochlorate of triphenylic rosaniline*) + $3NH_3$. The hydrochlorate is an ordinary commercial form of aniline-blue; it has a brown color, refuses to dissolve in water, but yields a fine blue solution in alcohol. If it be dissolved in an alcoholic solution of ammonia, the addition of water causes a white precipitate of the hydrated base, triphenylic rosaniline, $C_{20}H_{16}(C_{16}H_5)_3N_3.2H_2O$, which becomes bluish when washed and dried. Just as rosaniline yields leucaniline when acted on with nascent hydrogen, so triphenylic rosaniline yields triphenylic leucaniline ($C_{38}H_{33}N_3$); this is not basic like leucaniline, but a colorless neutral substance, which is reconverted into blue by oxidizing agents.—*Aniline-violet* appears to be formed in a similar manner. Other compounds have been obtained from aniline, presenting almost every variety of color. A *green* dye is prepared by the action of a mixture of hydrochloric acid and chlorate of potash upon aniline, and under particular conditions a *black* may be obtained with the same agents. Another green has been made by acting upon magenta with aldehyde. When a solution of acetate of rosaniline is treated with cyanide of potassium it gradually loses its red color, and deposits a white crystalline precipitate of a base which has been termed *hydrocyan-rosaniline*, having the formula $C_{21}H_{20}N_4$, and contains the elements of rosaniline and hydrocyanic acid; but this acid cannot be detected in it by the ordinary tests, leading to the belief that the new base should be regarded as leucaniline ($C_{20}H_{21}N_3$), in which one equivalent of hydrogen is replaced by an equivalent of cyanogen ($C_{20}H_{20}(CN)N_3$). The hydrocyan-rosaniline is almost insoluble in water, and sparingly soluble in

boiling alcohol. When precipitated from its salts by adding an alkali, it becomes pink on exposure to sunshine.

Rosa'rio, a town of the Argentine Republic, on the Paraña River, abt. 190 m. N.W. of Buenos Ayres. It was founded in 1730, and has been the seat of the federal government since 1858. *Pop.* 10,000.

Rosary, (*rō'za-ry,*) *n.* [Lat. *rosarium*, from *rosa.*] A bed of roses, or place where roses grow; — usually written ROSERY, *q. v.*

(*Eccl.*) In the Roman Catholic Church, a devotional practice which consists in reciting 15 times the *Paternoster*, or Lord's Prayer, and 150 times the *Ave Maria*, or angelical salutation; but as this computation is made by means of beads, the string of beads used for this purpose has acquired the popular name of a *rosary*. The rosary is thus three times the ordinary *chaplet*. It was instituted in honor of the 15 principal mysteries in the life of Christ and of the Virgin Mary. Some have attributed its institution to St. Dominic; others, among whom is Moshelm, give it a higher antiquity. The *Festival of the Rosary* falls on the first Sunday in October.

Ro'sas, DON JUAN MANUEL DE, ex-president of the Argentine Republic, B. at Buenos Ayres, 1793. He was descended from an old Spanish family, and having displayed bravery and capacity in some minor appointments, was, in 1831, nominated captain-general, or governor, of Buenos Ayres. In 1835 he became president of the Argentine Confederation; but by seeking to obtain for the province of Buenos Ayres a preponderating influence and advancement, he became embroiled with Brazil, and afterwards with France and England, in consequence of an attack made upon Monte Video. Defeated in 1845, he nevertheless offered an obstinate resistance until 1850, when the states under his rule revolted against his tyrannical measures. Urquiza was nominated president, and in 1851 he totally defeated Rosas, who was compelled to make his escape from the country, and to take refuge in England. D. 1873.

Roscius, (*rōsh'i-us,*) an illustrious Roman actor, who became the most famous performer of his age, and is said to have received about a thousand denarii per day (upwards of $175) for his acting. Cicero, who speaks in the highest terms of his talents, undertook his defence against Fannius. The Roman state assigned him a considerable pension, which he appears to have deserved as much by his virtues as his abilities.

Ros'coe, WILLIAM, an English historian, B. at Liverpool, in 1753. He was brought up to the law, and early evinced a decided taste and talent for literature and the arts, founding, in his native town, an academy of fine arts, and securing the friendship of Sir Joshua Reynolds, Fuseli, and others of the most distinguished artists of that time. His studies, however, gradually settled in the field of Italian history and literature, and, in 1796, the first fruits of such studies appeared in his *Life of Lorenzo de Medici*. In 1799 he retired to his estates, and devoted himself exclusively to literary labor, producing, in 1805, his second great work, *The Life and Pontificate of Leo X.* These works became immediately popular, and gave him a reputation throughout Europe and America. D. 1831.

Ros'coe, in *Illinois*, a post-village and township of Winnebago co., abt. 12 m. N. of Rockford.

Roscoe, in *Iowa*, a village and township of Davis co., abt. 12 m. S.E. of Bloomfield.

Roscoe, in *Minnesota*, a post-village and township of Goodhue co., abt. 22 m. N.W. of Rochester.

Roscoe, in *Missouri*, a post-village and township of St. Clair co., 130 m. W. by S. of Jefferson City.

Roscoe, in *Ohio*, a post-village of Coshocton co., abt. 75 m. N.E. of Columbus.

Roscof, (*rōs'kŏf,*) a seaport-town of France, dept. of Finistère, 13 m. N.W. of Morlaix; *pop.* 1,400.

Roscom'mon, an inland co. of Ireland, prov. of Connaught, having N. Leitrim and Sligo, E. and S.E. Longford, Westmeath, and King's co., from which it is separated by the Shannon, S.W. and W. Galway; *area*, 969 sq. m. The surface is generally flat and open, in portions covered with extensive bogs. The soil is generally light, but fertile, affording excellent pasturage. *Rivers.* The Shannon and Suck rivers. *Prod.* Oats and potatoes. *Manuf.* Linen and woollen stuffs. *Chief towns.* Roscommon, the cap., situate 78 m. N.W. of Dublin, *pop.* 3,300, Elphin, Boyle, Castlerea, Strokéstown, Balliuasloe, and Athlone.

Rose, (*rōz,*) *n.* [A. S., Ger., Dan., and Fr.] (*Bot.*) See ROSA, and ROSACEÆ; and ROSE, in SUPPLEMENT.

—A rosette; a knot of ribbon in the form of a rose, used as an ornamental tie to a shoe. — A perforated nozzle, as of a spout, pipe, &c., for allowing water to issue forth in a sprinkling of small jets; a rose-head; as, the *rose* of a can or pot for watering flower-beds in gardens. — The color or hue of a rose; rose-red; pink.

(*Naut.*) The card of the mariner's compass.

(*Arch.*) The sculptured representation of a rose found in the centre of each face of the abacus in the Corinthian capital. Roses are also used to decorate the caissons in the soffits of coronas and ceilings.

(NOTE. *Rose* is occasionally employed in the construction of certain self-explaining compounds; as, *rose*-lipped, *rose*-red, *rose*-tinted, and the like.)

Rose of Jericho. (*Bot.*) *Anastatica hierochuntica*, a plant of the order *Brassicaceæ*, which grows in the sandy deserts of Arabia, Syria, and other parts of the East. It is a small, bushy, herbaceous plant, seldom more than six inches high, with small white flowers; and after it has flowered, the leaves fall off, and the branches become incurved towards the centre, so that the plant assumes an almost globular form, and in this state it is often blown about by the wind in the desert. When it happens to be blown into water, the branches expand again, and the pods open and let out the seeds. Numerous superstitions are connected with this plant, which is called *Rosa Mariæ*, or *Rose of the Virgin*. If taken up before it is quite withered, the plant retains its hygrometric property, of contracting in drought and expanding in moisture, for years.

Under the rose. [Lat. *sub rosa.*] Privately; in secret; in a manner to prevent disclosure; as, to make love to a girl *under the rose;* — a figurative expression, derived from the practice among the ancients of hanging up a rose at banquets as a symbol of secresy, that nothing spoken under it should be divulged elsewhere.

Wars of the Roses, or *Wars of the Red and White Roses.* (*Eng. Hist.*) The well known feuds, or civil wars, that prevailed in the latter part of the 15th century between the rival houses of York and Lancaster, and so called from the badges adopted by their respective partisans; the adherents of the house of York exhibiting the *white*, and those of Lancaster the *red* rose, as their distinguishing emblem. These wars originated with the descendants of Edward III., and, after extending over a period of more than 30 years of bloodshed and devastation, were finally put an end to by the victory of Henry Tudor, Earl of Richmond (afterwards Henry VII.), over Richard III., at Bosworth Field, in 1485, the victor uniting in his own person the title of Lancaster through his mother, and that of York by his marriage with a daughter of Edward IV. Since that period the *rose* has been the national emblem of England, as the *thistle* and *shamrock* are respectively the symbols of Scotland and Ireland.

Rose, (*rōz,*) *imp.* and *pp.* of RISE, *q. v.*

Rose, in *Illinois*, a township of Shelby co.

Rose, in *Michigan*, a post-village and township of Oakland co., abt. 18 m. N.W. of Pontiac.

Rose, in *Minnesota*, a township of Ramsey county.

Rose, in *New York*, a post-village and township of Wayne co., abt. 8 m. N.E. of Lyons.

Rose, in *Ohio*, a township of Carroll co.

Rose, in *Pennsylvania*, a township of Jefferson county.

Rose, in *Wisconsin*, a township of Waushara county.

Ro'seal, *a.* [Lat. *roseus.*] Like a rose in smell or color.

Roseate, (*rō'ze-āt,*) *a.* [Fr. *rosat;* It. *rosato*, from Lat. *rosatus.*] Rosy; full of roses; as, *roseate* bowers. — Of a rose-color; — hence, blooming; as, *roseate* beauty, a *roseate* cheek.

Rose'bay, *n.* (*Bot.*) The popular name of the genus *Rhododendron.*

Rose'boom, or ROSEBOOM, in *New York*, a post-township of Otsego co.

Rose'-bug, Rose'-fly, *n.* (*Zoöl.*) The ROSE-CHAFER, *q. v.*

Rose'burg, in *Indiana*, a village of Union co., abt. 19 m. S. by W. of Richmond.

Roseburg, in *Oregon*, a city, cap. of Douglas co., about 100 m. S. of Salem. It is the principal depot for the productions of the Umpqua valley, and is thriving rapidly. *Pop.* (1897) 2,350.

Roseburg, in *Pennsylvania*, a post-village of Perry co., abt. 35 m. W. of Harrisburg.

Rose'dale, in *Indiana*, a post-town of Parke co., about 13 m. N.N.E. of Terre Haute.

Rose'-bush, *n.* The bush, shrub, or plant whereon roses grow.

Rose'-campion, *n.* (*Bot.*) A name common to several species of the genera *Agrostemma.*

Rose'-chafer, *n.* (*Zoöl.*) The common name of the genus *Macrodactylus.* The common American Rose-chafer, *M. subspinosa*, is seven-twentieths of an inch in length, and is covered with very short and close ashen down; legs pale-red. It is one of the greatest scourges with which the gardens and nurseries in the states are afflicted, feeding indiscriminately on leaves, flowers, and fruits of the vine, cherry, plum, garden vegetables, and corn.

Rose'-color, *n.* The hue or color of a rose; rose-red; pink. — Hence, a beautiful tint, or attractive appearance, as of a rose; imagined beauty, promise, or allurement; as, to see a thing in *rose-color.*

Rose-colored, (*-kŭl-lŭzd,*) *a.* Exhibiting the color of a rose; as, *rose-colored* silk. — Brilliantly beautiful or resplendent in aspect; — hence, extravagant; exaggeratedly fine, pleasing, promising, or alluring; as, *rose-colored* expectations.

Rose'crans, WILLIAM STARK, major-general in the U. States army, B. in Kingston, Delaware co., Ohio, 1819, graduated at West Point Academy in 1842; joined the U. S. army; was chosen Acting Assistant Professor of Engineering at West Point, which post he held for several years. In April, 1854, he was obliged to resign, through ill-health, an appointment he held in the Navy-yard at Washington, and commenced practice as a civil engineer at Cincinnati. In June, 1855, he was chosen superintendent of the Cannel Coal Company, and president of the Coal River Navigation Company, but resigned both appointments in 1857, and commenced the manufacture of paraffin oil and prussiate of potash, in which he was engaged when the Civil War broke out, and in April, 1861, he was chosen by Gen. McClellan as his aid and chief engineer, with the rank of major. In June, he was made colonel of the 23d Ohio Volunteers, and contributed materially to the victory gained by General McClellan at Rich Mountain, Virginia, July 11, for which service he was appointed Brig.-Gen. of the U. S. army; assumed command of the Army of Western Virginia July 24, and defeated Gen. Floyd at Gauley, Nov. 20. In March, 1862, he was promoted to the rank of Major-Gen.; commanded at the battles of Iuka, Sep. 19; Corinth, Oct. 4 and 5; Murfreesboro', Dec. 31; and received the thanks of Congress for his conduct on that occasion. In Jan., 1863, his department was enlarged, and his force divided into four army corps, under Generals McCook, Thomas, Crittenden, and Granger. As an engineer, R. ranked very high, and his construction of an intrenched camp at Murfreesboro was pronounced a model of engineering and military artistic skill. He resigned his commission in 1867. He was U. S. minister to Mexico (1868–69); member of Congress from California (1881–85); register of the U. S. Treasury (1885–93). Died March 11, 1898.

Rose'-cut, *a.* Cut with a smooth, round surface, in contradistinction from those presenting a number of facets; — said of certain gems; as, a *rose-cut* ruby.

Rose'-diamond, *n.* A diamond nearly hemi-spherical in form, one surface of which is flat, and the other cut into 24 triangular planes in two ranges.

Rose'-drop, *n.* A rose-lozenge, or confection of sugar, flavored with an essence resembling that of roses.

—An ear-ring.

(*Med.*) A reddish eruption, or grog-blossom, upon the nose, occasioned by the frequent imbibition of ardent liquors.

Rose'-engine, *n.* (*Mech.*) An appendage to the turning lathe, by which a surface of wood or metal, as a watch-case, is engraved with a variety of curved lines. The assemblage of these lines presenting some resemblance to a full-blown rose, is called by the French *rosette;* and hence the apparatus by which the ornamentation is produced is termed a *rose-engine.*

Rose'field, in *Illinois*, a township of Peoria county.

Rose'-fish, *n.* Another name for a Norway haddock.

Rose'fly, *n.* (*Zoöl.*) See ROSE-BUG.

Rose'-gall, *n.* An asperity found on the Dog-rose.

Rose Grove, in *Iowa*, a twp. of Hamilton co.

Rose'-head, *n.* A perforated nozzle. See ROSE.

Rose Hill, in *Illinois*, a post-village of Jasper co., abt. 7 m. N. by W. of Newton.

Rose Hill, in *Iowa*, a post-town of Mahaska co., about 10 m. E. by N. of Oskaloosa.

Rose Island, one of the Bahama group, W. Indies, lying E. of New Providence.

Rose'-knot, (*-not,*) *n.* A rosette.

Rose'-lake, Rose'-madder, *n.* (*Paint.*) A rich pigment obtained from lac and madder precipitated on an earthy basis.

Rose'lite, *n.* [Fr., from *Rose*, a German mineralogist, and Gr. *lithos*, stone.] (*Min.*) A deep rose-red variety of Cobalt Bloom, containing lime.

Rose'-mallow, *n.* (*Bot.*) A proper name of the genera *Hibiscus.*

Rose'mary, *n.* (*Bot.*) See ROSMARINUS.

Rose'mond, or ROSAMOND, in *Illinois*, a post-village of Christian co., abt. 5 m. W.S.W. of Pana.

Rose'mont, in *Minnesota*, a post-village and township of Dakota co., abt. 15 m. S. of St. Paul.

Ros'enau, a town in N. Hungary, on the Sajo, 104 m. N.E. of Pesth. *Manuf.* Woollens, stone-ware, leather, and paper; and iron, copper, antimony, and lead mines, are in operation. *Pop.* 9,000.

Rosendale, in *New York*, a post-village and twp. of Ulster co., abt. 60 m. S. by W. of Albany.

Rosendale, in *Wisconsin*, a post-village and township of Fond du Lac county, about 77 miles north-west of Milwaukee.

Rose'neath, in *N. Carolina*, a village of Halifax co., abt. 112 m. N.E. of Raleigh.

Rose'-noble, *n.* (*Numis.*) An English gold coin of the value of $1.60, formerly current, and first coined in the reign of Edward III.

Roseocobal'tin, *n.* (*Chem.*) See COBALT.

Rose'ola, ROSE-RASH, *n.* [N. Lat. dim. of *rosa*, a rose; Fr. *roséole.*] (*Med.*) A rash, so-called from its rosy color. It is frequently symptomatic of different febrile complaints, of disordered stomach and bowels, of teething, and of any constitutional irritation. Acidulated drinks, mild aperients, and sudorifics, and strict dietary attention, with caution against the application of, or exposure to, cold, so as to cause a retrocession, are the principal points to be attended to.

Rose'-pink, *n.* (*Paint.*) A coarse kind of lake, produced by the dyeing of chalk or whiting with a decoction of Brazil-wood, &c. It is a pigment much used by paper-stainers, and in the commoner kinds of distemper paintings, &c., but is too perishable to merit the attention of artists.

—*a.* Having a pink color resembling that of the rose, or that of the pigment termed *rose-pink.* — Inclined to look at everything through a roseate medium; — hence, sentimentally sanguine; as, *rose-pink* enthusiasm.

Rosery, (*rōz'e-ry,*) *n.* A rose-garden; a nursery or other place set apart for the cultivation of roses; — sometimes, but improperly, written *rosary.*

Roset, (*rō'zet,*) *n.* [Fr. *rosette*, from Lat. *rosa.*] A red color in use among painters.

Roset'ta, or **Rosset'ta.** [Arab. *Rashid.*] A seaport-town of Egypt, on the W. branch of the Nile, near its embouchure, 36 m. E.N.E. of Alexandria; *Lat.* 31° 24′ 34″ N., *Lon.* 30° 28′ 35″ E.; *pop.* 4,000.

Roset'ta-stone, *n.* See STONE.

Roset'ta-wood, *n.* A good-sized East Indian wood, imported in logs, 9 to 14 inches in diameter; it is handsomely veined, and its general color is a lively red-orange. The wood is close, hard, and very beautiful when first cut, but soon becomes darker by exposure to the air.

Rosette, (*rō-zet',*) *n.* [Fr.] A red color; roset. — An imitated form of a rose made of ribbons, and used as an ornament or badge; as, a white *rosette;* — also, a shoe ornament.

(*Arch.*) A rose-shaped ornament. See ROSE.
(*Mech.*) The French term for ROSE-ENGINE, *q. v.*

Rosette', in *Iowa*, a post-village of Cedar co., abt. 32 m. N.W. of Davenport.

Rose'-water, *n.* Water tinctured with roses by the process of distillation.
—*a.* Possessing the odor of rose-water; — hence, squeamishly nice; affectedly delicate; excessively maudlin or sentimental; as, *rose-water* sentimentalism.

Rose'ville, in *Illinois*, a post-township of Warren

Roseville, in *Indiana*, a post-village of Parke co., abt. 70 m. W. of Indianapolis.

Rose'-window, *n.* (*Arch.*) A circular window with a series of mullions diverging from the centre to join the cusps around, forming divisions with a general resemblance to the leaves of an open rose.

Rose'wood, *n.* The wood of various species of the genus *Triptolomæa*, growing in the Brazils, the Canary Islands, the East Indies, and Africa. It is exported in very large slabs, or the halves of trees, that average 18 inches wide. The colors of rosewood range from light-hazel to deep-purple, or nearly black; the tints are sometimes abruptly contrasted, at other times striped or nearly uniform. The wood is very heavy, and most largely used for cabinet furniture. The true *R.* has been lately attributed to the gen. *Dalbergia* and *Machærinon*.

Rosheim, (*ros'hime,*) a town of France, dept. of Bas-Rhin, 14 m. from Strasburg; *pop.* 4,000.

Rosiclare, (*ro-ze-klair',*) in *Illinois*, a post-village of Hardin co., abt. 22 m. S.W. of Shawneetown.

Rosicru'cians, *n. pl.* (*Philos.*) A sect of visionary speculators in Germany, whose existence became first known to the public in the 17th century. In 1614, a work appeared at Cassel containing an account of Christian Rosenkreuz (or Rosy Cross), a German noble of the 14th century. After a long sojourn in the East, he returned to Germany and founded a secret society of a few adepts who lived together in a building called Sancti Spiritus, where he died at the age of 106. The society renewed itself from time to time by the admission of new members in silence and obscurity, according to the last injunction of its founder. The Rosicrucians have not been heard of as a separate order since a little after the middle of the 18th century. The *R.* appear to have pretended to know all sciences, and chiefly medicine, of which they professed themselves the restorers. They also asserted that they were masters of important secrets, and among others, that of the *philosopher's stone*, all of which they affirmed that they had received by tradition from the ancient Egyptians, Chaldeans, the Magi, and Gymnosophists. They have been distinguished by several names, accommodated to the branches of their doctrines. As they pretended, for instance, to protract the period of restored youth, they were called *Immortales;* as they pretended to know all things, they were called *Illuminati;* and because they have made no appearance for some time, they have been called the *Invisible Brothers*. Their society is frequently signed by the letters F. R. C., which by some are translated *Fratres Roris Cocti* (Brothers of Concocted Dew), because it was pretended that the matter of the philosopher's stone is dew concocted or exalted. Others have asserted that the name is derived from the arms of the reformer Luther, which were a cross placed upon a rose. Some writers on the subject maintain that the *R.* are but a branch or affiliation of the Freemasons.

Rosied, (*rōz'ĕd,*) *a.* Adorned with roses, or denoting or exhibiting the color of roses

Rosin, (*rōz'in,*) *n.* A different orthography of RESIN, *q.v.*
—*v. a.* To rub or cover over with rosin; as, to *rosin* the bow of a violin

Rosiness, (*rōz'i-nes,*) *n.* Quality of being rosy, or of resembling the color of the rose; as, *rosiness* of the cheeks.

Rosin-oil, (*rōz'in-,*) *n.* An oil obtained from the resin of the pine-tree.

Rosiny. (*rōz'in-y,*) *a.* Resiny; like rosin, or partaking of its qualities; as, *rosiny* sand.

Rosland, (*rōs'-,*) *n.* [W. *rhos*, a moor.] Moor-land; a heathery tract.

Ros'lin, in *Wisconsin*, a post-village of Marquette co., abt. 97 m. N.W. of Milwaukee.

Ros'lyn, formerly HEMPSTEAD HARBOR, in *New York*, a post-village of Queen's co., abt. 23 m. E.N.E. of Brooklyn.

Rosmar'inus, *n.* [Lat. *ros*, dew, *marinus*, bordering on the sea.] (*Bot.*) The Rosemary, a gen. of the order *Lamiaceæ*. *R. officinalis*, the common Rosemary, is a well-known herb, formerly much used in domestic medicine as a remedy for the headache. It was supposed to have the power of strengthening the memory; hence the allusion of the poet: "There's *rosemary*, that's for remembrance." The flowery tops contain a volatile oil, which imparts to them stimulant and carminative properties. These are, however, seldom used medicinally at the present time, but are largely employed in perfumery. The flavor of Narbonne honey is said to be due to the bees feeding on the flowers of this plant. The dried leaves are occasionally used by country folks as a substitute for China tea. *R.* is so called because, growing on the shore, it is said to appear early in the morning like dew.

Fig. 2276. — ROSEMARY.

Ross, *n.* The indurate, scaly substance found on the bark of trees. — The rubbish of plants, vegetables, &c.

Ross, SIR JOHN, a distinguished English navigator, b. at Balsarroch, in Wigtonshire, 1777. Entering the navy when a mere boy, he was promoted to a lieutenancy in 1801, and during the war with France earned great distinction in all parts of the world. In 1818 he was associated with Sir Edward Parry, in the expedition to Baffin's Bay, and on his return published his *Voyage of Discovery in Search of a North-west Passage*. In 1829, aided by the munificence of Mr., afterwards Sir Felix, Booth, he fitted out a steam-vessel with the view of prosecuting researches in the same direction, and after spending four winters in the Arctic regions, during which he made very valuable discoveries, he returned to England in 1833, and published his *Narrative of a Second Voyage*. In 1839 he was appointed British consul at Stockholm, which office he held till 1845. In 1850 he made a last expedition to the Arctic Ocean in search of Sir John Franklin, and returned in 1851. Besides the works above specified, Sir John Ross was the author of *Letters to Young Naval Officers;* a *Treatise on Navigation by Steam*, &c., &c. D. 1856.

Ross, a co. of Scotland, forms a marit. dist. of great extent, having N. the co. of Sutherland, E. the frith of Dornoch and Moray, S. Inverness, and W. the Atlantic; *area*, 2,953 sq. m. The surface is irregular and mountainous, and the coast is indented by numerous lakes and friths. On the E. coast the soil is fertile. *Rivers.* Carron, Orrin, Beauly, and Oich rivers. *Lakes.* Loch Maree, Loch Fannich, Loch Monar, and Loch Lichart. *Prod.* Wheat and timber. Cattle-raising is the principal occupation. *Chief towns.* Dingwall, the cap., Fortrose, and Tain.

Ross, a town of England, co. of Hereford, on the Wye, 15 m. S.W. of Gloucester; *pop.* 4,200.

Ross, a seaport-town of Ireland, co. of Cork, on the bay of Ross, 25 m. S.W. of Cork; *pop.* 1,200.

Ross, in *Illinois*, a township of Edgar co.
—A township of Vermilion co.

Ross, in *Indiana*, a township of Clinton co.
—A post-village and township of Lake co., abt. 37 m. E. of Joliet.

Ross, in *Iowa*, a township of Fremont co.—A township of Taylor co.

Ross, in *Michigan*, a township of Kalamazoo co.

Ross, in *Ohio*, a S. co.; *area*, about 658 sq. m. *Rivers.* Scioto River, and Paint Creek. *Surface*, agreeably diversified; *soil*, extremely fertile, producing abundant crops of all the fruits and cereals of that latitude, especially corn and wheat. *Cap.* Chillicothe. *Pop.* (1897) 41,540.
—A post-township of Butler co.
—A township of Greene co.
—A township of Jefferson co.

Ross, in *Pennsylvania*, a post-township of Allegheny county.
—A township of Luzerne county.
—A township of Monroe county.

Rossano, (*rōs-san'o,*) a town of Italy, prov. of Calabria-Citeriore, near the Gulf of Taranto, 17 m. W.N.W. of Cariati; *pop.* 7,500.

Ross'bach, a town of Prussian Saxony, 16 m. S. of Halle, celebrated for the victory of Frederick the Great over the French and Imperialists in 1757.

Ross'burg, in *Indiana*, a post-village of Decatur co., abt. 55 m. S.E. of Indianapolis.

Ros'sel, *n.* [From *rosland.*] A provincial Anglicism for light land.

Ross Grove, in *Illinois*, a post-village of De Kalb co., abt. 70 m. W. by S. of Chicago.

Ros'si, PELLEGRINO, an Italian publicist and patriot, b. at Carrara, 1787. In 1812, being 25 years of age, he was appointed Professor of Law in the University of Bologna. In 1815, King Joachim Murat having proclaimed Italian independence, *R.* sided with him. On the fall of Murat, *R.* was exiled. He took refuge at Geneva, and afterwards, 1833, in France, where Louis-Philippe appointed him Professor of Political Economy, naturalized him, and made him a member of the Chamber of Peers. Protected by Guizot, the prime-minister, *R.* was sent to Rome as ambassador in 1845. There he witnessed all the events of 1848, and took part in them, having again become an Italian subject after the fall of Louis-Philippe. When called to the ministry by Pius IX., *R.* wished to oppose the party favorable to the house of Savoy, and devised an alliance with the King of Naples, which had for its object a confederation of Italian princes, with the Pope as their president. This roused the hatred of the Romans, and *R.* was stabbed by an unknown hand on the 15th of November, 1848. His two principal works are the *Droit Penal*, published during his stay in Geneva, and his *Cours d'Economie Politique* (1840).

Ros'sie, in *New York*, a post-village and township of St. Lawrence county, about 25 miles south south-west of Ogdensburg.

Rosslena, (*rōs-se-ai'na,*) a town of Russia, govt. of Wilna, on the Dubissa, 100 m. W.N.W. of Wilna; *pop.* 6,000.

Rossignol, (*rōs-seen'yol,*) *n.* [Fr.] The French term for the NIGHTINGALE, *q. v.*

Rossignol, (*rōs-seen-yol',*) a lake of Nova Scotia, in Queen's co., abt. 30 m. S.S.E. of Annapolis. It is abt. 11 m. in length, and gives rise to the Mersey river.

Rossini, GIOACCHINO, (*ros-sē'nē,*) one of the most popular, and, perhaps, the greatest Italian dramatic composer of this cent., was b. at Pesaro, 1792, where his parents happened to be staying with a strolling operatic company to which they belonged. He began his career by playing second horn to his father when he was only ten years old. Having a fine voice, his father had him taught singing by an eminent professor, and he took the treble parts as a chorister in the Bologna churches, and soon became an excellent singer and accompanyist. The breaking of his voice put an end to his occupation as a chorister, and at the age of fifteen he was admitted into the Lyceum at Bologna, and received lessons in counterpoint from Padre Mattei. But his ardent nature turned restive under the strict discipline and dry studies of Mattei, and, conscious of the possession of genius, he set to work assiduously to educate himself — studying intently the best models, Italian and German. He produced some light operatic pieces, the only one of which juvenile efforts that has lived is the *Inganno Felice*, which came out in 1812. *Tancredi*, brought out at Venice in 1813, when he was scarcely more than twenty years of age, all at once made his name famous. Thus encouraged, *R.* produced a number of other works in quick succession, generally inferior to the work which brought him into popularity. In 1816 he produced his world-famous *Barber of Seville* at Rome. Those of his other works, which still keep the stage are, *Otello*, *Mosé in Egitto*, *Semiramide*, *La Cenerentola*, *La Gazza Ladra*, *La Donna del Lago*, *Le Comte Ory*, and *Guillaume Tell*. This last, the greatest and most original of his works, was written at the age of 37, and with it closed the career of Rossini as a composer. "An additional success would add nothing to my fame," he said; "a failure would injure it." After holding the post of manager of the Italian Opera at Paris during some time, he, in 1836, returned to his native country, where he continued to reside till 1856, when he repaired to Paris once more. He seemed, however, to have totally forgotten the enthusiasm of his younger days for music; even so far as never to visit the theatres. His only important work since the production of *Guillaume Tell* is his well-known *Stabat Mater*. D. at his villa in Passy, near Paris, 1870.

Ross, (New.) a seaport-town of Ireland, co. of Wexford, on a large navigable stream formed by the Nore and Barrow, 12 m. N. of Waterford; *pop.* 9,500.

Ross'ton, in *Pennsylvania*, a post-village of Armstrong co., abt. 4 m. S. of Kittanning.

Ross'ville, in *Illinois*, a post-village of Vermilion co., abt. 20 m. N. of Danville.

Rossville, in *Indiana*, a post-village and township of Clinton co., abt. 53 m. N.W. of Indianapolis.

Rossville, in *Iowa*, a post-village of Allomakee co., abt. 13 m. S.W. of Lansing.

Rossville, in *New York*, a post-village of Richmond co., abt. 20 m. S.W. of New York city.

Rossville, in *Pennsylvania*, a post-village of York co., abt. 14 m. N.W. of York.

Rosswein, (*ross'vine.*) a town of Saxony, on the Mulde, 5 miles W.N.W. of Nossen, and 24 m. W. of Dresden. *Manuf.* Woollens. *Pop.* 6,000.

Rost, Roust, *n.* A strong current running through a narrow channel.

Ros'tel, Rostel'lum, *n.* [Lat. *rostellum*, dim. of *rostrum*, a beak; Fr. *rostelle.*] (*Bot.*) An elevated and rather thickened portion of the stigma of orchidaceous plants, from which the peculiar gland separates, by which the pollen masses of some species of that order are eventually laid together.
(*Zoöl.*) The name of the mouth of the louse and similar apterous insects, in which the ordinary trophi are replaced by an exarticulate retractile tube, from which a retractile siphuncle is protruded. The uncinated proboscis of the tape-worms (*tæniæ*) is also so called.

Ros'tellate, *a.* [From Lat. *rostellum* — *rostrum*, a beak.] (*Bot.*) Denoting any part terminating in a hard, long, straight point, resembling a beak, as the pod of a radish, the capsule of many mosses, &c.

Rostel'liform, *a.* Beak-shaped.

Ros'ter, *n.* [Corrupted from *register.*] (*Mil.*) A term implying the seniority list, from which officers are detailed for duty in regular succession; — hence, occasionally, a list showing the turn or rotation of service or duty, as in the case of military officers and others who relieve or succeed each other.

Ros'tock, a seaport-town of N. Germany, Grand-duchy of Mecklenburg-Schwerin, on the Warnow, 9 m. from its mouth in the Baltic, and 40 m. N.E. of Schwerin. *Manuf.* Canvas, linen, ships' anchors, soap, and vinegar. *Pop.* 26,396.

Rostoff', a town of European Russia, govt. of Ekaterinoslav, on the Don, 22 m. from its mouth in the Sea of Azoff. It is the principal entrepôt of the trade of the vast countries traversed by the Don. *Pop.* 9,598.

Rostov', a town of European Russia, government of Jaroslav, on Lake Nero, 37 m. S.S.W. of Jaroslav; *pop.* 11,000.

Ros'tral, *a.* [Lat. *rostralis*, from *rostrum*, a beak, a ship's prow.] Resembling, or pertaining to, a rostrum, or the beak of a ship. — Belonging to the beak.

Ros'trate, Ros'trated, *a.* [Lat. *rostratus.*] Having, or ornamented with, beaks; as, a *rostrated* galley.

(*Bot.* and *Conch*.) Beaked; having a projection resembling a bird's beak.

Rostra'ver, in *Pennsylvania*, a post-township of Westmoreland co.

Ros'triform, *a.* [Lat. *rostrum*, and *forma*, form.] Rostelliform; beak-shaped.

Ros'trum, *n.* [Lat., from *rodo*, to gnaw.] The beak or bill of a bird.—The beak, prow, or head of a ship or galley. (*Rom. Antiq.*) A name applied metaphorically to the pulpit, or orator's seat, in the Roman Forum, which was decorated with the prows of vessels taken from the enemy; — hence, a platform or elevated stand from which a speaker addresses his audience.

"Myself shall mount the *rostrum* in his favor."—*Addison.*

Rosulate, (*rŏ'zu-lāt,*) *a.* (*Bot.*) Denoting those collections of petals or leaves which overlap each other after the manner of rose-blossoms.

Ros'well, in *Georgia*, a post-village of Cobb co., abt. 13 m. N.E. of Marietta.

Rosy, (*rōz'y,*) *a.* (*comp.* ROSIER; *superl.* ROSIEST.) Resembling a rose; blooming; roseate; blushing; charming —also, exhibiting the freshness of a rose; as, a *rosy*-cheeked lass.

"Celestial *rosy* red, Love's proper hue."—*Milton.*

(NOTE. *Rosy* is frequently employed, in composition, in the formation of self-explaining compounds; as, *rosy*-cheeked, *rosy*-lipped, *rosy*-colored, *rosy*-fingered, *rosy*-tinted, &c.)

Rot, *v. n.* [A. S. *rotian*; Du. *rotten*.] To putrify; to grow corrupt; to decay; to spoil; to lose the natural cohesion and organization of parts, as animal or vegetable substances; to be decomposed and resolved into its original component parts by the natural process, or by the gradual action of heat and air.

"And then from hour to hour we *rot* and *rot*."—*Shaks.*

—*v. a.* To make putrid; to cause to putrify; to bring to corruption; to cause to be wholly or partly decomposed by the natural operation of heat and air. — To macerate flax by retting. — See RET.

—*n.* Putrefaction; putrid decay; process of rotting; — specifically, (1) a fatal distemper incident to sheep, usually supposed to be owing to wet seasons and moist pastures. The signs of rot are sufficiently familiar to persons about sheep. They first lose flesh; and what remains is flabby and pale. They also lose their vivacity. The naked parts, as the lips, tongue, &c., look livid, and are alternately hot and cold in the advanced stages. The eyes look sad and glassy; the breath is fetid; the urine small in quantity, and high-colored; and the bowels are at one time costive, and at another affected with a black flux. The wool will come off on the slightest pull in almost all cases. The disease has different degrees of rapidity, but is always fatal at last. This difference in degree occasions some rotted sheep to thrive well under its progress to a certain stage, when they suddenly fall off, and the disease pursues the same course as with the rest. — (2.) A form of decay which affects timber. See DRY-ROT. — (3.) A disease incidental to the potato, attended with decay of the tubers, the causes of, and remedy for, which, are as yet undetermined; — otherwise known as the *potato-disease*.

Ro'ta, *n.* [Lat., a wheel.] (*Eccl.*) An ecclesiastical court at Rome, consisting of 12 prelates, who take cognizance of all suits by appeal, and of all matters beneficiary and patrimonial.

(*Eng. Hist.*) A political coterie, which, in the reign of Charles I., conceived the idea of an equal government by rotation.

Ro'ta, a seaport-town of Spain, prov. of Cadiz, 6 m. N.N.W. of Cadiz; *pop.* 8,000.

Ro'tacism, (*-sizm,*) *n.* A vicious articulation of the letter *r*, popularly known as the Northumbrian *bur*, or *burr*. — See BUR.

Ro'tal, *a.* Having reference to rotary motion. (R.)

Ro'tary, *a.* [From Lat. *rota*, a wheel.] Rotatory; turning, as a wheel on its axis; as, *rotary* motion.

Rotary motion. (*Mech.*) The rotation or motion of any body round an axis or centre. The velocity of this motion of bodies is proportional to their distance from such centre.

Ro'tate, *a.* [Lat. *rotatus*, from *rotare* — *rota*, a wheel.] (*Bot.*) Wheel-shaped; as, a *rotate* corolla.

—*v. n.* [Lat. *roto*, *rotatus* — *rota*, a wheel = Sans. *ratha*, a chariot.] To revolve or move round a centre or axis, as a wheel. — To quit an official position, and be succeeded by another, or by others.

—*v. a.* To cause to revolve, as round an axis.

Ro'tated, *a.* [Lat. *rotatus*.] Turned round, as a wheel; rotate.

Ro'tate-plane, Rota'to-plane, *n.* (*Bot.*) Wheel-shaped and flat, without a tube; as, a *rotato-plane* corolla. — *Lee.*

Rotation, (*-tā'shun,*) *n.* [Fr., from Lat. *rotatio* — *rota*.] Act of turning, as a wheel or solid body, on its centre or axis; as, the *rotation* of the earth on its axis.

—Vicissitude of succession; any return or succession in a sequence; as, political offices are vacated and refilled by *rotation*.

(*Geom.*) The circumvolution of a plane surface round a fixed line, called the *axis of rotation*, by which certain regular solids are generated.

Rotation of crops. (*Agric.*) In agricultural operations, it is found that the same annual crop cannot be advantageously cultivated on the same soil (except, indeed, it be virgin soil,) for more than one or two years; and hence, one kind of crop is made to succeed another. The number of cultivated crops being limited, when the whole course has been gone through once, tho series is again repeated; — hence, the use of the term *rotation*. As the same kind of crops are not, however, always grown in regular succession, a change being frequently made according to general principles, the term used in that case is *succession of crops*. The principle on which the succession of crops is founded is, that every plant or seed extracts nourishment from the soil, and leaves it deficient of that which proves nutritious to another species. As a general principle of guidance in determining the succession of crops, it is considered advantageous that a crop cultivated for its leaves or roots should succeed one cultivated for its ripened seeds; that the cereal grasses should be succeeded by leguminous plants; tap-rooted plants, or those bearing tubers, by fibrous-rooted plants; plants which form a compact covering on the surface, such as grain and legumes sown broadcast, by plants which only partially cover the surface, such as crops grown in rows sufficiently wide to admit of cultivation between; and plants which may be said, by their abundant leaf, to feed the soil with what they take from the air, by plants which are almost wholly dependent upon the stores of food for them contained in the soil and sub-soil. It may also be adopted as a rule, that where land is to be subjected to a crop of the same plants for a number of years, as in permanent pasture, the plants composing the crop should be of several different kinds, seeking a different kind of aliment. Hence, the propriety of sowing clover, rib-wort, and other tap-rooted, dicotyledonous herbage-plants among pasture-grasses.

Ro'tative, *a.* [Fr. *rotatif*, from Lat. *rota*.] Rotary; having the motion of a wheel. (R.)

Rota'tor, *n.* [Lat.] (*Anat.*) A muscle of the lower extremity, whose function is to roll the thigh outward.

Ro'tatory, *n.* (*Zoöl.*) A rotifer. See ROTIFER.

—*a.* [From Late Lat. *rotator*, one who turns round, from *rota*, a wheel.] Rotary; turning on an axis, as a wheel; as, *rotatory* action. — Following in succession; going in circular series; as, a *rotatory* assembly.

(*Optics.*) Producing rotation of the plane of polarization; as, the *rotatory* power of bodies on light.

Rote, *n.* [O. Fr., from Lat. *rota*, a wheel.] (*Mus.*) An old musical instrument, somewhat resembling the ordinary hurdy-gurdy.

Rote, *n.* [From Lat. *rota*.] Properly, a round of words; in modern application, a frequent repetition of words or sounds, without attending to the signification, or to principles and rules; a practice that impresses words on the memory, without an effort of the understanding, and without the aid of rules; as, to learn a lesson by *rote*.

—The swishing sound made by the dashing of the surf of the sea upon the shore, or the noise made by breakers.

Rot'-gut, *n.* Bad beer, or any kind of adulterated liquor; as, *rot-gut* whisky.

Roth'enburg, a town of Bavaria, circle of Middle Franconia, on the Tauber, 40 m. W. of Nüremburg. *Manuf.* Woollen stuffs. *Pop.* 6,000.

Roth'erham, a town of England, co. of York, at the confluence of the Rother and Don, 6 m. E.N.E. of Sheffield, and 142 m. N.N.E. of London; *pop.* 7,598.

Roth'erhithe, or REDRIFF, a district of London, co. of Surrey, on the Thames, 2½ m. S.E. of St. Paul's Cathedral. It is noted for its numerous dockyards. *Pop.* 18,000.

Roth'er-nail, *n.* [A. S. *rôdhen*.] (*Ship-building.*) A large-headed nail, used in securing a ship's rudder; a rudder-nail.

Roth'er-soil, *n.* The excrement of black cattle, which were formerly called *rother-beasts*.

Roth'say, or ROTHESAY, a seaport-town of Scotland, cap. of the co. of Bute, on a bay at the E. side of the island, 30 m. S.W. of Glasgow; *pop.* 7,300.

Rothschild, (*rŏs'child,*) [Ger., "red shield,"] the name of a Jewish family of European bankers and capitalists, the enormousness of whose aggregate wealth has passed into a proverb. The founder of this race of financiers, MEYER ANSELM *R.*, B. at Frankfort-on-the-Main, in 1743, D. there in 1812, after having accumulated the most gigantic fortune ever possessed by a single individual in modern times. Commencing the world as a small trader, he, by his probity, frugality, and superior business qualifications, eventually became the banker of monarchs and the creditor of states. Of the five sons who succeeded to the vast inheritance he bequeathed them, the eldest, ANSELM, (B. 1773, D. 1855,) was his father's partner and successor at Frankfort. The second, SOLOMON, (B. 1774, D. 1855,) became established as the representative of the house of *R.* at Vienna. The third, NATHAN MEYER, (B. 1774, D. 1836,) settled as the London partner, and became the leading member and ablest financier of the family. The fourth, CHARLES, (B. 1788, D. 1855,) filled the representation of the firm at Vienna. Lastly, JAMES, (B. 1792, D. 1869,) eventually took up his residence in Paris, where he died, leaving a fortune estimated at $200,000,000. Within a period of less than twelve years, the Rothschilds advanced in loans, as follows: to England, $200,000,000; Austria, $50,000,000; Prussia, $40,000,000; France, $80,000,000: Naples, $50,000,000; Russia, $25,000,000; Brazil, $12,000,000; besides some $5,000,000 to smaller states; or, altogether, the almost incredible amount of $462,000,000. The colossal financiering operations of the house are now conducted by the sons of the above-mentioned brothers, and the firm has banking-houses and representatives in all the leading cities of the civilized world.

Rothweil, (*roth'vile.*) a town of Wurtemberg, on the Neckar, 42 m. from Constance. *Manuf.* Linens. *Pop.* 4,000.

Roti'fer, *n.* (*Zoöl.*) One of the ROTIFERA, *q. v.*

Ro'tiform, *a.* Wheel-shaped.

(*Bot.*) Having a very short tube and spreading limb; — said of a monopetalous corolla.

Rotif'era, Rotato'ria, *n.* [Lat. *rota*, a wheel, *fero*, to bear.] (*Zoöl.*) Wheel-animalcules, a class of microscopic animals of the branch *Protozoa*, placed by Ehrenberg among the *Infusoria* under the name *Rotatoria*, (see Figs. 131 and 227?). They have acquired these names on account of the apparent rotation of the wheel-like organs which surround their mouths, and which are covered by cilia. They are extremely minute, but some of the larger forms can be seen with the naked eye. The *R.* are very widely diffused on the surface of the earth. They inhabit both salt and fresh waters, and are found in the cold, temperate, and tropical parts of the earth. Although capable of swimming freely, they are generally found near or attached to the leaves of plants. They have no true circulating or respiratory organs, though in most of the species minute vessels can be seen which terminate in blind sacs or cæca.

Fig. 2277. HEPHANOCEROS EICHHORNII, (a Rotifer magnified 200 times.)

Rot'tee, an island of the Eastern Archipelago, off the S.W. extremity of Timor: Lat. 10° 40′ S., Lon. 123° E. *Ext.* 50 m. long and 20 broad. The principal village, Rangoug, has an excellent harbor.

Rot'ten, *a.* [From *rot*.] That which has become rotten; putrid; decayed; corrupt; as, a *rotten* potato; — hence, offensive to the smell; fetid; noxious; as, a *rotten* tooth. — Unsound; having some defect in substance; not to be depended on; as, *rotten* ice, a *rotten* plank.

Rot'tenburg, a town of Germany, in Würtemberg, on the Neckar, 12 m. W. of Reutlingen: *pop.* 6,500.

Rot'tenly, *adv.* In a rotten or unsound manner; putridly; fetidly; defectively.

Rot'tenness, *n.* State of being rotten, decayed, or putrid; cariousness; unsoundness; defectiveness.

Rot'ten-stone, TRIPOLI, *n.* (*Min.*) A mineral consisting chiefly of alumina, with about ten per cent. of carbonaceous matter, and a little silica. It is supposed to be formed by decomposition of shale. It is found near Albany, N. Y. It is brown; either grayish, reddish, or blackish. It is soft, and easily scraped to powder, and is well-known to housewives, being much used for cleaning and polishing brass and other metals.

Rot'terdam, a city of Holland, prov. of S. Holland, on the Meuse, at the junction of the Rotte, 35 m. S.S.W. of Amsterdam; Lat. 51° 55′ 3″ N., Lon. 4° 29′ 5″ E. It is traversed by the Rotte, a broad canal, which here joins the Maas, and is, even more than other towns in Holland, intersected by canals, which divide the half of it near the river into several insulated spots connected by drawbridges. These canals are almost all bordered with trees. The row called the *Boompjes* is the finest in the city, as well in regard to buildings as for its pleasant prospect across the Meuse. Next to the Boompjes comes the Haringvliet. The other streets are, in general, long, but narrow. The houses on the whole are rather convenient than elegant; their height is four, five, or six stories. Of the public buildings, the principal are the Exchange, the church of St. Lawrence, several other churches, the town-house, the admiralty, the academy, the theatre, the central prison of the Netherlands, charitable institutions, and schools. *Manuf.* Tobacco, soap, leather, paper, distilleries of gin or Hollands, and sugar and salt refineries. *R.* is a place of considerable antiquity. Maximilian I. captured it in 1489, after a siege of six months. It was treacherously taken by the Spaniards in 1572. The French occupied it in 1795. It is the birth-place of Erasmus.

Rot'terdam, in *New York*, a township of Schenectady co.

Rottle'ra, *n.* (*Bot.*) A genus of plants, order *Euphorbiaceæ*. The fruit of *R. tinctoria* is covered by a red powder, which has long been employed as a dye for silk; it produces, with suitable mordants, a beautiful orange or flame-color. It is found in the Indian bazaars under the name of *kamala*, and is known at Aden by the names *waras* or *wurrus*.

Rot'ular, *a.* [From Lat. *rota*, a wheel.] (*Anat.*) Relating or appertaining to the patella or knee-cap.

Rotund', *a.* [Lat. *rotundus*, from *rota*.] Round; circular; spherical; as, a *rotund* body;—Hence, full; complete; entire; as, a *rotund* purse of money.

(*Bot.*) Orbicular.

Rotun'da, Rotun'do, *n.* [Lat. *rotundus* — *rota*.] (*Arch.*) An appellation that is given to any building that is circular both within and without, whether it be a church, theatre, pavilion, &c.

Rotundifo'lious, *a.* [Lat. *rotundus*, and *folium*, leaf.] (*Bot.*) Round-leaved.

Rotund'ity, Rotund'ness, *n.* [Fr. *rotondité*, from Lat. *rotunditas*.] State of being round; roundness, circularity; sphericity; as the *rotundity* of a globe.

Rouanne, (*roo'an,*) *n.* [Fr.] A branding-iron.

Roubaix, (*roo'bā,*) a manufacturing town of France, dept. Nord, 7 miles N.E. of Lille. *Manuf.* Woollens, Turkish satins, camlets, and serges. In the town, and country immediately adjacent, about 30,000 hands are alternately employed in the manufacture of cotton and woollen goods. *Pop.* 65,091.

Rou'ble, Ru'ble, *n.* In Russia, a current silver coin, equivalent to 100 copecks, or about 76 cents American. — Gold coins of nominally five roubles (demi-imperials, really worth 5 roubles, 15 copecks,) and three roubles (imperial ducats) are also in circulation. The present Russian state paper-money is at par with the coinage.

Rouche, (*roosh,*) *n.* Same as RUCHE, *q. v.*

Roué, (*rōō'ā.*) *n.* [Fr.] A rake; a debauchee; a sensualist; a libertine.

Rouen, (*rou'ong,*) a city of France, cap. of the dept. of Seine-Inférienre, and formerly of the prov. of Normandy, on the Seine, 44 m. from its mouth, and 67 N.W. of Paris. It is situate on the right bank of the Seine, in a fertile, pleasant, and varied country. The streets, though in general straight, are narrow and dirty, and some of the houses are of wood. The most agreeable part of the town is that which adjoins the Seine. The public buildings of interest are, the Cathedral, containing many old monuments, and said to be one of the finest specimens of Gothic architecture in France; the church of St. Ouen, likewise a fine Gothic building, situate nearly in the centre of the town; and that of St. Maclou, considered a master-piece of its kind. There are two bridges over the Seine, one of stone and another of iron, con-

Fig. 2278. — STATUE OF JOAN OF ARC.
(On the Square of La Pucelle.)

necting the town with the suburb of St. Sever; also various literary societies and schools, an academy of belles-lettres, a society of agriculture and the arts, a central school, classes for medicine and surgery, a navigation and drawing school, together with a public library, a collection of paintings and natnral history, and a botanical garden. *Manuf.* Cotton goods, woollens, linens, iron-ware, paper, hats, pottery, wax, cloth, and sugar refineries. Dyeing, both of woollens and cotton, is also conducted with care and success. Ronen has frequently been taken and retaken. In 1418 it was taken by Henry V., and Joan of Arc was, in 1431, burned here. A statue to her memory has been erected on the spot (Fig. 2278). It is the birthplace of the two Corneilles, and of Fontenelle and Boieldieu. *Pop.* 100,670.

Rouet, (*rōō'ā,*) *n.* [Fr.] (*Mil.*) A small, solid wheel formerly fixed to the pan of firelocks, for discharging them.

Rouge, (*rūzh,*) *n.* [Fr., red.] Jewellers' rouge is made by calcining protosulphate of iron until nothing is left but the anhydrous sesquioxide, which is afterwards submitted to fine levigation. It is extensively used for polishing glass and for cleaning polished metal-work.— The cosmetic known as *rouge*, is made by mixing carmine with calcined salt in various proportions. In some instances it is replaced by spreading the coloring matter of cochineal or safflower on thick paper, and is applied to the lips and cheeks with a piece of moistened cotton-wool. Common theatrical rouge is made from Brazil-wood, lake, or bole-Armeniau.

—*v. n.* To paint the cheeks, &c., with rouge.

—*v. a.* To paint or tint with rouge.

Rouge'-dragon, *n.* (*Her.*) In England, an officer of the Heralds' College; a kind of pursuivant.

Rouge-et-noir, (*-ā-nwár,*) *n.* [Fr., red and black.] (*Games.*) A game at cards in which persons play against the *banker*, or owner of the table; — so called because the table is divided into two small compartments, colored *red* and *black*.

Rouge River, (*roogh,*) in *Michigan*, is formed in Wayne co., by the union of the North, West, and South branches, and flowing E., enters Detroit River abt. 5 m. S. of Detroit.

Rough, (*rŭf,*) *a.* [A. S. *hreog, hreoch*: Ger. *rauch, roh.*] Uneven; not smooth; having small ridges, points, or asperities on the surface; rugged; as, a *rough* stone, a *rough* piece of wood; *rough* cloth;—hence, (1.) Not level; uneven;—said of a road or tract of land; as, a *rough* country, a *rough* pathway. (2.) Uncut; not wrought or polished;—said of precious stones; as, a *rough* diamond. (3.) Thrown into huge waves; boisterous; turbulent; violent; agitated; as, a *rough* sea. (4.) Characterized by coarseness; rugged; shaggy; disordered in appearance; as, a *rough* coat, *rough* hair.— Hence, figuratively, wanting gentleness, polish, elegance, or refinement; as, (1.) Rugged of manner; harsh in temper; coarse in speech or action; rude; uncivil; unmannerly; austere; not courteous, kind, or delicate; as, *rough* usage, *rough* language.

"A surly boatman *rough* as seas and wind." — *Prior.*

—(2.) Harsh to the ear; grating; jarring; loud and hoarse; not harmonious; as, a *rough* tone of voice. (3.) Austere; acrid; harsh;—said of taste; as, this wine has a *rough* smack about it. (4.) Stormy; boisterous; tempestuous; as, *rough* weather. (5.) Manifesting violence or severity; hard; harsh; imperative; coercive; — applied to measures, acts, &c.

In the rough, in a crude or unwrought condition, or in the original substance or material; as, to take people *in the rough*. — *Rough customer*, a colloquialism implying a tough or troublesome antagonist; a person difficult to manage or conquer; as, I found him a *rough customer* to tackle. — *Rough draught, sketch*, or *plan*, a draught, sketch, or plan in a skeletonized or unfinished state, or having the outlines only filled in.

—*n.* A rude, coarse, boisterous fellow; a loud, swaggering bully; a rowdy; as, they were attacked by a set of *roughs*.

—*adv.* In a rough manner; coarsely; rudely; as, he acted quite *rough*.

—*v. a.* To make rough, or give a rugged appearance to; to roughen.

(*Manege.*) To break in for military purposes; as, to *rough* a horse.

To rough it, to encounter and undergo hardships or difficulties; to pursue, or be reduced to, a rough or rugged course of life; as, they *roughed it* in the bush.— *Roughing rollers.* (*Metall.*) In smelting, rollers for roughly reducing a bloom of iron to bars.

Rough-and-Ready, in *California*, a post-village of Nevada co., abt. 8 m. S. by W. of Nevada City.

Rough-and-Ready, in *Georgia*, a post-village of Clayton co., abt. 11 m. S. of Atlanta.

Rough-and-Ready, in *Illinois*, a village of Hancock co., abt. 33 m. N.N.E. of Quincy.

Rough-cast, (*rŭf'-kăst,*) *v. a.* (*imp.* and *pp.* ROUGH-CAST.) To mould or form in a rudimentary manner, without revision, correction, or polish; as, "*rough-cast* poetry." (*Dryden.*) — To mould without nicety or elegance, or to form with asperities or inequalities. — To plaster with a mixed preparation of lime and shells, or pebbles; as, to *rough-cast* a wall.

—*n.* A rude model; the form of anything in its first rudiments, or while incomplete; as, the *rough-cast* of a statuette. — Among builders, a kind of plaster intermixed with pebbles, and consequently presenting a rough surface.

Rough'-caster, *n.* One who rough-casts.

Rough-diamond, (*rŭf'-dī-mond,*) *n.* An uncut diamond;—hence, by analogy, a person possessing intrinsic worth, but rude and unpolished in manners.

Rough-draw, (*rŭf'-,*) *v. a.* To draw or delineate roughly, or by giving the mere outlines.

Roughen, (*rŭf'n,*) *v. a.* To make, or render, rough or rugged.

—*v. n.* To grow or become rough; as, the sea *roughens*.

Rough-footed, (*rŭf'-,*) *a.* Feather-footed, as a dove. (R.)

Rough-hew, (*rŭf'-hū,*) *v. a.* (*imp.* ROUGH-HEWED; *pp.* ROUGH-HEWN.) To hew coarsely, without smoothing or trimming; as, to *rough-hew* a log of wood. — To give the first shape or form to a thing; to fashion rudely or imperfectly.

"Nature does but *rough-hew* and design,
Leaving art to polish and refine."—*Hudibras.*

Rough-hewer, (*rŭf'-hū-er,*) *n.* One who rough-hews.

Rough-hewn, (*rŭf'-hūn,*) *p. a.* Hewn rudely, without smoothing or perfecting; as, *rough-hewn* timber. — Rude; homespun; coarse-mannered; rugged; unrefined; as, a *rough-hewn* rustic. — Unpolished; not elaborated or finished with nicety; as, a *rough-hewn* discourse.

Roughings, (*rŭf'ings,*) *n. pl.* In some parts of England, a term applied to the stubble or aftermath of grass, &c.

Roughish, (*rŭf'ish.*) *a.* Somewhat rough.

Rough-legged, (*rŭf'-lĕgd,*) *a.* With the legs covered with feathers;—said of a bird.

Roughly, (*rŭf'lў,*) *adv.* With an uneven surface; harshly; severely; uncivilly; rudely; without delicacy or tenderness; austerely to the taste; boisterously; tempestuously; harshly to the ear; violently; inharmoniously.

Roughness, (*rŭf'nes,*) *n.* State or quality of being rough; asperity; unevenness; coarseness; harshness; rudeness; boisterousness; severity.

Rough-rider, (*rŭf'-rīd'er,*) *n.* One who breaks horses in; — especially, in military language, a non-commissioned officer of cavalry, whose duty is to act as assistant to the riding-master.

Rough-scuff, (*rŭf'-skŭf.*) *n.* A rough, boisterous fellow; one of the rabble or riff-raff. (An American colloquialism.)

Rough-shod, (*rŭf'-,*) *a.* Shod with pointed shoes; as a *rough-shod* horse.

To ride rough-shod, to domineer; to hector; to carry on a course without regard to the feelings or opinions of another, or of others; as, I am not to be *ridden rough-shod* over.

Rough-strings, (*rŭf'-,*) *n.* (*Carp.*) Pieces of rough timber placed under the steps of a wooden stairs for their support.

Rough-work, (*rŭf'-wŭrk.*) *v. a.* To work over in a rough or coarse manner, without respect to nicety, smoothness, or finish.

Rouk, *n.* Same as ROKE.

Roulade, (*rōō'lahd,*) *n.* (*Mus.*) A rapid running of notes, extemporaneously introduced into a piece of vocal music by way of embellishment.

Rouleau, (*rōō-lō',*) *n.*; *pl.* ROULEAUX, (*rōō-lōz.*) [Fr., from *rouler*, to roll.] A little roll; —specifically, a little roll of coin; as, a *rouleau* of guineas.

Roul'ers, or ROUSSELAER, a town of Belgium, prov. of W. Flanders, on the Mandelbecke, a tributary of the Lys, 26 m. S.W. of Ghent. *Manuf.* Linens, leather, soap, and oil. *Pop.* 11,500.

Roulette, (*rōō-lĕt',*) *n.* (*Games.*) A game of chance, wherein a small ball is made to revolve rapidly on a circle divided into colored spaces (generally *red* and *black*), and, as it stops on the one or the other, the player wins or loses.

(*Engrav.*) A small instrument used by engravers to produce a series of dotted lines on a plate. It takes two forms, one like a spur-rowel, which is rolled over the surface of the plate when covered with the etching-ground: and another, which rolls at right angles with the shaft of the tool, the rowel being thick in the centre, and diminishing to the sides, which are notched and sharpened to a series of fine points; they act upon the etching-ground by carrying off minute portions.

(*Math.*) The curve traced by any point in the plane of a given curve when the latter rolls, without sliding, over another fixed curve. *R.* includes a great number of well-known curves, among which are epitrochoids, hypotrochoids, epicycloids, hypocycloids, the common and curtate cycloids, involutes, &c. Pedal curves may also be regarded as roulettes.

Roumā'nia, a kingdom of southeast Europe, including the former principalities of Moldavia and Wallachia, with the Dobrudja; located between N. Lat. 43° 38′ and 48° 20′, E. Lon. 22° 20′ and 30° 15′; *area*, 48,307 sq. m. *R.* is naturally divided into 3 regions, viz.: alluvial lowlands, along the Pruth and Danube; hilly, devoted to grazing and vine culture; and mountainous, abounding in forests and mines. The government is a hereditary constitutional monarchy; there is a legislature consisting of 120 senators and 183 deputies. The extreme military strength is about 250,000 men, and a navy of 34 vessels of all kinds. *Pop.* (1897) 5,222,500.

Roume'lia. See EAST ROUMELIA.

Rounce, (*rouns,*) *n.* [Fr. *ranche*, a step, a rack.] (*Print.*) The handle of a printing-press by which the carriage on which the form to be printed is laid is run in under the platen and out again; — sometimes applied to the whole apparatus by which the form is moved under the platen.

Round, *a.* [Gr. and Swed.; Goth. *rund*; Fr. *rond*, from Lat. *rotundus*, round, from *rota*, a wheel.] Spherical; circular; globular; orbicular; with every part of the surface or of the circumference equi-distant from the centre; as, a *round* ball. — Cylindrical; possessing the form of a cylinder; as, the tube of a pipe is *round*. — Curved in form; not angular or pointed; shaped like the arc of a circle or an ellipse; as, a *round* arch. — Full; whole; complete; not broken or fractional; as, *round* numbers. — Fair; candid; open; honest; frank; straightforward; having reference to conduct or demeanor.—Large; not inconsiderable: as, he paid a *round* sum of money, he asked a *round* price for the article.— Smooth; flowing; not defective or abrupt; as, a *round* and comprehensive style of composition. (*Fell.*)—Quick; brisk; lively; as, the horse broke into a *round* gallop.— Boldly or positively stated; plumply or explicitly affirmed; peremptory; positive; decided; without ambiguity or reserve; — referring to an assertion, statement, narration, &c.

R. bodies. [Fr. *corps ronds.*] (*Math.*) In geometry, the sphere, right cone, and right cylinder. — *R. game*, a game, as of cards, in which each person plays on his, or her, own account, as in *Loo. Speculation*, &c.

R. robin. [Fr. *rond*, round, and *ruban*, a ribbon.] A written petition, memorial, remonstrance, or instrument signed by names in a ring or circle, so as not to reveal who signed first. — *R. shot.* (*Gun.*) In artillery practice, spherical shot of cast-iron or steel.

R. number, a complete or entire number; or, a number that terminates with a cipher, and is divisible by 10 without a remainder, as 30 is a *round number*.

R. trot, in equestrianism, a full, sharp, brisk trot.

"Sir Roger heard them upon a *round trot*." — *Addison.*

R. turn. (*Naut.*) One turn of a rope round a stanchion.

At a round rate, quickly; rapidly; as, to travel at a *round rate*.

—*n.* That which is round, as a circle, a globe, a sphere, a cylinder, an orb. — A cycle; a periodical resolution; a series of events ending at the point of commencement; a series of similar events recurring continuously; as, "Life's dull *round*." (*Shenstone.*)—Action or performance in a circle, or passing through a series of hands or things, and coming back to the starting-point; or, the time of such action; as, the bottle went the *round* of the table.—Rotation in office; succession in vicissitude; as, government patronage went the *round* of the party. — A series of duties demanding performance in turn, and repetition of such performance; as, in the *round* of business. — That which goes round an entire circle or company; as, a *round* of applause.—The rung, rime, or step of a ladder; a rundle.

(*Mil.*) A volley of musketry. — Also, a walk or circuit performed by a guard or an officer round the rampart of a fortified place or garrison, or among sentries, to see

that the latter are on the alert, and that all is well; as, to make, or go, the *rounds*. — A brewer's utensil for holding beer; a vat. — A vessel filled with liquor, as for imbibing. (R.)

(*Mus.*) A short vocal composition in three or more parts, resembling a catch in the unison.

(*Naut.*) Same as ROUND-TOP, *q. v.*

Round of beef, a cut of the thigh of an ox or steer, through and across the bone. — *Round of ball* or *blank cartridges*. (*Mil.*) One cartridge per man; as, to serve out fifty *rounds* of cartridges.

—*adv.* Around; on all sides; as, he looked *round* him. — Circularly; in a circular direction, form, or manner; as, a top spins *round*. — From one side or party to another; as, to go, or come, *round*; *i. e.*, to change sides or views. — Circuitously; not in a direct line; by a course more extended than the direct course; back to the point of starting; roundabout; as, he took a *round* road homeward. — Extending through a circle, as of individuals or dwelling-houses; as, he sent circulars *round*. — *All round*, on all sides; in every direction; over the entire place or neighborhood; as, the story has passed *all round*.

—*prep.* In a circular course, or in all parts of; on every side of; as, the mob gathered *round* him. — About; as, to walk *round* the town, to wrap a shawl *round* one's body. — *To come* or *get round*, colloquially, to circumvent; to bamboozle; to derive advantage over by wheedling, artifice, or deception; in Ireland, to obtain by blarney; as, to *get round* a girl, *i. e.*, to engage her affections.

—*v. a.* To make round, spherical, globular, orbicular, or cylindrical; as, to *round* a billiard-ball. — To bring to completion or entirety; to make full. — To make round, rotund, or protuberant; to invest with a round form or convex figure. — To go round; to move about; as, the sun *rounds* the horizon. — To mould into fulness and flowing smoothness; — said of composition or language.

"A florid style, *rounded* into periods or cadences." — *Swift*.

To round in, (*Naut.*) to haul upon the weather-braces.

To round up, to haul up; usually, to haul up the slack of a rope through its leading block, or to haul up a tackle which hangs loose, by its fall.

—*v. n.* To grow or become round, or full, in form or substance; to appear as if pregnant.

"The queen, your mother, *rounds* apace." — *Shaks.*

To round to. (*Naut.*) To turn a ship's head to windward.

Round'about, *a.* Going round; indirect; loose; as, a *roundabout* road. — Extensive; ample; as, a *roundabout* sense. (*Addison.*) — Incompassing; surrounding; encircling.

—*n.* A sort of frock or surtout. — A lounge with a rounded back. — A go-cart, fixed on a horizontal wheel, in which children ride for amusement. — In the U. States, a close-fitting jacket; a jersey.

Round'aboutness, *n.* Quality of being roundabout; circuitousness.

Round'-backed, Round'-shouldered, *a.* Having a round back or shoulders.

Roun'del, *n.* [Fr. *rondelle*, a circular shield.] Any circle, or round form or figure; specifically,

(*Archæol.*) The small circular shield carried by soldiers in the 14th and 15th centuries. It was held in the hand to ward off a blow, and was sometimes not more than a foot in diameter.

(*Her.*) An ordinary in the form of a circle. It is improper to say a *roundel* or, gules, &c., describing it by its tincture; unless, first, in case of counter-changes; secondly, where the roundel is of fur, or of equal tinctures, as a *roundel ermine*, a *roundel chéeky* of *or* and *azure*, &c.; otherwise, roundels have distinctive names, according to their tinctures. A roundel or is called a *bezant*, from the gold coins of the Greek or Byzantine empire; a roundel argent, a *plate*; gules, a *torteau*, a kind of cake; azure, *hurt*, a species of flower; vert, *pomme*, an apple; sable, *pellet*; purpure, *golpe*. A field, or charge, with equi-distant roundels, is said to be *bezanly*, *platy*, &c., according to the tincture.

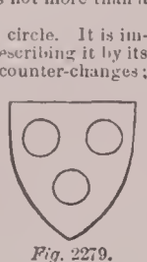


Fig. 2279. ROUNDEL.

(*Fortif.*) A circular bastion.

(*Mus.*) A roundelay. See ROUNDELAY.

Round'elay, *n.* [O. Fr. *roundelet*, diuin. of *rondo*.] (*Poet.*) Same as RONDEAU, *q. v.*

(*Mus.*) A simple, short, and lively strain; a pastoral song; as, a *roundelay* of love; — also, a kind of circular rustic dance; as, "the nymphs did dance their *roundelays*." — *Howel.*

—A roundel; anything circular in form.

Round'er, *n.* One who rounds.

Round Grove, in *Illinois*, a post-village of Whiteside co., abt. 21 m. W. of Dixon.

Round Grove, in *Indiana*, a township of White co.

Round Grove, in *Iowa*, a p. v. of Scott co.

Round Grove, in *Missouri*, a township of Marion co. — A post-village of Lawrence co.

Round'-hand, *n.* (*Calligr.*) A style of penmanship in which the letters are written round and full.

Round Head, in *Ohio*, a post-village and township of Hardin co., abt. 14 m. S.W. of Kenton.

Round'headed, *a.* With a round head, top, or summit; as, a *roundheaded* bolt.

Round'heads, *n. pl.* (*Eng. Hist.*) A nickname given to the Puritans during the Civil War (time of Charles I.), by the Cavaliers, from their custom of wearing the hair closely cut to the head.

Round Hill, in *Connecticut*, a post-village of Fairfield co., abt. 50 m. S.W. by W. of New Haven.

Round'house, *n.* A lock-up; a temporary prison for night-offenders.

(*Naut.*) A cabin in the after part of a ship's quarter-deck, roofed by the poop; — also, a house of convenience placed in the bows.

Round'ing, *a.* Round; nearly round; roundish.

—*n.* (*Naut.*) Same as SERVICE, *q. v.*

Round'ish, *a.* Somewhat round; nearly round; as, a *roundish* figure.

Round'ishness, *n.* State of being roundish.

Round'let, *n.* A small circle.

Round'ly, *adv.* In a round form or manner. — Boldly; openly; plainly; fully; without reserve; as, he was *roundly* given to understand that he was not wanted. — Briskly; with speed or celerity; as, to walk *roundly* on. — Completely; to the purpose; vigorously; in earnest; as, to do a thing *roundly*, to set to *roundly*.

Round'ness, *n.* State or quality of being round, spherical, globular, orbicular, or cylindrical; sphericity; circularity; as, the *roundness* of the globe, of a ball, of an orb, &c. — Fulness; plumpness; rotundity; as, the *roundness* of the female form. — Fulness and smoothness of flow; as, *roundness* of a sentence in composition. — Openness; plainness; boldness; positiveness; peremptoriness; as, the *roundness* of a lie, or of an asseveration.

Round Pond, in *Arkansas*, a township of Independence co.

Round Prai'rie, in *Iowa*, a township of Jefferson co.

Round Prairie, in *Missouri*, a post-village of Vernon co., abt. 82 m. S.W. of Jefferson City.

Round'ridge, (*-rĭj,*) *v. a.* (*Agric.*) To form into round ridges by ploughing, as land.

Round'-shouldered, (*-shōl'derd,*) *a.* See ROUND-BACKED.

Round Ta'ble, (Knights of the.) (*Chivalry.*) According to tradition, there reigned in Britain, towards the end of the 5th century, a Christian king, the British Uther-Pendragon, who had for a counsellor a powerful, wise, and benevolent enchanter, named Merlin, who advised him to assemble all his knights distinguished for piety, courage, and fidelity towards him, at feasts about a round table, which should be sufficiently large to receive fifty knights, but at which at first only forty-nine should be seated, room being left for one yet unborn. This was Arthur, or Artus, son of the King by Igerna, whom the King, by the magic power of Merlin, was permitted to enjoy under the form of her husband. Merlin had exacted a promise that the education of this prince should be entrusted to him, and he accordingly instructed him in everything becoming a brave, virtuous, and accomplished knight. Arthur in due time occupied the empty seat at the Round Table; and under him it became the resort of all valiant, pious, and noble knights, admission to it becoming the reward of the greatest virtues and feats of arms. According to another account, Arthur himself established the Round Table at York. In the year 1344, Edward III., anxious to attract around him the most noble knights from all parts of Europe, proclaimed, as well in Scotland, France, Germany, Hainault, Spain, and other foreign countries, as in England, that he designed to revive the Round Table of King Arthur, offering free conduct and courteous reception to all who might be disposed to attend the splendid jousts to be held upon that occasion at Windsor Castle. This solemn festival, which Edward purposed to hold annually, excited the jealousy of Philip do Valois, king of France, who not only prohibited his subjects to attend it, but proclaimed an opposite Round Table to be held by himself in Paris. In consequence of this interference, the festival of Edward lost some part of its celebrity and splendor; and this induced the English monarch to establish the memorable order of the Garter.

Round'-top, *n.* (*Naut.*) A top; a platform at the masthead of a ship; — sometimes called the *round*.

Round'-trade, or BUNDLE-TRADE, *n.* (*Com.*) A kind of barter practised on the Gaboon River, Africa, and its neighborhood, comprising a large assortment of miscellaneous articles.

Round Val'ley, in *California*, a post-village of Plumas co., abt. 17 m. N. of Quincy.

Roup, (*rōōp,*) *v. a.* [A. S. *hrêpan*, to cry out.] To call or cry out; to shout; — hence, in Scotland, to cry goods for sale by auction.

—*n.* An outcry; — hence, a sale of goods by auction; as, to be sold by public *roup*. (A Scotticism.) — A disease among domestic fowls.

Rous'ant, *a.* (*Her.*) Rising; — said of a bird in the attitude of rising; as, a falcon *rousant*.

Rouse, (*rouz.*) *v. a.* (*imp.* and *pp.* ROUSED,) (*rouzd.*) [Of the same origin as *raise*, q. v. Also see RISE.] To wake or call from sleep or repose; as, *rouse* me early. — To awaken into vigorous action; as, to *rouse* one's attention, to *rouse* indignation or sympathy, or any passion, emotion, or faculty. — To excite to active thought or action from a state of idleness, lassitude, depression, stupidity, or inattention. — To agitate; to put into brisk motion; as, to *rouse* the waves. — To startle; to surprise; to scare; as, to *rouse* a lion from his lair.

—*v. n.* To awake from sleep or repose; as, he *roused* himself with difficulty. — To be excited to vigorous thought or action from a state of indolence, sluggishness, languor, depression, inattention, or insensibility; as, the people were *roused* to rebellion

Rouse, (*rous,*) *v. n.* (*Naut.*) To haul together, as on a cable, by sheer manual power; as, heave, ho! *rouse* away, boys!

Rouser, (*rouz'r,*) *n.* One who, or that which, rouses or stirs up; — hence, something very great or exciting; as, that speech was a *rouser*.

Rouse's Point, in *New York*, a post-village of Clinton co., at the head of Lake Champlain, and in the N.E. extremity of the State, abt. 160 m. N. of Albany.

Rouse'ville, in *Pennsylvania*, a post-village of Venango co., abt. 5 m. N. of Oil City.

Rousing, (*rouz'ing,*) *a.* Having power to awaken, stir up, or excite; as, a *rousing* proposition, appeal, or suggestion; — hence, colloquially, great; violent; beyond what is common; as, a *rousing* cheer, a *rousing* fire.

Rous'ingly, *adv.* In a rousing manner; excitingly; violently.

Rousseau, (*ru-sō,*) JEAN JACQUES, a French philosopher and miscellaneous writer, was the son of a watch-maker at Geneva, where he was B. in 1712. *R.* learnt little at school; but the frequent reading of *Plutarch's Lives* supplied him with noble ideas of human character, and kindled a passionate admiration of them. On leaving school, he was first placed with an attorney, who soon dismissed him for negligence. He was then apprenticed to an engraver, from whom he ran away before he was 16, and wandered about for some time in Savoy, where he was saved from starving by a priest, who sent him to Annecy, to be under the care of the noted Madame de Warens, a recent convert to the Catholic Church. This kind-hearted lady caused him to be instructed in science and music, and procured him admission to a school at Turin, where he professed himself a Catholic. After a very short stay, he was a wanderer again, entered the service of the Countess de Vercellis, then of the Count de Gouvon, and again returned to Madame de Warens. She renewed her kind attentions and services; and her house was for many years open to him as a home. In the pleasant retreat near Chambery to which she removed, the restless wanderer found repose for a time, and applied himself more steadily than he had done to the study of philosophy. A more intimate relation had sprung up by this time between him and his protectress. In 1740, jealousy led him to quit the house of Madame de Warens; and in the following year he went to Paris to try his fortune as a musician. He failed, but obtained the place of secretary to the French ambassador in Venice, in 1742. But it was not till 1750 that he manifested his splendid literary talents. In that year he gained the prize offered by the Academy of Dijon on the question, *Whether the Revival of Learning has contributed to the Improvement of Morals*, taking the negative side of the question, it is said, at the suggestion of Diderot. From this period, he became fertile and popular. He soon after brought out his *Devin du Village*, a comic opera, which was received with general favor; but the appearance of his celebrated *Letter on French Music* (1753), in which he pointed out its defects, excited a general storm. Singers and connoisseurs who could not wield the pen contributed to spread calumnies, pasquinades, and caricatures against the author, who retired to Geneva. He now again embraced Protestantism, and was formally reinstated in the privileges of a free citizen of Geneva. *R.* had recently published his essay, *Sur l'Origine de l'Inégalité parmi les Hommes*, which excited still more sensation than his first prize essay. Soon after, he went again to Paris, and there accepted the offer of Madame d'Epinay, — whose friendship he had enjoyed for several years, — of her house, called the *Hermitage*, for his residence. His mistress, Thérèse Levasseur, ultimately his wife, accompanied him In 1760, he published *Julie, ou la Nouvelle Héloïse*, a romance of the most seductive description. This was followed, in 1762, by *Emile, ou de l'Education*, which was anathematized by the Archbishop of Paris, and ordered to be burnt by the Parliament of Paris and the authorities of Geneva. His famous *Contrat Social* appeared soon afterwards; and his bold, though superficial, speculations on the condition and destiny of man and society alarmed and irritated men still more. Obliged to flee from France and Switzerland, the author took refuge in Neufchatel, where he published his *Letters to the Archbishop of Paris*, and *Lettres de la Montagne*, a remonstrance against the proceedings of the Geneva republic, the citizenship of which he renounced. Thenceforth his existence was passed in frequent changes of place, to escape real or fancied persecution, for his mind was now completely under the tyranny of the morbid habit of suspecting all his friends of insulting and conspiring against him. His last days were spent at Er-

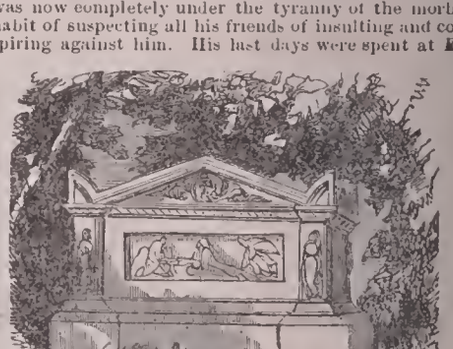


Fig. 2280. — TOMB OF J. J. ROUSSEAU AT ERMENONVILLE.

menonville, where he died suddenly, in 1778. — *R.* was the author of many works besides those we have noticed, all of them exhibiting his peculiar warmth and energy of style and vigor of thinking. That he exercised a great influence over the opinions of the age at the

Jean Jacques Rousseau

1712–1778

period of the French Revolution there can be no doubt; but his works, with all their fascination of splendid and passionate eloquence, have no place among the lights that men love and walk by. His social and political theories have no basis more solid than his personal feelings; and these he interpreted falsely. His *Confessions*, one of the most singular books of its kind, appeared soon after his death.

Rousseau', Lovell H, a brigadier-general in the U. S. army, b. in Lincoln co., Kentucky, Aug 4, 1818, settled in Greene co., and obtained a license to practice law. Entering into politics, and becoming a leader of the Whigs, he succeeded in defeating the regular Democratic nominee for the State Legislature, and returned to Lincoln co. in 1849, when his practice at the bar greatly increased, and he gained a reputation as a criminal lawyer. His opposition to the neutrality of Kentucky brought him into prominence in 1861, and long before the other Unionists thought it politic to have U. States troops quartered in Kentucky, Rousseau, who had served in the Mexican war, had raised two regiments, with which he afterwards went to the relief of Louisville. He was engaged in the campaign and battle of Shiloh, was commandant of the district of North Alabama, succeeding Gen O. Mitchel, and pursued Gen. Bragg through Kentucky, engaging him at Perryville. He took part in the campaign of Tullahoma, Chickamauga, and Chattanooga, and in 1864 commanded the District of Tennessee, made a raid into Alabama,—destroying the Montgomery and Atlanta lines of railroad, and performed other services. In Aug., 1865, he was elected from the Louisville (Kentucky) district, to Congress by a large majority. In 1867 he was appointed brigadier-general in the regular army, and was dispatched to take possession of Alaska in the name of the U. States. President Johnson afterwards assigned him to the command of the Gulf Department, where his administration gave little satisfaction to any party. D in New Orleans, 1869.

Roust, *n.* Same as Rost, *q. v.*

—*v. a.* To rouse; to stir up; to disturb; to ferret; as, to *roust* a fox out of cover. (Prov. Eng.)

Rout, *n* [O Fr *route*, a crowd; Ger. *rotte*, from *rotten*, to cabal.] A fashionable assembly, or large evening party; a drum, attended by people of bon-ton; as, I have a card for Lady Mary's *rout*.—A rabble; a mob; a clamorous multitude; a tumultuous crowd; a turbulent assemblage of the common people.—An uproar; a rumpus; a racket; a confused noise; as, what is all this *rout* about?

(*Law.*) The unlawful assembling of three or more persons to do an unlawful act upon a common quarrel, and make some advances towards it.

Rout, *n.* [O Fr. *route*, an overthrow; Fr. *déroute*, from Lat *ruptus*, from *rumpo*, to break.] The breaking or defeat of an army, or body of troops, or the disorder and confusion of troops thus defeated and put to flight; as, a total *rout*.

—*v. a.* To break, as the ranks of troops, and put them to flight in disorder; to cause defeat and throw into confusion, as troops; to defeat; to discomfit; to conquer; to overthrow; as, we *routed* the enemy with heavy loss.

Route, (*rôt,*) *n.* [Fr., from Lat. *rota*, a wheel.] The road, course, or way which is travelled or passed, or to be travelled or passed; a course; a march; a principal or leading road; as, which is the nearest *route* from Philadelphia to New Orleans?

(*Mil.*) In military parlance, the document issuing to troops, as an order to move from one place to another; as, the *route* has come, we're off to-morrow.

Routine, (*rôô'teen,*) *n.* [Fr. dimin. of *route*, from Lat. *rota*.] A round of business, exercise, or amusement, daily or frequently pursued;—particularly, a course of business or official duties regularly or frequently recurring; as, the dull *routine* of daily life.—Any regular practice, or procedure, not accommodated to circumstances, but strictly adhered to by sheer force of habit; red-tapism; maintenance of executive formalities; as, a government office is the embodiment of *routine*.

Rout'ously, *adv.* (*Law.*) With that violation of law called a *rout*; in the manner of a rout.

Rove, *v. n.* [A. S. *reafian*; Du. *rooven*; Ger. *rauben*, to rob, strip, despoil.] To go, move, or pass, without certain purpose or direction, in any manner—by walking, riding, sailing, flying, or otherwise; to range; to wander; to ramble; to roam.

—*v. a.* To wander over; to roam about; as, *roving* abroad at night in search of game.

—*n.* Act of roaming; a ramble; a wandering. (R.)

Rove, *v. a.* To card, as wool; to draw through an eye or interstice; as, to *rove* a thread.

—*n.* A roll of wool, drawn out and partially twisted, preparatory to being further spun into thread or yarn.

Rove, *imp.* and *pp.* of Reeve, *q. v.*

Rov'er, *n.* One who roves or ranges about; a wanderer; a roamer; a rambler.—A fickle or changeable person; an inconstant;—particularly, an unfaithful husband.—A pirate; a corsair; a freebooter; a buccaneer; one who roams the seas in quest of plunder.

Rovere'do, a town of Tyrol, on the Italian frontier, on the Lens, near its junction with the Adige, 13 m. S.W. of Trent. *Manuf.* Silks, tobacco, and leather. *Pop.* 8,108.

Roviguo, (*ro-veen'yo,*) a seaport-town of Austrian Illyria, on the coast of Istria, 39 m. S S.W. of Trieste. *Manuf.* Ship-building and cables. *Pop.* 9,500.

Rovi'go, a town of N. Italy, prov. of Venice, on the Adigetto, a branch of the Adige, 36 m. S.W. of Venice, and 17 m. N.E. of Ferrara: *pop.* 9,543.

Rov'ing, *n.* The process of forming a rove, or partially twisted thread, from a roll of wool, by means of an apparatus called a *roving-frame*, or *roving-machine*.—A rove.

Rov'ing-frame, Rov'ing-machine, *n.* A machine for winding roves or slubs on small bobbins for the creels of the spinning-machine.

Rov'ingly, *adv.* In a wandering or roving manner.

Rov'ingness, *n.* State of roving or wandering.

Rov'ing-shot, *n.* A hap-hazard or random shot.

Row, (*rō,*) *n.* [A. S. *raw*; Ger. *reihe*.] A rank; a file; a series of persons or things arranged in a continued line; as, a *row* of trees or houses, a *row* of teeth, a row of columns, a *row* of scholars.—A distinctive appellation given to a public thoroughfare; as, Paternoster *Row*, London.

Row culture. (*Agric.*) The husbandry of crops by means of drills.

—*v. a.* [A. S. *rowan*; Du. *rœijan*, formed from the sound.] To row or impel, as a boat or vessel along the surface of water by oars; as, to *row* an outrigger.—To transport by rowing; as, to *row* passengers to a ship in a shore-boat.

—*v. n.* To exercise the oar; to perform labor with the oar; as, the Cantabs *rowed* well this year.

—To be impelled by oars: as, this boat *rows* badly.

Row, (*rou,*) *n.* [An abbreviation of *rout*, q. v.] A noisy or violent disturbance or commotion; a wordy altercation; a riotous proceeding; a shindy; a rumpus; as, to get into a *row* is easier than to get out of one.

Row'an, in *Kentucky*, a N.E. co; *area*, abt. 375 sq. m. *Rivers.* Lacking River and Triplet Creek. *Surface*, hilly; *soil*, generally fertile. This co. is interspersed with extensive forests. *Cap.* Morehead.

Rowan, in *N. Carolina*, a W. central co.; *area*, abt. 450 sq. m. *Rivers.* Yadkin and South Yadkin rivers. *Surface*, somewhat undulating or hilly; *soil*, generally fertile, and adapted to all the fruits and cereals of that region. *Cap.* Salisbury.

Row'an-tree, *n.* [Norse. *runa*, a charm.] A Scottish name for the *Pyrus ancaparia*.

Row'-boat, *n.* A boat urged forward or backward by means of oars.

Rowdy, (*rou'dy,*) *n.* [From *row*.] An Americanism for a riotous, turbulent, disorderly fellow; a blackguard; one given to rows or rioting; a ruffian; a ready operator with pistol, bowie-knife, or black-jack.

Rowdyish, (*rou'dy-ish,*) *a.* Belonging or having reference to, or characterized by, the manners or practices of a rowdy: as, *rowdyish* threats.

Rowdyism, (*rou'dy-izm,*) *n.* Noisy bullying, or blackguardism; manners or practices of a rowdy; ruffianism.

Rowe, in *Massachusetts*, a post-village and township of Franklin co., abt. 108 m. N.W. of Boston.

Rowel, (*rou'el,*) *n.* [O. Fr. *rouelle*, dimin. of *roue*; Lat. *rota*, a wheel.] The little wheel attached to a spur, armed with sharp points;—also, a little, flat ring or wheel of plate, or iron, on horses' bits.

(*Far.*) A roll of hair or silk, passing through the flesh of horses, corresponding to the *teton* in surgery.

—*v. a.* (*Far.*) To insert a rowel in.

Rowen, (*rou'en,*) *n.* Same as Roughings, *q. v.*

(*Ayric.*) Same as Aftermath, *q. v.*

Row'er, *n.* One who plies or manages an oar in rowing.

Rowing, (*rō'ing,*) *n.* [From *row*.] (*Naut.*) The propulsion of a boat by oars. Rowing is esteemed the most favorable application of human strength for obtaining motion in the water, though the full force is not effective on the oar, that part of it called the *blade*, (which is the actual fulcrum,) being held back by the resistance of the water. In rowing, the power is applied at the handle of the oar, and the weight of the boat is encountered at the rowlock. The rower sits *before* his oar, with his back to the boat's bow, and in taking his stroke supplements the strength of his arm with the weight of his body thrown backwards toward the bow. American oarsmen generally row the *short, quick stroke*; English rowers, the *long, steady pull*, known as the *Oxford stroke*, (36 to 46 per minute,) as practised by the famous boating-clubs of that university.

Rowlandsville, (*ro'lands-vil,*) in *Maryland*, a post-village of Cecil co., abt. 73 m. N.E. of Annapolis

Row'ley, in *Massachusetts*, a post-village and township of Essex co., abt. 29 m. N.N.E. of Boston.

Rowley, in *Wisconsin*, a township of Manitowoc county.

Row'ley-ragg, *n.* Same as Ragstone, *q. v.*

Rowlocks, (*rōl-locks,*) *n. pl.* [*row* and *lock*.] (*Naut.*) The apparatus on the sides of a boat for keeping the pressure of the oar constantly at one point. So many and various are the different kinds of *R.* in use, that we refer the reader to technical works on nautical matters.

Row'-port, *n.* (*Naut.*) A small, square hole cut in the sides of some vessels of inferior tonnage, above the water-line, for the purpose of rowing during calms at sea.

Rox'abel, in *Ohio*, a post-village of Ross co., abt. 13 m. W.N.W. of Chillicothe.

Roxa'na, in *Delaware*, a post-village of Sussex co.

Roxana, in *Michigan*, a post-township of Eaton co.

Rox'borough, in *N. Carolina*, a post-village, cap. of Person co., abt. 60 m. N.N.W. of Raleigh.

Roxborough, in *Pennsylvania*, a former township of Philadelphia, now included within the incorporated limits of the city of Philadelphia, abt. 7 m. N. by W. of the State-House.

Rox'burgh, an Inland co. of Scotland, having N. the co. of Berwick and a small portion of Mid-Lothian, E. Northumberland, S. Cumberland, and W. Dumfries and Selkirk; *area*, 670 sq. m. The surface is mountainous on the S and W., but level and fertile on the E. and N. *Rivers.* Tweed, Teviot, Gala, Leader, Allan, Eden, Hermitage, and Liddel rivers. *Prod.* Wheat, oats, potatoes, &c. Among the hills large numbers of Cheviot sheep are raised. *Min.* Coal, lime, and freestone. *Manuf.* Principally woollen goods. *Chief towns.* Jedburgh, Kelso, Hawick, and Melrose.

Roxburghia'ceæ, *n.* (*Bot.*) An order of plants, class *Dictyoyens*. Diag. Bisexual flowers, solitary simple many-seeded carpels, with long-stalked anatropal seeds, and a basal placenta. They are shrubs with tuberous roots; broad, leathery, net-veined leaves; and large showy flowers. The plants are native of the hotter parts of the E. Indies. The order contains only 1 genus and 4 species.

Rox'bury, in *Connecticut*, a post-village and township of Litchfield co., abt. 35 m. S.W. by W. of Hartford. The twp. is drained by the Shepang River.

Roxbury, in *Kansas*, a post-village of McPherson co.

Roxbury, in *Maine*, a post-township of Oxford co.

Roxbury, in *Massachusetts*, a former city of Norfolk co., now incorporated with Boston, abt. 3 m. S. of the State House.

Roxbury, in *New Hampshire*, a township of Cheshire co.

Roxbury, in *New Jersey*, a village of Warren co., abt. 4 m. S. of Belvidere.

Roxbury, in *New York*, a post-twp. of Delaware co.

Roxbury, in *Ohio*, a post-village of Morgan co., on the Muskingdom River.

Roxbury, in *Pennsylvania*, a post-village of Franklin co., abt. 14 m. N. of Chambersburg.

Roxbury, in *Vermont*, a post-village and township of Washington co., abt. 17 m. S.S.W. of Montpelier.

Roxbury, in *Wisconsin*, a post-township of Dane county.

Rox'o, in *Wisconsin*, a village of Marquette co., abt. 70 m. N.W. of Milwaukee.

Roy'al, *a.* [Fr., from Lat. *regalis*, from *rex*, *regis*, a king.] Kingly; regal; pertaining to a king, or to the crown; as, the *royal* prerogative, the *royal* family, &c.—Becoming or suitable to a king, sovereign, or monarch; as, *royal* state, *royal* dignity.—Noble; illustrious; magnificent; august; majestic; as, the blood-*royal*.—A title affixed to any institution, or body of individuals, that is more especially in the service, or under the patronage, of the Crown; as, the *Royal* Society, a *royal* household, *royal* tradesmen, &c.

Royal Academy of Art, an institution which originated in a society of painters, who obtained a charter in 1765, under the title of the "Incorporated Society of Artists of Great Britain." This Society took a new form in 1768, and became the *Royal Academy of Art*. It consists of 40 artists, bearing the title of *Royal Academicians*, of 18 *Associates*, and six associate engravers, and three or four honorary members; there is an annual exhibition of paintings, sculptures, and designs open to all artists. This exhibition is so well frequented that the Royal Academy draws almost all its funds from the money paid by the public for tickets of entry. The Edinburgh *Royal Academy of Painting* was founded in 1754. A similar institution, called the *Royal Hibernian Society*, was established in Dublin about 1832.

Royal blue. [Fr. *bleu du roi*.] (*Paint.*) A rich deep blue, prepared from smalt, and used for enamel or portrait-painting. It was first introduced in the royal factory at Sevres, France, and received its name in compliment to Louis XV.

—*pl. Royal family.* The princes and princesses of the blood-royal.

Royal Society. An English society incorporated by Charles II. in 1622–23, under the title of "The President, Council, and Fellows of the Royal Society of London for Promoting Natural Knowledge." The first number of the *Philosophical Transactions*,—as the work which the Society published was called,—appeared in March, 1665. At present every candidate for admission into the Society must be recommended by a certificate in writing signed by six or more Fellows, of whom three at least must certify that the recommendation is from personal knowledge; and the name, qualifications, &c., of the candidate must be entered in a book kept for the purpose.

—*n.* A large kind of paper, usually 20 × 25 inches or more.

—One of the shoots of a stag's head.

(*Ord.*) In ancient ordnance, a small mortar.

(*Naut.*) The sail and mast above the top-gallant sail and top-gallant mast respectively.

—*pl.* (*Mil.*) The distinctive appellation given, in England, to the first regiment of infantry of the line; as, an officer of the *Royals*.

Roy'al Center, in *Indiana*, a post-town of Cass co., about 11 m. N.W. of Logansport.

Roy'alism, *n.* [Fr. *royalisme*.] The principles of royalists; attachment to the cause of royalty, or to a royal government.

Roy'alist, *n.* An adherent to a king, or one attached to a kingly government;—specifically, in English history, one who espoused the royal cause against that of the Parliament in the great Civil War; a Cavalier.

Royal'ize, *v. a.* To make or render royal.

Roy'ally, *adv.* In a royal or kingly manner; in regal style; as becomes a king or scion of the blood-royal.

Roy'al Oak, in *Michigan*, a post-village and township of Oakland co., abt. 12 m. N.W. of Detroit; *pop.* abt. 1,800.

Roy'alston, in *Massachusetts*, a post-village and township of Worcester co., abt. 65 m. W.N.W. of Boston;

Roy'alton, in *Indiana*, a post-village of Boono co., about 14 m. N.W. of Indianapolis.

Royalton, in *Kentucky*, a post-village of Russell co.

Royalton, in *Michigan*, a post-village and township of Berrien co., about 3 m. S. of St. Joseph.

Royalton, in *Minnesota*, a post-village of Morrison co.

Royalton, in *New York*, a post-town of Niagara co.

Royalton, in *Ohio*, a township of Cuyahoga co.—A post-village of Fairfield co., about 24 m. S.E. of Columbus.—A township of Fulton co.

Royalton, in *Vermont*, a post-village and township of Windsor co., about 34 m. S. of Montpelier.

Roy'alton, in *Wisconsin*, a post-township of Waupaca co

Roy'alty, *n.* [O. Fr. *royaulté*; Fr. *royauté*; It. *realtá*; L. Lat. *regalitus.*] State or quality of being royal; regality; character, state, or office of a king; kingship; as, "the *royalty* of England's throne." (*Shaks.*) — Person of the king or sovereign, or of any member of the royal family; as, to be ushered into the presence of *royalty.* — That which pertains to a king as his indefeasible right or prerogative. — Hence, kingdom; domain; jurisdiction; realm: as, the *royalty* of science — A tax or duty, of the nature of a ground-rent, paid to the crown revenues, as on the produce of a mine leased in a royal domain.

(*Com.*) A duty paid by a person who applies the patent of another, at a certain scale of compensation for each article fabricated; or, a per-centage paid to the proprietor of an article by the hirer of the use of it.

Rshev-Wladimirov, a town of European Russia, govt. of Tver, on the Volga, 144 m. N. of Moscow; *pop.* 16,000

Rt. Hon. Abbreviation of *Right Honorable.*

Rt. Rev. Abbreviation of *Right Reverend.*

Ruatan, or ROATAN, an island of Central America, in the Bay of Honduras; Lat. 16° 24′ N., Lon. 86° 19′ W., *area*, abt. 240 sq. m. *Surface*, somewhat elevated and well wooded; *soil*, fertile. The shores abound in fish and turtles, and near the S. extremity is a good harbor. *Pop.* 4,000.

Rub, *v. a.* (*imp.* and *pp.* RUBBED.) (*rŭbd.*) [Ger. *ruben*; Heb. *raph.* to rub.] To move something along the surface of with pressure; as, to *rub* the hand over another part of the body;—hence, to wipe; to clean; to scour; as, to *rub* one's hands together — To touch by friction, so as to leave something of that which touches behind; as, to *rub* pomatum into the hair. — To spread over; to polish; to retouch; — with *over*; as, to *rub over* a picture with varnish. — To fret; to tease; to worry; to thwart; to annoy; to provoke (R.)

To rub down, to comb or curry; to clean by friction; as, to *rub down* a horse. — *To rub off*, to remove off impurities, or make clean, as by rubbing; as, to *rub off* a smut on one's nose. — *To rub out*, to erase; to expunge; to obliterate; to cause to disappear; as, to *rub out* pencil-marks, to *rub out* grease from cloth — Hence, to remove, as by death; to slay; as, he was *rubbed out* by a bullet. (Vulgar.) — *To rub up*, to furbish; to burnish; to polish; to give a lustre or gloss to, as, to *rub up* a hat. — To incite to action; to awaken; to rouse up; as, to *rub up* the imagination.

—*v. a.* To move along the surface of a body and impart friction or pressure; to grate; as, two ships in collision *rub* one against the other. — To gall; to chafe; to fret; as, to *rub* upon a boil. — To move, pass, or go by or through with difficulty; as, to *rub* through a crowd of people. — *To rub against*, to meet or stumble across by accident; as, to *rub against* a friend in the street.

—*n.* Act of rubbing, pressure; friction. — That which rubs, or which renders motion or progress arduous or difficult; collision; obstruction; hindrance; obstacle; notably, a sudden difficulty hard to be obviated; a pinch; an emergency

"To sleep; perchance to dream; aye, there 's the *rub.*" — *Shaks.*

(*Games.*) In whist, a rubber; — used colloquially; as, to play for one dollar a *rub*, and five dollars the game.

—A whetstone. See RUBSTONE

Rub'-a-dub, *n* The tan-ta-ra-ra sound of the drum; hence, a clatter; a rattling or repeated sound; as, the *rub-a-dub* of a scolding woman.

Ruba'to, *a.* [It.] Pilfered; pirated; borrowed without leave or license.

Tempo rubato. (*Mus.*) Borrowed time; — a term denoting unequal duration of time in relation to tones.

Rub'ber, *n.* One who, or that which, rubs; as, (1.) A rubstone; a whetstone. — (2.) A coarse file, or the rough part thereof — (3.) The cushion of an electrical machine. — (4.) That which grates or jars upon the feelings or sensibilities: a rub. — A familiar colloquialism for INDIA-RUBBER, *q. v.*

(*Games.*) In whist, two games out of three, or the game that decides the contest; or a contest consisting of three games; as, to play the *rubber*, to win the *rubber*; to make a *rubber*, that is, to compose a party of four players at whist.

Rubbidge, (*rŭb'bij.*) *n.* Rubbish; garbage; — a vulgar rendering of RUBBISH. *q. v.*

Rub'bish, *n.* [O. Fr. *rubbouses*, filth.] Literally, that which is rubbed off; generally, fragments of buildings or their materials; ruins: — hence, waste or rejected matter; anything worthless; debris; valueless stuff; garbage; refuse; trash.

"He saw the towns one half in *rubbish* lie." — *Dryden.*

Rub'bishy, *a.* Pertaining, or having reference, to rubbish; — hence, trashy; worthless; as, a *rubbishy* book, a *rubbishy* bargain.

Rubble, (*rŭb'bl.*) *n.* (*Masonry.*) Coarse walling constructed of rough stones, small, and irregular in size and shape; — also, a mixture, or the refuse of several kinds of building-stone used for walls exteriorly, or between walls, to fill up; — also called *rubble-wall* and *rubble-work.* See ASHLAR.

—The entirety of the bran of wheat, before it is sorted into pollard, bran, &c.; — used as provincial English

Rub'bly, *a.* Belonging or relating to, or composed of, or containing, rubble.

Rubefacient, (*-fā-shent.*) *n.* [From Lat *rubere*] (*Med.*) A medicine which, when applied to or rubbed upon the skin, renders a redness or blush upon the part not followed by a blister.

—*a.* (*Med.*) Making [illegible] producing redness.

Ru'bellite, *n.* (*Min.*) Red tourmaline containing a considerable proportion of manganese, to which it owes its color. It generally occurs in closely aggregated crystals, varying in color from a slight tinge of red to a fine pink

Rubens, PETER PAUL, (*roo'banz,*) the most distinguished painter of the Flemish school, born at Siegen, in Westphalia, 1577. When he was ten years old, his mother, then a widow, returned to her native place, Antwerp. He received an excellent education; and after studying in his own country, especially under Otto Van Veen, he went to Italy, where he improved himself by copying the works of the best masters, but chiefly Titian. While in Italy he was employed by the Duke of Mantua, not only as an artist, but on an embassy to Madrid. He returned to Antwerp in 1608, and was soon after made court-painter to the Archduke Albert, Spanish governor of the Low Countries. In 1620 he was employed by the Princess Mary de Medici to adorn the gallery of the Luxembourg with a series of paintings, illustrative of the principal scenes of her life. While thus engaged, he became known to the Duke of Buckingham, who purchased his museum. He was afterwards employed by the Infanta Isabella, and the King of Spain, in some important negotiations, which he executed with such credit as to be appointed secretary of the Privy-Council. Rubens acquired immense wealth, and was twice married, the second time, in 1631, to a lovely girl of sixteen. He died at Antwerp, in 1640. Rubens, beyond all comparison, was the most rapid in execution of all the great masters, and was incontestably the greatest perfecter of the mechanical part of his art that ever existed. His works are very numerous, and very diversified in subject. There are nearly a hundred in the Picture Gallery at Munich. *The Descent from the Cross*, at Antwerp, is perhaps his master-piece. It is a composition remarkably similar to the fine fresco of the same subject, painted by Daniele di Volterra, in the preceding century. The 300th anniversary of *R.*'s birth was held at Siegen, 1877.

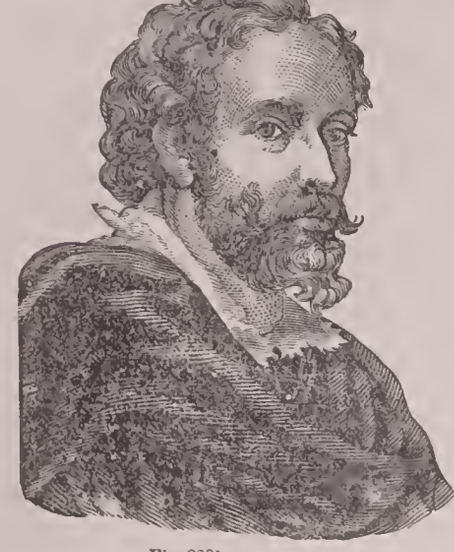


Fig. 2281. — RUBENS.

Fig. 2282. — HOUSE OF RUBENS, (Antwerp.)

Ru'bens'-brown, *n.* [After the painter *Rubens*, who used it extensively.] (*Paint.*) A rich brown pigment, of a warmer and more ochreous color than Vandyke-brown.

Rube'ola, *n.* [Lat., from *ruber*, red.] The MEASLES, *q. v.*

Rubescence, (*-bĕs'sens,*) *n.* A flush; a reddening; a ruddiness

Rubes'cent, *a.* [Lat. *rubescens*, *rubesco*, from *rubeo*, to be red.] Growing or becoming red; tending to a red color; ruddy.

Ru'bia, *n.* [Lat. *ruber*, red.] (*Bot.*) A genus of plants, order *Galiaceæ.* The species *R. tinctorum* was largely cultivated in Europe for the root, which constitutes the dye-stuff *madder*, but the same coloring principle now obtained from coal tar. (See *Aniline* p. 106 and *Rosaniline*, p. 2096). The cultivation of *R.* is becoming extinct. The entire roots from the Levant are called *Turkey roots.* In the living state, madder-root contains only a yellow coloring, but no less than five distinct coloring matters are made, called respectively *madder-purple, red, orange, yellow*, and *brown.* The First two, which have received the chemical names *purpurin* and *alizarin*, are by far the most important. Besides being used as a dye-stuff, madder has long been employed in medicine as a tonic and diuretic, and has been regarded as a valuable emmenagogue. The roots of *R. cordifolia*, or *munjistu*, a native of India, are employed for dyeing in Bengal, and are occasionally imported into this country under the name of *munjeet.* The roots of *R. relbuan* are similarly employed in Chili.

Ru'bican, *a.* [Fr., from Lat. *ruber*, red.] Red intermixed with, but predominating over, gray, in the color of a horse; a grayish-sorrel.

Ru'bicon, *n.* (*Anc. Geog.*) A stream of Central Italy, falling into the Adriatic, which has obtained a proverbial celebrity from the well-known story of its passage by Cæsar, who, by crossing this river — which, at the outbreak of the civil war between him and Pompey, formed the southern boundary of his province — virtually declared war against the republic. Hence the phrase, "to cross the *Rubicon*," has come to mean, to take an irrevocable step. The modern Luso, called by the peasants on its banks *Il Rubicone*, has claims to being considered the ancient Rubicon; but arguments preponderate in favor of the *Fiumicino.*

Rubicon, in *Michigan*, a township of Huron county

Rubicon, in *Wisconsin*, a small river flowing into Rock River from Dodge co.—A post village and township of Dodge co., about 39 miles north-west of Milwaukee.

Ru'bicund, *a.* [Lat. *rubicundus*, from *rubeo*: Fr. *rubicond*] Ruddy; inclining to redness; as, a *rubicund* nose.

Rubicund'ity, *n.* [L. Lat. *rubicunditas.*] State of being rubicund; ruddiness; disposition to redness; as, *rubicundity* of the face.

Rubid'ium, *n.* [From Lat. *rubidus*, red.] (*Chem.*) A metal much resembling *cæsium*, with which it was discovered in 1860, by Bunsen and Kirchhoff, during the analysis of a certain spring water which contained these metals in minute quantities (see CÆSIUM). *R* has since been found in small quantity in other mineral waters, in lepidolite, and in the ashes of many plants. This metal is closely related, in properties, to potassium, but is more easily fusible and convertible into vapor, and actually surpasses that metal in its attraction for oxygen, rubidium taking fire spontaneously in air. It burns on water with exactly the same flame as potassium. Its oxide, *rubidia* (RbO), is a powerful alkali, like potash, and its salts are isomorphous with those of potash. The double chloride of platinum and potassium, however, is eight times as soluble in boiling water as the corresponding salt of rubidium, which is taken advantage of in separating these two allied metals. *Equiv.*, 85. *Symbol*, Rb.

Rubific, *a.* [Lat *ruber*, red, and *facere*, to make.] Making red; as, *rubific* rays.

Rubification, (*-kā'shun,*) *n.* [Fr.] Act of making red or ruddy,

—That which reddens or makes rubicund.

Ru'biform, *a.* [Lat. *ruber*, red, and *forma*, form.] Possessing the form or properties of red; as, the *rubiform* rays of the sun.

Ru'bify, *v. a.* (*imp.* and *pp.* RUBIFIED,) (*rū'bi-fīd.*) [Fr. *rubefier*; Lat. *rubificare.*] To redden; to make red, ruddy, or rubicund.

Rubiginous, (*ru-bij'i-nus,*) *a.* [Fr. *rubigineux.*] Rusty; affected by rust; presenting rust.

Ru'binsk, or **Ry'binsk,** a town of European Russia, govt. of Jaroslav, on the Volga, 418 m. E.S.E. of St. Petersburg. It is the great centre of the corn trade of the Volga. *Pop.* 8,643.

Ru'bric, *n.* [Fr. *rubrique*; Lat. *rubrica*, from *rubric*, red.] In the language of the old copies of manuscripts and of modern printers, any writing or printing in red ink; the date and place in a title-page being frequently in red ink, the word *rubric* has come to signify the false name of a place on a title-page. Thus, many books printed at Paris bear the *rubric* of London, Geneva, &c

(*Law.*) The title of a statute; — so called as being formerly written in red letters.

(*Eccl.*) In MS missals, the directions prefixed to the several prayers and offices formerly written in red, — hence, an ecclesiastical or episcopal injunction; — also, the *rubric* familiarly signifies the order of the liturgy, in the Roman Catholic and Protestant Episcopal churches. — Hence, also, that which is definitely fixed, or authoritatively established; as, the *rubric* of the planetary system.

—*v. a.* To set forth in red; to rubricate. (R.)

Ru'bric, Ru'brical, *a.* Set forth in rubrics; colored in red.

—Pertaining, or relating, to the rubric or liturgy

Ru'bricate, *v. a.* [Lat. *rubricare, rubricatum.*] To mark with red; to set forth in red; to dispose, as in a rubric; to establish in a fixed or inflexible form; as, a *rubricated* system

—*a.* Distinguished with red; as, *rubricate* letters

Rubrician, (*ru-brish'yan.*) **Rubricist,** (*-sist,*) *n.* One learned in, or rigidly adhering to, the rubric.

Rubric'ity, *n.* Ruddiness; redness; rubicundity.

Rub'-stone, *n.* A whetstone. See RUB

Ru'bus, [Lat. *ruber*, red.] (*bot.*) The Bramble, a genus of the order *Rosaceæ.* Several species yield edible fruits. *R. idæus* is the Raspberry-plant (Fig 23), which is much cultivated in gardens. Raspberries are either red or amber colored, and have an agreeable sub-acid taste: they are much used for preserves and tarts, either alone or mixed with currants. *R fruticosus* produces the Blackberry, which children seek with such eagerness in hedges and thickets. *R. canadensis* yields the Dewberry so called from the dew-like bluish bloom which

covers the fruit. It abounds in dry, stony fields from Canada to Virginia, and its fruit is delicious. *R. chamæmorus* is the Cloud-berry. The root of *R. villosus* is much employed as an astringent in some parts of the American continent.

Fig. 2283. — DEWBERRY.

Ruby, (*rū'bē,*) *n.* [Fr. *rubis.*] (*Min.*) This term is applied popularly to two distinct minerals — the *pyrope* and the *spinelle ruby*, both of which are much valued as gems. The pyrope is a silicate of magnesia and alumina, with varying admixtures of iron, chromium, manganese, and lime. It occurs chiefly at Zöblitz, in Saxony; at Mittelgebirge, in Bohemia; and at Elie, in Scotland. The *spinelle ruby* and its varieties, the orange-red *rubicelle*, and the violet or brown *almandine*, are aluminates of magnesia, with different proportions of iron and chromium. They mostly occur in Ceylon at Ava, and in other parts of the East Indies. *R.* are wonderfully imitated.

—That which bears resemblance to a ruby; a red color; anything red or ruddy, as wine. — Hence, a grog blossom; a reddish blotch; a carbuncle.

"He is said to have *rubies* about his nose." —*Jones.*

(*Print.*) A kind of type smaller than Nonpareil, and next larger than Pearl; — so called in England; in the U. States it bears the name of AGATE, *q. v.*

—*v. a.* (*imp.* and *pp.* RUBIED,) (*rū'bēd.*) To redden; to make red; to rubefy. (R.)

—*a.* Of the color of the ruby; red; as, *ruby* lips.

Ruby, in *Michigan*, a post-village of St. Clair co., abt. 12 m. W.N.W. of Port Huron.

Ruby City, in *Idaho*, a village, former cap. of Owyhee co., about 60 m. S.W. of Boise City. There are rich gold and silver mines in the vicinity.

Ru'by-tail, *a.* Possessing a tail of a red or ruby color.

Ruby-tail fly. (*Zoöl.*) A name sometimes given to the insects comprising the family CHRYSIDIDÆ, *q. v.*

Ru'by-wood, *n.* (*Bot.*) Red-sanders wood. See PTEROCARPUS.

Ruche, Rouche, (*rōōsh,*) *n.* [Fr.] A kind of goffered quilling, made of blonde, net, ribbon, lace, &c., and chiefly used for trimming the inside of ladies' bonnets, flounces, &c.

—*v. a.* To trim or adorn with ruches.

Ruck, *v. a.* (*imp.* and *pp.* RUCKED,) (*rŭkt.*) [Icel. *hrukka*, to wrinkle.] To crease; to wrinkle; to draw into folds or plaits; to gather; as, to *ruck* up a carpet or piece of matting.

—*v. n.* To be drawn into wrinkles, puckers, or folds, as the sleeve of a coat. — To set, squat, or crouch, as a hen while hatching eggs; as, a *rucking* pheasant.

Ructation, (*ruk-tā'shun,*) *n.* [Fr., from Lat. *ructare*, to belch.] Act of eructating, or the belching of wind from the stomach.

Rud, *n.* [A. S.: W. *rhudd*, ruddy.] Blush; flush; redness; ruddy bloom. — Red ochre.

—*v. a.* To redden; to make ruddy. (R.)

Rudd, RUD, RED-EYE, *n.* [A. S. *rud.*] (*Zoöl.*) *Cyprinus erythrophthalmus.* a European fish of the family *Cyprinidæ*. It is 8 to 10 inches long, and is very common in lakes and rivers.

Rud'dell, in *Arkansas*, a township of Independence co.

Rud'der, *n.* [A. S. *rothere*, probably from *rowan*, to row; Ger. *ruder.*] (*Naut.*) Primarily, an oar; specifically, the instrument by which the ship is steered, being that part of the helm which consists of a piece of timber which enters the water, and is attached to the stern-post by hinges, on which it turns. The action of the *R.* may be thus explained. While it remains in line with the keel, the force of the water gliding past the dead-wood, or narrow portion of the stern, is equal on both sides of the *R.*, and equilibrium is maintained; but, if the rudder be forced to one side, the pressure is taken off on the opposite side, while from acting at a less angle the water exercises an increased pressure on the side to which the rudder is turned. The effect is to force the stern round on the centre of gravity as a pivot, the ship's head, of course, turning to the same side as that on which the *R.* is. When the head has sufficiently deviated from its former line, the *R.* is permitted to resume its straight position. In sailing on a wind, the *R.* is kept permanently on one side to counteract the tendency to make lee-way.

—Hence, analogically, that which resembles a rudder in guiding or governing properties.

Rud'der-coat, *n.* (*Naut.*) A covering of tarred canvas, used on shipboard to prevent water from getting in at the rudder-hole.

Rud'der-head, *n.* (*Naut.*) The upper part, or head, of the rudder-post, into which the tiller is inserted.

Rud'der-iron, (*-ī'ern,*) *n.* (*Naut.*) Same as PINTLE, *q. v.*

Rud'derless, *a.* Without a rudder: as, a *rudderless* ship;—hence, by analogy, without government or guidance; as, a *rudderless* state.

Rud'der-nail, *n.* (*Naut.*) A nail serving to secure the pintle to the rudder.

Rud'der-pendants, *n. pl.* (*Naut.*) Strong pieces of rope, ending in chains, by which the rudder, if unshipped, is held to the ship's quarter.

Rud'der-stock, *n.* (*Naut.*) The main part of the rudder, connected by irons to a ship's stern-post.

Ruddied, (*rŭd'ēd,*) *a.* Made red or ruddy.

Rud'diness, *n.* State or quality of being ruddy; redness, or, rather, a lively flesh-color; that degree of redness which characterizes high health; as, "The *ruddiness* upon his lip is wet."—*Shaks.*

Rud'dle, *n.* [W. *rhuddel.*] (*Min.*) Red ochre.

Rud'dle-man, *n.*; *pl.* RUDDLEMEN, *n.* A digger of ruddle.

Rud'dock, Rud'dock, *n.* [A. S. *ruddoc.*] (*Zoöl.*) The Robin-redbreast. — That which is red or ruddy, as a gold coin.

Rud'dy, *a.* (*comp.* RUDDIER; *superl.* RUDDIEST.) [A. S. *rude, read, read.* See RED.] Red; of a red color. — Of a lively flesh-color, or the color of the human skin in perfect health; as, a *ruddy* complexion. — Of a color resembling reddish-yellow; as, a crown of *ruddy* gold.

—*v. a.* To redden; to make ruddy.

Rude, *a.* (*comp.* RUDER; *superl.* RUDEST.) [Fr.; Lat. *rudis.*] Characterized by rudeness or roughness; crude; raw; coarse; unpolished; destitute of refinement or delicacy; as, *rude* art, *rude* work. — Hence, specifically, (1.) Unformed by art, taste, or skill; having roughness; not elaborated in surface or appearance; not smooth or polished; — applied particularly to material things; as, *rude* workmanship, *rude*, unwrought stones, &c. — (2.) Coarse; impudent; uncivil; impolite; ignorant; unpolished; unrefined; vulgar; raw; of coarse, clownish, untaught manners; — said of persons, behavior, application, &c.; as, *rude* in speech, a *rude* fellow, *rude* in one's profession, &c. — (3.) Tumultuous; violent; boisterous; turbulent; inclement; severe; — said of the weather, winds, &c.; as, *rude* winter. — Barbarous; uncivilized; undisciplined; as, *rude* aborigines. — Fierce; bloody; savage; as, *rude* warfare. — Rough; coarse; rugged; inelegant; wanting in good taste, or lacking chasteness or elegance; incorrect or faulty in style or treatment; as, a *rude* language, a *rude* composition, a *rude* translation.

Rude'ly, *adv.* In a rude manner; with roughness or crudity; violently; fiercely; tumultuously; without exactness or nicety; coarsely; unskillfully; without polish or elegance; as, a building *rudely* constructed, work *rudely* performed, a woman *rudely* assaulted, advances *rudely* repulsed, language *rudely* spoken, &c.

Rude'ness, *n.* Quality or condition of being rude; a rough, raw, or broken state; unevenness; wildness; coarseness of speech or manners; incivility; rusticity; vulgarity; ignorance; unskilfulness; coarseness; inelegance; violence; impetuosity; storminess; as, the *rudeness* of a people, a country, a building, a storm, an attack, manners, speech, workmanship, &c.

Rudenture, (*rū'den-tūr,*) *n.* [Fr., from Lat. *rudens*, a rope.] (*Arch.*) The figure of a rope or staff, sometimes plain, sometimes carved, with which the third part of the flutings of columns are frequently filled up.

Ru'diment, *n.* [Fr., from Lat. *rudimentum*, from *rudis.*] The original of anything in its first imperfect form or state; the principle which forms the germ of any development; the unshaped beginning of anything.

"Moss is but the *rudiment* of a plant."—*Bacon.*

—A first principle or element; that which is to be first learned or acquired;—hence, plurally, the first elements or principles of a science or art; elementary instruction; as, to study the *rudiments* of a language.

(*Nat. Hist.*) An imperfectly-formed organ.

Rudimen'tal, Rudimen'tary, *a.* Pertaining or relating to, or consisting in, first principles; initial; as, *rudimentary* forms, *rudimental* essays.

(*Nat. Hist.*) In embryo; imperfectly developed.

Rud'ish, *a.* Somewhat, or more or less, rude; as, *rudish* language, *rudish* workmanship, *rudish* weather.

Ru'dity, *n.* [Lat. *ruditas*, from *rudus*, rude, ignorant, illiterate.] State or condition of being rude; rudeness; illiterateness; ignorance. (R.)

Ru'dolph. See RODOLPH.

Rudolph, in *Wisconsin*, a post-township of Wood co. *Pop.* (1897) 1,140.

Rudolstadt, (*roo'dol-stat,*) a town of Germany, on the Saale, 18 m. S. of Weimar: *pop.* 6,000.

Rue, (*rōō,*) *v. a.* [A. S. *hreowan*· Ger. *reuen.*] To lament: to deplore; to regret; to grieve for; as, he *rued* the day he first met with her. — To cause to grieve; to afflict; to make sorrowful. — To repent and get quit of, as a bargain. (Prov. Eng.)

—*v. n.* To sorrow; to have compassion. (R.)

Rue, (*rōō,*) *n.* [Fr.] (*Bot.*) See RUTA.

Rue'ful, *a.* [*rue* and *full.*] Woful; mournful; doleful; sorrowful: lamentable; piteous; as, a *rueful* event. — Marking or expressing sorrow or dole; as, a *rueful* voice, a *rueful* cast of countenance.

Rue'fully, *adv.* Dolefully; mournfully; sorrowfully.

Rue'fulness, *n.* State or quality of being rueful; dolorousness; mournfulness; lamentableness; sorrowfulness.

Rueil, (*roo'ail,*) a town of France, dept. of Seine-et-Oise, at the base of Mont Valerian, 5 m. W. of Paris; *pop.* 5,000.

Ru'ell-bones, *n. pl.* (*Archæol.*) Small rings or studs of bones, &c., affixed to the girdle or head-dress.

Rufescent, (*ru-fĕs'sent,*) *a.* [Fr., from Lat. *rufescere*, to grow reddish, from *rufus*, red.] Tinged with red; rubescent; reddish.

Ruff, *n.* [Armor. *roufen*, a wrinkle, a ply.] A piece of plaited or goffered linen worn around the neck;—specifically, the large, puckered collar of lace or muslin worn around the neck by both sexes at the close of the 16th and beginning of the 17th centuries. See Fig. 930. — Something puckered, plaited, or fluted, like the collar bearing the same name; as, a paper *ruff.* — Manifestation of pride, pomp, or haughtiness. — Tumultuous behavior; noisy or rackety course of procedure: as, a riotous *ruff.* (*Lutimer.*) — The low rumbling beat of a drum, not so noisy as a roll; a ruffle.

(*Mach.*) An annulated ridge formed on a shaft, or other piece of machinery, to prevent it from moving endwise.

(*Zoöl.*) A genus of birds, family *Scolopacidæ*. The Ruff, *Philomachus pugnax*, is a bird of a very pugnacious character, the female of which is called the *Reeve*. It is about a foot in length, and is principally distinguished by a very remarkable circle of long feathers round the neck, whence it receives its name: in some birds these feathers are black, in others white, yellow, or terruginous: and even in the same bird they frequently differ in color. It is only the male, however, that is furnished with this appendage, which he does not gain till the second year. These birds are migratory, and, though native of Europe, they are so often killed on Long Island, that they may properly be ranked among N. American birds.

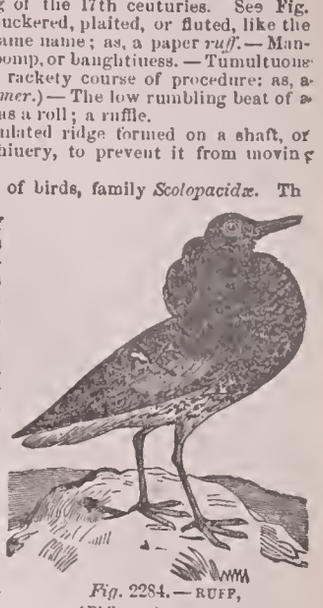


Fig. 2284. — RUFF, (*Philomachus pugnax.*)

(*Games.*) A game of cards, formerly in favor, and the immediate precursor of whist:—also, in card-playing, the act of trumping, instead of following suit.

—*v. a.* To ruffle; to crumple; to set in disorder. — To beat with the *ruff*, as a drum.

(*Games.*) In whist, &c., to trump, as a card, instead of following suit; as, to *ruff* an opponent's lead when second player.

(*Falconry.*) In hawking, to strike, as the quarry, without fixing it.

Ruffed, (*rŭft,*) *a.* Adorned with a ruff.

Ruffec, (*roof'fek,*) a town of France, dept. of Charente, 25 m. N. of Angoulême; *pop.* 4,000.

Ruffed Grouse, *n.* (*Zoöl.*) See GROUSE.

Ruffian, (*rŭf'fi-an,*) *n.* [Fr. *rufien*; It. *ruffiano*, a pimp; L. Lat. *ruffiani*, panders; A. S. *reafian*, to plunder. According to Du Cange, frequenters of *ruffæ*, loose women, who wore red or yellow, whereas matrons wore black.] A low, boisterous, brutal fellow; a man fitted for the commission of any desperate crime or savage act; a desperado; a rowdy; a robber; a cut-throat; a vicious, irreclaimable bully and blackguard.

—*a.* Brutal; rowdy; viciously boisterous; savage; as, *ruffian* rage.

Ruf'fianish, *a.* Like a ruffian; having the qualities, manners, or characteristics of a ruffian; as, *ruffianish* conduct.

Ruf'fianism, *n.* Act, conduct, or qualities of a ruffian; rowdyism; brutal blackguardism; unmitigated scoundrelism.

Ruf'fian-like, Ruf'fianly, *a.* Like, or after the manner of, a ruffian; viciously bold or boisterous in crime or conduct; violent; licentious; as, *ruffianly* behavior.

Ruffle, *v. a.* [Du. *ruyfelen.*] To pucker; to corrugate; to draw or contract into wrinkles, open plaits, or folds. — To furnish or adorn with ruffles; as, to *ruffle* the bosom of a shirt. — To disorder by disturbing a smooth surface; to make undulating or uneven by agitation or commotion. — To discompose by disturbing a calm state of; to agitate; to disturb; to vex; as, something has *ruffled* his temper. — To fling into disorder or confusion; as, a *ruffled* foe. — To throw together promiscuously or disorderly; as, to *ruffle* up acorns in a heap.

—*v. n.* To become rough, turbulent, or boisterous. (R.)

"The rising winds a *ruffling* gale afford." — *Dryden.*

—To float loosely; to flutter, as a horse's mane in the wind. — To jar; to be in altercation or contention; — hence, to swagger; to put on jaunty airs; to play the gallant.

—*n.* That which is ruffled; —specifically, a strip of plaited cambric, linen, or other fine cloth, attached to some border of a garment, as to the wrist-band or shirt-bosom; a frill. — State of being ruffled, agitated, or disturbed; commotion; excitement; agitation; as, to put the mind in a *ruffle*.

Ruffle of a boot, the top turned down, and plaited or scolloped.

Ruffle, *n.* (*Mil.*) A ruff.

—*v. a.* (*Mil.*) To beat with the ruffle, as a drum.

Ruffleless, *a.* Without ruffles; as, a *ruffleless* wristband.

Ruf'flement, *n.* Act of ruffling.

Ruffler, *n.* A swaggering bully; a noisy braggadocio; a roisterer; a swashbuckler; a desperado; a ruffian.

Ru'fous, *a.* [From Lat. *rufus*, red.] Of a brownish or russet-red color.

Ruft, *n.* Eructation; belching.

Rug, *n.* [A. S.] A rough, coarse, nappy, or shaggy textile material, used variously, as for the covering of a bed; as, a blanket *rug*; for protecting the carpet

before a fire-place; as, a hearth-*rug;* for guarding the legs against the cold when riding or travelling; as, a railway *rug;* anything of a warm, woolly substance and coarse texture, serving for purposes of rest and covering; as, "to sleep as snug as a bug in a *rug*." (*Old saying.*)—A shaggy, hirsute dog; as, "a water *rug*." *Shaks.*

—*v. a.* To despoil; to plunder; to reave. (A Scotticism.)

Ru'gate, *a.* [Lat. *rugatus*, from *ruga*, a wrinkle.] Wrinkled; puckered; having alternate ridges and hollows.

Rug'by, a town of England, co. of Warwick, on the Avon, 28 m. E.S.E of Birmingham, and 75 m. N.W. of London; famous for its great public school, esteemed one of the first in England; *pop.* 7,818.

Rugeley, (*rūj'ĭ,*) a town of England, co. of Stafford, on the Trent, 8 m. E.S.E. of Stafford; *pop.* 4,362.

Ru'gen, an island in the Baltic, belonging to Prussia, opposite Stralsund, separated from Pomerania by a narrow channel, between 1½ and 2 m. in breadth; Lat. 53° 41′ 12″ N., Lon. 13° 31′ 27″ E; *area*, 386 sq. m. It is fertile and well wooded. *Prod.* Corn; and numerous cattle are raised. *Cap.* Bergen. *Pop.* 46,746.

Rugenwalde, (*roo'gen-wald.*) a town of Prussian Pomerania, on the Wipper, 20 m. N.N.E. of Kosliu; *pop.* 5,000.

Rug'ged, *a.* [From the root of *rug*, *rough*, q. v.] Full of superficial asperities; broken into sharp, or irregular points or crags, or otherwise jagged or uneven; rough; as, a *rugged* country, a *rugged* road, a *rugged* bark.—Uneven; not neat or regular; as, a *rugged* mane, a *rugged* beard.—Rough with hair or stiff points; unevenly hirsute; shaggy; as, a *rugged* bear.—Rough in temper, character, or manner; harsh; hard; rigid; austere; as, a person of a *rugged* nature.—Stormy; turbulent; tempestuous; as, *rugged* winds, *rugged* weather, *rugged* seasons.—Rough to the ear; strident; grating; harsh; dissonant; as, a *rugged* line in poetry.—Sour; surly; crabbed; puckered; wrinkled; frowning; as, *rugged* looks, a *rugged* visage.—Robust; hearty; hardy; vigorous; as, a *rugged* physique. (An American colloquialism.)

(*Bot.*) Scabrous, as a leaf or stem.

Rug'gedly, *adv.* In a rough or rugged manner.

Rug'gedness, *n.* State or quality of being rugged; roughness; asperity of surface; roughness of temper; surliness; harshness; storminess.

Rug'ging, *n.* A coarse cloth, for wrapping-blankets, &c.

Rug'gles, in *Ohio*, a post-township of Ashland co. *Pop.* (1897) 695.

Rug'-gown, *n.* A gown of coarse material.

Rugine, (*ru'jeen,*) *n.* [Fr., from Lat. *runcina*, a plane.] An instrument used for rasping bones to detach the periosteum, either in certain surgical operations or for anatomical purposes.

—*v. a.* [Fr. *ruginer.*] To scrape; to rasp. (R.)

Rugolose', *a.* [From Lat. *ruga*, a wrinkle.] Partially wrinkled.

Rugose, Rugous, (*ru-gōs',*) *a.* [Lat. *rugosus*, from *ruga*, a wrinkle.] Wrinkled; full of wrinkles; rough with wrinkles; as, the *rugose* bark of an oak-tree.

(*Bot.*) Covered with reticulated lines separated by convex spaces, as the leaves of sage.

Rugos'ity, *n.* [Fr. *rugosité;* Lat. *rugositas.*] State of being rugose or wrinkled.

Ru'gous, *a.* Same as RUGOSE, *q. v.*

Ruhmkorff's Coil, *n.* (*Elect.*) See INDUCTION.

Ru'in, *n.* [Fr. *ruine*, from Lat. *ruina*, from *ruo, rutum*, to rush down.] That change of anything which destroys it, or entirely defeats its object, or unfits it for use; destruction; prostration; subversion; overthrow; defeat; as, the *ruin* of a cause or country, the *ruin* of one's hopes or expectations, &c.—The state of being decayed, or having become valueless; as, he has gone to *ruin*, a building in *ruins*, &c.—That which decays, deteriorates, or destroys; mischief; bane; pest; as, drink was the poor fellow's *ruin*.

—*pl.* The remains of a decayed or demolished city, house, fortress, or any work of art or other thing; also, the decayed or enfeebled remains of a natural object; as, the *ruins* of Iona, the *ruins* of an originally fine constitution, &c.

—*v. a.* [Fr. *ruiner.*] To bring to ruin; to pull down, burn, or otherwise destroy; to subvert; to demolish; to bring to an end; to counteract; to defeat; to deprive of felicity or fortune; to impoverish; to bring to everlasting misery; to damage irretrievably; to cause to perish; as, he was *ruined* by his wife's extravagance, a *ruined* girl, a *ruined* temple, &c.

—*v. n.* To perish; to become decayed or dilapidated; to fall in ruins. (R.)

"If we are idle . . we shall *ruin* the faster."—*Locke.*

Ru'inable, *a.* That may be ruined; susceptible of ruin.

Ru'inate, *a.* Ruined; involved in ruin.

Ruination, (*-ā'shun,*) *n.* [L. Lat. *ruinatio.*] Utter ruin; subversion; demolition;—used colloquially; as, this would be the *ruination* of everybody.

Ru'iner, *n.* One who ruins, subverts, or destroys.

Ru'iniform, *a.* [Fr. *ruiniforme*, from Lat. *ruina*, and *forma*, form.] Having resemblance to ruins, or to the ruins of houses;—said of certain minerals.

Ruinous, (*ru'in-us,*) *a.* [Fr. *ruineux;* Lat. *ruinosus.*] Entirely gone to decay; dilapidated; demolished; fallen to ruin; as, a building, bridge, &c., in a *ruinous* state.—Bringing, or tending to bring, certain ruin; pernicious; destructive; baneful; as, a *ruinous* storm, *ruinous* expenditure, a *ruinous* sacrifice, the *ruinous* practice of gambling, &c.—Composed of, or consisting in, ruins; as, a *ruinous* heap.

Ru'inously, *adv.* In a ruinous manner; destructively; perniciously; as, he is *ruinously* addicted to women.

Ru'inousness, *n.* A ruinous state or quality.

Rukh, (*rŏk,*) *n.* See ROC.

Rul'able, *a.* That may be ruled; susceptible of, or subject to, rule; in conformity with, or accordant to, rule; as, a *ruluble* temper or disposition.

Rule, *n.* [Fr. *règle;* Lat. *regula*, a ruler, from *rego*, to keep or lead in a straight line.] An instrument by which lines are drawn, or short lengths measured; as, a carpenter's *rule.*—Supreme command or authority; government; empire; sway; control; power.

—That by which anything is to be adjusted or regulated, or to which it is to be conformed; that which is established for guidance and direction in anything; a regulation; a direction; a precept; a statute; a law; a canon; a maxim; an order; a method; a uniform course of things; as, *rules* and regulations for the maintenance of public order.—Established mode or course of procedure prescribed in private life; order; method; as, he makes it a *rule* to rise early, to live by *rule*, &c.

(*Law.*) An order of one of the three superior courts of common law. Rules are written *general* or *particular;* the former being such orders relating to matters of practice as are laid down and promulgated by the court for the general guidance of the suitors; the latter are such orders as are confined to the particular case in reference to which they have been granted. The term is often used generally to denote a legal doctrine.

(*Eccl.*) In a monastic sense, a system of laws and regulations by which monasteries and other religious houses are governed, and which the monks, nuns, and novices vow, on their entrance, to observe.

(*Arith.*) A certain prescribed series of numerical operations, adapted to discover, from the given conditions to which an unknown number is subjected, what that number is. They are generally distinguished by particular names, according to the purposes for which they are given, or the particular nature of the business for which they are required; as, the *rules* of interest, the *rules* of fellowship, &c.

Rule of Three. (*Arith.*) The rule by which, when three numbers are given, a fourth is to be found, so that the four shall be in direct or inverse proportion, as the case may require.

(*Building.*) A term applied to the screeds, or portions of plastering executed on the face of a wall for the purpose of floating the works in order to retain their perpendicularity, or their evenness of surface.

(*Fine Arts.*) Those laws and maxims, founded on the general and fundamental truths of nature, by which artists are guided in their compositions.

(*Gram.*) The statement of a general law, or analogy, in respect to the forms of words, the construction of sentences, the dependence which one word or one sentence has over another, &c.—*Worcester.*

Brass rules. (*Print.*) Pieces of brass of different thicknesses, made letter-high, to print with type.

—*v. n.* To bring into and keep in a straight line; to mark with lines by a ruler; as, to *rule* a sheet of paper.

—To regulate; to direct; to govern; to control, as the will and actions of others, either by arbitrary power and authority, or by established laws; to manage or conduct in almost any manner; as, to *rule* a state, a people, a wife, or one's self.

"A wife who, while she *rules* him, never shows she *rules*."—*Pope.*

—To settle, as by a rule; to establish by decree or decision; to lay down, as an imperative condition of obligation.

(*Law.*) To command by rule; to enter a rule against; to determine judicially or magisterially; as, his honor *ruled* that an appeal be granted.

—*v. n.* To have power, command, or control; to exercise supreme authority;—generally preceding *over.*

(*Law.*) To decide; to lay down and settle, as a *rule* or order of the court to enter a *rule.*

(*Com.*) To maintain an average; as, cotton *rules* a cent per pound higher than yesterday's quotations.

Rule'less, *a.* Without rule;—hence, lawless.

Rul'er, *n.* A rule; an instrument of wood or metal with straight edges or sides, by which lines are drawn; a rule.—One who rules or governs; any one who exercises supreme power over others; one who makes or executes laws in a limited or free government.

"O Winter, *ruler* of the inverted year."—*Cowper.*

Rul'ing, *p. a.* Marking with lines, or as with a ruler.—Having predominance or control; governing; reigning; as, a *ruling* monarch, a *ruling* passion, a *ruling* feature.

Rul'ingly, *adv.* In a ruling manner; with authority; so as to control.

Rullichies, (*rŭl'li-chĭz,*) *n. pl.* [Du.] Chopped meat stuffed into small bags of tripe, which are cut in slices and fried.

Rulo, in *Nebraska*, a post-village and township of Richardson county, about 14 miles N.W. of Iowa Point, Kansas.

Rulsk, or **Rylsk,** a town of Russia, govt. of Kursk, 62 m. W.S.W. of Kursk; *pop.* 6,000.

Rum, *n.* [A word of West Indian origin.] A spirituous liquor distilled from cane-juice, or from the skimmings of the juice from the boiling-house, or from the molasses which drains from sugar. This liquor is made in its greatest purity in the W. Indies and at Demerara; it is also distilled in the United States. Its flavor is due to the presence of a peculiar volatile oil, and its average proportion of alcohol fluctuates between 50 and 56 per cent.—Also, in the U. States, a cant term for rye whisky.

—*a.* [Low Ger. *rummel*, lumber.] Odd; queer; quaint; old-fashioned; as, a *rum* old fellow, he's a *rum* customer, &c.

Ru'ma, in *Illinois*, a post-village of Randolph co., abt. 14 m. N. of Kaskaskia.

Rum'ble, *n.* [O. Fr. *rommeler;* Du. *rommelen;* Ger. *rummeln.*] A hoarse, low, heavy, continued sound; as, the *rumble* of thunder at a distance.—A seat for servants behind a carriage.

—*v. n.* To make a low, heavy, repeated sound; as, the *rumbling* of an earthquake.

Rumbler, *n.* One who, or that which, rumbles.

Rumblingly, *adv.* In a rumbling manner.

Rum'-bud, *n.* A grog-blossom; a fiery eruption on the face, caused by excessive drinking of bad liquors; a ruby on the nose.

Rumburg, (*room'boorg.*) a town of Bohemia, 42 m. N.N.W. of Buntzlau. *Manuf.* Woollens, linens, cottons, and damask. *Pop.* 5,000.

Ru'men, *n.* [Lat., the throat.] The upper stomach of ruminant animals.—The cud of a ruminant animal.

Rumex, *n.* (*Bot.*) A gen. of plants, ord. *Polygonaceæ*, including the different kinds of Sorrel and Dock. Several species possess acid properties, owing to the presence of oxalic acid, especially *R. acetosa*, the common Sorrel, *R. acetosella*, *R. scutatus*, *R. patientia*, and *R. pulcher*, the Fiddle-dock. They have been employed as pot-herbs and for salads. In France, the first species is largely cultivated, a sauce made from it being a regular addition to many dishes. It is sometimes used medicinally, for its refrigerant, diuretic, and antiscorbutic properties. The root of *R. hydrolapathum*, the great Water-dock, is a stringent and antiscorbutic; that of *R. alpinus* is purgative, and was formerly used as a substitute for rhubarb, under the name of *Monk's rhubarb.*

Rumford, BENJAMIN THOMPSON, COUNT, an American natural philosopher and philanthropist, b. at Woburn, Mass., 1753, was at first engaged in mercantile pursuits, afterwards studied medicine, and then became a schoolmaster at Rumford, in New Hampshire. In the contest between England and America he espoused the royal cause, and, having married a wealthy widow, was enabled to raise a regiment of dragoons. He repaired to England in 1784, and was created a knight. Afterwards, proceeding to Bavaria, he obtained a distinguished position in the service of that state, where he was engaged in several schemes of social amelioration, and was created a lieutenant-general and a count, taking his title from Rumford, now Concord, N. H. About 1797, he returned to England, where he distinguished himself by his experiments in the science of natural philosophy, and in assisting to found the Royal Institution. In 1802, he took up his residence at the French capital, where he married his second wife, the widow of the celebrated chemist Lavoisier. After being separated from this lady, he fixed his residence near Paris, and remained there until his death. In Bavaria and in England, he projected many important improvements in social economy, accounts of which are contained in his *Essays Political, Economical, and Philosophical.* His projects for relieving the condition of the poor were as sound as they were benevolent. As a philosopher, his fame partly rests upon his papers on natural philosophy and mechanics, contributed to the "Transactions of the Royal Society. He left a fund for awarding Medals for important discoveries, called the "R. Medal." *D.* near Paris, 1814.

Ru'minal, *a.* Ruminant. (R.)

Ruminant, *a.* [Fr.; Lat. *ruminans—rumino*, from *rumen*, the gullet.] Chewing over again;—specifically, chewing the cud; having the property of chewing again what has been swallowed; as, oxen are *ruminant* beasts.

—*n.* One of the Ruminantia.

Ruminan'tia, *n. pl.* [Lat.] (*Zoöl.*) A name applied by Cuvier to those even-toed or artiodactyl ungulates which "chew the cud," that is, masticate a second time their food, which they return into the mouth after a previous deglutition—a power which is the result of the structure of their stomachs, of which they always have four. The animals possessed of this power have nearly all the air of being constructed on the same model, the camels alone presenting some small exceptions to the common character. The first of these characters, according to Cuvier, is the possession of incisor teeth in the lower jaw only, these being nearly always eight in number, and replaced above by a callous rim. Between the incisors and the molars is a wide space, where are found, in one or two genera only, one or two canines. The molars, nearly always six in number on each side of the upper and lower jaws, have their crowns marked with two double crescents, the convexity of which is turned inwards in the upper, and outwards in the lower teeth. The four feet are terminated by two toes and two hoofs, which oppose to each other a flattened surface, so that they have the appearance of a single hoof which has been split. The first stomach is much the largest in the adult animal, but not so in the recently-born calf or lamb. It is divided outwards into two bag-like appendages at its extremity, and it is slightly separated into four parts on the inside. The internal coat of the stomach is beset with innumerable flattened papillæ. It is very capacious, and fitted to receive a large quantity of grass, or other matter on which the animals feed; but no gastric fluid, or any other solvent fluid, enters it, and thus it is simply a receptacle. From this stomach the herbage, rudely broken up by the first mastication, is transferred to the second stomach, or "king's-hood," which is of a very peculiar construction. It is very muscular in its walls, and the interior of it consists of cells, which are larger or smaller, according to the size of the animal and the nature of the food upon which it habitually subsists. The walls of these cells have the faculty of standing erect at the same time that there is a vermiform or twisting motion of the entire organ. By means of these cells and this motion, the food is compressed into small balls, which are one by one returned to the mouth for remastication.

During this operation, the animal remains in a state of repose until all the herbage swallowed has undergone the action of the molar teeth a second time. The aliment thus remasticated is passed into the third stomach, or "manyfold;" so called because it consists of parallel laminæ, bearing some resemblance to the leaves of a book, which lie lengthwise, and vary in breadth in regular alternate order, amounting to some forty in the sheep, and about a hundred in the cow. This is the stomach in which the drink of the animal mingles with its food. From the "manyfold," the food and drink, combined and reduced to a pulp, upon which the real digestive process can be exercised, are conveyed to the fourth, or truly digestive stomach of the animal, which is the only one that secretes gastric juice, and is commonly known by the name of "the red." It is next in size to the first stomach, or *paunch*, of an elongated, pyriform shape, and with an internal villous coat, similar to that of the human stomach, with large longitudinal wrinkles. The *R.* may be divided into three great groups: those with solid and usually deciduous horns, as the deer, and called the *Cervidæ*, or Deer family; those with permanent horns, consisting of an exterior hollow horn, encasing a bony process of the skull, as the antelopes, goats, sheep, and oxen, and called the *Cavicornia* family; and those which have no horns, as the camels and llamas, and called the *Camelidæ*, or Camel family.

Ru'minantly, *adv.* By chewing over again; in a ruminant manner.

Ru'minate, *v. a.* [Fr. *ruminer;* Lat. *rumino, ruminatus*, from *rumen*, the gullet.] To repass the food from the stomach through the gullet, for the purpose of chewing it over again; to chew the cud; to chew again what has been slightly chewed and swallowed. — To nurse; to meditate; to ponder; to think again and again; as, he *ruminates* on the past.

—*v. n.* To chew over again. — To meditate upon over and over again.

"Mad with desire, she *ruminates* her sin."—*Dryden.*

Ru'minate, Ru'minated, *a.* [Fr. *ruminé.*] (*Bot.*) Having a hard albumen, as the nutmeg and some other seeds, penetrated by irregular channels filled with softer matter.

Rumination, (*-ā'shun,*) *n.* [Fr.; Lat. *ruminatio.*] Act of ruminating, or of chewing the cud; power or property of chewing over again. — A pleasing or continued thinking on a subject; deliberate meditation or reflection; state of being disposed to ruminate.

Ru'minator, *n.* [Lat.] One who ruminates, muses, or meditates.

Rumley, in *Ohio*, a township of Harrison co.; *pop.* abt. 1,600.

Rummage, (*rŭm'dj.*) *n.* [From *room;* formerly *romage*, to find room or space for.] A searching carefully by prying into every corner, and by tumbling things over; as, to make a *rummage* among odds and ends.

Rummage sale. A clearance sale of unclaimed goods in a public store, or of odds and ends which have accumulated in a shop.

—*v. a.* To search scrutinizingly by looking into every corner of, and turning over or removing first one thing and then another.

"Our greedy seamen *rummage* every hold."—*Dryden.*

(*Naut.*) To remove, as goods or baggage, from one place to another, especially from the ship's hold, in order to their being handsomely stowed and placed.

—*v. n.* To search a place narrowly by looking among things; as, he often *rummages* for old hooks.

Rummager, *n.* One who rummages.

Rummer, *n.* A goblet; a drinking-cup; as, fill me a *rummer* of punch.

Rummy, *a.* Pertaining, or relating, to rum; as, a *rummy* flavor; — hence, hilarious; jovial; companionable; as, a *rummy* fellow.

—*n.* One who drinks rum; a toper; a tippler: one who does not adulterate his dram of spirits with water. (A colloquialism.)

Rumney, in *New Hampshire*, a post-village and township of Grafton co., abt. 50 m. N.N.W. of Concord; *pop.* abt. 1,200.

Rumor, *n.* [Fr. *rumeur*, from Lat. *rumor.*] Flying or popular report; a current story passing from mouth to mouth, without any known authority for the truth of it; as, there ran a *rumor* of his death. — Report of a fact; a story well authenticated; as, "this *rumour* of him went forth." (*Luke* vii. 27.) — Fame; reputation; reported celebrity.

"Great is the *rumour* of this dreadful knight."—*Shaks.*

—*v. a.* (*imp.* and *pp.* RUMORED, or RUMOURED,) (*ru'mord.*) To report; to tell or circulate a report; as, it is *rumored* that she is about to be married.

Rumorer, *n.* One who circulates rumors. (R.)

Rump, *n.* [Ger. *rumpf*, probably from Lat. *rumpo, ruptus*, to break.] The termination of the backbone of an animal, with the parts adjacent. — The buttocks.

The Rump, or *Rump Parliament.* (*Eng. Hist.*) The remnant, or fag-end, of the Long Parliament, which was assembled on the 6th of May, 1659, and dissolved on the 15th of October, in the same year; — so called from the general contumely and derision with which it was treated by the English nation at large.

Rump'er, *n.* One who had been a member of the Rump Parliament.

Rump'-fed, *a.* Fat in the breech; fed or fattened in the rump.

Rum'ple, *v. n.* [Du. *rimpelen;* Ger. *rümpfen*, to become crumpled.] To wrinkle: to crumple; to make uneven; to form into creases or irregular inequalities; as, *rumpled* paper.

—*n.* [A. S. *hrympelle.*] A wrinkle; a pucker; a rimple; a fold or plait.

Rump'less, *a.* Short of a rump; destitute of buttocks; as, a *rumpless* chicken.

Rump'-steak, (*-stāk,*) *n.* A choice quality of beefsteak, cut from the thigh near the rump; as, he dined off *rump-steak*, with oyster sauce.

Rum'pus, *n.* Noise and confusion; a commotion; a disturbance; a row; a racket; a shindy; as, to kick up a *rumpus.* (Colloq.)

Rumsey, in *Kentucky*, a post-village of McLean co., abt 160 m. S.W. of Frankfort.

Rum'-swizzle, (*-swiz'zl,*) *n.* A kind of fabric made in Dublin from undyed foreign wool, which possesses the property of resisting wet, while having the qualities of common cloth.

Run, *v. n.* (*imp.* RAN or RUN; *pp.* RUN.) [A. S. *rennan;* Ger. *rinnen;* Saus. *rn, run*, to go.] To go, move, or pass with a lighter or more rapid gait than by walking; to go or move in a quick, hurried manner; to step quickly or with alertness; — hence, in application to inanimate things, to move freely and rapidly, to proceed without let or hinderance.

—To move, pass, or go; — expressing voluntary or personal action; as, (1) to hurry; to hasten; — particularly, in circumstances of alarm or danger; as, she *runs* about with the sad story. — (2.) To retreat; to flee; to withdraw; — implying a sense of confusion or disorder; as, the troops fairly *run* away. — (3.) To quit clandestinely; to steal off; to depart; as, that apprentice has *run* from his master. — (4.) To enter into a contest; to become a candidate or competitor; as, to *run* for governor of a State. — (5.) To become; to change one state for another; as, to *run* into dissipation or debt. — (6.) To exercise unremitting activity; to proceed; to go on with; as, he *runs* through his fortune rapidly. — (7.) To pass in meditation or conversation from one theme or subject to another; as, to *run* into a dissertation irrelevant to the case in point. — (8.) To debate or discuss; to continue to think or speak about some matter; as, he still *runs* on his old idea. — (9.) To demand instant payment; — implying numerous demands; as, they *run* on the bank without intermission. — (10.) To creep or crawl, as lizards, &c.

—To pass; to go; to be moved; — expressing involuntary motion; as, (1.) to flow, as a liquid; to tall, as a stream; as, the wine *runs* round rapidly, ice *runs* when dissolved. — (2.) To spread; to extend; to embrace a certain surface; as, fire *runs* far among dry timber. — (3.) To fuse; to melt: to come into a state of fluidity; as, certain ores *run* freely in process of smelting. — (4.) To revolve on an axis, or a centre or pivot; to describe revolutions; as, a wheel *runs* almost imperceptibly round. — (5.) To exercise action on wheels or runners; as, an express-train on English railroads *runs* sixty miles an hour. — (6.) To reach; to pass through, or extend over a period of time; as, my recollections *run* back to boyhood. — (7.) To go to and fro, as from one place to another: as, the tidal steamers *run* from Dieppe to New-haven, and *vice versâ*. — (8.) To proceed; to pass; to undergo progression; as, time *runs* swiftly by. — (9.) To be sustained or kept in action or motion; to continue in active application; as, the engine *runs* night and day. — (10.) To be inclined to a certain course or direction; as, a line *runs* north or south. — (11.) To be formed thus, as a combination of words:

"The king's ordinary style *runneth*, 'Our sovereign lord the king.'"—*Sanderson.*

—(12.) To have general acceptation; to be publicly or popularly known; as, he *runs* on the prestige of his political bias. — (13.) To undergo growth or development; as, girls *run* to puberty before boys. — (14.) To tend; to have result or consequence; to incline; as, his taste *runs* to literature. — (15.) To combine; to unite: to become blent together; as, the colors of this print will *run* in the washing. — (16.) To continue in force, effect, or operation; to attach; to follow; to join in company; as, mortgages *run* with the estate. — (17.) To hold good; to remain without falling due; as, my note of hand has still ten days to *run*. — To suppurate; to exude pus or matter; as a bubo *runs*.

To let run. (*Naut.*) To slacken or let loose; to permit to pass or move freely; as, *let run* the guy. — *To run after.* To pursue, chase, or follow; to search or seek for; to endeavor to obtain; as, to *run after* a good-looking girl. — *To run amuck.* See AMUCK. — *To run the gauntlet.* See GAUNTLET — *To run at.* To drive at foremost; to attack with the horns, as a bull. — *To run away.* To abscond; to depart; to flee; to elope; as, she *ran away* with her father's footman. — *To run away with.* To carry or convey away surreptitiously; as, the butler *run away with* his master's wife.

—*v. a.* To cause to go; to drive or push; to force; to cause to be driven; as, to *run* a horse, an engine, or a business; to *run* a ship aground, &c. — To pierce; to stab; as, to *run* one through the body. — To melt; to fuse; as, to *run* lead into bullets. — To incur; to encounter; to fall into; to venture; to hazard: as, to *run* a risk. — To smuggle; to import or export without paying the duties required by law; as, to *run* contraband goods. — To pursue in thought; to carry in contemplation; to trace by reflection. — To cause to pass; to cause to ply; to maintain in running or passing; as, to *run* a line of packets. — To found; to shape, form, or make in a mould; to cast. — To discharge; to pour forth in a stream.

(NOTE. This is one of those words which serve for use when other words are wanted, and has, therefore obtained a great multiplicity of relations and applications; but it may be observed always to retain much of its primitive sense, and to imply progression, and for the most part, progressive violence.)

—*n.* Act of going; act of running; course; motions; flow. — Course or process; continued series; way; will; uncontrolled course. — General reception; continued success. — Mobish or popular clamor. — A general or uncommon pressure on a bank or treasury for payment of its notes. — The distance sailed by a ship. — A voyage. — Prevalence.

Runaway, (*run'a-wā,*) *n.* One who flies from danger or restraint; one who deserts lawful service; a fugitive.

Run'citrate, *a.* [Lat. *runcina*, a large saw.] (*Bot.*) Having lobes hooked back, or curved in a direction from the apex to the base; as the lobes of the leaf of the dandelion.

Run'del, *n.* A circle; a rundlet.

Run'dle, *n.* A rung; a step of a ladder. — The wheel of a peritrochium; — also, something put round an axis.

Runes, *n. pl.* [Goth. *runa;* A. S. *runion.*] (*Philology.*) The letters of the ancient Goths, Danes, and other northern nations. The word *rune* is said by some authorities to be derived from a word in the ancient Gothic language, signifying *to cut*, while others assert that it is *ryn*, a furrow, or *ren*, a gutter or channel; and others, again, derive it from *rannan*, to whisper. The time when this alphabet began to be used is only matter of conjecture; and, while some have advanced the opinion that Runic characters were used by the Germanic nations long before the Christian æra, others suppose that they were the invention of a much later age. The alphabet consisted of only sixteen letters, and the fact that some of them bear a great similarity to the Greek and Roman characters, supports the opinion entertained by some philologists, that this alphabet was originally introduced among the inhabitants of the coasts of the Baltic by Phœnician merchants, and that, with some modifications, it was kept a secret by their priests, and applied to various magic purposes. The Runic characters are found cut on stones, which were either sepulchral monuments or land-marks, and which are frequently met with in all countries inhabited by natives of the Teutonic race during the fourth and fifth centuries of our æra. The accompanying figure shows Runic characters and ornaments from the Runic cross at Rothwell, Scotland.

Fig. 2285.

Rung'-heads, *n.* (*Naut.*) The upper ends of the floor timbers of a ship.

Rungpoor, (*roong-poor',*) a town of British India, presidency of Bengal, cap. of a dist. of the same name, on the Goggot River, 125 m. N.E. of Moorshedabad; Lat. 25° 43' N., Lon. 89° 22' E.; *pop.* 20,000.

Runic, *a.* Relating to the ancient Goths, Scandinavians, and other Teutonic nations, or to their language, or to the characters in which their language was written. See RUNES.

Runlet, *n.* [Dimin. from *round.*] A small barrel of no certain dimensions: — so named from its shape. It most usually contains 14½ gallons.

Run'let, Run'nel, *n.* A little stream; a brook.

Runner, (*rŭn'er.*) *n.* One who runs; that which runs; a racer; a messenger. — A thread-like stem in certain plants, running along the ground, and taking root. — A rope used to increase the power of a tackle.

Run'net, *n.* Same as RENNET, *q. v.*

Running, *a.* Moving or going with rapidity; flowing; as, *running* waters. — Kept for racing; as, a *running* horse. — In succession; without any intervening day, year, &c. — Discharging pus or other matter; as, a *running* ulcer.

—*n.* Act of running or passing with speed. — That which runs or flows. — The discharge of an ulcer or other sore.

Running-fire, *n.* (*Mil.*) A rapid successiou of firing.

Running-rig'ging, *n.* (*Naut.*) All that portion of a ship's rigging which passes through the blocks, to dilate, contract, or traverse the sails.

Runnion, *n.* A paltry, scurvy wretch; — also written *ronyon.*

Runt, *n.* [Du *runte*, a bull or cow.] Any animal small below the natural growth of its kind; — used in contempt.

Rupee', *n.* A gold and silver coin which is current in several parts of Asia, and in the islands of the Eastern Archipelago. Its value not only varies with the course of exchange, but is altered in different localities. In calculation, however, the *silver rupee* current in the East Indies may be taken as representing $0.48, the *Siccu rupee* of account as $0.60, and the *gold rupee* at $7.08. A *lac* consists of 100,000 rupees.

Rupert, in *Pennsylvania*, a post-village of Columbia co., abt. 10 m. N.E. of Danville.

Rupert, in *Vermont*, a post-vill. and township of Bennington co., abt. 86 m. S.W. of Montpelier.

Rupert River, rises in Lake Misstissinny, British N. America, and flowing W. enters James' Bay of Hudson's Bay. *Length*, abt. 300 m.

Rupert's-drop, *n.* See GLASS.

Rupia, *n.* [Gr. *rupos*, filth.] (*Med.*) An eruption of flattish vesicles, succeeded by an ill-conditioned discharge, which concretes into scabs easily rubbed off and regenerated; they sometimes occur as a consequence of poor diet and weak habit of body; but there is a rupia which constitutes one of the most painful sequelæ of syphilis. Light nutritious food, tonics, and alteratives are the remedies.

Rup'tion, *n.* [Lat. *ruptio*, a breaking.] Breach; severance of continuity.

Ruppin, (New,) (*roop'pin,*) a town of Prussia, prov. of Brandenburg, govt. of Potsdam, on the lake of Ruppin, 37 m. N.W. of Berlin. *Manuf.* Woollen goods, gloves, and leather. *Pop.* 11,098.

Rupture, (*rŭpt'yur.*) *n.* [Fr., from Lat. *rumpo, ruptus,* to break.] Act of breaking or bursting: the state of being broken or violently parted.—Fracture; dislocation; disruption; a breach of peace or amity; open hostility. (*Surg.,* See HERNIA

—*v. a.* To break; to burst; to part by violence.

—*v. n.* To suffer a breach or disruption.

Ru'ral, *a.* [Fr.; Lat. *ruralis,* from *rus, ruris,* the country.] Pertaining, or belonging, to the country, as distinguished from a city or town: suiting the country or resembling it; rustic; pertaining to farming or agriculture; bucolic.

R. economy. A general term applied to the management of landed property, either by the proprietor or his agent. The term includes whatever conduces to the improvement of land for purposes of agriculture or grazing, either by arrangement of the crops, or by fertilizing the soil with manure, or by the management of the produce. *R. E.* also comprehends the keeping of farm-stock and their breeding; the general rearing of domestic fowls, geese, ducks, pigeons, &c.; also the management of the garden.

Ru'ral, in *Wisconsin,* a post-village of Waupacca co., abt. 40 m. N.W. of Oshkosh.

Ru'ralist, *n.* One who leads a rural life.

Rurality, Ru'ralness, *n.* The quality of being rural.

Ru'ral Village, in *Pennsylvania,* a post-village of Armstrong co., abt. 12 m. E. of Kittanning.

Rure'monde, a town of Holland. See RŒRMOND.

Ru'ric Islands, a group in the Pacific Ocean, discovered by Kotzebue in 1816; Lat. between 15° 10′ and 15° 30′ S., Lon. 151° E.

Rus'combe Manor, in *Pennsylvania,* a township of Berks co.

Rus'cus, *n.* (*Bot.*) A genus of plants, order *Liliaceæ.* The species *R. aculeatus,* commonly called Butcher's-broom and Horse-tongue, has aperient and diuretic roots, which were formerly much employed medicinally in visceral diseases. The roasted seeds have been used as a substitute for coffee.

Ruse, *n.* [Fr., from Lat. *re,* intensive, and *usus,* experience.] Finesse; means employed to deceive; artifice; trick; stratagem; wile; trawl; deceit.

Ruse de guerre (*rūz' de-gur.*) [Fr.] A trick of war; a stratagem.

Rush, *n.* [A.S. *rics, risc.*] (*Bot.*) The common name of the genus *Juncus.* See JUNCACEÆ.

Rush, *v. n.* [A.S. *hrosan, reosan;* Ger. *ranschen;* Heb. *raash,* to be moved, to be shaken.] To fall or tumble down with rapidity, as a stream or cascade; to move with the force and quickness of anything falling; to move with violence; to push on; to press on; to move forward with impetuosity, violence, and tumultuous rapidity; to enter with undue eagerness, or without due deliberation and preparation;—followed by *on* or *upon*

—*n.* A falling or tumbling down; a driving forward with eagerness and haste; a violent motion or course.

Rush, BENJAMIN, a celebrated American physician, and one of the signers of the Declaration of Independence, b. 1741, at Poquestion Creek, near Philadelphia. He was educated at Princeton College; took his degree at Edinburgh, in 1768; was chosen a member of Congress for Pennsylvania, in 1776; was appointed Professor of Medicine and Clinical Practice at the University; planned in 1785 the Philadelphia Dispensary, the first in the U. States; was a member of the Convention which ratified the Federal Constitution; and died in 1813. During the devastation caused by the yellow fever in 1793, Dr. Rush highly distinguished himself, and his history of that epidemic is considered a work of great value. He also wrote, *Medical Inquiries and Observations;* and *Essays Literary, Moral, and Philosophical.*

Rush, RICHARD, an American statesman and diplomatist, son of the preceding, b. in Philadelphia, 1780. He was graduated at Princeton College, 1797, studied law in Philadelphia, was appointed Attorney General of Penna. in 1811, and was Attorney General of the U. S. from 1814 to 1817. In 1817 he was temporary Secretary of State under President Monroe, and was by him appointed minister to England, from whence he was recalled in 1825 by President Adams, who made him Secretary of the Treasury. In 1828 he was candidate for the vice-presidency on the same ticket with President Adams, who was nominated for reelection, and received the same number of electoral votes. In 1836, President Jackson appointed him commissioner to obtain the Smithsonian legacy, then in the English Court of Chancery, in which he was successful, and returned, in 1838, with the entire amount, $515,169. In 1847 he was appointed minister to France. At the close of President Polk's term he asked to be recalled, and spent the rest of his life in retirement. D. 1859. He has left *Memoranda of a Residence at the Court of St. James,* 2 vols. (1833–1845); *Washington in Domestic Life* (1857); *Occasional Productions, Political, Diplomatic, &c., while the Author resided as Envoy extraordinary from the U. S. at Paris,* published by his sons. 1860

Rush, in *Illinois,* a post-village and township of Jo Daviess co., abt. 150 m. W.N.W. of Chicago.

Rush, in *Indiana,* a S.E. central co.; *area,* abt. 410 sq. m. *Rivers* Blue River, and Flat Rock Creek. *Surface,* level or slightly undulating; *soil,* very fertile, and yielding large crops of grain, particularly corn. *Cap.* Rushville.

Rush, in *Michigan,* a township of Shiawassee co.

Rush, in *Missouri,* a township of Buchanan co.

Rush, in *New York,* a post-village and township of Monroe county, abt. 12 m. S. by W. of Rochester, on Honeye Creek

Rush, in *Ohio,* a twp. of Champaign co.—A twp. Scioto co.—A post-twp. of Tuscarawas co

Rush, in *Pennsylvania,* a township of Centre co.—A township of Dauphin co.—A township of Northumberland co.—A township of Schuylkill co.—A post-township of Susquehanna co., 36 m. N.W. of Scranton.

Rush'-buekler, *n.* A bullying and violent person.

Rush City, in *Minnesota,* a p. v. of Rusheba twp., Chisago co.

Rush Creek, in *Ohio,* enters Hockhocking River from Fairfield co.—Another enters the Scioto River from Marion county.—A township of Fairfield co.—A township of Logan county, containing Rushsylvania a post-village, abt. 125 m. N.N.E. of Cincinnati.—A post-village of Union co.

Rushed, (*rŭsht,*) *a.* Abounding with rushes.

Rushen, (*rush'n,*) *a.* Made of rushes.

Rush'ford, in *New York,* a village of Allegany co., about 50 m. S.E. of Buffalo.

Rush'ford, in *Wisconsin,* a township of Winnebago co.

Rush'iness, *n.* State of being rushy.

Rush'ing, *n.* A violent driving of anything; a rapid or tumultuous course.

—The act of one who, or that which, rushes; any commotion or violent course.

Rush Lake, in *Iowa,* a township of Palo Alto county.

Rush Lake, in *Wisconsin,* a small sheet of water in Winnebago co., covering an area of abt. 10 sq. m.—A village of Fond du Lac co., abt. 22 m. N. of Waupun.

Rush River, in *Wisconsin,* enters Lake Pepin from Pierce co.—A post-twp. of St. Croix co.

Rush Tower, in *Missouri,* a village of Jefferson co., abt. 36 m. S. by W. of St. Louis.

Rush'town, in *Pennsylvania,* a post-village of Northumberland co., abt. 65 m. N. of Harrisburg.

Rush'ville, in *Illinois,* a post-village and township, cap. of Schuyler county, about 60 miles W.N.W. of Springfield.

Rushville, in *Indiana,* a town, cap. of Rush co., abt. 40 m. E.S.E. of Indianapolis. It contains many handsome buildings, and is a place of much business activity.

Rushville, in *Missouri,* a post-village of Buchanan co., abt. 17 m. S.W. of St. Joseph.

Rushville, in *New York,* a post-village of Yates county, abt. 205 m. W. of Albany.

Rushville, in *Ohio,* a post-village of Fairfield co.

Rushville, in *Pennsylvania,* a post-village of Susquehanna co., abt. 159 m. N.N.E. of Harrisburg.

Rush'y, *a.* Abounding with rushes; made of rushes.

Rusk, *n.* (*Cooking.*) A kind of biscuit, but thicker, made of the best flour, and baked in a very quick oven. Rusks make an excellent food for children and invalids, and can be prepared in the form of puddings, for which they are well adapted.

Rusk, in *Texas,* an E. co.; *area,* about 930 sq. m. *Rivers.* Sabine and Angelina rivers. *Surface,* pleasantly diversified; *soil,* remarkably fertile. *Cap.* Henderson. *Pop.* (1897) 19,250.

Rus'kin, JOHN, an able, original, and copious English author, b. in London, 1819. After leaving Oxford, where he gained the Newdigate prize for poetry, in 1839, he practised painting. In 1843 he published the first vol. of *Modern Painters.* After the completion of this work, he wrote *The Seven Lamps of Architecture,* and *The Stones of Venice,* illustrated by himself. Besides these works, he has written several others on artistic subjects, and is the champion of pre-Raphaelism and Gothic architecture. In 1875, he pub. *Deucalion* and *Val d'Arno,* and in 1881, *Arrows of the Chace.* Died Jan. 20, 1900.

Russ, *n.* A native of Russia; a Russian.—The language of the Russians.—*a.* Relating to Russia; Russian.

Russa, (*roos'sa,*) a town of Russia, govt. of Novgorod, on the Polista, 38 m. S. of Novgorod; *pop.* 6,000.

Russell, JOHN, EARL, a celebrated English statesman, and scion of a noble family which has given several illustrious names to English history, was the youngest son of the 6th Duke of Bedford, was b. in London, 1792, and received his education at the University of Edinburgh. In 1813 he first entered the House of Commons, in which he held for many years a conspicuous position, and became a prominent leader of the Whig party. When severe measures were taken to repress the commotions of the people desirous of Reform, Lord John earnestly resisted, and, but for the influence of Thomas Moore, would have retired in disgust from public life. Instead, however, he took up the question of Parliamentary Reform, which he continued to press forward until he carried the Reform Bill of 1832. Meantime, he aided in repealing the Test and Corporation Acts, and passing the Roman Catholic Emancipation Acts, thus proving himself the successful advocate of civil and religious liberty. In 1830 he became Paymaster-General of the Forces. By carrying the appropriation clause in the Irish Tithe Bill against Sir Robert Peel, Lord John brought in the Melbourne ministry, in which he was Home Secretary from 1835 to 1841, during which time measures of municipal and ecclesiastical reform, and others of a liberal character, were passed. From 1841 to 1846 Lord John was leader of the opposition, but in the latter year he became Premier, and held the seals of office until 1852, when he resigned them. Under Lord Aberdeen he was Secretary for Foreign Affairs and President of the Council, in which capacity he introduced another reform bill. Resigning office, in view of the impending censure of ministers on account of the conduct of the Crimean war, Lord John accepted the seals of the Colonial Office from Lord Palmerston; but in consequence of dissatisfaction with his management at the Vienna Conference of 1855, he threw up office. He resumed it, as minister for Foreign Affairs, in 1859, with Lord Palmerston again as Premier, and continued to act in that capacity until the death of the latter, in 1865. During this time many difficult questions arose, and the policy which Lord Russell pursued was not successful, and was described by the Earl of Derby as a policy of "meddle and muddle." Among the most important questions were those arising out of the American Civil War. On the death of Lord Palmerston, Lord Russell became Prime-Minister for the second time; but resigned in 1866. Since then, Earl Russell has been without office, but has been generally an active supporter of Mr. Gladstone's ministry in the Upper House. He was created an earl in 1861, having for the previous twenty years represented the City of London. Earl Russell appeared as an author as far back as 1819, when he published *The Life of Lord W. Russell,* and his autobiographical *Recollections* appeared in 1875. D. 1878.

Rus'sell, an E. co. of prov. of Ontario; *area,* abt. 372 sq. miles. *Rivers.* Petit Nation, and Ottawa rivers. United with co. Prescott.

Russell, in *Alabama,* an E. by S. co., adjoining Georgia; *area,* about 670 sq. m. *Rivers.* Chattahoochee river and Uchee, Wacoochee, and Cowekee creeks. *Surface,* uneven; *soil,* in some parts fertile, and well adapted to the cultivation of rice. *Cap.* Seale. *Pop.* (1897) 24,890.

Russell, in *Illinois,* a township of Lawrence co.

—A post-village of Lake co.

Russell, in *Indiana,* a township of Putnam co.

Russell, in *Iowa,* a post-town of Lucas co.

Russell, in *Kansas,* a central co.; *area,* 900 sq. m. *Surface,* undulating; *soil,* fertile. It is intersected by the Union Pacific R. R. *Cap.* Russell. *Pop.* (1895) 7,470.

Russell, in *Kentucky,* a S. co.; *area,* about 260 sq. m. *Rivers.* Cumberland and Greene rivers. *Surface,* hilly and broken; *soil,* near the rivers, very fertile. *Cap.* Jamestown. *Pop.* (1897) 8,136.

Russell, in *Massachusetts,* a post-village and township of Hampden co., about 116 m. W. by S. of Boston.

Russell, in *New York,* a p. v. and twp. of St. Lawrence co.

Russell, in *Ohio,* a township of Geauga co.

—A post-village of Highland co.

Russell, in *Virginia,* a S.W. co; *area,* about 453 sq. m. *Rivers.* Clinch and Guest rivers, and the West Fork of Sandy River. *Surface,* much diversified, the S.E. boundary being formed by Clinch Mountains; *soil,* not generally fertile. *Min.* Iron, coal, and marble. *Cap.* Lebanon. *Pop.* (1897) 17,260.

Russell, in *Wisconsin,* a prosperous township of Sheboygan co.

Rus'sellburg, in *Pennsylvania,* a village of Warren co., about 7 m. N. of Warren.

Rus'sellville, in *Alabama,* a post-village, cap. of Franklin co., about 220 m. N.N.W. of Montgomery.

Russellville, in *Georgia,* a post-village of Monroe co., about 24 m. W. of Macon.

Russellville, in *Indiana,* a post-town of Putnam co.

Russellville, in *Kentucky,* a post-village, cap. of Logan co., abt. 143 m. W. of Louisville.

Russellville, in *Louisiana,* a village of Claiborne parish, abt. 210 m. N.W. by W. of Baton Rouge.

Russellville, in *Missouri,* a post-village of Cole co., abt. 15 m. W.S.W. of Jefferson City.

Russellville, in *Ohio,* a post-village of Brown co., abt. 100 m. S. by W. of Columbus.

Russellville, in *Pennsylvania,* a post-village of Chester co., abt. 65 m. E.S.E. of Harrisburg.

Russellville, in *Tennessee,* a post-village of Hamblen co., 48 m. E.N.E. of Knoxville.

Rus'set, *a.* [O. Fr. *rousset,* from Lat. *russus.*] (*Painting.*) Of a reddish-brown color, derived from the mixture of the three primary colors in equal strength, but in unequal proportions, consisting of two parts of red and one part each of blue and yellow.—Coarse; homespun; rustic.

—*n.* A country dress.—A kind of apple of a russet color and rough skin.

Russia, the most extensive, and one of the most powerful empires, either of ancient or modern times. It comprises the most N. portion of the Eastern hemisphere, from the frontiers of Posen and the Gulf of Bothnia on the W., to the Pacific Ocean and Behring's Strait on the E., or from Lon. 17° 38′ E. to abt. 170° W., being a distance, on the 60th deg. of Lat., of nearly 6,000 m. Its extent from N. to S., though less vast, is still very great, stretching from near the 30th to the 70th, and in some parts to the 77th deg. of N. Lat., exhibiting an average breadth of about 1,500 m. The superficial extent of the empire is: Russia in Europe, including Finland, 2,095,504 sq. m., and Russia in Asia, 6,564,778 sq. m.; total, 8,660,282 sq. m., the density of population being in Europe 46 and in Asia 3 to the sq. m. The Russian empire comprises one-sixth of the territorial part of the world, and about one twenty-sixth part of its entire surface. *Face of the Country.—Mountains.* R. is in general level, and comprises some of the most extensive plains in the world. It is naturally parcelled into the two great divisions of *European* and *Asiatic R.* by the Ural Mountains, which stretch in a N.N.E. direction from the Caspian Sea to the Arctic Ocean, forming, through the greater part of their course, the boundary between Europe and Asia. The highest points in this chain have an elevation of about 6,500 feet above the level of the Caspian Sea. In all the vast country, extending on the W. side of this central chain to the confines of Poland and Moldavia, there is hardly a single hill. The Valdai hills, or elevated grounds, between Novgorod and Tver, where the Wolga, the Don, and the Dnieper, have their sources, are nowhere more than about 1,200 feet above the level of the sea, the country exhibiting a waving surface, and without any considerable elevations. There is nothing

John Ruskin

1819–1900

RUSSIA
IN EUROPE
SCALE OF MILES
0 50 100 150 200 250
Railroads
Submarine Cables
Canals
Size of type indicates relative importance of places
ARCTIC OCEAN
KARA SEA
WHITE SEA
BALTIC SEA
BLACK SEA
SEA OF AZOF
CASPIAN SEA
LAPLAND
FINLAND
ARCHANGEL
VOLOGDA
OLONETZ
ST. PETERSBURG
NOVGOROD
BALTIC PROVINCES
ESTHONIA
LIVONIA
COURLAND
PSKOV
VITEBSK
TVER
YAROSLAF
KOSTROMA
VIATKA
PERM
UFA
ORENBURG
KASAN
NIZHNI NOVGOROD
VLADIMIR
MOSCOW
SMOLENSK
KALUGA
TULA
RIAZAN
SIMBIRSK
SAMARA
PENSA
TAMBOF
OREL
KURSK
VORONEZH
SARATOF
CHERNIGOF
MOHILEF
MINSK
GRODNO
WEST RUSSIA
VOLHYNIA
KIEF
PODOLIA
POLTAVA
KHARKOF
LITTLE RUSSIA
EKATERINOSLAF
CHERSON
SOUTH RUSSIA
BESSARABIA
TAURIDA
CRIMEA
PROVINCE OF THE DON COSSACKS
ASTRAKHAN
KUBAN TERRITORY
STAVROPOL
NORTHERN CAUCASIA
TEREK DISTRICT
DAGHESTAN
CAUCASIA
KUTAIS
TIFLIS
BAKU
ERIVAN
KARS
POLAND
WARSAW
PRUSSIA
AUSTRIA HUNGARY
ROUMANIA
BULGARIA
TURKEY
CONSTANTINOPLE
TURKEY IN ASIA
ARMENIA
SWEDEN
NORWAY
WESTERN SIBERIA
TRANSCASPIAN PROV.
Ust-Urt Plateau
Kirghiz Little Horde
Bukeyev Kirghiz Horde
Cossacks of the Ural
Yalmal Peninsula
GULF OF OB
NOVA ZEMBLA
Kola Peninsula
Gulf of Finland
Gulf of Bothnia
Stockholm
St. Petersburg
Moscow
Longitude East from Greenwich
Hammond's 8 x 11 Map of Russia in Europe
Copyright, 1904 by C.S. Hammond & Co., N.Y.

RUSSIA IN EUROPE.

Area sq. m. 2.095,616
Pop..... 106,264,136

PROVINCES.

Archangel....K 3
Area sq. m. 331,610
Pop.....347,589

Astrakhan.....J 6
Area sq.m.91,327
Pop.....994,775

Bessarabia....E 6
Area sq.m.17,619
Pop.....1,933,436

Chernigof. ....F 5
Area sq.m.20,233
Pop.....2,321,900

Cherson .....F 6
Area sq.m 27,523
Pop.....2,732,832

Courland.....D 4
Area sq.m 10,535
Pop.....672,634

Don Cossacks H 6
Area sq.m 63,532
Pop 2,575,818

Ekaterinoslaf.G 6
Area sq.m 24,478
Pop.....2,112,651

Esthonia .....E 4
Area sq. m..7,818
Pop.....413,724

Finland.....E 3
Area sq. m. 144,255
Pop.....2,592,778

Grodus.....D 5
Area Sq.m 14,931
Pop.....1,617,859

Kaluga .....G 5
Area sq.m.11,942
Pop... ..1,185,726

Kasan .....J 4
Area sq m.24,601
Pop.....2,191,058

Kharkof.....G 6
Area sq.m.21,041
Pop.....2,509,811

Klef..... F 6
Area sq.m.19,691
Pop.....3,576,125

Kostroma.....H 4
Area sq.m 32,490
Pop.....1,429,228

Kovno.....D 4
Area sq.m.15,692
Pop.....1,549,444

Kursk ..... G 5
Area sq.m.17,937
Pop.....2,396,577

Livonia.....E 4
Area sq.m 18,158
Pop.....1,300,640

Minsk .....E 5
Area sq.m.35,293
Pop.....2,156,123

Mohilef.....F 4
Area sq.m.18,551
Pop.....1,708,041

Moscow .....G 4
Area sq.m.12,859
Pop.....2.433,356

Nizhni Novgorod H 4
Area sq.m.19,797
Pop.....1,600,304

Novogorod....F 4
Area sq. m. 471,236
Pop.....1,392,933

Olonetz.....G 3
Area sq.m.57,439
Pop.....366,715

Orel.....G 5
Area sq.m.18,042
Pop.....2,054,749

Orenburg.....L 5
Area sq.m.73,816
Pop.....1,609,388

Pensa.....H 5
Area sq.m.14,997
Pop.....1,491,215

Perm .....L 4
Area sq. m. 128,211
Pop.....3,003,208

Podolia.....E 6
Area sq.m.16,224
Pop.....3,031,513

Poltava..... F 6
Area sq.m.19,265
1 op.....2,794,727

Pskov.....E 4
Area sq.m.17,069
Pop.....1,136,540

Riazam.....H 5
Area sq.m.16,255
Pop.....1,827,539

Samara .....K 5
Area sq.m 58,321
Pop.....2,763,478

Savatof .....J 5
Area sq.m.32,624
Pop.....2,119,884

Simbirsk .....J 5
Area sq.m.19,110
Pop.. ...1,549,461

Smolensk .....F 5
Area sq.m.21,638
Pop.....1,551,068

St.Petershurg E 4
Area sq.m.20,760
Pop.....2,107,691

Tambof .....H 5
Area sq.m 25,710
Pop.....2,715,453

Taurida.....F 6
Area sq.m.24,497
Pop.....1,443,566

Tula.....G 5
Area sq.m.11,954
Pop.. ...1,432,743

Tver.....G 4
Area sq.m.25,225
Pop.....1,812,325

Ufa .....L 5
Area sq.m.47,112
Pop.....2,220,497

Viatka.....K 4
Area sq.m.59,329
Pop.....3,082,788

Vitebsk ..... E 4
Area sq.m.17,440
Pop.....1,502,916

Vitna.....E 5
Area sq.m.16,421
Pop.....1,591,912

Vladmir ..... H 4
Area sq.m.18,864
Pop,.....1,570,733

Volhynia .....E 5
Area sq.m.27,743
Pop.....2,997,902

Vologda .....J 3
Area sq. m 155,498
Pop.....1,365,557

Voronezh.....G 5
Area sq.m.25,443
Pop.....2,546,255

Yaroslaf .....G 4
Area sq.m.13,750
Pop 1,072,478

CITIES-TOWNS

Pop. Millions.

1 St. Petershur, F 4

Pop. Thousands.

988 Moscow....G 4
638 Warsaw....D 5
405 Odessa.....F 6
315 Lodz .....C 5
256 Riga.....D 4
247 Kief.....F 5
174 Kharkof..G 6
154 Vilna.....E 5
137 Saratof....J 5
131 Kazan .....J 4
119 Rostof ....G 6
112 Astrakhan.J 6
111 Tula .....G 5
108 Kishenef..E 6
95 Nizhni Novgorod. H 4
92 Nikolaief...F 6
91 Samara ....K 5
91 Minsk ..... E 5
84 Voronezh..G 5
77 HelsingforsD 3
73 Kovno .....D 5
72 Orenburg..L 5
70 Yaroslaf...G 4
69 Orel.....G 5
69 Dunaburg. E 4
69 Cherson....F 6
66 Ekaterinodar G 6
65 Vitebsk ....H 3
65 Zhitomir...E 5
64 Revel..... ..E 4
64 Libau.....D 4
63 Bialystok..D 5
61 Pensa .....J 5
61 Elizavetgrad F 6
59 Cronstadt..F 3
58 Kremenchug F 6
56 Bialystok..D 5
55 Tsaritsyn..H 6
53 Ivanovo ...H 4
53 Berditchef.E 6
53 Tver..... G 4
53 Poltava ....F 6
52 Kursk.....G 5
52 Novocherkask H 6
51 Taganrog..G 6
50 Sevastopol.F 7
50 Luhlin.....D 5
49 Ufa.....L 5
49 Kaluga.....G 5
48 SimeferopolF 6
48 Tambof ...H 5
46 Smolensk..F 5
46 Grodno ... D 5
46 Brest-Litovsk D 5
45 Perm.....L 4
43 Vladikavkas H 7
43 Simbirsk ...J 5
42 Dorpat.....E 4
41 Straveapol H 6
41 Kostroma H 4
40 Kaslof.....H 5
37 Jeletz..... G 5
36 Uralsk.....K 5
35 Bohruisk...E 5
35 Mitau .....D 4
34 Kamenetz-Podolsk..E 6
32 Pinsk .....E 5
32 Syzran .....J 5
32 Nezhin .....F 5
31 Bender.....E 6
31 Mariupol...G 6
30 Piotrkof...C 5
30 Pskof .....E 4
30 Nizhni Tagilsk..L 4
28 Vinnitsa ...E 6
28 Kerch.....G 6
28 Radom.....D 5
28 Uman .....F 6
28 Vladimir ..H 4
28 Akerman ..F 6
27 Morshansk H 5
27 Tiraspol....E 6
27 Sumy .....F 5
27 Balta .....E 6
27 Berdiansk .G 6
27 Theodosia .G 6
27 Volsk.....J 5
27 Chernigof..F 5
26 Plock .....C 5
26 Bolchof ...G 5
26 Novgorod..E 4
26 Lomza.....D 5
25 Azof .....G 6
25 Ryhinsk ...G 4
20 Khotin.....E 6
18 Borissof....E 5
17 Archangel H 3
15 Alexandrovsk G 6
14 Peterhof...E 4
13 Pernau.....D 4
13 Feodosia ..G 7
13 Bar.....E 6
13 Ananyef ...E 6
11 Narva.....E 4
11 Balashof...H 5
10 Borovitchi.F 4
10 Anapa .....G 7
10 Borovsk ...G 4

in fact, save the forests, to break or interrupt the course of the wind in all the immense space interposed between the Ural and the Carpathian Mountains. The only great chain of mountains in W. *R.* is that of Caucasus, between the Euxine and Caspian seas, and this is almost at the S. extremity of the empire. *Siberia*, or Asiatic *R.*, consists principally of a vast plain, slightly inclining to the N. Towards the S. and E., however, it is in parts mountainous, being separated from Mongolia and Mantchooria by high and little-explored ridges, in which the great rivers that flow through it to the Arctic Ocean have their sources. The most distinguishing feature in the appearance of *R.* is her vast forests. Tegoborski estimates that about two-fifths of the surface of European *R.* are occupied by forests. They are so very prevalent in the govts. of Novgorod and Tver, between St. Petersburg and Moscow, that it has been said a squirrel might travel from the one city to the other without ever touching the ground. The forest of Volkousky, at the source of the Wolga, is the most extensive of any in Europe. In the government of Perm, on both sides the Ural Mountains, containing 130,000 Eng. sq. m., no fewer than 120,000 are covered by forests. The forests of Asiatic *R.* are also of vast size. In extensive districts, however, the surface is quite free from wood. This is particularly the case in the vast *steppes*, or plains, in the governments of Astrakhan and Omsk, which, in many parts, indeed, are a mere sandy desert. — *Rivers and Lakes.* The rivers of *R.* are usually divided into five groups or systems, corresponding to the seas in which they have their embouchure, viz., the Arctic Ocean, the Baltic, the Black Sea, the Caspian, and the Pacific Ocean. The first division is by far the largest. It comprises, in Europe, the Dwina, Mezen, and Petchora; while in Asia it includes, among a host of others, the Obi, Yenisei, Lena, and Amoor, four of the largest rivers of Asia. The rivers which fall into the Baltic, though of far greater importance in a commercial point of view, are of very inferior magnitude The principal are the Neva, which has St. Petersburg at its mouth, the Duna, and the Niemen. The rivers which fall into the Black Sea equal those falling into the Baltic in commercial importance, and far exceed them in length of course and volume of water. Among others are the Dniester, Dnieper, Bug, Don, and Kuban. The basin of the Caspian has, however, to boast of the largest and most important of the rivers of *R*, the Wolga. This great river has its source in the government of Tver, about 180 m. S. by E. from St. Petersburg; including sinuosities, its course is about 2,400 miles. It is of vast consequence to the internal navigation of the empire. The Caspian Sea also receives the Ural and the Emba. Owing to the flatness of the country through which they flow, and the vast length of their course, the rivers of *R.* are but little interrupted by cataracts, flow with a tranquil stream, and afford great facilities to internal navigation. The severity of the climate, no doubt, prevents, during a considerable portion of the year, all intercourse by water, and renders the rivers falling into the Arctic Ocean of comparatively little value. Luckily, however, the frost, which interrupts navigation, affords the greatest facilities to land travelling. The lakes, as well as the rivers, of *R.* are upon a gigantic scale. The lakes of Baikal, in the government of Irkutsk, in Asiatic *R.*, is one of the most extensive in the world In European *R.*, the lakes of Ladoga, Onega, Peipus, Ilmen, and Bielo Ozero, are also of great extent, particularly the first. The Duchy of Finland is almost everywhere interspersed with lakes, and they are very abundant in other provinces, particularly in that of Olonetz.—*Soil and climate.* *R.* is divided into two great parts by the Ural Mountains, which form an uninterrupted barrier through its whole breadth, and separate Siberia from European *R.* That part of *R.* which lies on the W. side of the Ural Mountains presents an immense plain, declining westward by an easy descent. This plain, from its vast extent, has a great variety of climates, soils, and products. Its N. part, which sensibly declines towards the White and Frozen seas, is covered with forests, marshy, and but little fit for cultivation. The other, and more southerly portion of this vast plain, includes the whole district along the Wolga, as far as the *steppes*, or deserts, between the Caspian and the Sea of Azov, and constitutes the finest part of Russia; generally it has a fertile soil, the arable and meadow land preponderating over the woods and marshes. The part of the country which extends towards Voronëje, Tambov, Pensa, and Simbirsk, as far as the deserts, is most remarkable for the superior quality of every kind of fruit and other produce. It has everywhere an excellent soil, consisting of black earth, strongly impregnated with saltpetre. But the tract which commences between the Sea of Azov and the Caspian, and extends near the shores of the latter, and between the Wolga and Ural, as far as the Emba, is little better than a desert, being level, dry, high, barren, and full of salt lakes. The country lying on the other side of the Ural Mountains, known by the name of Siberia, is generally a flat tract of vast extent, declining imperceptibly towards the Frozen Ocean, and rising thence by equally imperceptible degrees towards its southern border, where at last it is lost in the immense mountain ranges which separate the Russian and Chinese empires. It is unnecessary to notice in detail the different great divisions of this vast territory. In general, it may be stated that the more S. portion of Siberia, or that between the S. frontier of the empire and the 57th or 60th deg. of latitude, as far E. as the river Lena, has, for the most part, a fertile soil, and that, notwithstanding the severity of the climate, it produces most kinds of grain. But, owing to the increase of cold and the nature of the soil, the more N. portion of the region now noticed, or that extending from the 57th or 60th deg. of latitude to the Frozen Ocean, and the whole country E. of the Lena, from the frontier of Mantchooria northwards, is wholly, or almost wholly, unfit either for cultivation or for the grazing of cattle. In the E. a portion of this vast tract is mountainous, but it mostly consists of immense levels, full of swamps and bogs, covered with moss, which would be totally impassable were it not that the ice, which never thaws deeper than a few inches, gives a firm under-footing. Notwithstanding the heats that usually prevail during summer, especially in the S. provinces, cold, speaking generally, predominates very decidedly in *R.* With the exception, indeed, of the Crimea and the Trans-Caucasian provinces, no part of *R* can be said to be generally hot; and even in them the frost in winter is often very severe. The climate of *R.* is, in fact, proverbial for its severity; and this increases not only as we advance towards the N., but also as we advance towards the E.; the cold being decidely greater in Siberia than in the same latitudes in European *R.*, a difference which is also sufficiently perceptible in the provinces of the E. and W. sides of the latter. This, no doubt, is owing to various causes; but principally, perhaps, to the vast extent of frozen sea and land traversed by the winds from the N.E. Beyond the 65th deg. of latitude the ground is covered with snow and ice for about nine months in the year; and during the other three months ice is always found at a little distance below the surface. Corn crops cannot be depended upon in European *R.* beyond the 62d deg. of latitude; and the great agricultural provinces lie to the S of the 58th deg. The fruits of temperate climates are seldom met with beyond the 52d deg. At St. Petersburg, in Lat. 59° 56′, the mean maximum of cold is about 25°, and the mean maximum of heat 84° F. The Neva is commonly frozen over before the end of November, and the ice never breaks up before the end of March. At an average of ten years it is calculated that there are annually at St. Petersburg 97 bright days, 104 rain, 72 snow, and 93 unsettled. At Moscow, in Lat. 55° 4′ ¾′, the cold is more severe than at Stockholm in Lat. 59° 20½′. At Astrakhan, in lat. 46° 21′, the Wolga is sometimes frozen over so as to bear loaded wagons. The Sea of Azov is usually frozen over from November to the beginning of April. But this severe cold is not unhealthy, and is much less inconvenient than might be supposed. While

Fig. 2286. — CHURCH OF ST. NICHOLAS, (MOSCOW.)

the frost lasts the air is pure and bracing, and its severity is guarded against by warm clothing, and by having the houses properly constructed and heated. At St. Petersburg and Moscow the winter is, in fact, the finest season. The Russian peasants care only for warm covering for their legs and feet. At St. Petersburg in a frost of 22° F., it is common to see women standing for hours together washing their linen through holes dug in the ice over the Neva. Spring can hardly be said to have any place in the Russian calendar. The transition from frost to fine weather is usually very rapid. In a brief period after the snow and ice have disappeared, the fields and trees are clothed in the livery of summer, and vegetation makes extraordinary progress. At St. Petersburg the summer is as mild and agreeable as in Pennsylvania; but there, and in all the N. provinces, it is very variable. As we advance towards the S. it becomes steadier, and the heats increase. At Astrakhan the mercury in the thermometer sometimes rises to 103½° F.; and in the Trans-Caucasian provinces it rises still higher. The autumn, or the period of transition from summer to winter, is the most unpleasant season in Russia. The sky is generally cloudy, and rains and storms are very prevalent. The Crimea, from its high S. Lat., and its being embosomed in the Euxine, has the most agreeable climate in the empire. — *Divisions and Population.* Russia is distributed into the following political divisions: — 1. *Northern provinces*, embracing the governments of Archangel, Olonetz, and Vologda. 2. *Great Russia*, into Petersburg, Novgorod, Pskov, Smolensk, Moscow, Tver, Yaroslav, Kostroma, Nijni Novgorod, Vladimir, Riazan, Tambov, Tula, Kaluga, Orel, and Koursk 3. *Baltic Provinces*, into Esthonia, Livonia, and Courland. 4. *White Russia*, into Witepsk, Mohilev, and Minsk, 5. *Lithuania*, into Wilna, Grodno, and Kowno. 6. *Little Russia*, into Volhynia, Podolia, Kiev, Tchernigoff, Poltawa, Kharkoff, Voronesh, and the Don Cossacks. 7. *New Russia*, into Ekaterinoslav, Kherson, Taurida, and Bessarabia. 8. *Wolga and Caspian Provinces*, into Kasan, Pensa, Simbirsk, Saratof, Astrakhan, and Caucasus. 9. *Ural Provinces*, into Orenbourg, Perm, and Viatka. 10. *Siberia*, into Tobolsk, Toomsk, Irkutsk, Yakutsk, Kamtschatka, Okhotsk, and Yeniseisk. 11. *Trans Caucasia.* 12. *Grand-duchy of Finland.* 13. *Kingdom of Poland.* These provinces comprise more than three-fourths of the area of the empire though they contain less than one-sixth its population. The area and population in 1900 were given as follows: European Russia, 1,902,202 sq. m., 94,258,324 pop.; Poland, 49,159 sq. m., 9,455,943 pop., Finland, 144,255 sq. m., 2,592,778 pop.; Caucasus, 180,843 sq. m., 9,248,695 pop.; Siberia, 4,853,496 sq. m., 6,727,000 pop.; Kirghiz Steppe, 755,793 sq. m., 2,461,258 pop.; Turkestan, 409,434 sq. m., 4,888,183 pop.; Transcaspian Territory, 214,237 sq. m., 372,193 pop.; total, Asia, 6,564,778 sq. m., 22,697,469 pop; Europe, 2,095,616 sq. m., 106,264,136 pop.; grand total, 8,660,395 sq. m., 129,004,514 pop. The annual rate of increase of population is estimated to be about 1,500,000. — *Animal and Vegetable Products.* Goats are found in many provinces; and in the south the export of their skins forms a branch of commerce, being covered with a kind of silky hair adapted to the manufacture of shawls. Hunting and fishing occupy a considerable proportion of the inhabitants of particular districts. The most profitable objects of chase are the beaver, the ermine, the martin, the musk-deer, and the musk-rat. Among the other wild animals are the chamois, the antelope, the elk, the wild goat, the reindeer, the bear, and sable. The polar bear and reindeer are found only in the N.; also wild sheep and boars and wild fowl, especially the goose and the eider duck. All sorts of grain succeed in Russia. Fruits of all kinds are abundant in the S. provinces. The vine is cultivated in the Crimea, and in the Caucasian provinces. The pasture in general is good. *Min.* Coal, iron, copper, salt, and marble. The most extensive mines are in the elevated region of the Ural and other mountains, which form the boundary between Europe and Asia; others, however, are less remote. Salt is found in great abundance in the S.E.—*Agric.* By an imperial decree of March 3, 1861, coming into execution on March 3, 1863, serfdom was abolished, under certain conditions, within the whole of Russia. Of actual serfs emancipated there were about 23,000,000, while the peasants on the Crown lands, already practically free, numbered about 24,000,000. The owners were compensated by a payment regulated as follows: The previous labor of the serf was estimated at a yearly rental of 6 per cent., so that for every six roubles which the laborer earned annually, he had to pay 100 roubles to his master as his capital value to obtain his freedom. Of this sum, the serfs had to give immediately 20 per cent., while the remaining 80 per cent. were disbursed as an advance by the government to the owners, to be repaid, at intervals extending over forty-nine years, by the freed peasants. According to an official report, the whole of these arrangements were completed at the end of July, 1865, so that from this date serfdom ceased to exist in Russia. The government, as a consequence of the emancipation of the serfs, took measures in 1864–65 for the diffusion of instruction among the agricultural population. Up to the present time, nevertheless, agriculture is at a very low ebb. But it differs materially in different provs.; and some estates, even in the most backward provs, have been greatly improved. In Livonia, and the provs. bordering on the Baltic, and also in parts of the Ukraine, the husbandry is very superior, and the implements quite equal to the best that are to be met with in most parts of Germany. But, with the exception of a few estates, it is quite otherwise in the rest of the empire. The plough, owing to the high price of iron, is usually a wretched implement drawn by one horse, and calculated rather to scratch than to turn up the soil. The harrow is made of wood, and rollers and hoeing-machines are almost unknown. Were it not that the soil is generally light, friable, and very easily wrought, it would be impossible to cultivate it by such means. But these suffice to make it produce more than enough for the wants of the inhabitants. There is not, indeed, another country, at least in Europe, where grain crops may be raised at so little expense of labor as in *R.* The products vary, of course, with the difference of soil and climate. All sorts of grain are raised; but rye being the common food of the peasantry, it is produced in much greater quantities than any other sort of cereal. Flax and hemp are very extensively cultivated, and largely exported. Tobacco is confined to the S. provinces, where it is an important article. The agricultural territory of *R.* has been greatly extended by the acquisition of Turkestan, with its large and fertile oases. Much attention is being given to the cultivation of cotton in that region, so as to gain independence of American and other foreign sources of this indispensable material. Cotton produced there has the advantage to *R.* of cheapness and of a monopoly of the crop, since the only outlet for the Central Asian products is over Russian soil. The completion of the Transcaspian Railway has opened communication from the Caspian Sea to and beyond Samarcand, through the heart of Turkestan, and already a large freight business, in cotton and other products, is being done, while the acquisition of a new and large market has stimulated the agriculturists of the oases to active industry in forming operations. The rapid extension of the Transsiberian Railway is also stimulating agriculture in the fertile districts of southern Siberia, and causing a flow of population in that direction. This great region promises to be very productive and to add greatly to the food supply of the empire. Grazing is a natural occupation in almost every province of the Russian empire, and sheep and oxen are reared in immense numbers on the steppes. The rearing of bees is an important industry, some having as high as 1,000 hives in the

forest. — *Manuf.* The manufactnres of the empire are not generally in an advanced state. The principal are linens woollens, hardware, leather, soap, oil, potash, and mats. Most of the yarn employed in the cotton manufacture is imported from England. As to hardware, Tula, to the south of Moscow, is the "Sheffield" of Russia. Of woollens, the coarser qualities are made in various parts, the finer almost solely at Jamhurg, in the province of St. Petersburg. Moscow contains some silk-works, and, along with St. Petersburg, the chief manufactures of the empire. The principal trading ports are St. Petersburg and Riga, on the Baltic; Archangel on the White Sea; Odessa, on the Black Sea; Tanganrog, on the Sea of Azov; and Astrakhan and Baku, on the Caspian Sea. The trade with China is mostly carried on through Kiachta; and the fair of Nizhni Novgorod is celebrated all over Europe.—None but native Russians were allowed to engage in the internal trade of the country; and hence a foreigner who imported goods in *R.* had to sell them to Russians only, and at the port where they arrived. A few foreigners, indeed, settled in Russia, and having connections with the natives, trade with the interior; but it is contrary to law, and the goods are liable to be seized. — *Exp.* The principal are hemp, flax, seeds, leather, tallow, potash, wax, soap, timber, pitch, tar, train-oil, linen, ropes, thread, peltry, and iron in bars. — *Imp.* Sugar, coffee, cotton, and other colonial goods, superfine woollens, cotton cloths, silks, dye-stuffs, wine, and brandy. — *Money, Weights, and Measures.* Accounts in *R.* are kept in *roubles* and *copecks*, q. v. The only gold coin is the *demi-imperial*, value 5 roubles.

Fig. 2287.—WAYSIDE INN IN RUSSIA. (See also Fig. 1487.)

The Russian lb. is rather larger than the avoirdupois lb.; the last = 13·8 quarters; the *chetwert*, the measure for corn, = 5·75 Eng. bushels; the *deciatine*, land-measure, = abt. 2·7 of an acre; the *verst* of 104·5 to a geog. degree = 1·67 yards, 3 versts being about equivalent to 2 Eng. m. —*Government.* The government of *R.* was until 1905 an absolute monarchy, the whole legislative, executive, and judicial power united in the emperor, whose will alone was law. The administration of the empire is intrusted to four great boards, or conncils, possessing separate functions, but centring in the "Private Cabinet of the Emperor." The first of these boards is the *Council of the Empire*, consisting of an unlimited number of members nominated by the Emperor, and whose chief functions is that of superintending the actions of the general administration, of watching over the due execution of the laws of the realm, and of proposing modifications of the same whenever necessary. The second is the *Directing Senate*, or "Prawitelstwujuschtschi Senat," which is a high court of justice for the empire, controlling all the inferior tribunals. It also examines into the state of the public revenue and expenditures, and has power to inquire into public abuses, to appoint to a great variety of offices, and to make remonstrances to the emperor. The third college is the *Holy Synod*, and to it is committed the superintendence of the religious affairs of the empire. It is composed of the principal dignitaries of the church. All its decisions run in the emperor's name, and have no force till approved by him. The fourth board of government is the *Council of Ministers*, divided into 12 departments. The empire is divided into general governments, or *vice-royalties*, governments, and districts. At the head of each general government is a viceroy, or general-governor, the representative of the emperor, who as such commands the forces, and has the supreme control and direction of all affairs, whether civil or military. The government of each parish, and part of the local administration, is intrusted to the people, to the extent of leaving them free in matters of social interest. For this purpose the whole country is divided into communes, denominated "mir"— which means both "the village" and "the world"— and these again are united into districts, or "volosti," embracing a population of about six thousand souls. Each communal administration is presided over by an elder, or "starshina," who, in case the commune consists of several villages, has under him a "starosta," or head of each hamlet, as also a tax-collector or superintendent of public stores. All these officers are elected by ballot at annual assemblies by the peasants, and from among themselves. The offices are more or less honorary, the emoluments connected with some of them being so small as to be scarcely more than nominal.—The nobles of the empire possess a representation of their own, due to Catherine II. They form in each province a corporation under an elected president, to whom is joined a government commissioner. They assemble at regular intervals of three years, with liberty to deliberate on any subject they choose. The rights and privileges enjoyed by these states-general are very extensive, but the chief object of all their political actions has been to uphold the privileges and rights of their class. The Russian nobleman can only be deprived of his life, property, or honor, by judgment of law; he can only be tried by his peers, and the judgment must be specially confirmed by the emperor. No corporal punishment can be inflicted upon him; he is free from personal taxes, recruitment, and having soldiers quartered upon him; he can freely establish manufactures and industrial undertakings of all kinds on his estate; but in the towns, in such cases, he must enter the respective guilds. He is at liberty to sell his own products and manufactures. More than one-half of all the cultivated land belong to the nobility in fee-simple, and more than one-half of the population of Russia Proper, until recently, were not only their dependents, but serfs. The power of this large class, which partly governed the empire, has suffered a heavy loss by the great work of Serf Emancipation, which leaves the emperor more than ever Autocrat of *R.* — *Religion.* The established religion is the Greco-Russian, officially called the *Orthodox-Catholic Faith*. The Russian Church separated from the See of Rome in 1054, and from the Byzantine patriarchate in 1589. It has its own independent synod, but maintains the relations of a sister church with the four patriarchates of Constantinople, Jerusalem, Antioch, and Alexandria. The *Sacred Synod*, the board of government of the Church, was established with the concurrence of the Russian clergy and the four Eastern patriarchs. There have been three epochs in the government of the Russian Church. At first it had a foreign head, the patriarch in Constantinople, who appointed the Metropolitan of Kiev, and afterwards of Moscow; during the second period, commencing in 1589, it was governed by a patriarch appointed by the Czar, but nearly independent; lastly, the direction of the Church was transferred to the emperor. He is however not the head of the Church in the same sense as the Pope of Rome. The emperor exercises the external functions in a still greater degree than the pontiff; he appoints to every office in the Church, and is restricted only so far as to leave to the bishops and prelates the privilege of proposing candidates; and he transfers and dismisses persons from their offices in certain cases. But he has never claimed the right of deciding theological and dogmatic questions. In the case of any new heresy springing up in Russia requiring a judgment, the emperor cannot pronounce a decision, but this duty appertains to the Synod, and, if the question is critical, the opinion of the four Eastern patriarchs must be consulted, and finally a council has to be convened. The judgment of the Church being once given, the emperor must command its execution. In official documents the emperor never calls himself the Head, but only the *Protector* or *Defender of the Church*. The points in which the Greco-Russian Church differs from the Roman Catholic faith, are, its denying the spiritual supremacy of the Pope, its prohibiting the celibacy of the clergy, and its authorizing all individuals to read and study the Scriptures in their vernacular language. The prohibiting of celibacy is carried to such an extent that no priest can perform any spiritual functions before he is married, nor after he becomes a widower; and as, by the rules of the Church, he is not allowed to remarry, the death of his wife occasions the cessation of his clerical functions. The priests may, however, on the death of their wives, enter into a convent, and enjoy the privilege of becoming eligible to be dignitaries of the Church. With the exception of the restraints laid on the Jews, who were not allowed to settle in Russia Proper, all religions may be freely professed in the empire. No member of the Russo-Greek Church is, however, permitted to renounce his creed; and when a marriage takes place between one of its members and a person belonging to another faith, the children must all be brought up in the established faith. There are no reliable religious statistics, though the great bulk of the Russians belong to the Orthodox Catholic or Græco-Russian Church, or to one of the numerous sects of dissenters, who comprise about one-third of the so-called Orthodox. In addition there are 8,500,000 Roman Catholics in Poland and Lithuania; about 4,000,000 Protestants, most Lutherans, including the Finns, Esthonians, Swedes, and Germans; 3,500,000 Jews, in western Russia and Poland; and a large number of Moslems, Buddhists, Shamanists, fetich worshippers, &c., in the Asiatic provinces.—*Educ.* After the manumission of the serfs, in 1861, the higher classes set in train an active movement for the extension of education among the peasantry, and a large number of day, evening, and Sunday-schools were started, new methods of teaching introduced, and an abundance of class-books and works suitable to popular instruction prepared. The universities were made free to students of both sexes. This movement alarmed the government, and soon received a severe check, all educational matters being placed under the control of the Ministry of Public Instruction, which laid severe restraints on the methods of the liberals. At a later date, on the organization of the *zemstovs*, or elective provincial governments, a new educational movement was started, various grades of schools being organized in the rural districts. This movement also was opposed by the ministry, which devoted itself to the promotion of classical education among the privileged classes, while neglecting elementary, technical, and scientific education. The only governmental favor shown has been to the parish schools, in which education is in the hands of the clergy. Some progress has, no doubt, been made since the date of emancipation in the education of the people, but popular education is still at a low ebb, only about one in six of the army recruits being able to read and write. At present there are in the empire about 50,000 elementary schools, with an attendance of some 2,250,000 pupils. The empire is divided into a certain number of districts, each of which has a university, with a system of schools for young men intended to fill civil offices, also gymnasiums, high schools, and elementary schools. The universities are 8 in number, with some 23 other institutions for higher education, and about 1,000 intermediate schools (high schools, &c.).—*Inhabitants.* More than a hundred tribes, with as many different languages, are comprised within the circuit of the Russian empire, but nearly all these live on the frontiers of the country; the interior is inhabited by a homogeneous race, the Russians numbering about 90,000,000, whereas all the other tribes of the empire united do not exceed 40,000,000. The Russians are generally subdivided into Great Russians, numbering about 70,000,000; Little Russians, or *Ruthenes*, to the number of 15,000,000; and White Russians, about 5,000,000. The dialect of the Little and the White Russians slightly differs from that of the Great Russians, but not so much as to prevent a mutual understanding. Of other races, the most important are the Slavonians of Poland and Lithuania, numbering some 10,000,000; the Finns and Lettones, some 3,000,000; and the Caucasians and Armenians, numbering 8,000,000. These figures, however, are mere estimates; for there exist no official returns regarding the various nationalities inhabiting the empire. — *Army.* The land forces of Russia are formed of two descriptions of troops, different from each other in many respects — the regular troops, properly so called, and the feudal militia of the Cossacks and similar races. Some corps of the latter have been brought into regular form and training, and are occasionally employed like the rest of the army, although in many respects they differ entirely from the regular troops. The regular army is recruited from the classes of peasants and artisans, partly and principally by means of a conscription, partly by the adoption of the sons of soldiers, and partly by voluntary enlistment. Nobles, magistrates, clergymen, and students are exempted from the service. Merchants and traders enrolled in the different guilds are also exempted, as are the only sons of peasants, and peasants with more than three children. The levies furnished by the Cossacks are regulated by particular treaties; and many half-savage tribes are excused, partly on account of their diminutive size, and partly because of their great aversion to a military life. Under the military system adopted in 1874, service in the army is obligatory upon all able-bodied citizens between 21 and 40 years of age, though education has the effect of shortening the term of service of the conscript. But of those liable for conscription only about one-third are required to serve for 5 years in the active army, the remainder being enrolled in the reserve (Landwehr) or the militia. The army, therefore, in time of peace, consists of about 1,160,000 men distributed throughout the empire, with 170,000 horses and 3,200 guns. In time of war the total of men available for army service is estimated at nearly 6,000,000 men, with 488,000 horses and 8,000 guns. As for the actual availability of such a host of men, however, much doubt may be entertained. The strength of the active army is given at 1,188,000 men and officers. The service with the army is for 18 years, divided into 5 years with the colors and 13 years in the reserve. The remainder of the population capable of bearing arms, and not exempted, between the legal ages, constitutes the militia.— *Navy.* The Russian navy has been greatly strengthened of late years and consisted in 1904 of 52 armored and 35 unarmored ships and gunboats, with 178 torpedo boats, the total number of guns being 4,888. These ships were manned by 66,200 seamen and marines and 2,411 officers, making a total active list of 68,611. The fleet was nearly annihilated in the war with Japan.—*Hist.* The ancients had very little acquaintance with the vast countries included in the empire of *R.* The monarchy is usually regarded as having been founded by Rurik, about anno 862, his dominions and those of his immediate successors, comprising Novgorod, Kiev, and the surrounding country. In 980–1015, Vladimir introduced Christianity, and founded several cities and schools. But, from this period down to 1237, when the country was overrun by the Tartars, *R.*, with few exceptions, was the theatre of civil war. In 1328 the seat of govt. was transferred to Moscow: and in 1481 the Tartars were finally expelled. In 1613 the house of Romanoff, whence his present majesty is descended, was raised to the throne; and from this period the empire acquired strength and consistency. Under Alexis Mikhailovitch (1645–1676), White *R.* and Little *R.* were conquered from the Poles, and the Cossacks of the Ukraine acknowledged the supremacy of the Czar, various internal improvements were effected, and the power of *R.* began to be felt and feared by all her neighbors. At

Fig. 2288.
GREEK PRIEST RECEIVING A CONFESSION.

length, in 1696, Peter the Great ascended the throne, and the destinies of *R.* and of the northern world were immediately changed. That prince gave to the arms of *R.* a decided preponderance in the N. of Europe; he also gave her a fleet, conquered large provinces on the Baltic, laid the foundations of the noble city which bears his name, and introduced among his people the arts, the literature, the customs, and, to some extent also, the laws and institutions of the more civilized European nations. From this period *R.* has progressively advanced in power and civilization. Under Catherine II. (1762–1796), *R.* acquired a great accession of power by her acquisitions in Poland and on the Black Sea. *R.* took an active part in the European struggle with Napoleon, and his invasion of the empire led to his overthrow. Wars with Turkey followed, and in the Crimean War of 1853 *R.* suffered severe losses. In the war of 1877 Turkey was decisively defeated. *R.* has moreover made great advances in Asia, conquering the Caucasus and subduing the great area of Turkestan, immensely extending her area in that continent. The growth of Nihilism (*q. v.*) led, in 1881, to the massacre of Alexander II. The great railways in Siberia and Turkestan are among the most important engineering enterprises of *R.* For a description of these see SIBERIA, in SECTION II. *R.* acquired the seaport of Port Arthur, in Southern Manchuria, after the Japan-China war, and extended the Siberian railway southward to this point. During the Boxer outbreak in China Manchuria was occupied by Russian troops. The promise to China to give up this occupation by October 8, 1903, was not kept, Russia's failure to do so leading to a war with Japan in 1904. See JAPAN-RUSSIAN WAR.

—The defeat of Russia in this war led to an intense excitement in the kingdom, which soon developed into a revolutionary outbreak. A meeting of the Zemstvos in November, 1904, which demanded a representative government and other reforms, was followed in 1905 by a general uprising among the people, attended by much violence and bloodshed and threatening a complete overthrow of the government. Nicholas II, the Emperor, responded by agreeing to the calling of a *douma* or legislative body, with law-making powers, and by granting liberty of the press, of person, etc. to his subjects. In the election for the Douma the revolutionary forces were in the ascendent, and when this body met in May, 1906, its action and demands were so radical that it was quickly prorogued by the Emperor and the election of a new legislature ordered. This met March 5, 1907.

Rust, *n.* [A. S. *rost.*] (*Chem.*) The yellowish coat of peroxide which forms on the surface of iron exposed to a moist atmosphere. To prevent the rusting of iron utensils, oil, paint, varnish, plumbago, grease, or any substance which will protect the metal from the moist air, may be employed. Under all ordinary circumstances, iron decomposes water, abstracts the oxygen, and combines with it, thus forming rust.

—Any foul matter contracted; foul, extraneous matter; also, loss of power by inactivity.

(*Bot.*) A disease of plants, which shows itself on the stems and leaves of many plants, and on the ears of grasses, both of the cereal grasses and of many pasture or forage grasses, in brown, yellow, or orange-colored spots, and after destroying the epidermis of the plant, assumes the form of a powder, which soils the fingers when touched. *R.* seems to consist at first of a small fungi of one cell, sometimes divided by a transverse wall, belonging to the genera *Uredo* and *Puccinia*, which, finally, breaking through the diseased epidermis, form a colored dust consisting of mere spores. *R.* is sometimes very injurious to crops. No remedy is known for it; but it is certain that rank manures tend to produce or aggravate it.

—*v. n.* [A. S. *rastian.*] To contract rust.—To become dull by inaction; to degenerate in idleness.—To gather dust or extraneous matter.

—*v. a.* To cause to contract rust.—To impair by time and inactivity.

Rust'chuk, or **Rutz'chuk,** a fortified town of European Turkey, prov. of Bulgaria, on the Danube, 56 m. N.E. of Nicopolis, and 62 m. N.W. of Shumla. *Manuf.* Woollen, silk, and cotton stuffs, and tobacco. *Pop.* 24,000.

Rus'tic, *a.* [Lat. *rusticus*, from *rus*, the country.] Pertaining to the country; rural.—Having the manners of those who live in the country; plain; simple; unadorned; artless; rude; unpolished; untaught; awkward; rough; coarse.

—*n.* A countryman; a swain; a peasant; a hind; a clown.

(*Arch.*) Masonry employed in basements with large joints to mark the different courses of stones. It is applied to work left with an irregular surface, or jagged out in an irregular manner.

Rus'tically, *adv.* Rudely; coarsely; without refinement or elegance.

Rus'ticate, *v. n.* [Lat. *rusticor.*] To dwell or reside in the country.

—*v. a.* To compel to reside in the country.—To banish from a town or college for a time.

Rustica'tion, *n.* Act of rusticating; state of being rusticated; residence in the country.

(*Arch.*) Same as RUSTIC, *q. v.*

Rustic'ity, *n.* [Fr. *rusticité.*] State or quality of being rustic; bucolic manners; rudeness; coarseness; simplicity; artlessness.

Rust'ily, *adv.* In a rusty state.

Rust'iness, *n.* State of being rusty.

Rustle, (*rŭs'l.*) *v. n.* [A. S. *hristlan.*] To make the noise of certain things shaken, agitated, or rubbed, as silk, straw, dry leaves, &c.

Rus'tle, *n.* The noise of certain things shaken; a rustling.

Rustling, (*rŭs'l-ing.*) *n.* A quick succession of small sounds, as a brushing among dry leaves or straw.

Rust'y, *a.* Covered or affected with rust.—Dull; impaired by inaction or neglect of use; covered with foul or extraneous matter; rough; hoarse; grating.

Rut, *n.* [Fr., from Lat. *rugitus*, a roaring, from the noise which deer make when they desire to come together.] The copulation of deer.

—*v. n.* To lust, as deer.

Rut, *n.* [Fr. *route*, from Lat. *rota*, a wheel.] The track of a wheel; a line cut in the soil with a spade.

—*v. a.* To cut or penetrate in ruts, as roads; to cut a line in the soil with a spade.

Ru'ta. (*Bot.*) A gen. of the ord. *Rutaceæ.* *R. graveolens* is the common Rue, a native of Europe. It has a very powerful, disagreeable, peculiar odor, which is due to the presence of a volatile oil. Its taste is bitter and nauseous. It is used in medicine as an anti-spasmodic, anthelmintic, emmenagogue, stimulant, and carminative.—This plant is supposed to be identical with the *pegamon* of the New Testament (*Luke* xi. 42). The species *R. montana* possesses very acrid properties.

Fig. 2289.—RUTA GRAVEOLENS.

Ruta'ceæ, *n.* (*Bot.*) The Rue family, an order of plants, alliance *Rutales.* DIAG. Few-seeded fruit, which finally becomes apocarpous, and separates its pericarp into 2 layers, sessile pendulous ovules, and perfect flowers.—They are trees or shrubs, very rarely herbs, chiefly found in the temperate regions. They are characterized by a powerful odor and a bitter taste. Several species are used medicinally. The order contains 47 genera and 400 species. See BAROSMA, GALIPEA, and RUTA.

Ru'tales, *n. pl.* (*Bot.*) An alliance of plants, sub-class *Hypogynous exogens.* DIAG. Monodichlamydeous symmetrical flowers, axile placentæ, an imbricated calyx and corolla, definite stamens, and an embryo with little or no albumen. The alliance includes 13 orders,—AURANTIACEÆ, AMYRIDACEÆ, CEDRELACEÆ, MELIACEÆ, ANACARDIACEÆ, CONNARACEÆ, RUTACEÆ, XANTHOXYLACEÆ, OCHNACEÆ, SIMARUBACEÆ, ZYGOPHYLLACEÆ, ELATINACEÆ, and PODOSTEMACEÆ, *q. v.*

Ru'tersville, in *Texas*, a post-village of Fayette co., abt. 6 m. N.E. of La Grange.

Rūth, (Book of.) (*Script.*) One of the books of the Old Testament, inserted between the book of Judges and the books of Samuel, as forming a sequel to the former and an introduction to the latter. Among the ancient Jews it formed part of the book of Judges; but the modern Jews separate it, and make it the second of the five Megillot. It takes its name from *Ruth*, a Moabitess, who, having married a Jew and lost her husband by death, proceeds with her mother-in-law to Bethlehem, where she leads a blameless life of poverty, and becomes the wife of a relative named Boaz, through whom she is an ancestor of David. It consists of four chapters, and may be divided into three sections:—1. An account of Naomi from her going into Moab with her husband, Elimelek, to her return to the land of Israel with her daughter-in-law, Ruth (ch. i.); 2. Boaz's interview with Ruth and their marriage (ii.–iv. 12); 3. The birth of Obed, the son of Boaz by Ruth, from whom David was descended (iv. 13–18). The genealogy with which it concludes is evidently incomplete, probably because the leading members only are mentioned. The date and authorship of this book are alike unknown. It was evidently written some time after the events to which it refers, for the expression, "when the judges ruled," evidently implies that in the writer's time the kings had begun to reign. The general opinion is that it was written by Samuel. The canonical authority of the book has never been questioned. Ruth, the Moabitess, being mentioned in the genealogy of Christ (*Matt.* i. 6). The scope of the book is evidently to show how a heathen, belonging even to the hated Moabitish stock, was honored to be the progenitor of the great King David, because she placed her reliance on the God of Israel.

Ruthe'nium, *n.* (*Chem.*) In the process for extracting osmium from the residue left on treating the platinum ore with *aqua regia*, by heating in a current of air, square prismatic crystals of *binoxide of ruthenium* (RuO_2) are deposited, nearer to the heated portion of the tube than the osmic acid, for the binoxide is not itself volatile, being only carried forward mechanically in company with the osmic acid. When binoxide of ruthenium is heated in hydrogen, *metallic ruthenium* is obtained as a hard, brittle, almost infusible metal, which is scarcely affected even by *aqua regia.* This metal was discovered by Claus in 1864. *Sp. gr.* 12·3; *equiv.* 103·5, *symbol*, Ru.

Ruth'erford, in *New Jersey*, a post-borough of Bergen co.

Rutherford, in *North Carolina*, a S.W. co., adjoining South Carolina, *area*, about 498 sq. m. *Rivers.* Broad and Congaree rivers. *Surface*, hilly or mountainous; *soil*, in some parts fertile. *Cap.* Rutherfordton. *Pop.* (1897) 19,950.

Rutherford, in *Tennessee*, a central co.; *area*, about 580 sq. m. *Rivers.* Stone river *Surface*, diversified. *soil*, extremely fertile. *Cap.* Murfreesboro. *Pop.* (1897) 38,220.

Rutherfordton, in *North Carolina*, a post-village, cap. of Rutherford co., on Seaboard Air-Line and the Ohio River & Charleston R.Rs., 78 m. N. by W. of Charlotte; has some local industries and a good trade with the surrounding agricultural region. *Pop.* (1897) 520.

Ruth'erville, in *New York*, a village of St. Lawrence co., abt. 15 m. N. of Canton.

Ruth'less, *a.* Void of pity or compassion; cruel; pitiless; barbarous; insensible to the miseries of others.

Ruthlessly, *adv.* Without pity; cruelly; barbarously.

Ruthlessness, *n.* State or quality of being ruthless; want of compassion; insensibility to the distresses of others.

Ruths'burg, in *Maryland*, a village of Queen Anne co., abt. 42 m. E. of Annapolis.

Rutigliano, (*roo-tel-ye-a'no.*) a town of S. Italy, prov. of Terra-di-Bari, 7 m. S.W. of Conversano; *pop.* 4,500.

Ru'tile, *n.* [Lat. *rutilus*, red.] (*Min.*) Native crystallized titanic acid; composed, when pure, of 60·98 titanium and 39·02 oxygen.

Rut'land, an inland co. of England, having N. and E. the co. of Lincoln, S.E. and S. Northampton, and W. Leicester; *area*, 152 sq. m. The surface is undulating, and the soil generally fertile. *Rivers.* Welland, Wreak, Wash, and Charter rivers. *Prod.* The usual cerealia; but it is particularly celebrated for its wheat, cheese, and sheep. *Cap.* Oakham.

Rutland, a small island near the W. coast of Ireland, co. Donegal.

Rutland, in *Illinois*, a post-township of Kane co.—A township of La Salle co.

Rutland, in *Iowa*, a twp. of Humboldt co.—A twp. of Woodbury co.

Rutland, in *Kan.*, a twp. and p. v. of Montgomery co.

Rutland, in *Maryland*, a p. v. of Anne Arundel co.

Rutland, in *Massachusetts*, a post-township of Worcester co.

Rutland, in *Michigan*, a township of Barry co.

Rutland, in *New York*, a post-township of Jefferson co.

Rutland, in *Ohio*, a post-village and township of Meigs co., abt. 95 m. S.E. of Columbus.

Rutland, in *Pennsylvania*, post-township of Tioga co.

Rutland, in *Vermont*, a S.W. co., adjoining New York; *area*, abt. 960 sq. m. *Rivers.* Otter Creek. Lake Champlain forms a portion of the W. boundary, while numerous smaller lakes intersperse the co. *Surface*, elevated, and in some parts mountainous; *soil*, fertile and finely adapted to grazing. *Cap.* Rutland.

—A town and township, cap. of the above county, about 55 m. S.S.W. of Montpelier. The town contains a handsome court house, and other fine buildings. The township contains several thriving manufacturing villages and rich marble quarries.

Rut'ledge, in *Illinois*, a township of De Witt co.

Rutledge, in *Tennessee*, a post-village, cap. of Grainger co., abt. 210 m. E. of Nashville.

Rut'ter, *n.* One who ruts.

Rut'tish, *a.* Wanton; libidinous; salacious; lustful.

Rut'tishness, *n.* State or quality of being ruttish.

Rut'ty, *a.* Full of ruts; cut by wheels.

Ruvo, (*roo'vo.*) a town of S. Italy, prov. of Terra-di-Bari, 20 m. W. of Bari; *pop.* 6,500. It is the *Rubi* of Horace.

Ruysslede, (*rois'se-lade,*) a town of Belgium, 14 m. S. of Bruges; *pop.* 6,000.

Ryde, (*ride,*) a seaport-town of England on the N. coast of the Isle of Wight, 5 m. E.N.E. of Newport; *pop.* 9,269.

Rye, *n.* (*Bot.*) See SECALE.

Rye, (*ri,*) a town of England, co. of Sussex, on the Rother, 3 m. from its mouth; *pop.* 8,202.

Rye, in *New Hampshire*, a post-township of Rockingham co.

Rye, in *New York*, a post-village and township of Westchester co.: abt 27 m. N.E. of New York city.

Rye, in *Pennsylvania*, a twp. of Perry co.

Rye'gate, in *Vermont*, a post-village and township of Caledonia co., abt. 23 m. E. by S. of Montpelier. The township is on the Connecticut river.

Rye'-grass, *n.* (*Bot.*) A popular name of the genus *Lolium.*

Ry'ersou's, in *New Jersey*, a village of Passaic co., abt. 9 m. N.W. of Patterson.

Ry'erss, in *Pennsylvania*, a village of Tioga co., abt. 4 m. S.S.E. of Blossburg.

Ry'land's Depot, in *Virginia*, a village of Greenville co., abt. 54 m. S. of Petersburg.

Rylsk, a town of Russia. See RULSK.

Ryud, *n.* A piece of iron that goes across the hole in an upper mill-stone.

Ry'ot, *n.* [Ar. *raaya*, to pasture, to protect, to govern.] In Hindostan, a renter of land; a cultivator or peasant.

Rys'wick, (Peace of). (*Hist.*) A treaty concluded in 1697, at Ryswick, a Dutch village between Delft and the Hague, which was signed by France, England, and Spain, on Sept. 20, and by Germany on Oct. 30. It put an end to the sanguinary contest in which England had been engaged with France.

Rzes'zow, a town of Austrian Poland, on the Wisloka, 43 m. E. of Tarnov; *pop.* 5,000.

R.—SECTION II.

Rad'cliffe Col'lege. (*Educ.*) A non-sectarian institution for the education of women only. In 1878, some men and women of Boston and Cambridge organized under the title of "A Society for the Collegiate Instruction of Women." As the society employed such instructors of Harvard College as were willing to give young women the instruction already given in the college to young men, it soon came to be spoken of as "The Harvard Annex." In 1893 the legislature granted a charter and the right to give Harvard degrees, whereupon the institution became a department of Harvard University, and received the name of Radcliffe College, after Anne Radcliffe, Lady Moulson, the founder of the first scholarship in Harvard College. In 1896 the college had 90 instructors, 358 students, and more than 9,700 volumes in its library. Its income, in the same year, was in excess of $70,000.

Rad'ford, in *Virginia*, a post-town of Montgomery co. *Pop.* (1897) 2,140.

Ra'diant En'ergy. See UNDULATORY THEORY.

Radiom'eter, *n.* A philosophical toy for converting radiant energy into mechanical motion, invented by the physicist, William Crookes. Within a glass bulb, from which the air has been exhausted, he places 4 sheets of mica on a needle point, arranged as a vane to turn circularly in a horizontal plane. On one side the sheets are blackened and on the other white. When placed in the sun or other field of light, so that it may act against the surfaces of the vanes, rotation results as a consequence of the blackened disks absorbing more of the radiant energy than the white faces. The actual propulsion is supposed to be caused by the molecules of residual air, which are given greater energy against the black sides when exposed to the light. The tasimeter, thermopile, thermo-galvanometer, &c., are also properly classed as radiometers, being in a sense measurers of radiant energy. The sound-radiometer is a form of vane whose cardboard sails are perforated, and may be set in motion by vibrations of sound from a tuning-fork or the like.

Ra'dium, *n.* A newly discovered mineral substance of remarkable properties. Of late years several kinds of radiation, differing from ordinary light and heat, have been discovered. Among these are the Roentgen ray and the Becquerel ray. The latter is given off freely by uranium, and this induced Madame S. Curie, a chemist of Paris, in 1898, to seek for the source of this radiation in pitchblende, an uranium mineral. By decomposing a large quantity of this, a minute quantity was obtained of a substance whose radiant power was several thousand times that of uranium. To this was given the name of Radium. In practice a salt of this substance is employed, usually the bromide. The peculiar property of *R.* is that it gives off continuously an emanation—a gas which shines in the dark, and can be seen through an inch of marble, a pile of copper coins, and other opaque substances. It can be condensed by cooling and is capable of discharging a loaded electroscope. In addition a quantity of the rare gas helium is given off. The *R.* emanation has the dangerous property of producing painful and persistent ulcers in human flesh, and is capable of paralizing and killing small animals. The most wonderful property of *R.* is that is seems able to yield this gas indefinitely without loss of weight, and that it maintains constantly a temperature of nearly 3° *F.* above that of surrounding substances, and this even at the very lowest temperature producible. *R.* yields light with little heat and may possibly become a source of illumination. It can melt its own weight of ice in less than an hour, and do this continually. It is known only in minute quantities, and is very costly. A ton of pitchblende yields only a few grains of it. In appearance it resembles common salt. It has attracted wide attention from its apparent reversal of the ordinary laws of nature. Several other substances are radio-active in a less degree, and the property may be universal.

Rai'idæ, *n. pl.* (*Zoöl.*) The Ray or Skate family, order *Plagistomi*, comprising fishes with the body very much flattened, the mouth, nostrils, and branchial openings below, and the dorsals, when present, upon the tail. The eggs are brown, coriaceous, and rectangular, with the angles extended into points. Members of this family are found in all seas, and more than a hundred species are known, from two to six feet or more in length.

Raikes, ROBERT, originator of Sunday-schools, was born at Gloucester, Eng., Sept. 14, 1735; founded a system of schools in London in 1781. Died April 5, 1811.

Rail, (*rāl.*) *n.* [A. S. *hrægel*, a covering; Ger. *riegel.*] That which serves as a fence or palisade; a piece of timber, or of iron or other metal, extending from one post or support to another, as in fences, balustrades, staircases, &c.—The horizontal part in any piece of framing or panelling. Thus, in a door, the horizontal pieces between which the panels lie are called *rails*, while the vertical pieces, between which the panels are inserted, are called *styles*.

—A woman's upper garment;—retained in the word *night-rail*, sometimes used for *night-dress*.

(*Railroad Eng.*) A bar of iron, forming the upper part of the superstructure on which the wheels of vehicles roll. It is shaped with reference to vertical strength, and is held in place by chairs, splices, &c.—*Webster.*

—*pl.* (*Naut.*) The moulding ornaments in the topside, likewise in the head and stern of a ship.—A narrow plank nailed for security on a ship's upper works.

By rail, by railroad or railway; as, to travel *by rail*.

—[Fr. *râle*; Ger. *ralle.*] RAIL-BIRD. (*Zoöl.*) See RALLIDÆ.

—*v. a.* To enclose with rails; as, to *rail* a staircase.

—*v. n.* [Fr. *railler*, frequent. from *rire*, Lat. *rideo*, to laugh.] To make persons or things the objects of reproach or ridicule; to scoff; to use insolent and reviling language; to censure in opprobrious terms;—preceding *at* or *against*.

"Why *rail at* arts he did not understand?"—*Dryden.*

Rail'-car, *n.* A railroad car.

Rail'er, *n.* One who rails; a scoffer; a reviler; one who insults, ceasures, or reproaches with opprobrious language.

"Cease, rude Boreas, blustering *railer.*"—*Dibdin.*

Rail'-fence, *n.* A fence composed of wooden rails.

Rail'-guards, (*gards.*) *n. pl.* (*Mach.*) In locomotive engines, strong iron rods reaching down within about two inches of the rails, to catch and throw to one side any obstruction which may be on the rails. (In the U. States, often termed *cow-catcher.*)

Rail'ing, *a.* Uttering reproach; insulting.

—*n.* Reproachful, censorious, or insolent language.—A series of rails; a fence; a baluster.—Rails in general, or the materials for their construction.

Rail'ingly, *adv.* With scoffing, reproachful, or insolent language.

Rail'-joint, *n.* A splice connecting the adjacent ends of rails, in distinction from a *chair*, which is merely a seat.

Raillery, (*rāl'ler-ў.*) *n.* [Fr. *raillerie*, from *railler.*] Light ridicule or satire; satirical merriment; banter; jesting language; persiflage; sarcastic pleasantry; chaff; as, to treat a serious subject with *raillery*.

Railleur, (*rāl'yûr,*) *n.* [Fr.] A banterer; a persifleur; a jester; one who uses raillery. (R.)

Rail'way Construc'tion. (*Engin.*) The methods of road-bed construction for railways have been worked out somewhat differently in the United States and Europe as a result of dissimilar prevailing conditions. In the Old World railways were built to accommodate the wants of thickly settled countries. In America they were largely built to aid the development and building up of territory, bringing in a population. A substantial road-bed, with few and slight grades and scarcely any curves, was the aim of European railway constructors, while a light and inexpensive road-bed, with steep grades and short curves, was obligatory with American engineers. It was found cheaper to go round a hill or over it than to go through it in new countries where there were no settled highways that could be utilized. By means of the swivelling-truck, locomotives were enabled to make curves of short radii, and there grew up a system of light road-beds, cheaply constructed. As traffic increased it became necessary to lay heavier rails and use more road-metal. Double tracks became common, and four tracks not infrequent. This resulted in the reconstruction of road-beds, and brought American railways to a par with the English as far as stability is concerned and ability to make speed and haul heavy trains. As a matter of convenience, however, the difference in curves and grades remains, to a considerable extent, though some of the United States roads doing a heavy passenger traffic have straightened and levelled their lines to give greater comfort in riding to travellers. In planning a railway route the engineers are obliged to arrange the cuttings and embankments so as to utilize, as far as possible, the material from one to fill the other. The drainage must be considered, and a flow provided for water coming in during heavy rainstorms. In forming a cutting the nature of the soil has to be considered, and slopes given to the sides which will not allow any material to be washed onto the tracks. If there is danger of washings, walls of local stone must be built

Fig. 3042.
STANDARD FORM OF AMERICAN RAIL.

Fig. 3043.—PAPER CARWHEEL.
t, tire; *q*, bolt; *p*, paper filling; *h*, hub; *s*, steel plate.

to protect the rails in the cutting. An embankment cannot be constructed by simply throwing in the loose soil removed from a cutting. It must be so ballasted with stone that it will not wash away. Soft earth answers only for filling. Running streams can be piped through embankments, but if the waterways are of any size it is best to bridge them by means of piles, or, in some cases, with steel bridges. In arranging grades the engineer requires to know what sort of rolling-stock is to be run on the road, for it must be possible for every engine stopping on a grade to start its load again. By calculating the tractive power of the locomotives, and making note of the weight they bear on the driving-wheels, he can figure how much of a load they will draw on a 2 per cent. or a 5 per cent. grade, and he will be governed by the restrictions placed upon him as to what is expected of the locomotives that are to do the hauling. Tunnelling is always avoided as expensive, yet it is often obligatory. About 1,000 of the 1,152 tunnels in the world have been excavated for the use of railways. The most remarkable railway tunnels in the United States are the Hoosac, on the Fitchburg division of the Boston and Maine Railroad, and the Stampede or Cascade tunnel, on the Northern Pacific. (See TUNNEL; also HOOSAC TUNNEL.)

RAILS AND TRACK.—Railway ties are almost wholly made of wood. Various metal ties have been patented, but owing to cost have never been generally adopted. The first rails used were of cast-iron, made in very short lengths of three to five feet. Birkensaw, of Bedlington, Durham, invented the rolled iron rail, which came into use about 1820. These have been made in many forms, the tendency in America having been toward a broader base and heavier top, until the standard pattern arrived at is that shown in the accompanying illustration, which also serves to show the arrangement of the fish-plates or angle-irons used to couple the rails. This is the style of rail commonly used in the U. S., with ties about 2 feet apart. In England the double-headed or "bullhead" rail is the common form, being set on chairs, or small iron supports, with ties 3 feet apart. This double-headed rail is shaped at the base just like the top, and cannot stand by itself, hence the use of chairs to maintain it in position. The first steel rails were made in 1857, being rolled from Bessemer steel in Derby, England. They have gradually supplanted iron rails as they became lower in price and proved more durable. The distance between the rails of a track constitutes the gauge. The standard in the United States, as well as England, is 56½ inches. Widths below that, commonly from 48 to 56, are called narrow-gauge. If more than 56½ they are broad-gauge. The tendency is to keep to the standard gauge, as more convenient. At crossings frogs are substituted for rails, these being heavy steel or iron castings in which are shaped the necessary grooves for allowing the wheels to cross other tracks without bumping or danger of derailment.

SWITCHES.—For running a train from one track to another, switches are used, or "points," as the name is

in England. The common point-switch consists of the addition, at the point where the rails of the two tracks converge, of two parallel rails coupled so as to be shifted together, and coming to a point, so that they may be thrown against a pair of fixed rails when closed, and lead the rolling-stock to the other track; or, if open, will permit the rolling-stock to continue on the same track. Misplaced switches have been a constant source of danger, and numerous devices are employed to insure their accurate working. They are commonly moved separately by means of a switch-stand, which bears a signal called a target on an upright post, the position of the target being such that an engine-runner can see from a distance how the switch is set. The best switches are now made with plates under the points, of sufficient strength to keep the switch-points to accurate gauge, and various connections are set in beds of concrete to prevent displacement by settling of the ground. Where several important switches are placed in proximity it is usual to provide a little tower or elevated cabin, from which they are worked by a switchman, who is given control of the whole series. The interlocking system for operating switches has been introduced for convenient manipulation from such a tower. It was first used in the U. S. in 1874 by the New York Central & Hudson River Railroad, at Spuyten Duyvil Junction, and the Pennsylvania Railroad tried them shortly afterward at East Newark, N. J., since which time they have been generally introduced. The Saxby & Farmer system (first employed in England) is generally used. The point-switch is provided with a detector-bar and locking-rod operable by a rack-and-pinion movement, whose function it is to first withdraw a lock-pin from the lock-rod of the switch, and simultaneously raise the detector-bar above the level of the rails, afterward moving the switch to the opposite position, and forcing the lock-bolt into a second hole in the lock-rod, thus returning the detector-bar to its normal position below the level of the rails. This detector-bar is a ponderous affair, being about 40 feet in length. It prevents the throwing of a switch while any rolling-stock is passing, and its position shows when a switch is incompletely set. The Johnson lock and signal movement, an improved form of Saxby & Farmer, is so constructed that any breakage or displacement of any part of the mechanism always results in leaving the switch at safety position. The safe running of trains is maintained largely by use of the *block system* (*q. v.*). The semaphore was introduced about 1841 in England. This consists of a post carrying one or more pivoted arms, the position of which serves to inform the engineer of the condition of the block into which he is entering, or as to the position of switches, drawbridges, &c. Two semaphores are commonly employed to guard a point, one being called the home signal, the other the distant signal.

ROLLING-STOCK.—The wheeled transportation equipment of a railway is known as the rolling-stock. It comprises every form of car and locomotive. (See LOCOMOTIVE.) Cars may be divided into passenger, freight, baggage, and palace-cars. In all forms they are mounted upon trucks which may consist of two or four wheels, but so connected as to allow of swivelling. By this means the cars are able to take short curves. Car-wheels are made of cast-iron, wrought-iron, and steel, or of wrought-iron center with steel tire, or with cast-iron center, connected with steel tire by double steel plates, between which is a filling of paper crowded in under tremendous pressure, this last being the so-called paper car-wheel. The wheels are forced on the axles, the latter turning in boxes provided with oil and cotton waste. The form of the face or tread of car-wheels has furnished some material for discussion. By slightly coning them so that the diameter close to the inner flange is greater than at the outer edge, they take more readily to the rounding of curves, as the outer wheels in such case work over and ride on the larger diameter, while the inner wheels ride on the smaller diameter, thus avoiding slippage and making easier riding on curves. Wheels so coned are better in theory than in practice, however, as they tend to produce too much side motion when running on a straight track. There is also a further difficulty in a tendency to the wearing of a groove in the base of the cone. As a consequence the coning of wheel-tires is not practiced as much as formerly. In Europe, where coning is more common than in America, the wearing of a groove in the wheel is largely avoided by slightly inclining the rails onward, so that their top surfaces fit the cone of the wheels. The coupling of cars in the U. S. is productive of numerous accidents, mainly through the adherence of companies to the link-and-pin form of coupling, in which the link is held up by hand by a brakeman, while the cars are run together, and then the pin is dropped in by hand. Passenger-cars are usually provided with the Janney automatic car-coupler, which hooks together when the cars are closed up, and can be opened by the movement of a lever on the car. The fact that the death-dealing link and pin remain in use has led many to suppose that it was for want of a better device, and several thousand car-couplers have been patented. European passenger-cars are commonly united by a hooked drawbar, and freight-cars make use of the same device, or use a coupling-chain. Freight-cars are mostly either box-cars, roofed, with sliding doors on either side, or flat cars, having a platform mounted on trucks for carrying lumber, stone, &c.; or coal-cars, having but one truck, quite short, with sides three or four feet in height, and no top. There are numerous other special forms, as cattle-cars, dumping cars, &c. Box-cars are commonly 38 to 40 feet in length, and weigh from 25,000 to 36,000 pounds, the heaviest of them being able to carry a load of 80,000 pounds. In England a freight-car is termed a goods-wagon or goods-van. Passenger-cars in the U. S. have doors at each end, and seats for two on either side. In Great Britain and most Continental countries the doors are on the sides, and the cars are cut into compartments. Passenger-cars in America are built with wooden frames, strengthened with iron rods. Frames with steel girder-sills are being introduced to some extent. The illustration shows a plan of one of these. The brake-mechanism and signal-pipes are hung under the floor. (See AIR-BRAKE.) The roofs are provided with a clearstory, or elevated central portion, in the sides of which are placed small ventilating windows. The seats are made reversible. Toilet conveniences are provided, and lamps, usually the Pintsch light, burning gas compressed in a reservoir. Sleeping-cars were first introduced in America in 1854, being invented by Theodore T. Woodruff, whose patents were afterward acquired by the Wagner Company. The Pullman Company went into the business in 1864, and now manufactures a line of palace-cars, known as private-cars, hotel- or dining-cars, parlor-cars, combination baggage and smoker, sleeping-cars, officers'-cars, compartment-cars, observation-cars, hunting-cars, library-cars, &c. These cars are often 70 feet in length, and are of extremely solid construction. The ends are usually provided with vestibules for connecting the cars with a continuous roof, avoiding all danger and discomfort in passing from car to car, and giving opportunity for top as well as bottom buffers, to reduce the concussions. The steel plates in the floors are made in two-foot widths, running across the car, and being bolted to the sills between them and the platform-timbers. Other continuous angle-plates are placed in the walls and roof, and at the ends, so that a shell of metal protects the whole car, rendering it strong enough to withstand the shock of a collision without telescoping. The Pullman cars are provided with electric lights, and water in basins and closets delivered from a tank under pressure, and furnished either hot or cold. The electric plant is usually placed in the baggage-car of a Pullman train, and consists commonly of a coupled engine and dynamo, on a single foundation, secured to the car-floor, the wires being carried out through the sides of the car. Single circular chairs are used in the parlor-cars, and settees and mirrors are placed conveniently. In the dining-cars kitchens and refrigerators are provided, with all modern conveniences, and the bills-of-fare served rival those of the best hotels. The sleeping-cars often contain ten double-berth sections. Many sleepers are so constructed that the berths fold away, and allow seats to be used during the daytime. The decorations in all these palace-cars are very elaborate. Trains made up of three or five Pullmans are now common on all long lines of railway in America.

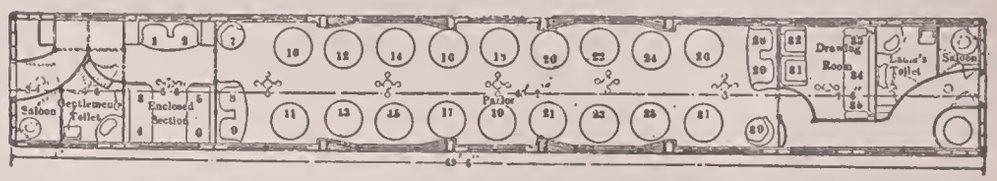


Fig. 3044.—PLAN OF A PULLMAN PARLOR CAR.

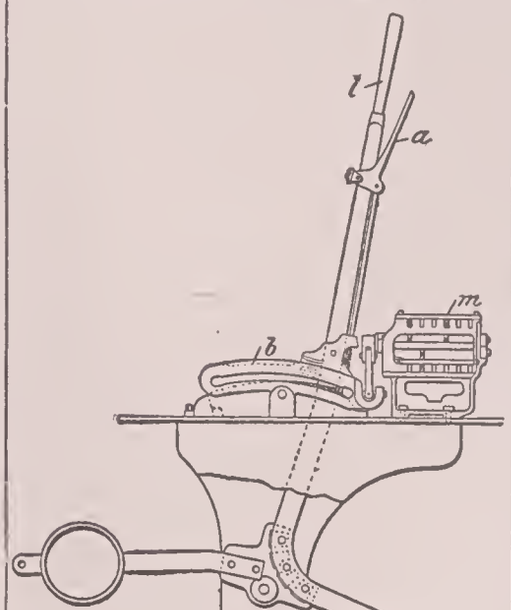


Fig. 3045.
SAXBY & FARMER INTERLOCKING SWITCH MACHINE.

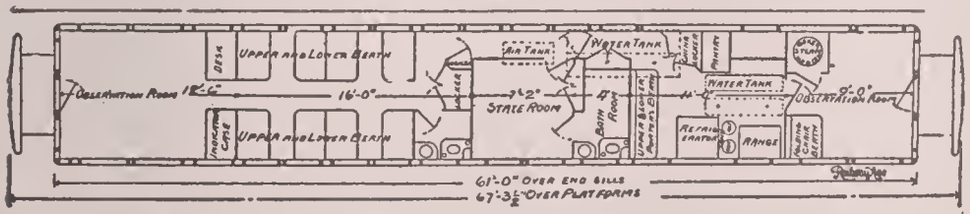


Fig. 3046.—PLAN OF AN OFFICER'S CAR.

STATIONS.—Railway stations, popularly but less properly called depots, commonly consist of a central ticket office and telegraph office, with a waiting-room on either side, one for women and one for men, while at one end is found a baggage-room and at the other a freight-room. At more important points, the freight is taken care of in a separate building. At termini, especially in large cities, the stations assume much grander proportions, and contain offices for the transaction of the business of the company, and numerous tracks and platforms, commodious waiting-rooms, dining-rooms, &c. At these the incoming trains are usually accommodated on parallel tracks, with a platform between each pair of tracks, and an enormous arched roof of iron and glass protecting the whole. The Pennsylvania Railway Station in Philadelphia, and the Grand Central Station in New York, and the Euston Station in London of the North-western Railway are among the finest specimens of railway architecture.

ACCIDENTS.—Railway travel is comparatively safe for passengers, the number of accidents being confined largely to employees and trespassers on railway property. Collisions and derailments are by no means uncommon, however, especially in the U. S.. A little more than 500,000,000 persons as passengers are carried annually by the railways of the U. S., and during the past 6 years from 170 to 376 of these have been killed, the yearly average being about 300, or about 1 passenger for every 1,650,000 carried. The number of passengers injured is about ten times as great, or 1 in each 165,000. There are about 785,000 railway employees in the U. S., and more than 2,000 of them are killed annually and over 25,000 maimed. This means that 1 man in 40 following rail-

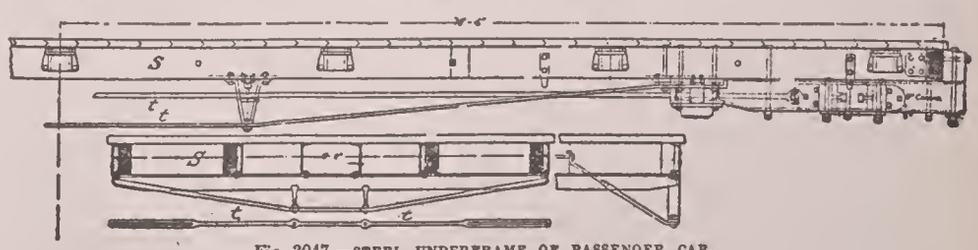


Fig. 3047.—STEEL UNDERFRAME OF PASSENGER CAR.
S S, sills; *t t*, truss-bars.

roading for 20 years will be killed, and that 1 man in 30 is injured every year. Great as is this mortality, it is exceeded by that of persons killed about stations, crossings, in stealing rides, &c. Over 4,000 a year of these are killed, and over 5,000 injured. The most of them are trespassers on the property of railway companies, and are wholly to blame for their misfortunes. The total number of killed each year is about 6,500, and of injured 35,000. The accidents to employees come maluly from two causes—coupling and uncoupling of cars, and falling from trains and engines. Station accidents, collisions, and derailments are almost equally fatal to passengers, although a few more are killed at stations than in either of the other ways. The number of collisions and derailments on U. S. railways has averaged much the same every year for the past 25 years, the improvements in safety nearly offsetting the increased travel. About 800 collisions, 900 derailments, and 100 other accidents is the yearly average. On railways of the United Kingdom of Great Britain there were 1,024 persons killed and 4,021 injured in 1895 in the course of

Fig. 3048.—CONSTRUCTION OF AN ELEVATED RAILWAY.

public traffic, while 66 more met death and 5,297 injury from accidents not connected with the rolling-stock. As these railways carry 800,000,000 passengers yearly, or 60 per cent. more than the railways of the U. S., and kill only one-sixth the number of persons, and injure but one-fourth as many, the comparison is very unfavorable to the States.

SPEED.—Express train speeds have shown a tendency to increase within the past 8 or 10 years, both as to record runs and schedule time. The Empire State Express, New York to Buffalo, covers 440 miles daily at an average speed of 53·98 miles an hour. The Baltimore & Ohio express makes 53·33 miles per hour between Washington and Baltimore. The Reading road has run schedule trains to Atlantic City which made 157·4 miles in 131 minutes, or an average of 71 miles an hour. The following are the fastest recorded short runs:

Railroads.	*Date.*	*Distance, Miles.*	*Time, M. S.*	*Miles per Hour.*
Northeastern, Eng ..	Jan., 1890	...	.....	86
Phil. & Reading.....	July, 1890	4·1	2·30	98·4
Phil. & Reading.....	Aug., 1891	1	0·39·8	90·5
Phil. & Reading.....	Nov., 1892	5	3·25	87·8
Central of N. J	Nov., 1892	1	0·37	97·3
N. Y. Cent. & H. R..	May, 1893	1	0·35	102·8
N. Y. Cent. & H. R..	May, 1893	1	0·32	112·5
N. Y. Cent. & H. R..	May, 1893	5	3·00	100
Pennsylvania	Aug., 1895	5·1	3·00	102
Plant System.....	Mch., 1901	5	2.30	120

FARE AND FREIGHT CHARGES.—The average passenger fare in England is 3 cents per mile, about seven-eighths of the travel being third-class. Many of the roads have dropped the second-class fare, but practically reintroduced it by adopting American Pullman drawing-room and sleeping-cars at an extra charge. The average fare in the U. S. is 2¼c. Reduced to American money, the fare in France averages 3c. per mile; in Germany, 2¾c.; in Italy, 2⅛c., and in Belgium, 2¼c. In the last two countries, however, baggage is charged extra, which brings up the cost of travelling so that it may be said to average 2¾ to 3c. all over Europe. Freight rates have varied a great deal, but are generally lower in the U. S. than in Europe. Alternate rate-cutting and forming of pools to maintain prices have been prominent features of American railway management. Large shippers have been usually credited with receiving advantages in the way of rates not accorded to smaller shippers, and the interstate commerce laws have had little effect on the situation. The amount of freight carried yearly by the U. S. railways averages about 760,000,000 tons.

STREET RAILWAYS.—The growth of mileage of street railways from 1895 to 1896 was 3,514 miles, nearly all of this being electric lines. The most remarkable feature about this growth is that it considerably surpassed that of the steam railways during the same period, the mileage of the latter increasing but 1,629, or less than any year since 1850. Since the date named the length of street railways has increased with accelerated rapidity, and electric cars have become practically universal. In 1890 the U. S. had 3000 miles of electric railway to 5,400 of horse car lines. In 1902 it had 22,063 of electric to 332 of horse car mileage. At the former date the capital invested in trolley lines was $108,000,000. At the latter date it was conservatively estimated at $1,500,000,000. Statistics of the status of the street railways of the U. S. in 1897 is given in the following table:

STREET RAILWAY MILEAGE OF THE UNITED STATES IN 1897.

States and Territories.	*Mileage.*	*Electric.*	*Horse.*	*Cable.*
Alabama	243·71	95·33	16·13	.....
Arizona	8·00	6·00	2·00	.....
Arkansas.....	69·74	37·80	31·94	.....
California	844·33	465·61	176·16	130·00
Colorado.....	241·64	202·39	9·25	30·00
Connecticut.....	331·39	327·69	.....	.....
Delaware	28·75	28·75	.....	.....
Dist. of Columbia..	121·19	77·80	15·39	28·00
Florida	63·75	40·50	11·25	.....
Georgia.....	286·25	254·50	19·75	.....
Idaho	3·50	3·50	.....	.....
Illinois	1,134·69	949·60	102·90	82·19
Indiana.....	354·88	335·38	19·50	.....
Iowa	256·86	220·37	16·94	7·00
Kansas	162·86	109·61	43·00	.....
Kentucky.....	283·50	234·25	41·25	.....
Louisiana.....	201·27	179 52	21·75	.....
Maine	111·57	108·57	3·00	.....
Maryland.....	401 04	332·56	33·43	33·30
Massachusetts.....	1,214 97	1,112·26	97·96	.....
Michigan	574·75	562·75	3 00	.....
Minnesota	328·50	314·63	6·75	7·12
Mississippi.....	29 50	.....	15·50	.....
Missouri	791·08	635·39	37·99	117·70
Montana.....	55 16	53·66	.....	1 50
Nebraska	240·60	200·60	40.00	.....
New Hampshire...	57·63	44 00	13 63	.....
New Jersey	772·05	748·00	22·55	1·50
New Mexico...	1·63	.....	1·63	.....
New York.....	1,692·91	1,340·75	286·72	64·44
North Carolina.....	47·35	39 85	3·50	.....
Ohio	1,242·52	1,167·14	36·50	35·88
Oregon	139 50	108·00	4·50	2·00
Pennsylvania	1,764·11	1,697·10	29·74	35·12
Rhode Island	139·46	132·03	4·00	3·43
South Carolina.....	46·05	10·00	36·05	.....
South Dakota	37·22	13·37	17·35	.....
Tennessee.....	242 20	212 00	15·70	0·75
Texas.....	373·91	276·66	69·25	4·00
Utah	99·80	9·80	.....	.....
Vermont	28·88	28·88	.....	.....
Virginia	220·20	206·70	10·00	.....
Washington.....	278·67	247·77	4 00	26·90
West Virginia.....	37·00	27·00	10·00	.....
Wisconsin	293·38	276·13	12·25	.....
Wyoming.....	5·30	.....	5·30	.....
Unclassified.....	52·88	.....	.....	.....
TOTAL,	15,956·13	13,474·20	1,347·51	610·83

In addition to the electric, horse, and cable railways above enumerated, there were 384 01 miles operated by steam motors.

ELEVATED RAILWAYS.—While the steam railroads of the world perform the great bulk of the carrying trade on land, there are numerous other forms of motive power which have come into some use. There are also steam railways constructed on different lines from the standard railways here described. Conspicuous among these are the elevated railways of New York, Brooklyn, and Chicago. These are raised in order that trains may be run at a speed which would endanger other travel if done on the street level, and also to relieve the street below of a certain amount of travel. The supports are trussed posts of steel, and the construction is sometimes of plate-girders and sometimes of trusses, according to conditions. New York was the first city to adopt the elevated structure, the Ninth Avenue line being begun in 1868. New York city's system of elevated railways covers Second, Third, Sixth, and Ninth Avenues, from the Battery to points in Harlem, the longest route being a little over 11 miles for a five cent fare. Nearly a million passengers are carried daily. The five elevated roads in Brooklyn all culminate at the East River Bridge. The cost of the New York system up to 1895 was over $73,000,000, of which $52,000,000 represented the expense of building. The cost per mile was a trifle over $2,000,000. The Brooklyn elevated roads are not built to carry so heavy a traffic as those of New York, and cost less than $1,500,000 per mile, or a total of over $42,000,000. The Chicago steam elevated roads cost $34,000,000, or a little more than $2,000,000 per mile. The total cost of elevated street railways in the U. S. is $182,000,000, the cost per mile being 30 times that of steam roads built on the level. Numerous inclined railways are run by steam power. (See INCLINE.)

ELECTRIC RAILWAYS are described and illustrated elsewhere under that title.

CABLE RAILWAYS have been employed to a considerable extent on mountain railways and for street railways. The first street railway to use this system was in San Francisco. Later, Philadelphia established a comprehensive system of cable roads, which have since been supplanted by the trolley. In New York city, Broadway, Third Avenue and 125th Street are equipped with cable lines. The New York and Brooklyn bridge cars are also drawn by cable. The method of operating the cable is to construct an underground conduit between the rails, with an open slot communicating with the street. A steel-wire cable is run on sheaves within the conduit by means of power-stations placed at convenient points along the route. The cable is endless, but each section is separate from the next, and when the cars pass from one section to another they are obliged to drop the cable, while retaining enough speed to carry them on to the next section. The cars are each provided with gripping mechanism that extends through the slot, and can be made to pick up the cable and grip it by the operation of wheels or levers from the car platforms. The cable system is costly of installation, involving an expenditure of $350,000 per mile, as against $88,000 per mile for the average street railway. It is more expensive to operate than the trolley, but is cheaper to run than the horse-railway. It was introduced first as an economy over horse-traction, and has been retained in some places because of its advantages in overcoming grades, and in others because it avoided the erection of overhead wires. Under some conditions, however, it is quite economical to operate, as on the New York and Brooklyn bridge, where there is a noticeable incline from the center to the entrances. Here the cars going down one side of the incline help to pull up the ascending cars, and materially reduce the demands upon the power.

EXPERIMENTAL RAILWAY SYSTEMS.—Compressed air has been frequently tried as a motive power for street and suburban railways. It is used on a short line between Paris and Nogent-sur-Marne, and between the Louvre and St. Cloud; also at Berne, Switzerland. In the United States its use has been experimental only. The Parisian line carries six large tanks under each car, in which the air is charged from stations at one and a half mile intervals. The pressure in the tanks at starting is 2,000 pounds per square inch. The smokeless

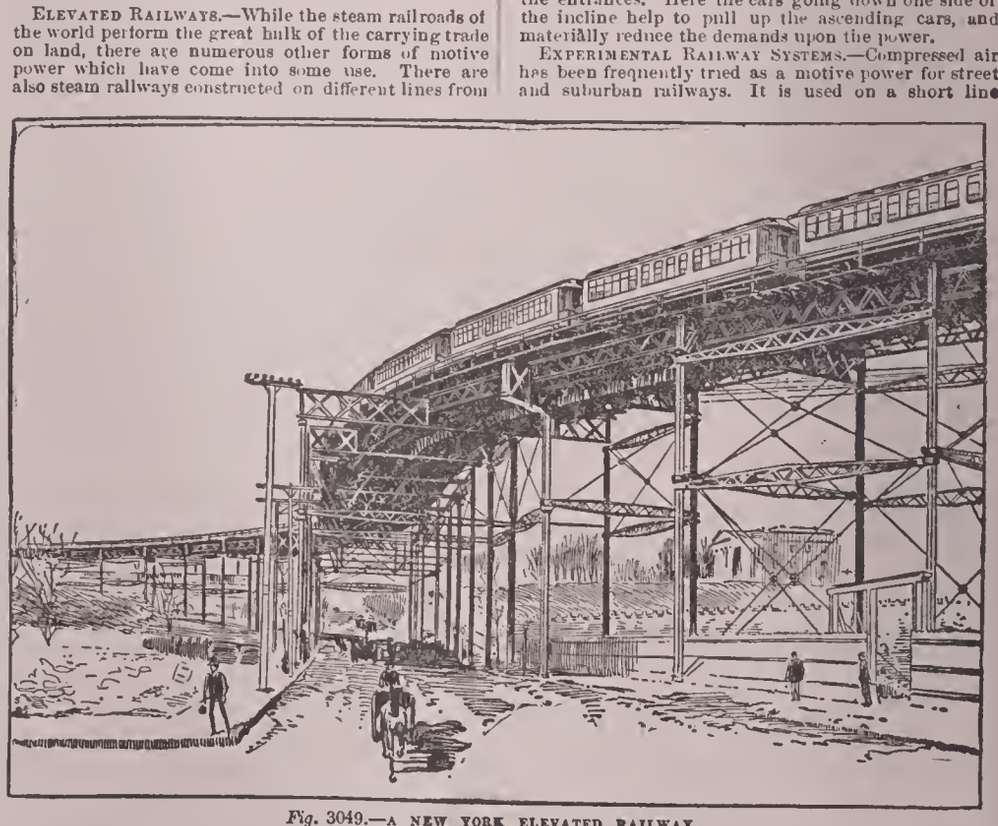


Fig. 3049.—A NEW YORK ELEVATED RAILWAY.

and nearly noiseless operation of these cars recommends them for city use, but the cost of operation is greater than that by means of the trolley. The Hardie and the Hoadley compressed-air systems have been tried in New York city. These use the air at a pressure of about 150 pounds and heat it to gain further expansion. Mine-locomotives are made and operated on similar principles. (See LOCOMOTIVE.) Gas-power propulsion is still in an experimental stage. Three systems have been devised, the Luhrig, Guillieron, and Amrein, the first being in operation on a line in Dessau, Germany. Two tandem Otto gas-engines, of 7 horse-power each, are mounted in the base of a short street car, the fly-wheels being allowed to project slightly to the exterior of the car. The gas is compressed in a tank to save space. Ordinary illuminating gas is used, and the cost of compressing it is said to be trifling. The gas consumption is about 35 feet per mile of travel. The speed can be altered by means of pedals under the feet of the motorman. About 10 miles an hour is the best speed attained, with a car made to seat 16 passengers. Among proposed systems of railway propulsion or construction which have attracted some notice is the hydraulic sliding-railway system. With this the cars are mounted on broad iron shoes or runners in place of wheels, the shoes being made to slip along the track easily by forcing water to their under surfaces through minute holes, so that they glide on a thin sheet of water. Under the car is placed a row of buckets, against which streams of water are directed from fixed nozzles that are opened and closed by the train in passing. The friction on the rails is much less than with wheels, but the system is very wasteful of water.

PNEUMATIC RAILWAY.—A form of atmospheric railway, in which the propelling power was the pressure of the atmosphere on one side of a piston or diaphragm, and a partial vacuum on the other side, was tried experimentally about 1865, in the grounds of the Crystal Palace, London. It was about 600 yards long. A brickwork tunnel, about 10 feet high by 9 in width, and capable of admitting the largest broad-gauge carriage, was constructed, with a single line of rails along the bottom. The tunnel had a hinged valve at each end. The route was purposely laid with severe curves and gradients, to test the principle more completely. A small stationary steam-engine worked a fan 22 feet in diameter, which was so arranged as either to condense or to rarefy the air in the tunnel according to the adjustment of certain valves. In the one case, air rushed in from the circumference to the center of the disk; in the other, it rushed out from the center to the circumference, there being an open channel from the center of the fan to the tunnel. A long, roomy carriage, like an omnibus, adapted for 30 passengers, travelled to and fro in the tunnel, being *blown* in one direction and *sucked* in the other. Fixed behind the carriage was a framework nearly as wide and high as the tunnel, and a fringe of bristles round the edge of this framework pressed like a brush against the interior of the tunnel, forming a sort of air-tight piston. The motion was steady and equable; and a good speed was attained with a pressure of only 2½ oz. to the square inch. In the U. S., in 1867, a tube of sufficient size for the transit of passengers was erected in the Armory building, Fourteenth Street, New York. It was operated by A. E. Beach, and was worked for several weeks during the exhibition of the American Institute. The car carried 14 persons, and about 100,000 visitors enjoyed the atmospheric ride.

BICYCLE RAILWAYS.—A number of so-called bicycle railways have been devised. That of E. Moody Boynton, of Newburyport, Mass., was first constructed to run by steam, the locomotive impinging against a lower and an upper rail. An experimental road built on Long Island showed a speed about equal to that of the ordinary steam locomotive, and the system was not pushed. Mr. Boynton has since devised an electric locomotive for his railway, using the same system of upper and lower rails. The driving wheel has side plates made to revolve with the tire on a fixed shaft, the armature and field magnets being within the plates, one fast to the shaft, the other to the plates. The Brott electric bicycle system has attracted considerable attention, and it is stated that it will be tried on a local line near Washington. These cars rest on two centrally located wheels placed at each end of the structure. Electric motors are hung directly on the axles, and are not geared to reduce the speed, as is the case with street cars, for these cars are meant to run at a speed of 120 miles an hour. Side wheels are provided to impinge against stringers, and insure the car's maintaining an upright position. The electric current is to be taken from a conductor by a slider, on the third-rail principle, only in this case it is a second rail, because there is but one rail proper for a track. It is conceded that this system is capable of developing great speed, but the line is expensive to construct, and it is uncertain whether the dangers of riding at such a speed might not counterbalance the advantages.

For further information and statistics, see RAILROAD, in SECTION I.

Raines, JOHN, lawyer and politician, was born at Canandaigua, N. Y., May 6, 1840; graduated at the Albany Law School (1861); served in the Federal Army (1861–65), reaching the rank of captain; in the New York Assembly in 1881, 1882, and 1885; State senator from 1886 to 1889; elected to Congress in 1889 and 1891. He is best known as the author of the Raines' Liquor Law. See LIQUOR LICENSE LAWS.

Rai'nier, Mount. One of the highest mountains in the U. S. (14,444 feet), in Washington, near the head of Puget Sound, and a part of the Coast Range. It is an extinct volcano, having a well-defined crater, and now carrying several living glaciers. It was first ascended in 1870, and frequently since, the route up the western slope being now well marked, and one from the eastern base having been explored. In 1897, an Alpine club of the Pacific coast, the Mazamas, ascended it with a party of 73 members and prominent guests, one of whom, Prof. Edgar McClure, was killed. It is occasionally called Mount Tacoma.

Rains, in *Texas*, a N.E. co.; *area*, 270 sq. m.; bounded S. and S.W. by Sabine river. *Surface*, undulating; *soil*, fertile. *Pop.* (1897) 5,000.

Raison d'être (*rā-zon'(g)dā'tr*). [Fr., a reason for being] A reason or excuse for existence (of anything).

Ral'ston, WILLIAM RALSTON SHEDDEN, archæologist, was born in 1828; graduated at Trinity College, Cambridge (1850); published several books on Russian folk-lore, and translated works from that literature; was a frequent contributor to current magazines. Died Aug. 8, 1889.

Ramie (*rām'y*), *n.* [From *ramee*, its Javanese name.] (*Agric.*) The bast-fibers derived from the ramie plant (*Bœhmeria nivea*), a species of the fiber-yielding family of the *Urticaceæ*. In India it is known as rhea, or sometimes as China-grass, and is woven into a fabric called grass-cloth. Ramie is notable among other fibers for its superior luster and strength, and its quality of resisting moisture to an unusual degree. It can be reduced to the fineness of flax, and used in the place of long-staple wool or cotton. The plant is perennial, sending up tall, herbaceous shoots after each cutting; a native of China and the neighboring tropical countries, preferring moist lands. It has been introduced into British colonies, and into the U. S., even so far north as New Jersey. Unfortunately its remunerative production is somewhat hampered by the cost of separating the fiber from the bark, and although large rewards were offered by the Indian government in 1869 and 1877, no one has discovered a way to make its extensive use profitable.

Ram'sey, ALEXANDER, statesman, was born in Pennsylvania, Sept. 8, 1815; was governor of Minnesota (1860–63), and U. S. senator from that State (1863–75), and for a short time secretary of war.

Ramsey, WILLIAM, chemist, was born in Glasgow, Oct. 2, 1852; has been professor of Chemistry at Glasgow, Bristol, and London. His most important work is the description of argon (*q. v.*), which he discovered simultaneously with Lord Rayleigh.

Ramsey, in *North Dakota*, a N.E. co.; *area*, 936 sq. m. Its southern boundary is formed principally by Lake Minni Wakan (Devil's Lake), which lies between it and Benson co. *Surface*, rolling; *soil*, very fertile. *Cap.* Devil's Lake. *Pop.* (1897) 5,000.

Ran'dall, JAMES RYDER, journalist and song-writer, was born in Baltimore, Md., Jan. 1, 1839; in 1861 he became famous by the publication of his song, *Maryland, My Maryland*. Other poems followed, in the same vein. In 1866 he became editor-in-chief of the *Constitutionalist*, at Augusta, Ga.

Randall, SAMUEL J., politician, was born in Philadelphia, Pa., Oct. 10, 1828. He was a merchant, and held important municipal offices; was elected State Senator in 1858; in the Union army (1861–62); elected to Congress (1862); served in the army in 1863, at Gettysburg; was Speaker of the House (1876–81); a member of Congress to the end of his life, and a prominent leader in the protectionist wing of the Democratic party. Died April 12, 1890.

Ran'dleman, in *North Carolina*, a post-village of Randolph co. *Pop.* (1897) 1,820.

Ran'dolph, THEODORE FRELINGHUYSEN, politician, was born at New Brunswick, N. J., June 24, 1826; was governor of New Jersey (1869–72); and U. S. Senator from that State (1875–81). Died Nov. 7, 1883.

Randolph, in *Maine*, a post-town of Kennebec co. *Pop.* (1897) 1,310.

Randolph, in *Wisconsin*, a post-village of Dodge co., 25 m. N. W. of Juneau. *Pop.* (1895) 588.

Randolph-Ma'con Col'lege was founded in 1832 by the Virginia and Baltimore conferences of the Methodist Episcopal Church South. It was at first in Mecklenburg co., Va.; but suffered severely during the Civil War, and in 1866 was removed to Ashland, Hanover co., Va., and re-endowed. In 1896, it had 41 instructors, 489 students, and 12,500 volumes in its library, and its income was $89,700.—*Randolph-Macon Woman's College*, at Lynchburg, Va., is an endowed institution for women, with courses parallel to those for men at Ashland, with 15 instructors, and about 125 students.—*Randolph-Macon Academy*, at Bedford City, Va., was established in 1889 as a preparatory school for the college, and *Randolph-Macon Academy*, at Front Royal, Va., was similarly organized in 1891. All four institutions are under the control of one board of trustees.

Range'-find'er, *n.* Any form of telemeter or distance-meter may be termed a range-finder, but the term has come into prominence within a few years as a popular name for what is more properly styled position-finder, for locating the position—that is, both the direction and the distance—of a moving object, as a hostile war-vessel. All position-finders are based on the principle that if 2 sides of a triangle are known, the other can be calculated, fixing the position of the object. Large guns, having an effective range of many miles, and being often placed behind an embankment, from which they are elevated only at the instant of firing, require that the gunner should possess some means of quickly and accurately determining the position of any object which is to become a target. The instrument invented by Lieutenant Bradley A. Fiske, U.S.N., is among the best known position-finders. Two telescopes are placed on either side of the gun, being separated by a known distance, which serves as a base-line for the automatic calculation of the triangles. One end of each telescope is made so as to be in continual contact with each of a pair of wires arranged in arcs. An electric current being applied to the arcs, they constitute a form of the Wheatstone's bridge or electric balance, and the difference in length of the wires passed over bears a definite mathematical relation to the distance of the target, so that the line is measured, and forms one side of a triangle, of which the base-line between the telescopes is the second line. If the apparatus is stationed at a battery commanding a harbor, of which charts have been made, the observers at the telescopes adjust electrical pointers over the maps, which are preferably inscribed on a brass plate, and connect them electrically with pointers beside the gun, or the gun itself may serve as a pointer, so that the gunner in charge of the training (or side-motion) of the gun has only to keep it pointed so that the needle of his galvanometer is at zero to make sure that it is trained on the target. The elevation of the piece is directed by another galvanometer similarly operated. This position-finder was tested at Sandy Hook a few years ago, with the result that 10 consecutive shots were all dropped within a space 8½ yards wide, and less than 200 yards long.

The range-finder of Lieutenant Isaac N. Lewis, U.S.A., has been adopted by the United States Army for battery use in coast defence. It requires to be elevated to a height of at least 30 feet, as it makes use of the elevation as a base-line to assist in calculating the angle. It consists of a pivoted telescope-holder, mounted centrally on a round table. The telescope being pointed at a ship, the range may be read from a scale, the distance on the sea level forming a second side of the triangle. Other devices are provided for taking the angular direction of the ship, and making the corrections necessary to compensate for the change of the base-line caused by the rising and fall of the tide.

A more simple form of range-finder is that of F. J. B. Cedeiro, which furnishes information as to the desired two sides of an angle, leaving the other to be figured out mathematically. It is a form of telescope, upon the tube of which is mounted perpendicularly an arm about 1 yard in length. Prisms are placed at the extremity of the arm, and at the object-glass. These being adjusted to reflect the image into a telescope, a vernier-scale gives the angle, and the arm constitutes a base-line for the second angle.

Rangoon', the largest city in Burma, and the third port in importance in British India. It stands on the Hlaing or Rangoon river, the eastern arm of the Irawadi river, about 20 m. from its mouth. Two railways run northward from it; one to Prome, the other to Mandelay. The existing city is almost entirely of modern construction, built since the British took possession of it in 1852. It is provided with street cars, fire brigades, and other modern improvements; is well lighted, and has an excellent water supply, but is badly built. The narrow streets, though laid out regularly, are intersected by canals, and the sanitation is bad. There are extensive teak forests in the region about it, which formerly furnished the material for a large amount of ship-building. This industry, however, has declined. The principal articles of export are cotton, rice, skins, spices, and teak. The population has increased from 25,000, in 1852, to 181,210, in 1891. Something less than one-half are Burmese, and the natives of India are about as many. In 1889–90, the total imports (excluding coasting trade) were valued at £5,686,244, and the total exports at £5,047,268. There are an Anglican cathedral (of which the foundation stone was laid by Lord Dufferin, in 1886), other European churches, the Phayre Museum in the horticultural gardens, and St. John's College. Behind the town is a fortified hill (166 ft.), on which stands the Shway-Dâgon pagoda, an imposing structure, with a tower 321 feet high, capped by an enormous gilded crown, and containing a bell weighing 30 tons. Tradition says that it was erected in the 6th century B. C. It is the repository of eight hairs from the head of Gautama Buddha, and is "the most venerated object of worship in all the Indo-Chinese countries," frequent pilgrimages being made thereto. Grouped round the hill on which the pagoda stands is a large British military cantonment. Up to 1753, the city was named after the pagoda; then King Alompra selected the town as the capital of Pegu, and gave it its present name, *Ran-koon*, or, "end of the war." It was occupied by the British in 1821, but soon returned to the Burmese. In 1852 it was again taken by the British, and has since been held by them.

Ranke, LEOPOLD VON, historian, was born in Wiehe, Saxony, Dec. 21, 1795; educated at Leipsic; was made professor extraordinary of History in Berlin University (1825), a position directly due to the distinction he had won the preceding year by his first historical work, *A History of Latin and Teutonic Nations*. In 1847 he published *Nine Books of Prussian History*. Several other works followed at intervals; and at the age of 80 *R.* began his *History of the World*, and lived to complete 12 volumes, receiving the cordial aid of the government in facilitating his work. In 1865 he was ennobled; in 1867 he was made chancellor of the order *Pour le Mérite*; in 1882 was made a privy councilor; and in 1885, his 90th birthday was made a national holiday, the Emperor

William calling on him at his residence, and congratulating him. He wrote with undiminished power until within a few days of his death. He was especially strong in the development of obscure or doubtful points of history, to which he applied a critical analysis. His style has had many imitators, who are usually characterized as the "School of Ranke." Died May 23, 1886.

Ran'som, MATTHEW WHITAKER, politician, was born in Warren co., N. C., Oct. 8, 1826; educated at the University of North Carolina, and became a lawyer and planter; elected attorney-general of his State (1852); member of the legislature (1858–60); peace commissioner from N. C. to the congress of Southern States at Montgomery (1861); entered the Confederate army; served throughout the war, reaching the rank of major-general; surrendered at Appomattox; was elected to the U. S. Senate in 1872; reelected in 1876, 1883, and 1889; appointed minister to Mexico in 1895.

Ransom, in *North Dakota*, a S.E. co.; *area*, 864 sq. m.; drained by Cheyenne river. *Surface*, rolling prairie land; timber abundant along streams; *soil*, deep rich black loam, with clay subsoil. *Cap.* Lisbon. *Pop.* (1897) 7,150.

Rap'id City, in *South Dakota*, a city, cap. of Pennington co., 40 m. S. E. of Deadwood; in the mining district of the Black Hills, with gold, tin, and mica mines in vicinity. Seat of the Dakota School of Mines. *Pop.* (1895) 1,787.

Ras'sam, HORMUZD, archæologist, was born in Mosul, in northern Mesopotamia, in 1826. In 1845 he joined Layard to assist him in his Assyrian researches; returned with him to England and studied at Oxford; in 1847 was sent out by the British Museum authorities to assist Layard in his second undertaking; succeeded Layard in the management of the expedition; has since been actively employed in archæological researches for the British government in Abyssinia, Assyria, Armenia, Babylonia, &c., making many valuable discoveries.

Raton', in *New Mexico*, a post-village of Colfax co., 110 m. N.E. of Las Vegas. *Pop.* (1897) 2,100.

Raven'na, in *Nebraska*, a city of Buffalo co., 30 m. W. of Grand Island. *Pop.* (1897) 1,100.

Raw'lins, JOHN AARON, soldier, was born in East Galena, Ill., Feb. 13, 1831; admitted to the bar (1854). During the Civil War, was aide-camp to Gen. Grant; in 1865, was brevetted major-general, U. S. A. In 1869 he was made secretary of war, holding that office until his death, which occurred Sept. 9, 1869.

Rawlins, in *Kansas*, a N.W. co.; *area*, 1,080 sq. m.; drained by Beaver creek and the North, South, and Middle Forks of Sappa creek. *Surface*, prairie; timber along streams. *Cap.* Atwood. *Pop.* (1895) 5,702.

Rawlins, in *Wyoming*, a city, cap. of Carbon co., 136 m. W.N.W. of Laramie; has railroad machine shops and roundhouses, coal, quarries of limestone and buil dingstone, and a medicinal sulphur spring in the vicinity. Here is the State Penitentiary. *Pop.* (1897) 2,510.

Raw'linson, GEORGE, Oriental historian, was born at Chadlington, Oxfordshire, Nov. 23, 1815; educated at Oxford, where he afterward became Camden professor of Ancient History (1861); canon at Canterbury (1872); rector of All Hallow's, London (1888). His lectures and historical writings are characterized by a conservative defence of orthodoxy. He is best known by the *Five Great Monarchies of the Eastern World* (1862); *The Kings of Israel and Judah* (1889).

Rawlinson, SIR HENRY CRESWICKE, soldier, diplomatist, and archæologist, was born at Chadlington, Oxfordshire, April 11, 1810; served with distinction as soldier and diplomat in India, Turkey, and Persia; in 1835, while stationed at Kermanshah, he began to study cuneiform inscriptions in Persia, contributing to the Royal Asiatic Society in London the results of his archæological and Biblical researches, besides other works on the same subjects. He was knighted in 1855, and made director of the East India Company; was special envoy to the Shah of Persia in 1859. He sat in Parliament as a Liberal, where he took an active interest in foreign affairs. In 1876 he was nominated vice-president of the Council of India, and received a baronetcy in 1891. Died March 5, 1895.

Ray'leigh (JOHN WILLIAM STRUTT), BARON, the third of the title, was born in Essex, Nov. 12, 1842, and succeeded to the title in 1873; educated at Trinity College, Cambridge, where he was professor of Experimental Physics from 1879 to 1884. In 1888 he succeeded Prof. Tyndall as professor of Natural Philosophy in the Royal Institution, London. He shares with Ramsey the credit of discovering the element argon (*q. v.*), for which he was awarded the Barnard medal "for meritorious service to science," by Columbia College, New York.

Ray'mond, HENRY JARVIS, journalist, was born in Livingston co., N. Y., Jan. 24, 1820; educated at the University of Vermont; in 1841 was associated with Horace Greeley, editor of the New York *Tribune*; was editor of the *Courier and Enquirer* (1843); founder of the *Times* (1851); member of the New York legislature (1849); lieutenant-governor (1854); member of Congress (1864). He was among the organizers of the Republican Party, in 1856. His chief work is *Life and Public Services of Abraham Lincoln* (1865). Died June 18, 1869.

Raymond, JOHN T. See JOHN O'BRIEN.

Raymond, in *Illinois*, a post-village of Montgomery co., 50 m S.W. of Decatur.

Rayne, in *Louisiana*, a post-village of Arcadia parish, 15 m. W. of Lafayette. *Pop.* (1897) 648.

Read, JOHN MEREDITH, diplomatist, was born in Philadelphia, Pa., Feb. 27, 1837; educated in a military school; appointed adjutant-general of New York (1860); went to Paris (1869) as consul-general in France and Algeria. During the Franco-German war *R.* acted as consul-general of Germany; also for nearly two years conducted all the consular affairs of that country, including the protection of German citizens during the two sieges of Paris (1870–72). From 1873 to 1880 he was U. S. minister to Greece. Died Dec. 27, 1896.

Read, OPIE, author, was born in Nashville, Tenn., Dec. 22, 1852; devoted himself for several years to journalism; has written several clever stories of Southern life, the most conspicuous title being *A Kentucky Colonel* (1890), which has been successfully dramatized. Other stories are: *A Kentucky Judge* (1893); *The Wives of the Prophet* (1894), and *The Jucklins* (1896).

Read, THOMAS BUCHANAN, poet and artist, was born in Chester co., Pa., March 12, 1822. In 1846 he opened a studio in New York; in 1850, and again in 1853, he visited Europe, and finally took up his residence in Rome, visiting the U. S. occasionally. During the Civil War he spent much time visiting the camps and reciting his verses. His poem, *Sheridan's Ride*, was written immediately after the event, and was recited a few hours later at a mass meeting in Cincinnati by James E. Murdock. As a companion to this poem, *R.* afterward executed the painting of *Sheridan's Ride*. Of his other poems, the best known is *Drifting*. Died May 11, 1872.

Reap'ing Machines'. (*Agric.*) Automatic machines for the cutting and gathering of standing grain may be said to have become practical with the invention of Cyrus H. McCormick, in 1831. His machine contained the principles on which almost all the varieties of harvesting machines are now constructed, whether known as tinders, harvesters, mowers, reapers, or by some other name. (See MOWING AND REAPING, in the body of this work.) The type of machine commonly designated as a reaper is mounted on wheels and drawn by horses. It has a cutter-bar like a mower, and back of the cutter-bar a platform on which the cut grain falls. If the machine is of the self-binding type, the platform carries a canvas traveling-apron, which draws the grain to one side, where it is drawn in with curved hooks to a binding-deck, where it is automatically tied and dropped. For a time wire was used in the binding, but was afterward discarded for cord, as the wire occasionally made trouble later in grinding the grain. In order that the standing grain may be held up to the cutter-bar of the reaper, and not lost by crushing down, a reel, or a set of rakes, is provided for descending on the grain in advance of the cutter, and pressing the grain backward against the reciprocating blades. Where the binding attachment is not used, the revolving rakes are commonly made to draw the grain on the platform, and drop it in bulk at regular intervals.

Record'ing and Reg'istering Devices'. It is desirable to make a printed record of the performance of a great many machines and instruments, or to register certain events or proceedings in the conduct of business. For such purposes a vast number of mechanisms and contrivances have come into use, under a variety of names, "recorder" and "register" being applied without much discrimination, although, properly speaking, a recording device is one that leaves a permanent record, as a printing or tracing that can be preserved, while a registering device is one that performs some action, as the exposing of figures, or the adjustment of some part to a certain position, where it remains only temporarily. A most common form of *recorder* is a drum or cylinder, arranged to rotate slowly about its axis, and at the same time to advance endwise still more slowly by means of an internal screw. Such a drum is covered with a smoked paper, or the like, and brought in contact with a style, as a sharp point, bristle, or other scratching device, attached to the thing whose movements are to be recorded. If the drum is moved by clockwork, or other means of producing a regular motion, the style will leave an even spiral line on the smoked paper as long as the style remains stationary, but every movement of the part to which the style is attached will cause a waving or other alteration of the spiral line, leaving a record of all variations of position. This principle is made use of in the steam-engine indicator, in the pluviometer, and a great variety of scientific instruments. The phonographic record is made by similar mechanism, the only difference being that tinfoil is substituted for the smoked paper, and that the irregularities produced by the sound-waves serve to indent the tinfoil rather than to wave the lines of the record. A continuous paper tape, running from one reel to another, is used with many machines to preserve a record. The telegraph recorder is a familiar instance, and the stock-ticker another, each imprinting a record on the paper as it passes through. Other recorders are made in the form of a disk, bearing circular and radiating graduations. The disk being rotated, as by the hand of a clock, it is possible to read any scratches or marks made thereon by a pointer fixed to the mechanism whose operation is to be recorded, and to read the time at which the pointer made the scratch. This principle is made use of in some watchmen's detectors. A recorder for giving indications of varying pressures of gas is manufactured with a disk of this sort.

One of the simplest mechanisms for *registering* figures consists of gear-wheels, numbered from 0 to 9, and arranged in a row, with gearing by which the first wheel turns the second one-tenth at each rotation, the second the third at the same proportional speed, and so on. A common form of these is seen in the fare-indicators used on street-cars, the counters on printing-presses, &c. A similar mechanism, with a printing face on the figure-wheels, is used for printing numbers, as in paging blank-books or numbering tickets. More complicated mechanisms of wheels, as in epicyclic trains, serve for calculating operations, as in some forms of cash-registers. A very simple form of register is a dial or graduated sector, about which a pointer moves, as in the compass or steam-gauge. A time-register is made by arranging figure-wheels geared to drive by clockwork, so that they always represent the time of day. Suitable inking and stamping mechanism being provided, an employee's time-card, a telegram or the like may be inserted and stamped at any time with the assurance of recording thereon the time of day.

CASH REGISTERS.—These machines are much used in mercantile houses to keep a record of the cash received, and verify the returns of cashiers and clerks. Several different forms are manufactured, the most general arrangement being the unlocking of a drawer, containing the cash used to make change, by the depression of a key or keys marked 10, 15, 20, or the like, to the amount of the customer's purchase. The machine makes record of the amounts represented by the keys struck, and adds them up, so that at the close of the day's business it exhibits the amount of money which should be added to what was previously in the drawer, as the result of the day's receipts. By the use of these machines, a cashier cannot readily steal cash without allowing the customer to see that he is doing so, by striking keys of a less amount than the customer's purchase.

Rec'tor, in *Arkansas*, a post-town of Clay co., 178 m. N.E. of Little Rock. *Pop.* (1897) 550.

Red Cloud, in *Nebraska*, a city, cap. of Webster co., 41 m. S. of Hastings; has railroad repair shops, flour mills, marble and granite works, creamery, &c. *Pop.* (1897) 2,750.

Red Cross Soci'eties. All civilized nations have now acceded to the Geneva Treaty of 1864, which provides for the formation in each country of a committee to supplement the army sanitary service by furnishing surgeons and trained nurses, preparing and furnishing hospital stores, and investigating the sanitary conditions of the army, and which assures the neutrality of hospitals, of the officials of the sanitary service, of the unpaid surgeons and nurses, of the wounded, and of the inhabitants of any non-combatant nation which shall send aid to the wounded. All committees, societies, and others which have been formed to carry out the purposes of this treaty are known as Red Cross Societies, and have adopted a red Swiss cross (in token of Geneva) on a white field as a flag, and a red cross as a badge. The international organization is now complete; it has a permanent committee at Geneva, forming a center of communication between different states and facilitating the action of the different societies whenever war is declared anywhere. Among the prominent Red Cross Societies are the English Order of the Hospital of St. John of Jerusalem, the National Society for Aid to the Sick and Wounded in War, the French Société de Secours aux Militaires Blessés, and the Austrian Samariter Verein. *The American Red Cross Society* was organized in 1881 by Miss Clara Barton, and joined the international union. Miss Barton had worked with the military hospital service during the Civil War, and was consequently thoroughly acquainted with the organization and scope of the U. S. Sanitary Commission, which worked exactly along the lines afterward laid out by the Geneva Treaty. During the Franco-Prussian War, Miss Barton helped the Grand Duchess of Baden in the organization of hospitals, and afterward superintended the supplying of work to the poor in Strasburg in 1871, and the relief of the destitute of Paris in 1872. It occurred to her that the Red Cross Societies might be useful in times of flood, famine, pestilence, and disaster, as well as in war, and she organized the American society upon a character which covered this entire field. This broader idea was approved by the international and other national societies, and was included in many of the organizations under the name of the "American Amendment." The American National Red Cross has collected and distributed aid, amounting to more than a million dollars, for the relief of suffering after the Johnstown flood, the Russian famine, the tidal wave along the southeastern Atlantic coast of the United States, and various floods in the Mississippi valley.

Red Jack'et, in *Michigan*, a post-village (P. O. CALUMET) of Houghton co., 15 m. N. of Houghton; an important mining place. *Pop.* (1894) 4,664.

Red Key, in *Indiana*, a post-town of Jay co., 18 m. N. of Muncie. *Pop.* (1897) 1,150.

Red Lake Falls, in *Minnesota*, a post-village of Polk co., 20 m. N.E. of Crookston. *Pop.* (1895) 1,008.

Red Li'on, in *Pennsylvania*, a post-borough of York co. *Pop.* (1897) 620.

Red Lodge, in *Montana*, a post-village, cap. of Carbon co., 40 m. from Laurel. Gold, silver, and coal mines in vicinity. *Pop.* (1897) 1,250.

Red Oak, in *Iowa*, a city, cap. of Montgomery co., 50 m. S.E. of Council Bluffs; has some manufactures. *Pop.* (1895) 4,224.

Red Riv'er, in *Louisiana*, a N.W. parish; *area*, 386 sq. m.; drained by Red river. *Surface*, level; *soil*, fertile. *Cap.* Conshatta. *Pop.* (1897) 12,770.

Red Wil'low, in *Nebraska*, a S. co.; *area*, 720 sq. m.; intersected by Republican river and Beaver creek. *Surface*, undulating; timber scarce. *Cap.* Indianola. *Pop.* (1897) 10,220.

Red'ding, in *Alabama*, a post-town of Jefferson co. *Pop.* (1897) 550.

Red'field, in *South Dakota*, a city, cap. of Spink co., 40 m. N. of Huron. *Pop.* (1895) 900.

Red'lands, in *California*, a post-village of San Bernardino co., 8 m. E. of San Bernardino. *Pop.* (1897) 2,155.

Redon'do Beach, in *California*, a post-town of Los Angeles co., 18 m. from Los Angeles. *Pop.* (1897) 850.

Red'path, JAMES, author and journalist, was born in England, Aug. 14, 1833; emigrated with his parents to Michigan in 1848; was an editor of the New York *Tribune* at the age of 19—a radical abolitionist. He travelled through Ireland during the famine of 1881, as correspondent of the *Tribune;* lectured in Ireland and in the U. S., and published *Redpath's Weekly*, in behalf of the Irish cause. In 1886 he became editor of the *North American Review*. He published several works relative to the two great causes of freedom to which his life has been mainly devoted; among them, *Talks with Slaves in Southern States* (1859); *Guide to Haiti* (1860); and *Talks about Ireland* (1881). Died Feb. 10, 1891.

Reed, JOSEPH, Colonial statesman, was born in Trenton, N. J., Aug. 27, 1741; was a delegate to the Continental Congress in 1775; aid-de-camp and secretary to General Washington; adjutant-general in 1776; brigadier-general in 1777; signed the articles of Confederation in 1778; and was president of the Supreme Executive Council of Pennsylvania from 1778 to 1781. Died March 5, 1785.

Reed, THOMAS BRACKETT, politician, was born at Portland, Maine, October 18, 1839; graduated at Bowdoin (1860), and studied law. In 1864 he entered the navy as acting assistant paymaster for one year; returned to the practice of law; held various State offices; was elected to Congress in 1876, and re-elected continuously for over twenty years; was speaker of the Fifty-first, Fifty-fourth and Fifty-fifth Congresses, controlling the House with unparalleled energy and intrepidity. He resigned August, 1899, and engaged in law business in New York. Died Dec. 7, 1902

Reed, WILLIAM BRADFORD, diplomatist, grandson of Joseph Reed (1741-1785), was born in Philadelphia, Pa., June 30, 1806; graduated at the University of Pennsylvania; studied law, and became attorney-general of the State in 1838; was minister to China in 1857, and negotiated the treaty of June 18, 1858; was editor of the New York *World* during the Civil War. Died Feb. 18, 1876.

Reed City, in *Michigan*, a post-village of Osceola co., 69 m. N. of Grand Rapids; has water power. *Pop.* (1894) 2,247.

Reeves, JOHN SIMS, tenor singer, was born near London, England, October 21, 1822. He received early training in music from his father, and at 14 became an organist; made his first appearance as a public singer at the age of 18; in 1847 made a distinct success in opera, but soon left the stage, and thereafter was heard in oratorio and ballad-singing, in which field he was unsurpassed in his day. In 1892 he became professor in Guildhall School of Music, London.

Reeves, in *Texas*, a W. co.; *area*, 2,390 sq. m.; drained by the Rio Pecos, which bounds it N.E. *Surface*, rolling; *soil*, a very rich loam; mesquite timber abundant. *Cap.* Pecos. *Pop.* (1897) 3,000.

Referen'dum, *n.* (*Polit.*) In Switzerland they have a peculiar institution called by this name, by means of which all legislative acts passed in the Federal and cantonal assemblies may be referred to the people *en masse*. It is of two kinds, compulsory and optional, both as regards Federal and cantonal matters. In those cantons where all laws adopted by the representative body of the canton must be submitted to the people it is compulsory; in those cantons where it may be demanded by a certain number of votes it is optional. In the majority of cantons, 5,000 signatures are required in order to obtain a referendum for cantonal laws. The Federal Constitution of 1874 contains an article extending the exercise of the popular vote, when demanded by 30,000 citizens, or eight cantons, to all laws and resolutions of a general nature passed by the General Assembly. Since this optional referendum was established in 1874, it has been put in operation on an average not more than once a year; the votes have shown a conservative rather than a radical tendency on the part of the people.

Reformed' Church in Amer'ica (formerly known as Reformed Protestant Dutch Church of North America). In 1628 the Rev. Jonas Michaeline organized the first Reformed Dutch Church among the settlers of New Amsterdam, and the organization which still lives upon this foundation is the oldest Protestant church in the Western Hemisphere. The first place of worship was a loft over a horse-mill; 50 Walloon and Dutch communicants assembled at the first Lord's Supper, and the membership increased with the growth of the colony. Dominie Everard Bogardus, who came to America in 1633, is often spoken of as the founder of the church, having been its first prominent pastor, but his important work was in seeing to the erection of the first church edifice, a wooden building in the Old Slip, where worship was carried on for eight years. The congregation was able to put up a substantial stone church in the fort at the southeast corner of the Battery; this was named in honor of St. Nicholas, and was used for fifty years, at the end of which time a third church was built, which stood in Garden Street, although that was considered too far out of town, and became the first of the collegiate churches; for in 1729 a new congregation was organized in association with it, building a church at the corner of Nassau and Cedar Streets. Meanwhile, in 1696, a regular charter had been obtained for the Church, which had previously held property under the general laws, and that charter is still retained by the Collegiate Church. The Cedar Street Church, long known as the New Dutch, then as the Middle, and subsequently as the South Church, was cleared of its pews by the British soldiers during the Revolutionary War and turned into a prison, and afterward into a riding-school for the cavalry. After the evacuation of the British, the building was refitted as a church, but in 1844 it was converted into the government post-office, continuing in that use until 1877, after which it was pulled down to make room for a modern office-building. Franklin conducted electrical experiments in the wooden steeple of this old church, and it was one of the noted buildings of the town. In 1769 the North Church, which stood on Fulton Street, near William Street, was built, adding another member to the college of the Reformed Dutch Church; like the Middle Church the old North Church has long since disappeared, but the same church organization still has a chapel at 113 Fulton Street, where it holds the well-known *Fulton Street Noonday Prayer Meeting* every day. The collegiate organization has twenty seven churches and chapels in New York and its suburbs, and is one of the strongest organizations in the Church. In 1895 the whole Reformed Church of America had 4 particular synods and 34 classes, with 618 churches, 652 pastors, and 117,260 members. Its property was valued at over $10,000,000. The government, confession of faith, and forms of worship of the American Church are identical with those of the Reformed Church of Holland, to which the founders of the American Church had belonged, and to which it remained in subordination until 1747. The Heidelberg Catechism is its manual of religious instruction and unquestionable authority in matters of doctrine; this catechism, which dates from 1563, teaches the natural depravity of man, salvation by grace, spiritual presence in the symbols of the Lord's Supper, infant baptism, and election, discarding the doctrine of reprobation. The Church adheres to the Nicene, Apostles', and Athanasian creeds, the Belgic Confession, and the Canons of Dortrecht. Its polity is presbyterian, yet it may be counted among liturgical churches, as it not only provides forms of public worship which may be used or not, according to choice, but also imperatively prescribes offices for the sacrament, ordination, and discipline. In most of the Reformed Dutch churches, the Dutch language was used until the latter part of the 18th century, when English was adopted; the word "Dutch" in the formal title of the Church was not dropped until 1867. The denomination is wealthy, being very strong in those parts of the country occupied by the descendants of the old Dutch settlers, and also extending into Pennsylvania, Michigan, Illinois, Wisconsin, Iowa, and Dakota, but it must not be confused with the *Reformed Church in the U. S.* (*q. v.*), which extends over somewhat the same territory, and is so similar in government and doctrine that frequent efforts have been made to unite the two, but so far without success. Four colleges have been founded by this denomination: Rutgers, at New Brunswick, N. J.; Hope, at Holland, Mich.; Northwestern Classical Academy, at Orange City, Ia., and Pleasant Prairie College, at German Valley, Ill.; there are also seminaries at Rutgers, Hope, and in India.

Reformed' Epis'copal Church. In Dec., 1873, a number of clergymen and laymen, chiefly, if not entirely, composed of members of the Protestant Episcopal Church, met in New York, presided over by Rt. Rev. George D. Cummings, assistant bishop of Kentucky. They formed an organization, now known as the Reformed Episcopal Church, and they declared the following as forming their belief: The Holy Scriptures as the word of God and the sole rule of faith, accepting the creed commonly called the Apostles' Creed, the divine institution of Baptism and the Lord's Supper, and the doctrine of grace as set forth in the Thirty-nine Articles. An adherence to episcopacy, not as Divine right, but as an ancient and desirable form of church government; accepting the Book of Common Prayer practically as revised in 1785, with full liberty to alter the same, if not in conflict with the faith. They condemned the following, viz.: The existence of the Church in any one form of ecclesiastical polity. That ministers are priests, save so far as all believers are members of the great priesthood. That the presence of Christ in the Lord's Supper is a presence in the elements only. That regeneration and baptism are inseparable, the latter being simply a form of admission to the Church. Charles E. Cheney, D. D., of Chicago, was elected missionary bishop. Bishop Cummings, the first presiding bishop, died in 1876. Accessions to its numbers have been received from other churches beside the Episcopal, attracted by its liberal spirit and open communion to all Christians. Its governing body, styled the General Council, was first held in New York city in 1874. It is composed of bishops, clergymen, and laymen, meeting on equal ground. This council has authority over all parishes in America, the synods of Canada, New York, Philadelphia, and Chicago, and the various missionary jurisdictions holding power under it. A branch of this organization was extended to Great Britain, in 1877, but in 1883 the British division became independent, and in 1894 it joined itself to the Reformed Church of England. The Reformed Episcopal Church in America now has a theological seminary in Philadelphia, and owns property valued at $1,500,000; it embraces 112 parishes and missions, with 8 bishops, 90 presbyters, and 11,000 communicants.

Reformed Presbyte'rian Church. See PRESBYTERIAN CHURCH.

Refrigera'tion, *n.* The manufacture of artificial cold has assumed considerable proportions within recent years. There are several systems, but the forms of apparatus most widely used depend upon the expansion into gas of a previously liquefied vapor cooled during its compression. Anhydrous ammonia is the liquid most commonly employed, because its boiling point is so low, 27° to 28½° below zero F., that it is very readily converted into gas, or back into a liquid. The reader should understand that all fixed gases are but forms of matter, capable of being brought to a liquid state by the application of sufficient pressure or exposure to a very low degree of temperature; or pressure and cold together may be used to condense and liquefy a gas. The application of pressure to a gas raises its boiling-point, and at the same time enormously increases its heat. If ammonia gas be subjected to pressure and then cooled by circulating cold water about the vessel containing the compressed gas, the ammonia becomes liquefied, and may be kept in that condition as long as it is under pressure. If this liquid ammonia be released in a set of pipes and allowed to expand, it withdraws heat from its surroundings in the process of returning to gaseous form. In other words, it seeks to regain the heat of which it was robbed in liquefying, and in so doing disseminates cold in its vicinity. To produce good results, however, the expansion of the ammonia must be rapid, or its effect is largely wasted. In both Denver and St. Louis are established large plants for distributing cold by this system, and selling it as gas or electricity is sold. A triple set of pipes is maintained, the outgoing pipe being called the liquid line, and carrying the ammonia, which has been compressed and cooled, to the premises of customers. Each customer has a more or less extensive system of expansion-coils, and when he wants cold turns a cock or valve, admitting a very small stream, which at once begins to evaporate in the coils, and lowers the surrounding temperature. If

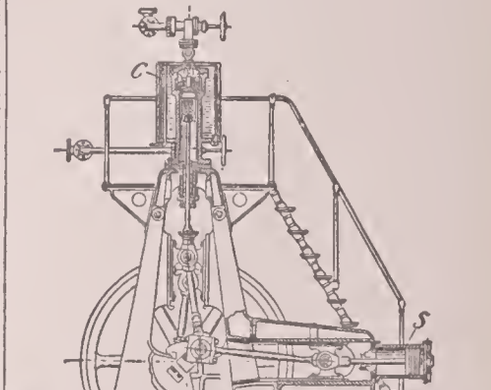


Fig. 3050.—ECLIPSE REFRIGERATING MACHINE.
S, suction pump; *C*, compressor pump.

the consumer desires to make ice, he is supplied with a brine-tank, in which cans of water may be frozen. After expansion the vapor returns to the central station by means of a large pipe called the vapor line, being pumped back by suction. A third line is termed the vacuum line. This parallels the others, and each of the three being divided into sections by valves, while connections are provided at the commencement of each section. The vacuum line, which is normally empty, may be used to replace either of the other lines throughout one or more sections whenever repairs are required, thus preventing the inconvenience of shutting down the operation of the plant. The ordinary form of ammonia frigoric machine consists practically of three parts—the evaporator or congealer for vaporizing the ammonia; a pump for aspirating or sucking in the gas from the evaporator as fast as formed, and a liquefier or condenser, into which the pump forces the gas and compresses it, the work being aided by a circulating current of cold water. The liquefied ammonia thus produced may be used either by the means already described, which is known as the direct-expansion system, or by means of cooled and circulating brine. The advantages claimed for the brine system are that the cost of ammonia is reduced, because less is employed, and that leakage of ammonia is avoided, its escape being not only a loss, but a frequent damage to goods stored in rooms where the leakage occurs. The brine used is made with common salt and water, and hence is inexpensive. The brine-tanks are cooled by means of evaporating-coils, and a pump is used to circulate the cold brine through the rooms that are to be cooled. Refrigeration by these methods is much employed by cold-storage warehouses, for the preservation of meats, vegetables, &c., also for the preservation of furs and garments from moths. Hotels and large office-buildings are often supplied with such plants for cooling the rooms, maintaining cold water in the

drinking-fountains, &c. The mechanism and piping of a refrigerating system require very careful construction to insure tightness of joints, as a liquid under pressure is hard to retain. The pipes are often laid in beds of cement in order to prevent any changes of position, which are liable to strain joints and start leaks.

The first ammonia refrigerating machines were made in France about 1860 by Carre & Co., on the absorption system. Ammonia is very soluble in water, and the method was to place a solution of ammonia in water in a chamber from which the air was pumped, and then to apply heat, thus driving out the ammonia gas, which passed to a condensing cylinder surrounded with cold water. The gas, thus volatilized, condensed into a liquid under the pressure of its own expansion, and was used for refrigeration by later expansion. Blythe & Southby, Reece, Stanley, and Kropff, all built refrigerating apparatus on a somewhat similar principle, but these machines have been mostly discarded, being more dangerous, complicated, and less productive than the ammonia-compression method. Some machines on this principle are still used, however, owing to low first cost. Various gases besides ammonia have been used in frigoric machines, as carbonic acid, chloride of methyl, ethylene, and sulphuric acid. The manufacture of ice may be carried on with any form of refrigerating plant. (See FREEZING-MACHINES.) In a very recent form of ice-machine the freezing takes place on a cylinder, which is kept cold, and supplied slowly with water by sprinkling. As a coating of ice is thus formed, it is scraped off and packed in cakes, reuniting by regelation. In appearance this ice resembles frozen snow, the structure being so broken up as to entirely destroy the transparency.

Regela'tion, *n.* The freezing together of two bodies of ice at a temperature not lower than the freezing point. It is regarded by many physicists as due to pressure, being most noticeable when pressure is exercised, as in the forming of a snowball. It is well known that pressure develops heat, and Barker says that it lowers the fusing or melting point, so that the ice is liquefied or turned to water at the point of contact, but that when that pressure is removed regelation, or re-freezing, follows, because such water is below the freezing point and the pieces of ice are thus joined together. Faraday explains the phenomena by cohesion, claiming that the particles on the exterior of a block of ice are held by cohesion on one side only. When the temperature is at 0° C., these exterior particles, being partly free, are the first to pass into the liquid state, and a film of water covers the solid. But the particles in the interior of the block being bounded on all sides by the solid ice, the force of cohesion is here a maximum, and hence the interior ice has no tendency to pass into a liquid even when the mass is at 0°. If the block be now split in halves, a liquid film instantly covers the fractured surfaces, for the force of cohesion on the broken surfaces has been lessened by the act. By placing the halves together, so that their original position shall be regained, the liquid films on the two fractured surfaces again become bounded by ice on both sides. The film being excessively thin, the force of cohesion is able to act across it; the consequence of this is the liquid particles pass back into the solid state, and the block is reunited by *regelation*. Not only do ice and ice freeze together, but regelation also takes place between moist ice and any non-conducting solid body, as flannel or sawdust. A similar explanation to that just given has been applied here, substituting another solid for the ice on one side. An example on an immense scale is the phenomenon of a moving glacier, whose crevasses close and disappear.

Re'gent-bird, *n.* (*Ornith.*) A bower-bird (*Sericulus melinus*) of eastern Australia, remarkable for the beautiful plumage of the male, which is deep golden-yellow and velvety-black. The "bower" of this bird does not seem to be so elaborate as are the structures raised by its allies (see CHLAMYDODERA), but has the same purpose, while the nest proper is built in a tree. The name is a compliment to the Prince of Wales, afterward George IV. of Great Britain.

Reg'ister, Cash. See RECORDING AND REGISTERING DEVICES.

Re'han, ADA, actress, was born in Limerick, Ireland, April 22, 1860; removed to America in 1866; made her début in *L'Assommoir* at the age of 16; acted for a time with Edwin Booth; in 1879 joined Augustin Daly's company; in 1888 was especially successful in London, in the rôle of *Katherine* in the *Taming of the Shrew*. She appeared in plays of Shakespeare and Tennyson, in 1893, one of her best impersonations being that of *Maid Marion* in Tennyson's *Foresters*.

Reich'stadt, DUKE OF. See NAPOLEON II.

Reid, WHITELAW, editor, was born in Xenia, O., Oct. 27, 1837; educated at Miami University; became editor of the Xenia *News* (1857); was Washington correspondent of the Cincinnati *Gazette* during the Civil War; also accompanied the Union army southward, writing descriptions of battles and marches. In 1865 he joined the editorial staff of the New York *Tribune*, and, upon the death of Horace Greeley, succeeded to the ownership and control of that paper. He was minister to France, under President Harrison, and in 1892 was the Republican nominee for Vice-President. He was a member of the Peace Commission in Paris after the Spanish-American war of 1898. In January, 1902, he was appointed by President Roosevelt, with two colleagues, to represent the United States at the coronation of King Edward VII.

Reinhart, CHARLES STANLEY, artist and illustrator, nephew of B. F. Reinhart, was born at Pittsburg, Pa., May 16, 1844; studied in Paris in 1867, and in Munich in 1868; returned to America in 1870; went to Europe in 1881, and during the next eight years became a conspicuous exhibitor in the saloons and galleries of Paris and London; as an illustrator his work was in constant demand. Died August 30, 1896.

Remen'yi, EDUARD, violinist, was born in Hungary in 1830; student under Joseph Böhm, at the Conservatory of Vienna, June, 1842, to 1845; took part in the insurrection against Austrian rule in 1848, and was compelled to leave Hungary. He made several tours through the United States, the last one during the year 1893.

Rem'ington, FREDERICK, artist and illustrator, was born in St. Lawrence co., New York, Oct. 4, 1861; studied at the Yale Art School for two years, and in 1880 went to the cattle ranges of Montana and Wyoming, where he studied the details of life on the plains. He has painted several very realistic pictures; among them *The Dash for the Timber*; *Past all Surgery*; *The Last Stand*; and *The Last Lull in the Fight*. He has also done clever work as a sculptor, in *The Broncho Buster*, and *The Wounded Bunkie*. As an illustrator his scenes are those of wild Western life, his latest work in this line being the illustrations in General Miles' *Personal Recollections* (1896). Mr. *R.* also published a book, *Pony Tracks*, descriptive of his frontier experience. He has shown a rare genius for selecting picturesque titles.

Rem'sen, in *Iowa*, a post-village of Plymouth co., 35 m. N.E. of Sioux City. *Pop.* (1895) 724.

Rend'ville, in *Ohio*, a post-village of Perry co. *Pop.* (1897) 980.

Ren'ick, in *Missouri*, a post-town of Randolph co. *Pop.* (1897) 580.

Ren'sselaer Polytech'nic In'stitute. See TECHNICAL SCHOOLS.

Re'no, in *Kansas*, a S. central co.; *area*, 1,260 sq. m.; intersected by Arkansas river. *Surface*, nearly all undulating prairie. *Cap.* Hutchinson. *Pop.* (1895) 26,492.

Renouf, ÉMILE, painter, was born in Paris, June 23, 1845; studied under Carolus Duran and Lefevre, and devoted himself to *genre*, landscape, and marine pictures. He received a first-class medal at the Paris Exposition (1889), and the Cross of the Legion of Honor the same year.

Ren'ville, in *Minnesota*, a post-village of Renville co., 20 m. N.W. of New Ulm. *Pop.* (1895) 720.

Repoussé (*rā-poo-zā'*) **Work.** Metal work beaten into relief by striking a thin sheet or form of metal from behind with a hammer or punch, roughly shaping a design which is afterward finished on the outside surface by chasing or otherwise. Although it is not thought to be as old a form of metal work as casting, it was used for large pieces by primitive nations before the art of casting on a large scale had been perfected. The earliest method was to hammer a thin sheet of metal over a wooden core which had been carved into the general shape required; this method was superseded by the plan of laying the sheet of metal, face downward, on a bed of elastic cement and then hammering the relief into the yielding cement, until the whole design was rudely executed; the metal is then turned, the cement removed from the face and applied to the back, so that the final modelling and finish may be given to the work. Stamping with a die produces work somewhat similar to repoussé, but less free in execution, and the hammered iron, or grill work, is more properly forging. Gold, silver, and bronze are the metals most used in repoussé, and beautiful examples of it may be found in the metal work of ancient Greece, Assyria, Egypt, and other cultured nations of antiquity, as well as in Roman and mediæval Italy, in Germany, France, Spain, and England. The bronze gates of Shalmaneser II., 859–824 B. C., from Balawat, and the "Siris" bronzes, both in the British Museum, are noted examples of ancient work of this sort, while specimens of beautiful mediæval repoussé work in gold and silver plate are often seen, though very expensive. In France there was a revival of this art about the middle of the present century, and some good modern work has been done both there and in England.

Repub'lic, in *Kansas*, a N. co.; *area*, 720 sq. m.; intersected by Republican river. *Surface*, undulating, prairies and groves; *soil*, fertile. *Cap.* Belleville. *Pop.* (1895) 16,676.

Repub'lican City, in *Nebraska*, a post-village of Harlan co., on Republican river, 12 m. W. of Bloomington. *Pop.* (1897) 770.

Republican Par'ty. A party name which has been used at various times in the history of American politics, and now applied to one of the two leading parties. It was first adopted, at the suggestion of Thomas Jefferson, as the name of the party which grew out of the Antifederalists, and advocated State rights in opposition to a centralized government. During 1794–95 this became known as the Democratic-Republican, and after 1824 as the Democratic party, while in 1828 a new party—the National Republican—grew up, in favor of high tariff and public improvements by the national government. This party became known, after 1836, by the name of the Whig party. Subsequently a number of parties arose, known as the Liberty, the Free Soil, and the American, the two former opposed to the institution of slavery, the latter to office-holding by foreigners. The passage of the Kansas-Nebraska bill in 1854, in abrogation of the Missouri Compromise, gave rise to strong opposition throughout the country, and in the succeeding election the opponents to the extension of slavery gained a majority in the House of Representatives. These became known as Anti-Nebraska men, and their supporters soon organized into a party, to which the name of Republican was given—it is said in response to a suggestion from Horace Greeley. The new party absorbed the remnants of the Free Soil and American parties, the Northern Whigs, and, in general, all who opposed the extension of slavery. It at once gained a strong following, and in 1856 nominated John C. Fremont for President and William L. Dayton for Vice-President, demonstrating its strength by an electoral vote of 114 for its candidates, in opposition to 174 for the Democratic candidates. The new party thus became ranged in vigorous opposition to the pro-slavery advocates, and during the succeeding four years gained much strength through Northern indignation against the Dred-Scott decision, the assault on Charles Sumner, &c. A division in the Democratic party increased its opportunities, this party in 1860 nominating two candidates—Douglas in the North and Breckinridge in the South—while John Bell was nominated as a third by the Southern wing of the Whig party. The Republicans met in convention and chose Abraham Lincoln and Hannibal Hamlin as their candidates. The ensuing election demonstrated their great growth in strength, their candidates being elected by an electoral vote of 180, while the three opponents gained in all 123 electoral votes. The conduct of the Civil War was in the hands of a Republican administration, though the acts of the administration received strong support from the Democrats of the North. The election of Lincoln was followed by a long series of successes at the polls, the government remaining in the hands of the Republican party from 1861 to 1885, a period of 24 years. Since then the governmental control has alternated, the Democrats electing Cleveland in 1884, the Republicans Harrison in 1888, the Democrats Cleveland again in 1892, and the Republicans McKinley in 1896. With the end of the Civil War, the slavery question, to which the Republican party owed its origin, passed out of politics, and with it largely the question of State rights, which formerly had been so prominent. For the succeeding twelve years the problems of reconstruction divided the two parties, not passing out of politics until after the election of Hayes, and leaving a permanent result in the enfranchisement of the Southern negroes. The high tariff policy was first adopted by the Republican party as a necessary war measure, and met with little opposition at that time, the need of a large income overtopping all other considerations. After the war it was maintained as an aid to the development of American manufactures, and gradually, as other questions were settled and passed out of politics, the tariff issue became the great point of distinction between the Republican and Democratic parties. In the campaign of 1896 the Republicans maintained that gold should be the sole standard of value, in opposition to the bimetallic standard then advocated by their opponents. The *R. P.* was successful in electing its candidates in 1896 and 1900, and in 1904 nominated for the Presidency Theodore Roosevelt, who, as Vice-President, had succeeded McKinley in 1901.

Res'onator, *n.* (*Music.*) A device for analyzing compound sounds, and for detecting a particular note by sympathetic vibrations. It was invented by Helmholtz, and in its simplest form consists of a hollow bulb or coned tube, with one aperture to be applied to the ear, and an opposite aperture of a certain size which serves to admit the vibrations of one musical note, to which it is adapted, and to exclude all others. By making a series of these, with alteration of the form of the bulb or tube and the size of the holes, a set may be formed, each one of which corresponds to a note of the musical scale. These may be arranged on a staff like a flute, and by closing them in succession the notes peculiar to certain sounds can be discovered with accuracy. This instrument has demonstrated that the sounds of many musical instruments and of the human voice are not simple, but compound tones of different intensity and pitch, so blended that they strike the ear as being a simple note.

(*Elec.*) A conductor having an open circuit, and designed for detecting the electro-magnetic radiation from a nearby circuit, which is manifested by a spark, as the result of sympathetic electric vibration.

Resz'ke, ÉDOUARD DE, bass singer, was born at Warsaw in 1856; a brother of Jean de Reszke, with whom he has been constantly associated in professional life. He appeared first in Paris; his principal parts are *Ruy Gomez* in *Hernani*; *Don Basile* in *The Barber of Seville*; *Lepporello* in *Don Juan*; *Mephistopheles* in *Faust*, and *Frère Laurent* in *Romeo and Juliet*.

Reszke, JEAN DE, tenor singer, was born in Warsaw, in 1853; made his début in London (1875) as a baritone singer; sang in Paris at the Theatre Français in 1876 and 1883. In 1883 his voice changed to the tenor timbre; in 1884 he engaged at the *Italiens*, and has since sung there, with various absences. In 1892 and 1893-94, he was the leading tenor of grand opera in the U. S.; his principal parts were *Faust*, *Radames*, and *Vasco* in *L'Africaine*.

Ret'icle, or **Ret'icule,** *n.* Originally, a network of fine spider threads placed in the focal plane of a telescope, but now usually a glass plate, bearing very finely-ruled lines of reference. These reticle lines assist in the determination of the position of an object observed, as a star.

Reu'ter, BARON PAUL JULIUS, telegraph promoter, was born in Cassel, Germany, July 21, 1821; was connected with the electric telegraph from its earliest beginnings, and was a promoter of the continental system in Europe. He started the first news-agency in Aix-la-Chapelle; in 1851 the headquarters of the

agency were removed to London, and since then it has grown to include all parts of the civilized world.

Revere', in *Massachusetts*, a post-town of Suffolk co., 4 m. N. E. of Boston. *Pop.* (1895) 7,723.

Rey'nolds, John Fulton, U. S. A., was born in Lancaster, Pa., in 1820; graduated at West Point (1841); served in the Mexican War, and in 1859 became commandant at West Point. In 1861 he was appointed lieutenant-colonel of volunteers; was soon promoted to brigadier-general, and major-general in 1862, succeeding Hooker in command of the 1st Army Corps. He was killed at Gettysburg on July 1, 1863.

Rey'noldsville, in *Pennsylvania*, a post-borough of Jefferson co., 120 m. N.E. of Pittsburg. *Pop.* (1897) 2,940.

Rey'noldton, in *Pennsylvania*, a post-borough of Allegheny co. *Pop.* (1897) 1,550.

Rhea, Hortense, actress, was born in Brussels, Belgium, in 1848; studied the dramatic art under Janeson, the famous instructor of Rachel, and later, at the Paris Conservatory, under Beauvollet. She attained success in France, and in 1881 visited the U. S.; her conspicuous success was in the tragedy, *Adrienne Lecouvreur*.

Rhe'oscope, *n.* An instrument for detecting the existence of an electric current; replaced by the galvanoscope.

Rhe'ostat, *n.* (*Elec.*) A resistance-box or resistance-cell, to be placed in the path of an electric current for the purpose of increasing the resistance in the circuit. When an electric current is first turned on to a motor, as that of a street car, it is essential that it should be done gradually, in order that the motor may not start off instantly at full force. This is accomplished by directing the current through a resistance-box or *R.* This box contains a series of coils of wire, made of metal that is a poor conductor of electricity. When the electricity is made to flow through these coils it encounters a resistance which causes it to expend the greater part of its energy in heating the coils instead of transmitting the current beyond to the motor. If the *R.* have 12 coils, and a handle on top that may be placed at any one of 13 points, so as to direct the current at starting through all 12 of the coils, and then by turning the handle a point through 11 of them, or 10, or 9, and so on to zero, then the current will be received by the motor very slightly at first, having to pass through the whole 12 coils; then the current reaching the motor is increased as the coils are cut out one by one, until when all are out of the circuit the full current reaches the motor and it revolves at full speed. Rheostats are also made to arrange the resistance in more complicated ways, for special purposes. The same principle of passing the current into wires that are poor conductors, and thus heating them, is used in the electric heater. See Electric Resistance; Electric Motor, &c.

Rhe'otome, *n.* An old electrical instrument, known in its more modern form as an *interrupter*.

Rhesus (*rē'sŭs*) **Monkey.** (*Zoöl.*) The *Macacus Rhesus*, an Indian monkey, and one of the most intelligent and mischievous of the tribe. They live in troops in the forests, chiefly in hilly districts, and visit the cultivated grounds to carry away grain and other produce,

Fig. 3051.—Rhesus Monkey.

which they store up for themselves among the rocks. The native farmers leave a share for the monkeys, believing this to be necessary for the averting of their anger, as otherwise, next year, they would destroy the whole crop whilst green. The *R. M.* has a stout form, stout limbs, short ears, a short tail, large callosities, the skin hanging loose about the throat and belly, the hair rather long, the back brownish, the lower part of the back and the haunches bright chestnut, or almost orange, the shoulders and arms lighter. It is held in so great veneration by the natives of India that the killing of one of these animals is apt to arouse the popular indignation.

Rhett, Robert Barnwell, editor and politician, was born at Beaufort, S. C., Dec. 24, 1800; studied law, and was senator from South Carolina in 1851–52. He was editor of the Charleston *Mercury*, and through its columns, as well as by his speeches in Congress, he voiced the sentiments of the nullifiers and ultra-Secessionists, then designated "fire-eaters." He was prominent in the organization of the Confederate government, and a member of its Congress. After the war he retired from public life. Died Sept. 14, 1876.

Rhine'lander, in *Wisconsin*, a post-village, cap. of Oneida co., 65 m. N.E. of Wausau; has a number of saw and planing mills, turning and wagon works, foundry and machine shops. *Pop.* (1895) 4,330.

Rhodes, Cecil John, statesman, was born at Bishop's Stortford, Hertfordshire, Eng., July 5, 1853; his early education was received at the local grammar school; and he spent a short time at Oriel College, Oxford; but not being physically strong, he relinquished study, and his physicians ordered him to the Cape. Here he became interested in diamond mining, and eventually consolidated the mining interests, and controlled the diamond supply of Africa, in the enterprise amassing an immense fortune. At the same time he entered with zest into Cape politics, and with health built up by the favoring climate, became a vital force in affairs. He entered the Colonial Parliament, and later took office in the ministry of Sir Thomas Scanlon. On the fall of Sir Gordon Spriggs' ministry (July 17, 1890), he became premier of the colony. In 1891 he visited England; in 1893 he took the field against Lobenguela, the warlike king of Matabeleland, with a flying squadron of 600 troopers. This campaign, directed northward, with the purpose of establishing a telegraph line, and possibly a railroad, to Cairo, was mercilessly pursued against the savage Matabeles, and was unprecedentedly successful, adding more to the territory of the British Empire in one month than had been acquired by the armies in a century, and winning for *R.* the title of "Napoleon of Africa." He was called home to be sworn of the Privy Council, returning soon after to Africa. Then came the Uitlander outbreak in Johannesburg, led by his brother, Col. Francis W. Rhodes. That the Cape premier was cognizant of the proceedings is generally believed; but the impetuous action in the case was led by his lieutenant, Dr. L. S. Jameson, who, encouraged by a message sent to him by Colonel Rhodes and others, and with no halt for second thought, led his forces across the Transvaal border, met disaster, surrendered to the Boers, and was put on trial for irregularity of military action, and disobedience of orders. In the subsequent proceedings in the Jamesou raid case, particularly in the special court of inquiry in England, led by Sir William Vernon Harcourt, Cecil *R.*, who was summoned for examination, displayed his unique qualities on the witness stand, his replies and explanations being characteristically shrewd and fearless, and embodying, incidentally, some pointed criticisms and suggestions for the home government. He resigned from the Cape government, but soon was occupied in quelling an extensive Matabele revolt. His intense Home Rule sympathy was shown on the occasion of his visit to England in 1891, when he donated $50,000 to the Irish Home Rule Fund. He took no part in the South African war, but was in Kimberly during its siege by the Boers, his capture being one of their objects. Of the later purposes entertained by him, the most ambitious was a railroad to traverse the whole length of Africa, from Cairo to Capetown. He did not live to put this into effect, dying March 26, 1902. His will was a peculiar one. The bulk of his estate, estimated by his executors at $30,000,000, was left for the establishment of scholarships in Oxford University for students from the British colonies and the United States, with a few from Germany. This was in furtherance of his cherished desire for the consolidation of the Anglo-Saxon race, which he hoped to aid by this project.

Rhode'sia. (*Geog.*) The country subject to the sway of the British South Africa Company, and especially the portion of the territory watered by the river Zambesi, which is now under British protection, is frequently called Rhodesia, from Cecil J. Rhodes, until quite recently the chairman of the company, and formerly prime minister of Cape Colony. It is also sometimes called Zambesia. This part of South Africa has attracted much attention during several years on account of the large quantities of gold found there. A royal charter was granted to the British South Africa Company in 1889, and the company was formed with the dukes of Abercorn and Fife as president and vice-president, and Mr. Rhodes as managing director. Its territory was till recently a sealed book to all but the most adventurous of sportsmen, who hunted the big game of South Central Africa. It was the land in which Moffat and Livingstone carried on their missionary labors. At a meeting of the British Association for the Advancement of Science at Toronto, in August, 1897, a paper on Rhodesia was read by Mr. F. C. Selous, who has lived in the country north and south of the Zambesi for 25 years, and has been a great hunter and explorer there. He describes Rhodesia as a country of great value quite apart from the gold it produces. Anywhere at an elevation of 4,000 feet and upwards—and there are about 26,000 sq. m. at that altitude—the climate is one of the finest in the world. Fever is quite unknown. Europeans are able to work at any time of year all day long, in the full heat of the sun. The white man can live and thrive there, and rear strong, healthy children. The Dutch Boers and the British colonists of English, Irish, and Scotch descent, who were established in Cape Colony, in 1820, are fine, tall, robust men, and it is believed that Rhodesia can produce an equally admirable race. It is a fertile land, with great agricultural possibilities and pasturage for enormous numbers of cattle. The principal settlement is Buluwayo.

Rhys, John, philologist, was born in Cardiganshire, Wales, June 21, 1840; educated at Oxford, the Sorbonne, Heidelberg, Leipsic, and Göttingen, returning to England in 1871 to become inspector of schools for Flint and Denbigh. In 1877 he was appointed professor of Celtic in Oxford. He is distinguished as a lecturer on Welsh philology and history.

Rib'beck, Johann Karl Otto, philologist, was born in Erfurt, Germany, in 1827; professor of ancient languages at Berne (1859), at Kiel (1862), Heidelberg (1872), and Leipsic (1877).

Ribot (*rē-bō'*), Alexandre Felix Joseph, lawyer and statesman, was born at St. Omer, France, Feb. 7, 1842; studied law in Paris, and was first secretary of the bar society in 1870. In 1875 he was appointed director of criminal affairs and pardons; from that time onward he was an active politician, holding various offices, and in Jan., 1893, becoming president of the Cabinet and minister of the interior. In March, 1893, his government was overthrown. In Jan., 1895, upon the election of Faure to the presidency, *R.* was again made premier, and remained in office until the following October, when he was superseded by M. Bourgeois. *R.* was always a Moderate Republican. He was a conspicuous opponent of General Boulanger.

Rice, in *Kansas*, a central co.; *area*, 720 sq. m.; intersected by Arkansas river, and also drained by the Little Arkansas river and Cow creek. *Surface*, chiefly rolling prairie; *soil*, fertile; timber along streams. *Cap.* Lyons. *Pop.* (1895) 13,367.

Rice Lake, in *Wisconsin*, a city of Barron co., 12 m. N.E. of Barron. *Pop.* (1895) 3,162.

Rich, Claudius James, Orientalist, was born near Dijon, France, March 28, 1787; travelled in Syria, Babylonia, Kurdistan, &c.; was British resident in Bagdad. Died October 5, 1821.

Rich, in *Utah*, a N. co.; *area*, 980 sq. m.; drained by Bear river, and several smaller streams. *Surface*, mountainous in the east; west, timbered. Stock raising and lumbering are prominent industries. *Cap.* Randolph *Pop.* (1895) 1,781

Rich Hill, in *Missouri*, a city of Bates co., 85 m. S. of Kansas City; has coal mines, zinc, lead and iron deposits; extensive smelting works, &c. *Pop.* (1897) 4,650.

Rich Square, in *North Carolina*, a post-village of Northampton co., 25 m. from Scotland Neck. *Pop.* (1897) 770.

Rich'ards, Thomas Addison, landscape-painter, was born in London, December 3, 1820; arrived in the U. S. in 1831; resided ten years in Georgia; then studied art in New York city; director of the Cooper School of Design (1858); became professor of Art in the New York University (1867). Besides several paintings of acknowledged merit, *R.*'s work includes many superior illustrations for books and magazines.

Richards, William Trost, artist, was born in Philadelphia, Pa., November 14, 1833; studied with Paul Weber, and extensively in Europe. He had a studio in London (1878-80), and then resided for many years in Philadelphia. Among his paintings in oil are *Midsummer* (1862); *Woods in June* (1864); *Land's End* (1880); *Old Ocean's Gray and Melancholy Waste* (1885); and *The Wissahickon*, which was exhibited at the Centennial in 1876. His water-colors are equally well known. His *On the Coast of New Jersey* is in the Corcoran Art Gallery at Washington. In his youth he was a pronounced pre-Raphaelite; and all his paintings show a careful regard for detail. His later works are chiefly marine pictures. Died Nov. 8, 1905.

Rich'ardson, Henry Hobson, architect, was born in Priestley's Point, Louisiana, September 29, 1838; graduated at Harvard (1859); and studied architecture in Paris until 1865. He planned the Brattle Street Church, and also Trinity Church, Boston, Mass.; Sever and Austin Halls at Harvard; was employed on the New York State Capitol at Albany. Died April 28, 1886.

Richardson, in *Nebraska*, extreme S. E. co.; *area*, 545 sq. m.; bounded E. by Missouri river, and is also drained by the Big Nemaha river and its North Fork. *Surface*, undulating; prairie and woodland; *soil*, fertile. *Cap.* Falls City. *Pop.* (1897) 20,250.

Rich'field, in *Utah*, a city, capital of Sevier co., about 165 m. S. of Salt Lake City. *Pop.* (1895) 1,817.

Rich'land, in *Louisiana*, a N. E. parish; *area*, 575 sq. m.; intersected by Boeuf Bayou, and is also drained by Big creek. *Surface*, low and level; *soil*, very fertile. *Cap.* Rayville. *Pop.* (1897) 12,100.

Richland, in *North Dakota*, extreme S. E. co.; *area*, 1,440 sq. m.; bounded E. by the Red River of the North, and intersected by the Wild Rice river. *Surface*, level; *soil*, very fertile and well watered. *Cap.* Wahpeton *Pop.* (1897) 13,400.

Rich'mond, Legh, clergyman and religious writer, was born at Liverpool, England, in 1772; he wrote several popular tracts: *The Dairyman's Daughter; Annals of the Poor; The Young Cottager*, &c.; edited *Fathers of the English Church* (1807–12). Died May 8, 1827.

Richter (*rĭk'ter*), Eugen, politician, was born at Düsseldorf, Prussia, July 30, 1838; entered the Reichstag in 1867, and the Prussian Landtag in 1869; has been leader of the Progressive party, and of the German Liberal party, and latterly of the radical People's party.

Richter, Hans, musical conductor, was born in Raab, Hungary, April 4, 1843. In 1859 he entered the Conservatorium in Vienna, and studied the horn under Kleinecke, and theory under Lechter; played the horn in the orchestra of the Kärnthnerthor; in 1868 was made conductor of the Hof-and-National Theater, Munich; in 1871 chief conductor of the National Theater at Pesth; in 1875 at the Court Opera Theater in Vienna; in 1876 conducted the Bayreuth Festival; in 1879, 1880, and 1881, conducted concerts in London, and attracted great attention by using no scores. His prominence as an orchestra leader is doubtless due to his practical knowledge of the technique of orchestral instruments.

Ri'co, in *Colorado*, a post-town, cap. of Dolores co., about 35 m. N. W. of Durango; has abundant deposits of gold, silver, iron ore, coal, and other minerals. *Pop.* (1897) 1,280.

Ridge'dale, in *Tennessee*, a post-village of Hamilton co. *Pop.* (1897) 1,315.

Ridge'wood, in *New Jersey*, a post-town of Bergen co. *Pop.* (1895) 1,841.

Ridg'way, in *Illinois*, a post-village of Gallatin co., 11 m. N. W. of Shawneetowu. *Pop.* (1897) 628.

Rid'ley Park, in *Pennsylvania*, a post-borough of Delaware co.; a suburb of Philadelphia, on the P., W. & B. R. R.

Rid'path, JOHN CLARK, educator and writer, was born in Putnam co., Indiana, April 26, 1840; graduated at Asbury (now De Pauw) University, and entered upon the profession of teaching; in 1869 became professor of English Literature in Asbury University, and in 1879 was elected vice-president of the institution. Through his influence Mr. De Panw was led to endow the University with $1,500,000 to $2,000,000, whereupon the school was rechartered under the name of the De Panw University. This accomplished, Professor Ridpath resigned his position, and gave his time to literature. His earlier published works are mainly historical and biographical. Among his later books are: *A Cyclopædia of Universal History* (3 vols., 1880-84); and *Great Races of Mankind* (1894). Died July 31, 1900.

Riel, LOUIS, a Canadian insurgent, was born at Boniface, Manitoba, Oct. 23, 1844; son of the leader of the Metis (half-breed) Indians, who resisted the Canadian authority in the Northwestern Territory. He became secretary of their national organizatiou, and afterward president of their provisional government at Fort Garry; fled before the approach of the English force under General Wolseley; returned, and in 1873 was elected to the Dominion Parliament, but not permitted to take his seat. Twice after this he attempted to raise a rebellion; the second attempt, in March, 1885, was suppressed by force of arms; *R.* was convicted of treason, sentenced to death, and executed Nov. 16, 1885. Among the French Canadians it was commonly believed that he was insane.

Rif, Riff, or **Er Rif.** (*Geog.*) That portion of the coast of Morocco which extends from Tangiers on the west to near the western frontier of Algiers, having a length of about 210 miles, with a breadth of 58. The name, in the Berber language, which is that of the inhabitants, signifies a mountainous and rugged coast. The inhabitants of Rif are almost wholly Berbers, who are employed in feeding and breeding cattle, fishing, and occasional piracy. In 1893 their depredations caused complications and a short war between Morocco and Spain.

Ri'fle-bird, or **Ri'fleman-bird,** *n.* (*Ornith.*) One of the long-billed or epimachine birds-of-paradise (*Ptilorrhis paradiseus*) of S. E. Australia. It has a long curved bill, and is equal to a large pigeon. The male is regarded as more splendid in plumage than any other Australian bird. The upper parts are velvety-black, tinged with purple, while the under parts are diversified with olive-green. The crown of the head and the throat are covered with innumerable little specks of emerald-green, of most brilliant luster. The tail is black, the two central feathers rich metallic green. The suggestion in this plumage of the former uniform of the British Rifle Brigade accounts for the name.

Fig. 3052.—RIFLE-BIRD.

"Little is known," says Newton, in his *Dictionary of Birds*, "of the habits of any of them [*i. e.*, species of this Australasian genus], but the rifleman-bird proper is said to get its food by thrusting its somewhat long bill under the loose bark on the boles or boughs of trees, along the latter of which it runs swiftly, or by searching for it on the ground beneath. During the pairing season the males mount to the higher branches, and there display and trim their brilliant plumage in the morning sun, or fly from tree to tree, uttering a note which is syllabled '*yass*' greatly prolonged, but at the same time making, apparently with their wings, an extraordinary noise like that caused by the shaking of a piece of stiff silk stuff."

Riis, JACOB A., journalist and writer on sociology, was born at Ribe, Denmark, May 3, 1849; removed to America in 1870; was a reporter on the New York *Tribune*, and later police reporter in New York for the Associated Press, in which capacity he became acquainted with tenement life in the most squalid parts of the city. As a result of these observations he published *How the Other Half Lives* (1890), which attracted immediate attention; in 1892 a second book appeared, *Children of the Poor*; and in 1893 a collection of three stories, one of which, *Nisby's Christmas*, was made the title of the volume.

Ri'ley, CHARLES VALENTINE, entomologist, was born in London, England, Sept. 18, 1843; educated at Dieppe, France, and Bonn, Germany; in 1860, removed to the U. S.; became a farmer and agricultural editor in Illinois; was a soldier of the Union army (1864–65); afterward devoted special attention to entomology in relation to agriculture; was State entomologist in Missouri (1868); In 1878, was appointed chief of the U. S. Entomological Commission to investigate the Rocky Mountain locust; in 1878, appointed U. S. entomologist under the Department of Agriculture; in 1881, organized the entomological division of that department, and thereafter continued in charge of that division, also holding the office of curator of insects in the U. S. National Museum, to which he presented his collection of over 150,000 mounted specimens. He lectured on entomology at Cornell University, Kansas State Agricultural College, Washington University, and Missouri State University, receiving from the last-mentioned institution the honorary degree of Ph.D He made valuable researches in the species of insects which are most destructive to crops, as the locust, army-worm, chinch-bug, canker-worm, cotton-worm, &c. Died Sept. 15, 1895, as the result of a fall from his bicycle.

Ri'ley, JAMES WHITCOMB, poet, was born in Greenfield, Ind., in 1853. About the year 1875 he made his first appearance as a contributor of verse to current newspapers and magazines; afterward he devoted all his time to writing and giving readings of his poems, the most popular of which are in the Hoosier dialect, and deal with homely subjects that appeal to popular sympathy.

Rin'derpest, *n.* (*Vet.*) A malignant contagious fever attacking cattle and other ruminants; it is an Asiatic disease, but it occurs very often and with great malignancy in Russia, where it has become established; at various times it has been imported into Europe, where it has broken out as a widespread plague, and it is probably the same disease as that which has been known since the 4th century, prevailing in 809–10, during the wars of Charlemagne, and in 1348–49, just after the human plague called the black death. In 1480 a cattle plague, probably rinderpest, occurred again, and other outbreaks identified as rinderpest occurred in 1715 and 1745, the latter not being suppressed until 1757. In 1865 it occurred again, and, in England, where it was introduced by cattle imported from Russia, it spread so rapidly that in less than a year more than 150,000 cattle had been affected. The disease continued to spread until the government made it compulsory to kill and bury all cattle which had contracted or been exposed to it. In 1870 it still prevailed on the continent of Europe, 130,000 cattle dying from it in France alone. Although every effort has been made to find a cure for it, no treatment has yet proved to have any effect. The infection may be communicated either directly or indirectly, the disease beginning from three to six days after exposure, and running its course in from four to seven days. It begins with fever; soon the mucous membranes become congested and covered with small ulcers, the muscles stiffen and twitch, and the animal shows every symptom of pain and decreasing vitality. The few animals which recover are not subject to a second attack. As yet the disease has not occurred on the American continent, nor in Australia or New Zealand; but in 1896 a serious epidemic broke out in Africa, supposed to have been introduced into that country by the Italian army during the war in Abyssinia, it being in part supplied with diseased cattle, from which the disease was communicated to the African herds. It spread with great rapidity through the continent, reaching South Africa by the end of the year, and destroying thousands of the domesticated herds, and also extending to wild animals, great numbers of which died, particularly of antelopes. The stringent measures adopted by the British to stamp out the disease by slaughter of the infected herds caused a rebellious dissatisfaction among the South African natives.

Rine'hart, WILLIAM HENRY, sculptor, was born in Carroll co., Md., Sept. 13, 1825; in 1846 went to Baltimore, and while pursuing his trade as a stone-cutter studied also in the night art schools of the Maryland Institute; went to Italy in 1855, and there executed the two bas-reliefs, *Night* and *Morning*; returned to Baltimore and opened a studio, but in 1858 settled in Rome, and continued in the practice of his art. Died Oct. 28, 1874.

Rinehart, in *South Dakota*, a N.W. central co.; *area*, 835 sq. m.; intersected by the Moreau or Owl river. Grazing and mining are the leading industries. Unorganized. *Pop.* (1895) 111.

Ring'bone, *n.* A bony enlargement either above or below the pastern joint of a horse, sometimes resulting in a complete stiffening of the joint. "False ringbone" is a bony growth near the middle of the long pastern bone, where it does little or no harm, but true ringbone, either high or low, affects the articular ends of the bones, either in the pastern or the coffin joints, causing serious and sometimes incurable lameness. Ringbones are hereditary, but are also caused by overwork, by an injury to one leg which throws too much weight upon another, and by allowing young colts to run too much with their mothers upon hard roads. Ringbones should be treated by complete rest, bathing and poulticing, and finally blistering. Where these remedies are useless, a veterinary surgeon may perform what is called the "nerve operation."

Rio Blan'co, in *Colorado*, a N.W. co.; *area*, 3,600 sq. m.; intersected by White river; a fine stock and agricultural country. Cattle raising is a leading industry. *Cap* Meeker. *Pop.* (1897) 1,500.

Rio Grande, in *Colorado*, a S. co.; *area*, 1,260 sq. m.; dralued by the Rio Grande del Norte and its tributaries. *Surface*, mountainous; *soil*, fertile in the valleys. Gold and silver mining. *Cap.* Del Norte. *Pop.* (1897) 3,650.

Rip'on (GEORGE FREDERICK SAMUEL ROBINSON), MARQUIS OF, statesman, was born in London, England, Oct. 24, 1827; became Earl de Grey and Ripon by succession in 1859; the same year became under-secretary of war; and in 1861, under-secretary for India; was secretary for war, in 1863; secretary of state for India, in 1866; in 1871, was chairman of the High Joint Commission which negotiated the treaty of Washington; for which service he was rewarded with the title of marquis; was Viceroy of India (1880–84); first lord of the admiralty (1885–86); colonial secretary (1892–95).

Ris'ing City, in *Nebraska*, a post-village of Butler co., 10 m. W. of David City. *Pop.* (1897) 775.

Riv'erside, in *California*, a city, cap. of Riverside co., 12 m. S. of San Bernardino. *Pop.* (1897) 5,500.

Riverside, in *Iowa*, a post-town of Washington co., 32 m. W. of Muscatine. *Pop.* (1895) 685.

Riverside, in *Ohio*, a post-village of Hamilton co., a suburb of Cincinnati.

Riverside, in *Pennsylvania*, a post-borough of Northumberland co. *Pop.* (1897) 500.

Riv'erton, in *Illinois*, a post-village of Sangamore co. *Pop.* (1897) 1,264.

Riverton, in *Iowa*, a post-village of Fremont co., 9 m. S.W. of Sidney. *Pop.* (1895) 656.

Rives, AMÉLIE, novelist, was born in Richmond, Va., Aug. 23, 1863; her first book was a series of stories entitled, *A Brother to Dragons*; she came prominently into notice through her second venture, *The Quick or the Dead*, a unique specimen of sensational fiction. Her later works include *Virginia of Virginia* (1890); *According to St. John* (1891); and *Athelwold* (1893). In 1888, she married John A. Chanler, but they were divorced for incompatibility; in 1896, she married Pierre Troubetskoi, the son of a Russian prince.

Rivier'a. (*Geog.*) This term ("seashore") is applied to the narrow strip of coast-land bordering the Mediterranean, and including the whole coast of the Alpes Maritimes, the southeastern department of France, and the Italian coast as far as Genoa, though, strictly speaking, the Riviera extends only from Nice to Spezzia. Sheltered on the north by high mountains, the district has an exceptional climate, no other region north of Palermo and Valencia being so mild in winter. The part west of Genoa is mildest and most frequented. There the scenery is striking and beautiful, and there are numerous health and fashion resorts—Nice, Monaco, Mentone, San Remo, and others. There are places on the coast of the department of Var, next west of Alpes Maritimes, as, for instance, Frejus and Hyères, which have an equally fine climate, though none of the places in the Riviera are entirely exempt from occasional cold winds. The famous *Corniche* (Ital. *cornice*, road), widened by Napoleon I., leads along the coast from Nice to Genoa, and commands magnificent views.

Rix'ford, in *Pennsylvania*, a post-village of McKean co. *Pop.* (1897) 615.

Roads and Road-mak'ing. Within a dozen years there has been a wide increase of interest in the United States in the matter of good roads. Being a comparatively new country, the roads have seldom been as well built as in the longer-settled countries of the Eastern Hemisphere. The advent of the bicycle has called the attention of so many persons to this deficiency that strong movements have been inaugurated in various sections to influence favorable legislation for better roads. More than twenty States have within a few years taken action in the matter, prominent among them being Massachusetts, which has established a permanent highway commission and made an annual appropriation of $300,000 for building new roads and reconstructing old ones. The roads so improved are known as State highways, and the officials of towns are empowered to obtain releases of thoroughfares which it is desired to turn over to the State for care. New York has also made large appropriations for State roads. As the result of numerous petitions, the Agricultural Bureau appointed a special agent in 1895 to inquire into and report on the condition of the country roads in the United States. The report showed that the average distance which farmers in the Eastern States were obliged to haul their products in wagons to market was 5·9 miles, at a cost of 32 cents per ton per mile; Northern States, 6·9 miles, at 27 cents per ton-mile; Middle States, 8·8 miles, at 31 cents; Cotton States, 12·6 miles, at 25 cents; Prairie States, 8·8 miles, at 22 cents; Pacific and Mountain States, 23·3 miles, at 22 cents; average haul for the whole United States, 12·1 miles, at 25 cents a ton per mile; average load, 2,000 pounds; average cost for whole length of haul, $3 per ton. The League of American Wheelmen has been prominent in agitating for good roads, and several periodicals are published wholly devoted to advocating the movement. J. S. Coxey, a labor agitator, has also attracted national attention by his endeavors to have the government at Washington construct national highways for the double purpose of keeping busy the unemployed and the improvement of the roads, the expense to be met by the issue of bonds. The construction of roads may be divided into the use of broken stone by the Telford or Macadam systems and the use of pavements, or cobblestones, Belgian blocks, and asphalt, or some combination of these. Telford and Macadam were the pioneers of good roads in Europe, and the first to construct them on really scientific principles. Telford used a foundation of comparatively large stones,

on which he built up a top structure of smaller stones, 9 inches thick in the center and 3 inches thick at the edge. Macadam's plan was to use stone broken angularly and passed through screens having circular holes of 2½ inch diameter. These stones he laid directly on the surface soil, the thickness varying with conditions and the amount of traffic. About 10 inches of properly compacted broken stone is commonly considered enough to support the wear of a moderately heavy traffic. Cobblestones make a road that will stand a great deal of surface wear, but they are being generally discarded in cities in favor of Belgian blocks, which are simply stones broken or chipped into rectangular form, giving a more regular surface than the cobbles. Asphalt makes the smoothest and most sightly pavement, and is excellent for bicycle travel. Its only drawback is that it becomes dangerously slippery for horses in icy weather. (See ASPHALT.)

Much difference of opinion exists among engineers as to how much curve it is best to give to the surface of a road. Some curve is necessary in order to carry the water to the gutters, and if the curve is very slight, puddles are likely to result; but if the curve is steep, the teams naturally keep as much as possible in the center, cutting up that portion of the road quickly, instead of distributing the wear over the whole surface. A slight curve of 1 to 36 is perhaps the preferred average. As to grade, 1 in 30 is not objectionable on a macadamized road, being just enough inclination to carry a wagon down grade without pushing the horse, and not steep enough to more than double the animal's effort in ascending. In country districts, where the travel is not great, a macadam road of ten feet in width answers a very good purpose, and is easily kept in order. Roads in cities and suburbs, which are subjected to very heavy traffic, are best built of considerable thickness, and if possible, it is best to go below the frost line. Frost will injure any roadway, no matter how it is made, and if the material does not go down to the frost line, upheavals and settling must be expected. To build a durable road for heavy traffic the basis of the road is best made with large stones, and it does not matter whether the stones in the lower strata are broken or not. The big stones are laid first, and the smaller ones on top, being rammed and pounded, or rolled, until within eight or ten inches of the top level. Then more rolling should be done with heavy road-rollers to secure an even bearing surface all over. Next Belgian blocks are laid, not in the ordinary slipshod fashion, but well-squared blocks, crowded together, set in a good cement, and rammed level on top. Hot gravel and hot tar are used to fill in the interstices, and this is a portion of the work that requires especial care. The gravel must be heated on the spot, and it must be poured in, and the tar after it, without loss of time, as a partial cooling of the gravel or tar prevents the tar from working all the way to the base of the blocks. If the work is properly done, the result is a water-tight and stone-strong road-bed, eight or ten inches thick, lying on a stone foundation which no water should enter, and which, if any moisture does get in, will drain it away between the broken stone to the never-frozen soil below, where it can run off without damage to the roadway. Nothing short of an earthquake will injure such a road, which is cheap in that it will wear for hundreds of years, and never requires mending. It is open to the single objection that it is hard to tear up, and where used in cities a large conduit is best run underneath, through which all water-pipes and gas-mains may be laid. If the blocks of the roadway are well squared, and the tar and fine gravel are allowed to fill up well between the stones, the surface is fairly smooth—just rough enough to allow a good grip for the horses' feet, and far smoother than the ordinary Belgian blocks, which become rounding on top, leaving big gaps between, the contractors preferring to set them well apart so that it may be easier to remove them when tearing up is called for. If the road is designed to be altogether a bicycle road, it may be topped off with asphalt, which can be renewed or patched up as it wears; but if for heavy traffic, as in a city, where great truck wagons are numerous, it is best without the asphalt, as it is rough-faced rather than jolty.

Wood pavements have been used for roads more as a makeshift than with serious thought of permanence. Wooden blocks sawed in lengths of 7 or 8 inches, and laid end up, will stand a great deal of wear, but exposure to alternate moisture and drying heat rots them in the course of a decade or two. Compressed salt-marsh grass is a comparatively new paving substance seeking a market. The grass is subjected to enormous hydraulic pressure, and in this condition is bound with iron bands in blocks about 15 x 30 inches, and 8 inches thick. It is chemically treated to resist rotting, resembles wood in appearance, is easy to lay and easy to take up, and several years of wear in a busy thoroughfare have failed to reduce its thickness materially. The makers claim that its resiliency protects it from wear. It has not been on the market long enough to make any positive statements as to its durability.

Roann', in *Indiana*, a post-town of Wahash co., 27 m. E. N. E. of Logansport. *Pop.* (1897) 660.

Ro'anoke, in *Alabama*, a post-village of Randolph co., about 85 m. N. E. of Montgomery. *Pop.* (1897) 715.

Roanoke, in *Virginia*, a city, 53 m. W. by S. of Lynchburg; has extensive machinery, iron and steel works, locomotive and car shops, tobacco factory, &c. *Pop.* (1897) 16,750.

Roar'ing Spring, in *Pennsylvania*, a post-borough of Blair co., on the Pennsylvania R.R., about 9 m. S. of Hollidaysburg. *Pop.* (1897) 1,080.

Ro'bard, in *Kentucky*, a post-village of Henderson co. *Pop.* (1897) 725.

Ro'beline, in *Louisiana*, a post-town of Natchitoches parish. *Pop.* (1897) 770.

Rob'ert Col'lege. (*Educ.*) James H. and William B. Dwight, sons of the Rev. Harrison G. O. Dwight, a veteran missionary in Turkey, became convinced that it would be a great aid to Christian missions in the Sultan's dominion to have at Constantinople a college patterned after the fashion of a New England college. Christopher R. Robert, of New York, furnished the necessary funds, stipulating only that the institution should be under the care of the Rev. Cyrus Hamlin, D.D., of Constantinople. Mr. Robert supported the college until his death in 1878, when he bequeathed to it one-fifth of his estate, his total benefactions to the institution amounting to about $450,000. The college was opened in 1863 in a rented building. In 1864 it was incorporated in the State of New York as one of the colleges of the University of the State. By permission of the Sultan two buildings have been erected on a fine site on the Bosphorus. Dr. Hamlin resigned in 1877, after fourteen years of service, and was succeeded by the Rev. Geo. Washburn, D.D. The college offers a regular academical course of five years, leading to the degree of the bachelor, and a two years' preparatory course. Special attention is paid to languages, no fewer than thirteen being taught, though the chief language of instruction is English. From 1863 to 1893, 1,715 students attended the college, of whom 274 graduated.

Rob'erts, GEORGE BRINTON, was born in Lower Merion township, Montgomery co., Pa., Jan. 15, 1833, where his Welsh ancestors had resided since 1682. His early education was acquired in the public schools; he then took a course in engineering at Rensselaer Polytechnic Institute, and in 1851 entered the employ of the Penna. Railroad Company as rodman. In this service he continued for a year, and then became assistant engineer of the Phila. & Erie R.R. During the succeeding ten years *R.* was employed as engineer on several new lines of road, but in 1862 returned to the Penna. R.R. Co. as chief assistant to the president, J. Edgar Thomson. Step by step he was promoted, becoming 4th vice-president in 1869, 1st vice-president in 1874, and president in 1880. Died Jan. 30, 1897.

Roberts, in *South Dakota*, an extreme N. E. co., adjoining North Dakota and Minnesota; *area*, 1,100 sq. m.; bounded E. by Lake Traverse and Big Stone Lake. *Cap.* Wilmot. *Pop.* (1895) 7,509.

Roberts, in *Texas*, a N.W. co.; *area*, 900 sq. m.; drained by Canadian river. *Surface*, nearly all level prairie; *soil*, dark, sandy, very fertile. *Cap.* Parnell. *Pop.* (1897) 440.

Roberts of Candahar' (FREDERICK SLEIGH), LORD, soldier, son of Sir Abraham Roberts, was born in England in 1832; was appointed lieutenant in the Bengal artillery in 1851; captain in 1860. Since then he has had a brilliant military career in India, especially in the Afghan war of 1878; rose to the command of the Indian army in 1885. In 1892 he was raised to the peerage, and later was promoted to the rank of field-marshal.

Rob'ertsdale, in *Pennsylvania*, a post-village of Huntingdon co. *Pop.* (1897) 690.

Rob'ertson, AGNES, actress, was born in Edinburgh, Scotland, Dec. 25, 1833; began her career at the age of 16, at Hull; appeared in London as *Nerissa* in 1851. In 1853 married Dion Boucicault, and came to the U. S.

Robertson, FREDERICK WILLIAM, clergyman and pulpit orator, was born in London, England, Feb. 3, 1816; educated at Edinburgh University; ordained in 1840; settled at Cheltenham. In August, 1847, he began his famous ministry at Trinity Chapel, Brighton. His sermons and addresses were published at intervals, and issued complete in 1870. Died Aug. 15, 1853.

Robertson, in *Kentucky*, a N.E. co.; *area*, 210 sq. m.; bounded S. and W. by Licking river, and also drained by the North Fork of that river. *Surface*, undulating and hilly; *soil*, fertile. *Cap.* Mount Olivet. *Pop.* (1897) 4,990.

Robeson, GEORGE MAXWELL, lawyer and politician, was born in Oxford, Warren county, New Jersey, in 1827; he was secretary of the navy under President Grant (1869–77); Republican member of Congress from New Jersey (1879–83). Died Sept. 27, 1897.

Rob'inson, SIR HERCULES GEORGE, diplomatist, was born in England in 1824; educated at the Royal Military School at Sandhurst; held a commission in the army until 1846; thereafter was in the diplomatic service, chiefly as colonial governor at various successive points, finally being sent in that capacity to Cape Colony in 1880. He retired in 1889, and was made a baronet in 1890. In 1895 he was reappointed governor of the Cape and high commissioner for South Africa. In 1896 he was raised to the peerage.

Rob'son, STUART, actor, was born in Annapolis, Md., March 4, 1836; became an actor in 1852; was a member of Laura Keene's company in New York, in 1862. He of Laura Keene's company in New York, in 1862. He was a partner of William H. Crane from 1877 to 1889; after that period played leading parts in several comedies, notably *The Henrietta*. Died April 29, 1903.

Rochefort (*rōsh-fôr'*), VICTOR HENRI, COMTE DE, journalist and politician, was born in Paris, France, Jan. 30, 1830; began his journalistic career at the age of 22, as dramatic and art critic on the *Figaro*. He soon turned his caustic criticism on the Imperial administration, and his radical opinions led to his dismissal from the *Figaro*. He then founded *La Lanterne*, which was soon suppressed, and Rochefort was arrested, and condemned to one year's imprisonment and a fine of $2,000. He escaped to Belgium, and there resumed the publication of *La Lanterne*, which was surreptitiously circulated in France. In 1869 he was elected to the Corps Législatif; returned to France, and founded *La Marseillaise*, in Paris. He had a stormy career for many years, with three arrests, imprisonment twice, and enforced flight in 1889, when convicted of treason by the Senate. He remained in London until 1895, when the French government permitted his return to Paris. He published several novels, farces, satires, &c.; and in 1896 issued *The Adventures of My Life*, an autobiography.

Rock, in *Minnesota*, an extreme S.W. co., adjoining South Dakota and Iowa; *area*, 470 sq. m.; intersected by Rock river. *Surface*, rolling prairie; *soil*, fertile. *Cap.* Luverne. *Pop.* (1895) 8,597.

Rock, in *Nebraska*, a N. co.; *area*, 856 sq. m.; bounded N. by the Niobrara river. *Surface*, generally level; *soil*, mainly black sandy loam; timbered along streams. *Cap.* Bassett. *Pop.* (1897) 3,440.

Rock Creek, in *Ohio*, a post-village of Ashtabula co., 7 m. S.W. of Jefferson. *Pop.* (1897) 530.

Rock Drills. (*Mach.*) Steam, compressed air, electricity, and hydraulic pressure are all used to operate rock drills, as in tunnelling and blasting operations, and the classifications of these machines may be further divided into those operating by percussion, commonly called tappet-drills, and those operating by the pressure and rotation of a hollow bit, known as a diamond drill. The steam and compressed-air rock drills are practically similar, consisting essentially of a cylinder, having a reciprocating piston, on which a percussion drill is fixed, the whole being supported on a tripod, whose legs are weighted to assist in steadying the machine, and give it weight enough to render the blows of the drill effective. The steam or compressed air is introduced through a tube, from a convenient source, and

Fig. 3053.—COMPRESSED-AIR ROCK DRILL.

admitted to the cylinder by valves, affording a regular reciprocating action like that of a steam-engine. They are necessarily provided with a variable piston-stroke, as the depth of the hole is constantly changing. The Ingersoll Eclipse drill is of this sort, and by feeding down the cylinder the piston will work entirely in the upper part, cutting off the steam as soon as the blow is delivered to save waste, and increasing its stroke automatically as the hole is driven deeper. The Rand Economizer rock drill delivers an uncushioned blow, has a cut-off for saving steam, and devices to accommodate the stroke to irregularities. The Rand Slugger is made with the cut-off on the up-stroke only. The Stevens Climax rock drill uses a reversible tappet-valve, and a rotating device on a rifled spindle in the back end of the cylinder. McCulloch's Rio Tinto rock drill has two pistons, arranged to act as valves for themselves, or to operate slide-valves. Githens' rock drill has only two moving parts, the piston and valve. Marvin's electric rock drill has a superficial resemblance to the steam drills, the piston operating from a closed cylinder hung from a tripod, and delivering its blow with a percussion drill. The piston is driven, however, by electro-magnetic coils, placed at each end of the cylinder, so that the piston is drawn up and down between them, as they are alternately magnetized by the armature. The Van Depoele electric rock drill operates on a similar principle. The electric diamond drill is an ordinary diamond drill, with a hollow stem, operating by rotation and pressure, the power being furnished by an electric motor mounted on the same framework. The Brandt hydraulic rock drill is of the diamond type, a hydraulic ram forcing the piston down to its work. It is suited to very hard rock.

Rock Falls, in *Illinois*, a city of Whiteside co., on Rock river, opposite Sterling; has great water power,

and numerous manufacturing establishments. *Pop.* (1897) 2,250.

Rock Rap'ids, in *Iowa*, a post-town, cap. of Lyon co., 32 m. E. of Sioux Falls. *Pop.* (1895) 1,740.

Rock Val'ley, in *Iowa*, a post-town of Sioux co., 25 m. N.W. of Orange City. *Pop.* (1895) 959.

Rock'dale, in *Georgia*, a N. central co.; *area*, 126 sq. m.; drained by Ocmulgeo river. *Surface*, hilly; *soil*, good. *Cap.* Conyers. *Pop.* (1897) 7,220.

Rockdale, in *Texas*, a city of Milam co., 61 m. N.E. of Austin. *Pop.* (1897) 1,775.

Rock'efeller, JOHN DAVIDSON, capitalist, was born in Richford, Tioga co., N. Y., July 8, 1839; went into business at the age of 19 with marked success. In 1860, when the discoveries of petroleum caused exciting speculation, he owned a refinery in Cleveland, Ohio; his business developed until he became president of the Standard Oil Company, a monopolistic corporation founded in 1870, through which he acquired an immense fortune. He is noted for large donations to religious and charitable purposes, notably his endowment of the Chicago University (*q. v.*).

Rock'ford, in *Washington*, a post-town of Spokane co., 25m. S.E. of Spokane Falls. *Pop.* (1897) 780.

Rock'land, in *Massachusetts*, a post-town of Plymouth co.; has extensive manufactures of boots, shoes, and tacks. *Pop.* (1895) 5,523.

Rock'lin, in *California*, a post-town of Placer co., 22 m. N.E. of Sacramento. *Pop.* (1897) 1,210.

Rock'ville, in *Missouri*, a post-village of Bates co., 25 m. S.E. of Butler. *Pop.* (1897) 610.

Rock'wall, in *Texas*, a N.E. co.; *area*, 150 sq. m.; drained by small affluents of the Trinity and Sabine rivers. *Surface*, undulating prairie. *Cap.* Rockwall. *Pop.* (1897) 6,640.

—A post-village, cap. of above co., 25 m. N.E. of Dallas. *Pop.* (1897) 1,010.

Rock'well, in *Iowa*, a post-town of Cerro Gordo co., 12 m. S. of Mason City. *Pop.* (1895) 702.

Rockwell City, in *Iowa*, a post-village, cap. of Calhoun co., 93 m. N.W. of Des Moines. *Pop.* (1895) 742.

Rock'wood, in *Pennsylvania*, a post-borough of Somerset co. *Pop.* (1897) 660.

Rockwood, in *Tennessee*, a post-town of Roane co., 45 m. W. S. W. of Knoxville. *Pop.* (1897) 2,550.

Rock'y Moun'tain Goat-an'telope. (*Zoöl.*) This interesting animal, the white goat, or mazama, (*Haploceros montanus*), is one of the distinctive game-quadrupeds of North America. It is really nearer an antelope than a goat in structure, and is closely related to the goral and serow of the Himalayas (genus *Nemorhædus*). It dwells near the snow-line of the mountains along the coast of British Columbia and Alaska, only rarely wandering southward along the crests of a few lofty ranges into the U. S. It is only within a very few years that it has become known either to naturalists or hunters, and 20 years ago all Europe contained only two or three mutilated skins, while American museums had very few presentable specimens. Usually of the bulk of a large sheep, some of the patriarchs grow to a great size and formidable weight, and their curiously grotesque proportions and great hump give them the appearance of a mountain buffalo with a goat's head, and with a silky pure-white coat. The females are smaller, but their horns are very much the same in size as those of the ram—short, jet-black, smooth, and sharply pointed. The chase of this animal partakes of all the enthralling experiences that make chamois-stalking the king of sports. Two ways of hunting are practiced—by stalking and by following with dogs. The former is more sportsmanlike, but the latter sufficiently arduous work to please the most ardent climbers. In order to even begin the chase, the enormous precipices that skirt all the peaks must be scaled, for the game should be approached from "above," goats having a singular fancy for the very top of sharp ridges, where the breathless sportsman can see them silhouetted against the sky as they pick their steps with grave steadiness along the knife-back-like ridge, either unconscious of the yet distant foe, or calmly watching him. The white hide is utilized by the Indians of that region in many ways; the hair is also woven by them, and the horns are carved into spoons and various utensils. See illustration under MOUNTAIN GOAT, in SECTION I.

Rocky Ridge, in *Ohio*, a post-village of Ottawa co. *Pop.* (1897) 522.

Roe, EDWARD PAYSON, author, was born in New Windsor, N. Y., March 7, 1838; wrote a number of novels in which love and religion are melodramatically mingled, and which have had large sales. Among them are: *Barriers Burned Away* (1872); *The Opening of a Chestnut Burr* (1874); *Near to Nature's Heart* (1876); *Miss Lou* (1888). Died July 19, 1888.

Roe'bling, WASHINGTON AUGUSTUS, engineer, was b. in Saxenburg, Pa., May 26, 1837; son of John A. Roebling. He served in the Federal army from 1861 to 1865, on the staff of General Pope, acting as military engineer, bridge-builder, &c., rising to the rank of major. In 1865 he resigned and joined his father, who was then building the railroad suspension bridge at Cincinnati. On the death of his father, in 1869, he finished the plans of the Brooklyn Bridge and superintended its construction. In 1883 the work was completed. After that date Major *R.* devoted his time to managing the wire factory at Trenton, N. J.

Roentgen, (*rent'gen*) WILLIAM C., physicist, born in Holland, in 1845; studied at the University of Zurich until his 25th year, graduating M. D.; accompanied his teacher, Prof. Kundt, to Würzburg, and later (1873) to Strasburg, as assistant professor; was prominent for 20 years as a professor of Mathematics and Physics, and a writer on scientific topics. In Dec., 1895, he announced his discovery, made on Nov. 8, 1895, of "a new kind of rays." (See ROENTGEN RAYS.) This new method of "photographing the unseen" appealed to the popular fancy as nothing else has for years. The German emperor allowed a shadowgraph of his arm to be taken, and the imperial approval was expressed by bestowing the Order of the Royal Crown on *R.*; and Prince Ludwig, of Bavaria, created him a baron.

Roent'gen Rays. (*Physics.*) On Dec. 4, 1895, Prof. Roentgen astonished the world by a description of his discovery of what he termed the "X-rays." His announcement came in the form of a paper read before the Physico-Medical Society of Würzburg. The discovery was heralded all over the globe by telegraph in the shape of an announcement that a new photography had been developed, which by means of unknown rays from Crookes tubes penetrated substances heretofore considered opaque to light, so that objects like the bones of the living hand or the coins enclosed in a purse were apparent in the photographs. A great number of investigators at once set themselves to studying the matter, and Crookes tubes came into great demand. It was shortly demonstrated that, although the rays were invisible, yet they could be used with the aid of a fluorescent screen to view with the naked eye the bones of the body of a living person standing in front of the Crookes tube while the observer held the screen between him and the person under inspection. The fluorescent screen has the property of changing the Roentgen rays into light. A number of fluorescent materials have been used in the experiments with the rays. Roentgen used barium platino-cyanide, and Edison calcium tungstate. English experimenters have been addicted to potassium platino-cyanide, and others have succeeded with tungstate of zinc. The fluorescent screen has been developed by Edison into the fluoroscope (*q. v.*), and by others into the skiascope (*q. v.*). The photographic side of the discovery has attracted the most attention, however, and a vast number of pictures have

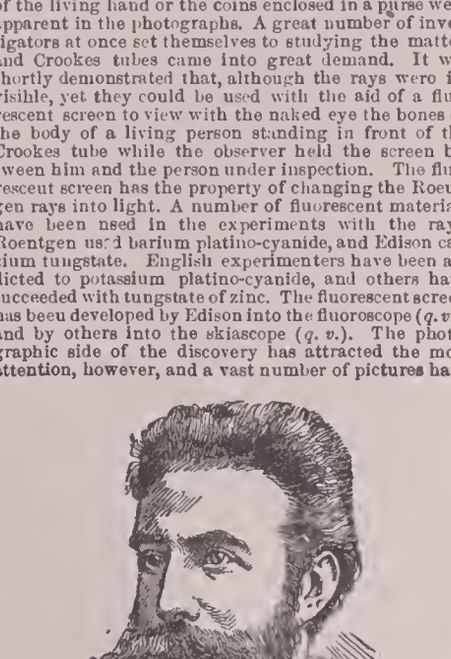


Fig. 3054.—WILLIAM CONRAD ROENTGEN.

been taken, being termed radiographs, shadowgraphs, sklagraphs, skotographs, cathodographs, and X-ray pictures. The methods of taking the pictures have improved rapidly, so that exposures of a few seconds now give better results than were at first obtained from exposures of many minutes' duration. The gain in time is the result partly of improvements in the tubes, but more from using photographic plates prepared with a thick film impregnated with some fluorescent substance, or by placing the photographic film in contact with a fluoroscopic screen at the time of exposure.

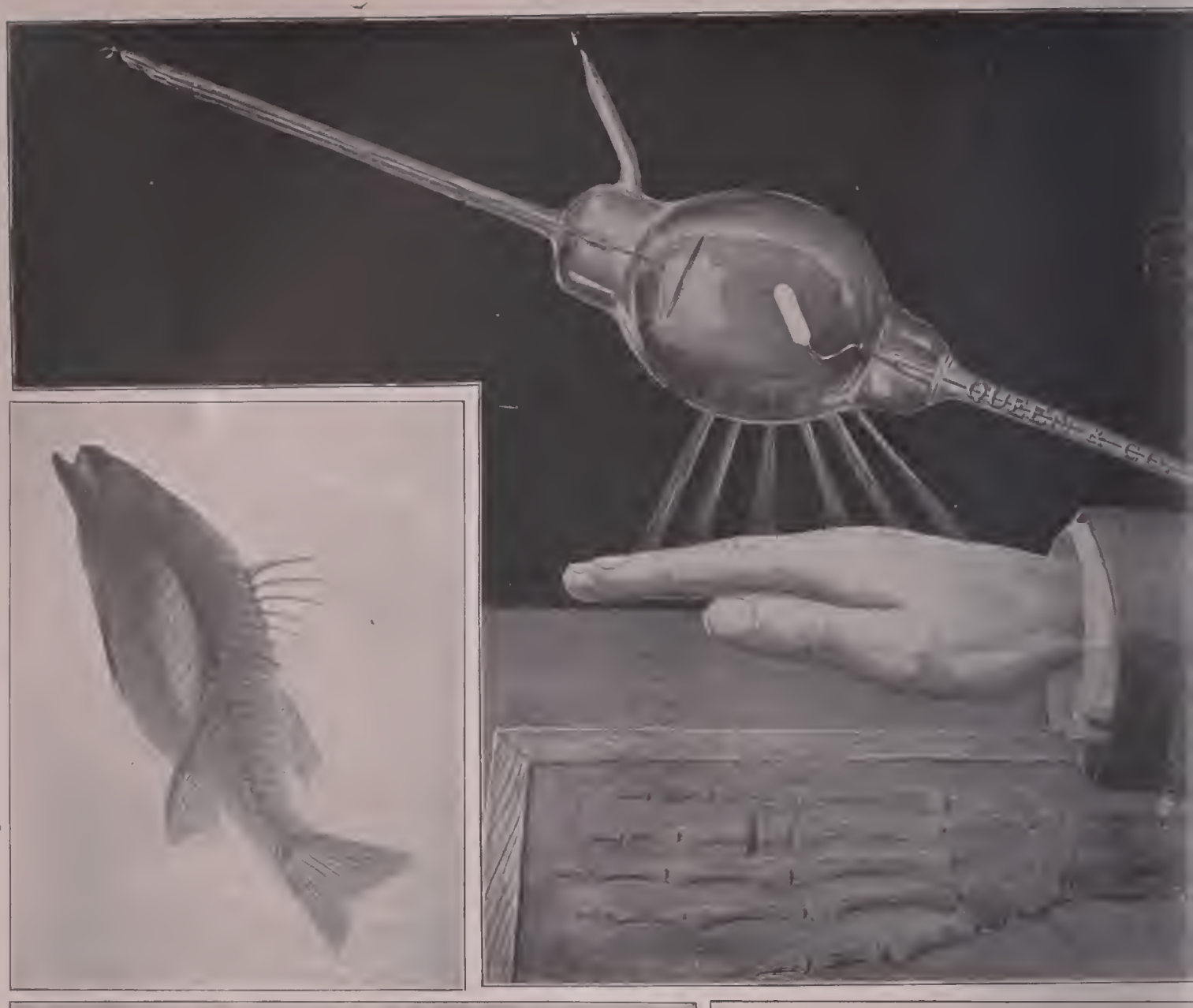
There appears to be a tendency to prefer the name of Roentgen in naming the rays, as a proper tribute to the discoverer, rather than to continue the name of X-rays, which was applied to them provisionally by Roentgen, in the algebraic sense of unknown, as he evidently thought that it would not be long before physicists were able to explain the phenomena. Nearly two years have passed since the discovery, and the rays remain as much a mystery as before. Several theories have been advanced as to their origin, but none have been wholly satisfactory. The most popular theory, perhaps, is that they are ultra-violet ether-waves of light—that is, light-waves which, if they were visible, would appear beyond the violet end of the spectrum. In support of this theory it is shown that they resemble light in travelling in a straight line, in affecting photographic films, in exciting fluorescence, in being non-deflectable by a magnet, in discharging electrified bodies, and in temporarily increasing the conductivity of some substances. Attempts to measure the wave-length have not been wholly satisfactory, so that no proof is as yet obtainable from that quarter. As against the light theory, it has been demonstrated that the rays cannot be refracted or polarized, that they fail to affect the retina of the eye, and that they pass through most substances impermeable to light. Another theory is that the X-rays are vortices of the intermolecular ether, forced from the cathode when the gas pressure is sufficiently low. The impossibility of refracting the rays is cited in proof of this theory, it being one of the properties of vortices. Other theories, which have received less support, are that the rays are streams of material matter, or that they are variations of stress in the dielectric surroundings of the vacuum tubes.

In order that the reader may clearly understand how the Roentgen rays are produced, it should be remembered that the Crookes tube is a glass bulb from which the air has been exhausted, and into which is introduced the negative terminal of an electric current, this terminal, through which the electricity passes out, being called the cathode. It is commonly made in the form of a concave button. There are cathode rays, as well as Roentgen rays, and they must not be confounded. The cathode rays are produced within the tube (although Lenard has succeeded in also producing them exteriorly), and were known years before the discovery of the Roentgen rays, which become manifest outside of the Crookes tube, when the conditions are favorable. The cathode rays are considered to be streams of electrified molecules, which impinge against the glass walls of the tube, or upon a platinum plate, producing a soft light (which is intensified in the fluorescent lamp by coating the interior of the tube with a fluorescent substance). The cathode rays can be shut off from a portion of the tube by introducing an interior screen, and they also can be turned aside by a magnet. The Roentgen rays only become manifest when they strike some opaque substance. It is commonly necessary to produce the cathode rays in order to obtain the Roentgen ray phenomena, and this has led many to confound the two.

Many forms of Crookes tubes have been made for illustrating the Roentgen rays, the focus-tube shown in the illustration being one of the preferred forms. Though these tubes are called focus-tubes, it must not be inferred that the Roentgen rays can be focussed, for such is generally believed impossible; although A. A. C. Swinton has claimed, in a paper read before the Royal Society, that the Roentgen rays cross, but without rotation; also, that they can be produced by cathode rays only when these strike solid matter which is positively electrified. Another popular type of Crookes tube is made with a side tube communicating with the main bulb, and containing caustic potash, or some similar substance that volatizes with heat, so that its vapor will reduce the vacuum in the tube as the heat increases, for only a partial vacuum is desired. In all the forms of tube that have been devised there is a critical degree of vacuum, and also of electrical potential, peculiar to that form of tube with which the best results can be obtained. The Roentgen rays emanate from the surface of the tube, or from a platinum plate, where the cathode rays first impinge. Their intensity varies inversely as the square of the distance of their source; hence experiments with them must be made close to the tube. Their penetrating power depends on the time they act, as well as the distance and the nature of the substance acted upon. The degree of transparency of different substances under the Roentgen rays is of interest. The fluids generally are quite transparent, and so is paper; but cork is much more transparent than either. The human flesh is more transparent than the bones, for which reason the bones of the hand are conspicuous in a skiagraph. Leather is more transparent than iron, or the metals generally, as may be seen in a skiagraph of a boot, in which the nails show up darkly and sharply. Roentgen found aluminum the most transparent and platinum the most opaque of the metals examined by him, the difference being about as 200 to 1. Lead is three and zinc six times as permeable as platinum. Glass is not as permeable as might be supposed from its transparence in light, ranking about the same as aluminum. Wood has been permeated to a depth of eight inches or more.

The principal utility of the Roentgen rays thus far has been found in locating foreign substances in the human body, or in examining fractures. More than one-third of the hospitals are supplied with appliances for making examinations with the rays, and the number is constantly increasing. Apparatus have been widely exhibited as a means of entertainment or exhibition, but as popular interest and the newness of the discovery wanes they are being reduced to the laboratories of colleges and physicists. A complete outfit, as now generally used, consists of a set of Crookes tubes, connection with a current, as that of the incandescent lights—say, at 110 volts—a rheostat, rotary interrupter, ammeter, pole-changer, induction-coil, fluoroscope, and a screen. In the focus-tube shown in the illustration the cathode rays are concentrated upon a platinum plate, which becomes incandescent with the heat, and shows in the picture as a white central streak. Here the cathode rays are centered or focussed, and changed, or partly changed, so that they emerge from the tube as Roentgen rays, radiating in all directions from the face of the platinum plate. By using the platinum plate a smaller source is acquired for the Roentgen rays, and sharper pictures can be taken.

Dr. Seneca Egbert and others have taken Roentgen ray pictures without using Crookes tubes, substituting sunlight, and artificial light, through aluminum plates 1 millimeter in thickness, as well as through vulcanite and other opaque substances. Since the discovery of the rays, a considerable number of photographs have been resurrected which were at the time supposed to be the result of some peculiar accident, but which now appear to have been produced by Roentgen rays without the knowledge of the makers. It is therefore prob-



THE ROENTGEN RAYS. 1. Crookes Tube (Queen & Co.'s perfected form) in operation. [NOTE
plate; but both are indicated in the illustration for the purpose of bette
upon the fluorescent screen of that instrument.] 2, 3, 5. Shadowgraphs of a human hand, a fish, and a purse w

The Roentgen rays are actually invisible, and the shadowgraph can be seen only after developing the sensitized
xplanation. The shadowgraph as shown here on plate resembles that seen in the skiascope when projected
contents. 4. Skiascope designed and made by Queen & Co., Philadelphia.

Copyright, Pach Bros., N. Y., 1904.

Theodore Roosevelt.

1858-

ble that other means exist for developing the rays, **some** of which may eventually prove more convenient for use than the Crookes tubes. The ordinary method of taking the skiagraphs consists in mounting the Crookes tube on an upright stand, at the base of which is a photographic plate-holder. The object or objects to be pictured are laid on top of the plate, and directly under the tube. The induction-coil is connected with the tube by wires, and other wires are led to the source of the electric current. The other instruments previously named are placed within the circuit. The current being turned on, and the interrupter made to operate rapidly, a discharge takes place through the tube at each interruption. A pale, fluorescent light accompanies the discharge, and the length of time this is kept up constitutes the exposure. Applications of the Roentgen rays have been made on patients suffering from tubercular consumption and similar diseases, with the idea that the rays would reach and destroy the bacilli; but the effects have proved to be almost as deleterious to the patients as to the bacilli, producing injury to the cuticle and the hair, and promoting various other physical disturbances. Such experiments, therefore, **have been practically abandoned.** For further information bearing on this subject, see FLUORESCENCE, CROOKES TUBE, GEISSLER'S TUBE, RADIOGRAPH, SKIAGRAPH, &c.

Rog'er Mills, in *Oklahoma*, a W. co. It is bounded S. by the North Fork of Red river, and intersected by Washita river. *Surface*, rolling prairie; *soil*, fertile; timbered along streams. *Products*. Forage plants, corn, and vegetables; stock raising. *Cap.* Cheyenne. *Pop.* (1897) 2,000.

Rog'ers, JOHN, sculptor, was born in Salem, Mass., Oct. 30, 1829. In early life he engaged in business pursuits; became interested in clay-modelling, and went to Europe in 1858 to study art, returning to America the following year. His first group, *The Checker Players*, attracted favorable attention; since then he has modelled and cast in composition many statuette groups on subjects relating to the Civil War, and to everyday life, familiarly named "Rogers' Groups." He also executed the equestrian statue of General Reynolds which stands before the City Hall in Philadelphia. Died July 27, 1904.

Rogers, RANDOLPH, sculptor, was born at Waterloo, N. Y., July 6, 1825; studied in Rome (1848–50); for 5 years had a studio in New York, then, in 1855, returned to Italy, and resided many years in Rome; executed many ideal busts: *Ruth, Isaac, Nydia, &c*; is best known in America by his massive works: the bronze doors of the Capitol at Washington, and portrait statues and memorial monuments in Richmond, Detroit, Providonco, &c. Died January 15, 1892.

Rogers, WILLIAM AUGUSTUS, astronomer and physicist, was born at Waterford, Conn., Nov. 13, 1832; graduated at Brown University (1857); professor of Mathematics and Astronomy in Alfred University, at Alfred Center, N. Y. (1858), which position he occupied until appointed assistant in the Harvard Observatory (1870); became assistant professor there (1877); took the chair of Astronomy and Physics at Colby University (1886). Died 1898.

Rogers, in *Arkansas*, a post-town of Benton co., 80 m. N. of Fort Smith. *Pop.* (1897) 1,375.

Rogers, in *Michigan*, a post-village, cap. of Presque Isle co., 45 m. N. W. of Alpena. *Pop.* (1894) 586.

Rogers Park, in *Illinois*, a post-village of Cook co., 9 m. N. from, and a suburb of, Chicago.

Rolette', in *North Dakota*, a N. co.; *area*, 936 sq. m.; watered by small streams and lakes; an Indian reservation. Grazing and farming are the chief industries. *Cap.* Rolla. *Pop.* (1897) 2,800.

Rolfe, WILLIAM JAMES, editor and author, was born in Newburyport, Mass., Dec. 10, 1827; studied at Amherst College (1854–58); was an instructor in Maryland; master in the High School, Cambridge, Mass. (1862); and editor of *Popular Science News* (1869). His editorial labors for thirty years or more embrace the plays, poems, and sonnets of Shakespeare, in 40 handy volumes, with critical notes; and selected works of Milton, Gray, Goldsmith, Scott, Byron, Wordsworth, Macaulay, Tennyson, Browning, and several other English classics.

Roosevelt (*roos'e-velt*), THEODORE, 26th President of the United States, was born in New York City, October 27, 1858 the descendent of one of the old Dutch families of that city, in which his father was a wealthy merchant. He was educated at Harvard University, graduating in 1880. He then began the study of law, but quickly became engrossed in politics, and in the fall of 1881 was elected to the Assembly from the 21st district. He was twice re-elected, serving in 1882, 1883, and 1884. He quickly became prominent as a reformer, and in his second year was made the Republican candidate for Speaker. He succeeded in carrying through a reform charter for New York City, and as Chairman of the Committee on Cities introduced and aided in the passage of various other reform bills. In 1886 he was the Republican candidate for Mayor of New York against Abram S. Hewitt, Democrat, and Henry George, Labor candidate. In 1889 he was appointed by President Harrison a member of the U. S. Civil Service Commission. In this position he showed the same energy and activity he had done in the Assembly, resigning May 1, 1895, to accept the position of Police Commissioner of New York. His ability and integrity in this office were especially notable. The administration of police affairs was found by him in a demoralized condition, he went to work on its reform with his accustomed spirit, and brought it to a degree of efficiency rarely attained in that city. His intervals of leisure were spent by Mr. Roosevelt largely in hunting and in the pursuit of literature, he producing a naval history of the War of 1812 and other works. Several years were spent by him in Dakota, where he engaged in cattle-raising and made himself very popular among cowboys and hunters. Although very short-sighted and obliged always to wear glasses, he earned a reputation as a hunter of large game second to few in America. In April, 1897, he was appointed by President McKinley Assistant Secretary of the Navy, and at once set himself to increase the efficiency of the naval service, perhaps foreseeing the coming conflict with Spain. He especially devoted his attention to exercising the gunners in marksmanship, and to his efforts they owed the marked skill shown by them in the subsequent war. On April 16, 1898, two days before the Cuban War began, he resigned his office and quickly developed the idea of organizing a cavalry regiment of cowboys and other trained horsemen. This regiment, when formed, became popularly known as "Roosevelt's Rough Riders," though, at his request, Colonel Wood, of the regular army, took the command, he serving as lieutenant-colonel. With this regiment, as dismounted troops, he took part in the fight at Las Guasimas and the charge up San Juan Hill, showing in both an impetuous daring that made him the popular hero of the war. As a result, in 1899 he was nominated for Governor of New York and elected by a plurality of 18,079. His record as governor added to his growing popularity, and in 1900, at the Republican National Convention in Philadelphia, his was the most prominent name offered for the Vice-Presidency. He was disinclined to accept this nomination, preferring the more active post of governor, but his objections were overcome and the nomination given him. It was followed in November by his election, with McKinley as President. This nomination was largely due to his opponents in the party, who wished to get rid of his impetuous honesty at Albany and "shelve" him in the chair of President of the Senate. But destiny worked in his favor, the assassination of McKinley landing him in the presidential office on the 14th of September, 1901. As President of the United States the native qualities of Theodore Roosevelt had the highest opportunity for display—his rugged and inflexible integrity of purpose, his earnestness in the cause of reform, and his impetuous spirit, which at times led him to hasty, but rarely to unwise action. The youngest man ever inducted into the office, he quickly made himself one of the most respected and admired. His messages to Congress showed unwonted pith and comprehensiveness and his readiness to take hold of difficult situations, such as that of the great coal strike of 1902, with his plain and non-partisan Americanism, won him friends in all parties, and in the election of 1904 he was chosen President by the great plurality of 2,541,635 and the notable electoral majority of 196. In his second term as President he was especially active in instituting legislation, and instigated and carried through several acts aimed to restrict and control the great monopolies, particularly the famous railroad rate bill. In international politics his efficient services in connection with the peace treaty between Russia and Japan won him the world's admiration, and in 1906 were recognized by the award to him of the Nobel prize of approximately $40,000 for the greatest work in the interest of peace. This prize he devoted to the creation of a commission for the fostering of industrial peace. In his active work for reform he declined to be bound by party lines and assumed the position of a national rather than a partisan executive. He thus won supporters in all parties and became the most widely popular of all our Presidents. His literary include a valuable historical work, *The Winning of the West, American Political Ideas*, works on hunting, on biography, &c., and an essay entitled *The Strenuous Life*, in which his own character seems typified.

Root, ELIHU, cabinet official, was born in Clinton, N. Y., Feb. 15, 1845. He graduated at Hamilton College in 1864, studied law and was admitted to the bar of New York City, where he won a very successful practice. He was counsel for William M. Tweed, in the "Tweed Frauds" prosecution, for Judge Hilton, in the Stewart Will cases, for Mayor Weaver of Philadelphia in the reform revolt of 1905, and was engaged in other important litigation. He served as U. S. Attorney for the southern district of New York 1883-85, and was a member of the Constitutional Convention of 1894. He entered President McKinley's Cabinet as Secretary of War Aug. 1, 1899, reorganizing the department and creating the General Staff system of army government. He served also under President Roosevelt, withdrew in June 1904, and on the death of John Hay, July 1, 1905, succeeded him as Secretary of State.

Rope-mak'ing, *n.* (*Manuf.*) The manufacture of rope has been largely revolutionized within a few years by the operation of automatic machinery, and only the larger sizes of ropes are now laid on the ropewalks, partly because the machines are less economical for large rope, and partly because the makers possess the ropewalks and do not care to discard them and buy new machines. The manufacture of hemp rope is begun by a series of preparation machines, whose office is to lay the fibers straight, in which condition they are called slivers. The hemp is received in bales, containing bundles of tangled fibers, which are first passed through a softening machine, and manipulated between several pairs of fluted iron rolls, while slightly sprinkled with oil. Most hemp is then ready to be heckled and combed, but manila hemp requires scutching at this stage, having more tendency to remain in a towy mass than other kinds. The scutcher used resembles a coarse form of carding-machine, having a rotating cylinder with pinlike blades, about 4 inches long, which straighten the fibers so that they are fit to go to the chain-machines. The chains of these are not like a common chain, but are rather a series of parallel bars, linked side by side into endless chain form, each chain bearing an upright perpendicular pin. The single-chain machine is called a drawing-machine, and has at one end fluted rolls, speeded to run several times faster than the chain, so that the sliver is drawn out lengthwise. The double-chain machines, designed by John Good, are called heckling machines, as they smooth and lengthen out the slivers by means of two endless chains, bearing pins, and speeded so that one runs from 6 to 10 times faster than the other. The slivers are run through these preparation machines half a dozen times or more until the fibers all lie smooth and parallel, and are drawn out suitably for spinning into a yarn or thread. They then go to the spinning-room. The spinning-jenny has a slow-moving chain, in front of which is a flier, bearing a pair of capstan-wheels. With each rotation of the flier, the capstan-wheels draw in a fixed amount of sliver, and the flier gives it such a turn as to form a yarn or thread, and at the same time winds the yarn so made on a bobbin. The bobbins are usually made to carry about 15 pounds of yarn, and are removed as filled, to be conveyed to the rope-machines. The first of these is called a former or strand-forming machine, and the second a layer or rope-laying machine. In the forming-machine the yarn is led from the bobbins through a gauge-plate, leading to the capstan, on which the first strand is twisted, or formed, after which it is wound on a reel, by the aid of a right and left shifting mechanism, which insures even winding. The reels so formed go to the laying-machine, which is of similar construction, but larger. The reels containing the strands are mounted like the yarn-bobbins on the former, and the rope is laid, and wound upon reels, the length of the rope being determined by the size of the reels. Wire rope is treated in a manner similar to hemp, except that the lay is commonly different.

Small cord and twine are twisted on special machines resembling the drawing-frames used in textile manufacture. A set of ten or twenty may be twisted at one time on a single frame, instead of being formed singly, as is the case with rope. Twines usually require finishing by sizing and polishing to render them smooth and of good appearance.

Ro'sa, EUPHROSYNE PAREPA, singer, was born in Edinburgh, Scotland May 7, 1836; made her début at Malta in 1855; appeared, with success, in London in 1857. In 1863 she married Captain Carvell, of the British army, who died two years later. She visited the U. S. with the Bateman troupe; made a second tour in 1866–67; in 1867 married Carl Rosa, a violinist and member of the same troupe; with him she organized, in 1869, an English opera, and for three years toured successfully through the U. S.; was prima donna of the great Boston Jubilee. In 1872–73 she was at the Khedive's court at Cairo; afterward made another tour in England, where she died, Jan. 21, 1874. Her husband founded to her memory a $5,000 scholarship in the London Academy of Music.

Roscom'mon, in *Michigan*, a N. central co.; *area*, 580 sq. m.; drained by Muskegon river and the S. Branch of the Au Sable river, and contains Houghton Lake and Higgins Lake. *Surface*, partly hilly, generally covered with forests; *soil*, mostly fertile. *Cap.* Roscommon. *Pop.* (1894) 1,657.

—A post-village, cap of above co., 87 m. N.N.W. of Bay City. *Pop.* (1897) 480.

Rose, MARIE, soprano singer, was born in Paris, March 2, 1846; sang in opera in Paris, until the outbreak of the Franco-German war, when she joined the ambulance department. From 1872 to 1877 was a favorite member of the Mapleson Opera Company, singing in England and America, her best rôles being *Marguerite, Mignon, Leonora*, and *Carmen*. She was married, first to Julius Perkins, and after his death (1875) to James Henry Mapleson.

Rose'bery (ARCHIBALD PHILIP PRIMROSE), EARL OF, statesman, was born in London in 1847; succeeded his grandfather in 1868, held several offices under the government, and, in 1886, attained the post of secretary for foreign affairs, retaining the portfolio only six months, until the fall of Mr. Gladstone's government in June. He was fully in sympathy with the policy of Mr. Gladstone; a strong advocate of imperial federation; interested in movements to improve the social conditions of the masses; presented a magnificent swimming-bath to the People's Palace, in the East End of London; was member and chairman of the city division of the London County Council, in 1889. In 1892, he became secretary of state for foreign affairs, under Gladstone, succeeding him as Premier in March, 1894, which office he filled until the Liberals went out of power, in 1895. In 1896 he retired from the leadership of the Liberal party.

Ro'senthal, MORITZ, pianist, was born in Lemberg, Austria, Dec. 18, 1862; gave his first concert at Vienna (1876); was pianist to the Roumanian court (1878); played successfully in the principal cities of the Continent, from 1878 to 1895, at which latter date he made his first London appearance, being received with enthusiasm.

Rose'ville, in *Ohio*, a post-village of Muskingum co., 10 m. S. by W. of Zanesville. *Pop.* (1897) 820.

Ros'lyn, in *Washington*, a post-town of Kittitas co., 28 m. N.W. of Ellensburg. A coal-mining town. *Pop.* (1897) 1,750.

Ross, Sir James Clark, navigator, nepbew of Sir John Ross, was born in Loudon, Eng., April 15, 1800; entered the navy in 1812; accompanied his uncle on several arctic expeditions; discovered the location of tbe north magnetic pole; in April, 1839, was given command of the *Erebus*, and in September following sailed, in company with the *Terror*, for the autarctic seas, and reached tbe farthest south yet attained, 78° 18′; discovered a volcano in Lat. 77° 32′ S., which be named Mount Erebus. He was kuighted in 1844; was an F. R. S., and member of many coutineutal scientific bodies. Published *A Narrative of a Voyage in Antarctic Regions.* Died April 3, 1862.

Rosset'ti, Chaistina Georgina, poet, sister of Dante Gabriel Rossettl, was born in London, in 1830. She shared the family gift of spiritual insight and poetical imagination; her literary work was varied in tbemes, but all permeated with religious seutiment and human affection. Died Dec. 29, 1894.

Rossetti, Dante Gabriel, poet-artist, was born in London, England, May 12, 1828; was noted as a leadiug pre-Raphaelite; as a writer was one of the most romantic and sensuous of modern English poets. He was educated at King's College; entered the Royal Academy in 1846, and entered Madox Brown's studio in 1847. Some of his typical works are (paintings): *Girlhood of the Virgin* (1849); *Dante's Dream* (1870); (poems) *The Blessed Damozel*, and 100 sonnets called *The House of Life* (1881). Died April 9, 1882.

Rossetti, William Michael, poet and art-critic, brother of Dante Gabriel Rossetti, was born in London, Sept. 25, 1829; educated at King's College School, London; held a post in the English civil service; came to notice as an art-critic in 1850; like his brother, he was an earnest pre-Raphaelite, and edited and wrote for *The Germ.* His work as literary and art-critic is both voluminous and artistic, and embraces the whole field of the English classics as viewed tbrough the medium of the Rossetti spirit.

Ros'si, Ernesto, actor, was born at Leghorn, Italy, in 1829; studied law in the University of Pisa; subsequently entered the dramatic school of Gustavo Modeua; acted in various Italian cities until 1853, wheu he went with Mme. Ristori to Paris and Vienna. Thereafter he played in Italy, France, and England, and in Soutb America wltb snccess; visited the U. S. in 1881, with moderate snccess. Died June 4, 1896.

Ross'ville, in *Kansas*, a post-village of Sbawnee co., 16 m. N.W. of Topeka. *Pop.* (1895) 559.

Rossville, in *Texas*, a post-town of Atascosa co. *Pop.* (1897) 810.

Roth'ermel, Peter Frederick, bistorical painter, was born in Luzerne connty, Pa., July 18, 1817; visited Enrope (1856–59, 1873–75), but resided mainly in Philadelpbia, wbere he was au associate of the Pennsylvania Academy. His subjects are largely chosen from events in American history; among bis paintings are: *De Soto Discovering the Mississippi*; *Patrick Henry Before the Virginia House of Burgesses*; *Battle of Gettysburg.* Many of his pictures have been engraved. Died Aug. 15, 1895.

Routh, Maatin Joseph, clergyman and edncator, was born in Suffolk, England, Sept. 18, 1755; held various college positions until 1891, when he became prosident of Magdalen College, a post that he held for nearly 64 years. His most valuable work is *Reliquiæ Sacræ* (4 vols., 1846–48). Died Dec. 22, 1854.

Routt, in *Colorado*, an extreme N.W. co., adjoining Utah and Wyoming; *area*, 6,000 sq. m.; intersected by Yampa and Green rivers. *Surface*, mountainous; *soil*, a very fertile dark loam. *Min.* Gold, silver, lead, iron, coal. *Cap.* Habu's Peak. *Pop.* (1897) 2,560.

Row'botham, John Faenerick, musical historian, was born in Edinburgh in 1852; graduated at Baliol College. His *History of Music* was published in 1885, and embodies profound research.

Row'land, Henry Augustus, physicist, was born in Houesdale, Pa., Nov. 27, 1848; a civil engiueer and professor of Physics; be has made many important discoveries in optics and electricity, invented superior metbods of photographing tbe solar spectrum, and has written many valuable papers on these subjects. In 1876 he accepted the cbair of Physics in Johns Hopkins University, wbich institution in 1880 conferred on him the honorary degree of Ph. D.

Rowland, in *Kentucky*, a post-village of Lincoln co. *Pop.* (1897) 585.

Ru'binstein, Anton Grioorievich, composer and pianist, was born in Wechwotynetz, Roumania, Nov. 30, 1830; was thoroughly trained in music by several snperior masters, including Liszt. He made his first concert tour in 1857, creating a sensatiou. In 1858 he became imperial concert conductor (in Russia), with a life-pension; and in 1862 founded, in St. Petersburg, a conservatory, of which he was principal until 1867. In 1872–73 he visited the U. S. and Enropean countries iu concert tours. He resigned the directorsbip of the conservatory in 1890; the same year, published his *Autobiography.* He wrote fifteen operas, six symphonies, besides nnmerous overtures, sonatas, concertos, vocal pieces, &c. Died Nov. 20, 1894.

Rudi'ni, Antonio di, Marquis, statesman, was born in Palermo, Sicily, in 1839. He has been active in politics since 1866. His present office (premier of Italy) he has held in curious alternation with Crispi—*R.* succeeding Crispi in 1891, Crispi succeeding *R.* in 1892, and *R.* succeeding Crispi in 1896—the cause of this alternation being tbe fluctuating public sentimeut on the question of an increase in military expenses, *R.* favoring this, and Crispi opposing it. The disasters to tbe Italian army in Abyssinia in 1896 caused the pendulum to swing to the side of *R.*; Crispi was forced to resign, March 5, 1896, and a new miuistry was promptly formed uuder *R.*, as president of the council and minister of the iuterior.

Ru'ger, Thomas Howard, U. S. A., was born at Lima, N. Y., April 2, 1833; graduated at West Point (1854); resigned (1855) to study law; reëntered the service iu 1861, aud commanded a division at Gettysbnrg; aided in snppressing the draft riots iu New York, in 1863; was made colouel of the regular army at the close of tbe war; superintendent of West Point (1871–76); promoted brigadier-general (1880); placed in command of the department of California (1891), and later in command of the department of the Missouri.

Rul'ing-machine', *n.* (*Mach.*) Tbe ruling of very fine accurately spaced lines, as required in various scientific and other instruments, is accomplisbed on machines of extreme delicacy and precision. The machines used for ruling graduations on circles and arcs are called circular dividing-engines, and are commonly made with a large horizontal wbeel, on which is placed the work to be ruled. The circumference of this wheel bears an accurately divided circle, witb ratchet-teetb corresponding to the graduations. A worm-and-screw movemeut, or similar device, is provided for very slow rotation of the wheel, aud a dismond tracing point is arranged to descend at the desired intervals, aud make a scratch or graduation, wbose length can be altered at every fifth, tenth or twelfth stroke, or tbe like, as may be esseutial to the work. Tbe large graduated circle on the machine is called a master circle, and as the work reproduced from it is of smaller diameter, it is possible to make it much finer. Still greater fineness can be obtained by a second ruling, for which the work is shifted half a point, so that the lines come midway between tbose of the first ruling. The machines wbich make gradnation lines on a straight line are denominated line-dividing eugines. Tbese operate by the movement of a carriage driven by a mathematically accurate screw. The formation of such a screw is a difficult piece of work, involving great care and experience, allowances for temperature, expansion and contraction, and the like. For correct working every thread or turn of the screw must be exactly equal to every other turn, and the same degree of advancement must be secured by every half revolution and every quarter revolution of the screw, and so on. In operation, the carriage of the machine, bearing the work to be ruled, travels on ways of extremely accurate proportions, and is forced along by tbe screw. If the screw have 100 threads to tbe inch, and the carriage be stopped for the ruling of a line every tenth of a turn of a screw, 1,000 lines will be ruled within the inch, and this number can be increased as much as the accuracy of the machine will permit, or until the lines are practically closed because tbeir own width is greater than the space afforded them. It is claimed that ruling as fine as 20,000 lines in the inch has been made for diffraction-gratings. Among other work requiring fine and accurate ruling may be mentioned the reticles of telescopes, engraver's half-tone screens, slide-rules, and scales and verniers for scientific instruments.

The ruling-machines used hy bookbinders for making faint colored liues on writing and commercial paper are of an entirely different class. They comprise mechanism for drawing sheets tbrough a frame and nnder a row of pens, and delivering them in a pile. The pens may be set at any desired distance for forming the lines, usually of red and blue, as tbe paper is drawn under. The Hickok machine is universally used. Some printing presses are made, however, with rulinq attachments to do the work as the paper comes from tbe roll.

Rum'ford, or **Rumford Falls,** in *Maine*, a post-town of Oxford co. *Pop.* (1897) 920.

Run'nels, in *Texas*, a W. central co.; *area*, 910 sq. m.; intersected by Colorado river. *Surface*, rolling; *soil*, fertile in the valleys. Wool and cattle growing are the principal industries. *Cap.* Ballinger. *Pop.* (1897) 4,050.

Run'yon, Theodore, diplomat, was born in Somerville, N. J., Oct. 25, 1822; graduated at Yale (1842), and was admitted to tbe bar (1846); held various offices, including that of mayor of Newark (1864). He was chancellor of New Jersey from 1873 to 1887, and in 1893 was appointed United States minister to Germany, soon after becoming ambassador. Died Jan. 27, 1896.

Rush, in *Kansas*, a W. central co.; *area*, 720 sq. m.; intersected by Walnut creek. *Surface*, chiefly rolling prairie; timber only along streams; *soil*, fertile. *Cap.* La Crosse. *Pop.* (1895) 4,863.

Rush'ford, in *Minnesota*, a post-village of Fillmore co., 35 miles W. of La Crosse. *Pop.* (1895) 1,122.

Rush'ville, in *Nebraska*, a post-village, cap. of Sheridan co., 32 m. E. of Chadron. *Pop.* (1897) 680.

Rusk, Jeremiah McLain, soldier aud statesmsn, was born in Morgan county, Ohio, June 17, 1830; removed to Wisconsin (1853), and engaged in farming; served throughout tbe Civil War; brevetted brigadier-general in 1865; bank-comptroller of Wisconsin (1866–70); member of Congress (1871–77); governor of Wisconsin (1882–89); secretary of the Department of Agriculture (1889–93). Died Nov. 21, 1893.

Rusk, in *Texas*, a post-town, cap. of Cherokee co., 15 m. S. E. of Jacksonville. Iron is fouud here abundantly. Seat of tbe Eastern Texas Penitentiary, wbose inmates are employed in the manufacture of articles made of iron. *Pop.* (1897) 1,590.

Rus'sell, William Clark, novelist, was born in New York, Feb. 24, 1844; educated at Winchester, and in France; went to sea at the age of 13, as a midshipman, aud made several voyages to Australia, Iudia, and Japan. He has won distinction as a writer of stories of seafariug life; was on the staff of the London *Daily Telegraph* until 1887, and many of his contributions to that paper bave been since published in book form. His first successful book was *John Holdsworth, Chief Mate*; others are: *An Ocean Free-Lance*; *A Sea-Queen*; *What Cheer*, &c.

Russell, William Eustis, lawyer and politician, was born in Cambridge, Mass., Jan. 6, 1857; graduated at Harvard (1877), and at the Boston University Law School; engaged iu politics; was elected governor of Massachusetts, in 1889; was again elected in 1891 and 1892; was a delegate to tbe Democratic National Convention, in 1896, where he opposed the silver-staudard platform. Died July 16, 1896.

Russell, William Howard, journalist, was born in Lilyvale, co. Dublin, Ireland, March 28, 1821; studied at Trinity College, and at the Middle Temple, and was called to the bar in 1850; went to the Crimea as war correspondent for the London *Times*; from tbat date officiated as war correspondent for the *Times*, during the Indian mutiny (1857); the Civil War in the U. S. (1861); the Prussian-Austrian War (1866); tbe Franco-Prussian War (1870), and with Lord Wolseley's army in Zululaud, and in Egypt. In 1876 be accompanied the Prince of Wales to India. He published uumerous works, mainly a condensation of bis voluminous newspaper letters. He is a Knight of tbe Iron Cross, and has Indian, Turkish, and other war medals. He was knighted in 1895.

Russell, in *Kansas*, a post-village, cap. of Russell co., 77 m. W. of Salina. *Pop.* (1895) 952.

Russell Gulch, in *Colorado*, a post-village of Gilpin co. *Pop.* (1897) 715.

Russell of Killowen (Charles Russell), Lord, jurist, was born in Newry, county Down, Ireland, in 1833; was called to the bar in 1859, and speedily became prominent. In 1880 entered Parliament and became, in turn, solicitor-general and attorney-general; was a follower of Gladstone, and an advocate of Home Rule. In 1886 he was knighted. On the decease of Lord Bowen (1894) he was appointed a lord of appeal in ordinary, witb a life-peerage, and in July of the same year, Lord Chief Justice of England, in succession to Lord Coleridge. In 1896 he visited America, with other English jurists, and delivered an address on "International Arbitration" before the annual meeting of the Bar Association of America, held at Saratoga Springs, N. Y. He presided over the trial of Dr. L. S. Jameson and his fellow-raiders, for invading tbe Transvaal.

Rus'sellville, in *Arkansas*, a post-town, cap. of Pope co., 74 m. W. N. W. of Little Rock. *Pop.* (1900) 1,832.

Russo-Japanese War. See Japano-Russian War.

Rut'gers Col'lege. (*Educ.*) In 1766 Governor William Franklin, of New Jersey, granted a charter for a college to be called Queen's College, wbich was to be primarily an institution for the educatlon of young men for the ministry of the Dntcb Reformed Church, and secondarily a seminary for giving a collegiate education to all who migbt resort to it. An amended charter was granted in 1770, and it was not until then tbat the college went into active operation at New Brunswick, N. J. Tbe charter requires the president to be a communicant of the (Dutch) Reformed Church in America, but no sectarian religious instruction is given and its students have always been of all denominations. It had a long struggle with poverty, and was finally obliged to close its doors. In 1825, however, Col. Henry Rutgers, of New York, gave the college $5,000. Thereupon the Institution was revived, and its uame changed to that of its benefactor. Since then its course has been upward. In 1863 was organized a scientific department under the name of Rutgers Scientific School. In 1896 it had 27 instructors and 165 students, with more than 33,000 volumes in its library.

Ruth'erford, in *Tennessee*, a post-town of Gibson co., 11 m. N. of Trenton. *Pop.* (1897) 622.

Ruth'ven, in *Iowa*, a post-town of Palo Alto co., 13 m. E. of Spencer. *Pop.* (1895) 761.

Rut'land, in *Illinois*, a post-village of La Salle co., 40 m. S. of Mendota. Coal mines in vicinity. *Pop.* (1897) 580.

Rut'ledge, in *Georgia*, a post-village of Morgan co. *Pop.* (1897) 685.

Ry'an, Patrick John, ecclesiastic, was born in Cloneyharp, Ireland, Feb. 20, 1831; educated at Tburles and Dublin; prepared for the American mission at Carlow College; removed to America, continuing bis studies in Missouri; became vicar-general and coadjutor archbishop of the Roman Catbolic diocese of St. Louis, with the title of bishop of Tricomia. Owing to the great age of Archbishop Kendrick, the government of the diocese largely fell upon Bishop *R.*; his administratiou was energetic and successful; and in 1884 he was nominated archbishop of Philadelphia. He went to Rome in 1887 in the interests of the Catholic University at Washington.

PAST OFFICERS' JEWELS.

1 PAST MASTER, of a Lodge of Master Masons, or Blue Lodge.

2 PAST HIGH PRIEST, of a Royal Arch Chapter, or a Chapter of Royal Arch Masons.

3 PAST EMINENT COMMANDER, of a Commandery of Knights Templar.

4 PAST ILLUSTRIOUS COMMANDER-IN-CHIEF, of a Consistory, Thirty-second Degree of Freemasonry.

5 PAST POTENTATE, of Ancient Arabic Order of the Nobles of the Mystic Shrine.

6 PAST EXALTED RULER, of a Lodge of the Benevolent Protective Order of Elks.

7 PAST CHANCELLOR, of a Lodge of Knights of Pythias.

8 PAST COMMANDER, of a Council American Legion of Honor.

9 PAST GRAND, of a Lodge of Independent Order of Odd Fellows.

10 PAST SACHEM, of a Tribe of Improved Order of Red Men.

11 PAST PRESIDENT, of a Camp, Patriotic Order Sons of America.

12 PAST REGENT, of a Council of Royal Arcanum.

13 PAST COUNCILLOR, of a Council of Junior Order of United American Mechanics.

14 PAST WORKMAN, of a Lodge of Ancient Order United Workmen.

15 PAST CHIEF PATRIARCH, of an Odd Fellows Encampment.

16 PAST REGENT, of a Senate, Order of Sparta.

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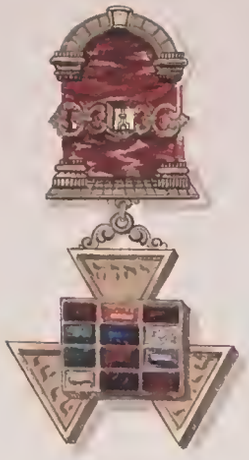

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S.

S is the nineteenth letter of the English and other western alphabets (eighteenth in the Latin), and a consonant of the sibilant series, being articulated by breathing through a narrow channel formed by the tongue with the palate, with, at the same time, a concurrent motion of the jaw and lips; producing, from such a conjoint position of the larynx and mouth, a sort of hissing sound. *S* is a letter so universally used in the English language, that to the foreigner it produces on the ear a coustant and unpleasant sibilant sound. The letter *S* has two uses — one to express a mere hissing sonnd, as in the words *sabbath, such, sin, this, thus*, &c.; the other is a vocal hissing precisely analogous to the sonnd of *Z*, as in *muse* and *wise*, pronounced *muze* and *wize*. At the beginning of all proper English words, the *S* has its first aud most legitimate hissing souud; hnt in the middle, or end, of a word, it has a souud ouly regulated by custom and nsage. In some few words of the language, the letter *S* is entirely silent, as In *isle, viscount*, etc. In abbreviations, *S.* stands for *Socius*, a companion; *Societatis*, of a soclety, as *R. S. S.*, *Regiæ Societatis Socius*, a Fellow or Companion of the Royal Society. *S. S. S.*, *Stratum super Stratum*, layer upon layer. *S.* or *St.* is a contraction for saint; *S.* or *Sc.* for seconds; *Sec.* for secretary; *S.* or *Sh.* for shilling. *S* is sometimes used by physlcians in their prescriptions and otherwise, as a direction how to make up a mixture or componnd a prescription, as *S. A.*, or *Secundem Artem*, according to art or rule, or effect it in a professlonal or workmanlike style. *S.* is also nsed as a sign for weight, and stands for *semi*, or half; and was formerly used by physicians abbreviated to *S. N.*, *Secundum Naturam*, according to nature. As a nnmeral, *S.* signifies seven. In navigation and geographical works, *S.* stands for sonth, or joined to other letters, as *S.E.*, *S.W.*, *S.S.E.*, and *S.S.W.*, implies south-east, south-west, south-south-east, and sonth-south-west. In music, *S.* stands for *solo*, alone; and among the old fathers stood as *S. N.*, tor *Suvator Noster*, our Savionr.

Saa'di, Sheik Moslih Ennin, a distinguished Persian poet, whose entire works were published in the origiual Persian and Arabic at Calcutta, ln 1791. His *Gulistan* (Garden of Roses) was translated into English by Gladwln and Ross, and into French by Duryer, D'Aligre, and Gandin. He flonrished in the 13th century, aud lived 102 or 116 years.

Sa'adh, Saud, *n.* [Hind.] A member of a Hindoo sect of religionists, who somewhat resemble the Friends in their tenets and ceremonies.

Saale, (*sa'al,*) a river of Germany, rising ln the frontlers of Bavaria, and after a N. course of 200 m., falling iuto the Elhe, 25 m. S. of Magdeburg.

Saalfeld, (*saal-feeld,*) a town of Germany, duchy of Saxe-Meiniugeu, 50 m. S.W. of Altenburg; *pop.* 4,500.

Saar, or **Sarre,** a river of France and W. Germany, rising in the Vosges Mountaius, and after a N. course of 120 m., joining the Moselle, 5 m. S.W. of Treves. It is navigable for 50 m.

Sa'arbruck, a town of Rhenish-Prussia, on the Saar, 40 m. S.S.E. of Treves. *Manuf.* Woollen aud linen fabrics, pottery, and tobacco. *Pop.* 11,288.

Saar'dam, a town of Holland See Zaandam.

Saarlouis, (*sa'ar-loo-is,*) a fortified town of Rhenish-Prussia, 30 m. S.E. of Luxembourg. *Manuf.* Fire-arms. *Pop.* 7,000

Saar-union (*sa'ar-oo-ne-awng*), a town of Germany, in Alsace, 35 m. E. of Nancy.

Saatz, a town of Bohemia, on the Eger, 39 m. W.N.W. of Prague; *pop.* 6,000.

Sa'badell, a town of Spain, prov. of Barcelona, 14 m. N.W. of Barcelona. *Manuf.* Woollen and cotton fabrics, and paper. *Pop.* 16,000.

Sabadil'la, *n.* [Sp. *cebadilla.*] (*Bot.*) See Veratrum.

Sabæ'an, Sabe'an, *n.* See Sabian, the more usual orthography.

Sabæ'ism, Sa'beism, *n.* Same as Sabaism, *q. v.*

Sabaism, (*sai'bai-izm,*) *n.* [Heb. *zaba*, lord.] That religion which worships the heavenly bodies, especially the sun and moon. The connection of these with the constant changes in nature, and their influence on the physical world, donbtless led to their being regarded in the character of deities. This religion prevailed in the East, particnlarly in Arabia, before the time of Mohammed.

Saba'oth, *n. pl.* [Heb. *tzebāoth*, pl. of *tzaba*, a host, an army.] Hosts; armies; — "the Lord of *Sabaoth*," an expression used only as a designation of the Almighty.

Saba'ra, a city of Brazil, on an affluent of the São Francisco, abt. 40 m. N.N.W. of Ouro-Preto. It ls situated 2,300 feet above sea-level. *Pop.* 6,000.

Sabat'tus, or Sabatus, in *Maine*, a post-village of Androscoggin co., abt. 6 m. E. hy N. of Auburn.

Sab'bat, *n.* The nightly assembly wherein demons and sorcerers were of old believed to have held their orgies.

Sabbata'rianism, *n.* Belonging, or relatiug, to the Sabbath, or to the doctrines held by Sabbatarians.

Sabbata'rians, *n. pl.* (*Theol.*) A term applied to such Christians as observe the seventh day of the week as others do the first. They maintain that the seventh day of the week is of divine institution, and that Christians had no authority for chaugiug it to the first.

Sab'bath, *n.* [Lat. *sabbatum;* Heh. *shabbāth*, rest, from *shâbath*, to keep holiday.] The day of rest, or of cessation from labor; the day which God appointed to be observed as a day of repose from all secular labor and employments, and to be kept holy and consecrated to his service and worship; — among the Jews, the seventh day of the week, but among the Christians, the first day, or Sunday; the Lord's Day.

—The sabbatical year among the Israelites.

—Figuratively, a season of rest and repose; intermission of pain, labor, sorrow, &c.

Sabbath-day's journey, a distance of nearly one mile, permitted to the Hebrews to travel on the Sahbath.

Sab'bath-break'er, *n.* One who breaks or desecrates the Sabbath.

Sab'bath-break'ing, *n.* Profanation or desecration of the Sabbath.

Sabbatia, (*sāb'bai-she-ă,*) or Chironia, *n.* [After *Sabbatia*, an Italian hotanist.] (*Bot.*) A genus of plants, ord. *Gentianaceæ*. The herb and root of the species *S. angularis* are employed medicinally, for their tonic and febrifugal properties. The plant is commonly known as *American centaury*.

Sabbat'ic, Sabbat'ical, *a.* [Fr. *sabbatique;* Lat. *sabbaticus.*] Pertaining or relating to, or resembling, the Sabbath; enjoying or bringing an intermission of labor.

Sabbatical year. (*Jewish Chron.*) The Jewa received the command for its observance every seventh year, in which they were neither to sow their fields nor prune their vineyards. (*Exod.* xxiii. 10 and 11), B.C. 1491. The injunction, repeated *Lev.* xxv. 2–7, is referred to *Deut.* xv. 1–11, and xxxi. 10–13. The Jews observed it after their return from the Babylonish captivity.

Sab'batism, *n.* Rest or intermissiou of labor, as upon the Sabbath.

Sabbinet'ta, a town of N. Italy, prov. of Cremona, 19 m. S.W. of Mantua; *pop.* 7,000.

Sab'bire, *n.* A heam or bulk of timher.

Sabella'na, *n.* [From Lat. *sabulum*, gravel.] (*Geol.*) Coarse sand or gravel.

Sabel'lianism, *n.* (*Eccl.*) The heretical tenets held hy the Sabellians.

Sabel'lians, *n. pl.* (*Eccl. Hist.*) The followers of Sabellius, accordiug to some authorities a bishop, and according to others a presbyter of Upper Egypt, who flourished 256–270, and taught that the Father suffered on the cross, aud tbat there is but one person ln the Godhead. Pope Dionysius pronounced condemnation of the doctrines of Sabellius in a council held at Rome in 260. Marcellus, bishop of Ancyra, maintained the doctrine in 325. The *Historia Sabellina* was published by Wormius in 1696. Hallam says that Servetus held what were nearly Sabellian opinions.

Sa'bians, Sa'beans, *n. pl.* [Heb. *sābâ*, the heavenly host.] A Christian sect that started up in tbe 7th or 8th century, whose tenets seemed to be a mixture of Jndaism, Mohammedanism, and Christianlty. They accepted baptism iu commemoration of the Baptist's mission, hut did not practice it in the name of the Trinlty. They only acknowledged four sacraments, those of *baptism*, the *eucharist*, *holy orders*, and *matrimony*. In the latter respect both the priesthood and laity were permitted to have two wives.

Sabi'na, in *Ohio*, a post-village of Clinton co., abt. 62 m. S.W. of Columbus.

Sabine (*sa-been'*), in *Louisiana*, a W. parish, adjoinlng Texas; *area*, about 1,010 sq. m. *Rivers.* Sabine river, Bayou Lenau, Bayou Conco, and Paul's creek. *Surface*, uearly level; *soil*, tertile. *Cap.* Many. *Pop.* (1897) 10,100.

Sabine, in *Michigan*, a former township of Washtenaw county.

Sabine, in *Texas*, an E. co., adjoiuing Louisiana; *area*, about 580 sq. m. *Rivers.* Sabine river, and Patrōon Palo and Gucho bayoux. *Surface*, level; *soil*, generally very fertile, producing large crops of cotton aud corn. *Cap.* Hemphill. *Pop.* (1897) 5,240.

Sabine Cross-Roads, in *Louisiana*, a place 3 or 4 m. below Mansfield, where, April 8, 1864, tbe Confederates under Gens. Kirby Smith, Taylor, Mouton, and Green, defeated a body of National troops nnder Gens. Lee, Franklin, Banks, and Ransom. The Natlonals lost ten guns, and about 1,000 men were captured.

Sa'bine Lake, an expansion of the Sabine River, between Louisiana and Texas, and abt. 5 m. N. of the Gulf of Mex., maximum breadth, 9 m.. *a.* abt. 150 sq. m.

Sabine Pass, in *Texas*, a p. v. of Jefferson co., abt. 65 m. E.N.E. of Galveston. It was almost obliterated hy a storm, Oct. 12, 1886, with loss of over 90 lives.

Sabine River, rises in Hunt co., *Texas*, and flowing S.E. to the E. border of the State, at Shelby co., turns to the S., and forming the houndary between Louisiana and Texas, enters the Gulf of Mexico at Sabine City; *length*, abt. 500 m.

Sabines', *n. pl.* An ancient people of Italy, supposed to have been named from *Sabus*, one of their deities. Little is known of their history. They were at war with the Romans at a very early period. A contest broke out hstween them B. C. 504, and a body of the Sabines migrated to Rome, where they were welcomed, and founded the powerful family aud tribe of Claudil. The Sabines carried their ravages to the very gates of Rome. B. C. 469. On their defeat by Marcus Horatius, B. C. 449, their camp was found full of plunder obtained in the Roman territories. They were again at war with the Romans B. C. 290, and having been vanquished, many of them were sold as slaves. The remaining citizens were admitted to the Roman franchise.

Sabine'town, in *Texas*, a post-village of Sahine co., abt. 10 m. E. of Milam.

Sable, (*sabl,*) a town of France, dept. of Sarthe, at the junction of the rivers Sarthe and Erve, 26 m. S.W. of Le Mans. *Manuf.* Gloves. *Pop.* 5,500.

Sa'ble, *n.* [Ger. *zobel;* Swed. *sabel;* Fr. *zibeline.*] (*Zoöl.*) See Mustela.— The fur of the sable, which is very black and glossy; as, a cloak of *sable*.— A mourning garment; a funeral robe.

(*Her.*) The tincture black; — denoted by vertical and horizontal lines running criss-cross.

—*a.* [Fr.] Of the color of fur called *sable*; black; dark; — nsed chiefly in poetry or in heraldry; as, "Night's *sable* throne." — *Dryden.*

—*v. a.* To gloom; to darken; to make black, sad, or dismal.

Sable iron. (*Metal.*) An excellent make of Prussian iron; — so styled because originally branded with the figure of a sable.

Sablé (or **Au Sablé**) **River,** in *Michigan*, is formed hy tbe union of several branches in Crawford co., and flowing E.S.E. enters Lake Huron from Iosco co.

Sables D'Olonne, (Les,) (*sabl do'lon,*) a seaport-town of France, dept. of Vendee, on the Bay of Biscay, 45 m. S. of Nantes. It has an active pilchard fishery. *Pop.* 6,000.

Sablière, (*sab-le-air',*) *n.* [Fr.] (*Carp.*) A piece of timher of the same leugth as a beam, but not of equal thickness.

Sabot, (*sa-bō',*) *n.* [Fr., from Lat. *sabbatum*, a shoe.] In France, and some countries of the European continent, a kind of wooden shoe worn hy the peasantry.

Sabre, (*sā'br,*) *n.* [Fr., from Ar. *seïf*, a sword.] (*Mil.*) A sword of scimetar-like form, with a broad and heavy blade, thick at the back, and a little curved backward at the point; a cavalry-sword.

—*v. a.* To atrike, cut, or kill with a sabre; as, the Light Brigade *sabred* the Russian gnnners at Balaklava.

Sabretasche, (*sā'br-tash,*) *n.* (*Mil.*) A leathern case, or reticule, worn by cavalry officers at the left aide, euspended from the sword-belt, and used as a depository for despatches, &c.

Sabu'la, in *Iowa*, a post-town of Jackson co., about 30 m. S. by E. of Galena, Illinois.

Sabulos'ity, *n.* [From *sabulous.*] Grittiness; sandiness; state or quality of being sabulous.

Sabulous, (*sāb'u-lŭs,*) *a.* [Lat. *sabulosus*, from *sabulum*, sand.] Gritty; sandy.

Sac, *n.* [A. S. *sæc, sacc.* See Sack.] (*Nat. Hist.*) A little sack; — specifically, a bag or receptacle for a liquid.

Sac, (*sawk,*) [from a tribe of Indians formerly occupying this region,] in *Iowa*, a W.N.W. co.; *area*, abt. 576 aq. m. *Rivers.* Racoon and Boyer rivers. *Surface*, mostly level; *soil*, fertile. *Pop.* (1895) 15,868. *Cap.* Sac City, a thriving city, 45 m. W. hy S. of Fort Dodge. *Pop.* (1895) 1,601.—A townsbip of the above co.

Saccade', *n.* [Fr., from Lat. *saccus*, sack.] (*Manege.*) A sudden or forcible check of a horse hy twitching the reins abruptly, and with one pull.

Sac'cate, *a.* [From Lat. *saccatus*, a sack, a bag.] (*Bot.*) Bag-shaped; having the form of a ponch or sack; as, a *saccate* petal.

Saccarap'pa, in *Maine*, a village of Cumberland co., about 50 m. S. W. by W. of Augusta.

Saccatoo', or **Sok'oto,** a town of Central Africa, in Sondan, on the Zirmie, an affluent of the Sokoto, which flows into the Quorra; *pop.* 20,000.

Sac'charic Acid, *n.* (*Chem.*) An uncrystallizable acid product, formed in combiuatiou with oxalic acid during the action of nitric acid ou sugar.

Saccharifcrous, (*săk-ka-rif'e-rus,*) *a.* [Lat. *saccharum*, sugar, and *ferre*, to bear.] Yieldiug or producing sugar; sugar-bcaring; as, *saccharifcrous* canes.

Sacchar'ify, *v. a.* [Fr. *saccharifier.*] To convert or transform into sugar; as, *saccharified* juice.

Saccha'rilla, *n.* A certain kind of muslin.

Saccharim'etry, *n.* [Lat. *saccharum*, and Gr. *metron*, measure.] The process or operation of estimating the quantity of sugar in any substance that may contain it.

Saccharine, (*săk'ka-rin,*) *a.* Pertaiuing, or relatiug, to sugar; having the qualities, properties, or taste of sugar;—hence, sweet; as, *saccharine* matter, a *saccharine* flavor, &c.

Saccharize, (*săk'ka-rīz,*) *v. a.* To convert or transform into sugar.

Sac'charoid, Saccharoid'al, *a.* [Lat. *saccharum*, sugar, and Gr. *eidos*, form.] Having a texture resembling that of loaf-sugar; as, *saccharoid* carbonate of lime.

Saccharom'eter, *n.* [Lat. *saccharum*, sugar; Gr. *metron*, a measure.] A variety of hydrometer used in the process of brewing, io order to ascertain the density of the liquid extracted from malt. The same instrnment is used to indicate the degree to which the juico expressed from the sugar-cane is concentrated, previously to undergoing the process of crystallization. (For a description of the instrument, see HYDROMETER.)

Sac'charum, *n.* (*Bot.*) See SUGAR-CANE.

Saccholac'tate, Sac'cholate, *n.* (*Chem.*) A salt formed by the combination of saccholactic acid with a base.

Saccholac'tic, *a.* [Lat. *saccharum*, sugar, and *lac*, milk.] (*Chem.*) Pertaining or relating to, or obtained from, a combination of sugar and milk; as, *saccholactic*, or mucic, acid.

Sac'ciform, (*-si-,*) *a.* [Lat. *saccus*, sack, and *forma*, form.] Sac-shaped.

Saccomy'idæ, *n. pl.* (*Zoöl.*) The Ponched Gopher family, comprising Rodents which have large and distinct external cheek-pouches, pelage composed of stiff hairs with no under fur, and the upper lips not cleft. The Pouched Gopher, Pocket Gopher, or Pouched Reat (*Geornys bursarius*), of the North-western States, is 8 to 10 inches long to the tail, which is 1 to 2 inches; the color reddish-brown above, paler beneath, with a plumbeous tinge along the vertebral region. Its cheek-pouches are very large, extending as far back as the shoulders, and lined with short hair; and, as in other members of this family, are used mainly or wholly to convey food into the burrows, to be stored up or eaten at leisnre.

Saccule, (*săk-ūle,*) *n.* [Fr., from Lat. *sacculus*, dimin. of *saccus*, a sack.] A small sack.

Sacellum, (*sa-sĕl'lum,*) *n.* [Lat., dim. of *sacrum*, a holy place.] (*Arch.*) A small unroofed enclosnre containing an altar sacred to a deity. The term is also used to indicate a small mortuary chapel within a church, generally taking the form of a square canopied enclosure, with open sides formed by stone screens, the tomb in the centre being used as an altar, and having an altar-screen at its head.

Sacerdotal, (*sās-er-dō'tal,*) *a.* [Lat. *sacerdotalis*, from *sacerdos*, a priest, from *sacer*.] Pertaining, or relating, to priests, or the priesthood; priestly; as, *sacerdotal* functions, *sacerdotal* robes, the *sacerdotal* office.

Sacerdo'talism, *n.* The style, office, dignity, or characteristic qualities of the priesthood; maintenance of the interests of the sacerdotal order.

Sacerdo'tally, *adv.* In a sacerdotal manner; after the style assnmed by the priesthood.

Sa'chem, *n.* Among the North American Indians, a sagamore, or chief of a tribe.

Sachet, (*sah-shā',*) *n.* [Fr.] A scent-bag, or cushion containing perfume.

Sacheverel, (*sa-shēv'er-el,*) *n.* A blower for the mouth of a stove.

Sack, *n.* [A. S. *sacc*, *sæc.*] A bag, usually of large size, used for holding and carrying grain, wool, &c.; a ponch of considerable volume; as, a *sack* made of gunny-cloth. —That which a sack holds; as, a *sack* of coals, a *sack* of potatoes, &c.

—*v. a.* To put in a aack or ponch; to bag; as, to *sack* corn.

—[Fr. *sacque*, from Gr. *sagos*, a tunic.] A loose outer garment, worn like a cloak about the shoulders, whether by males or females.

Sack, *n.* [Fr. *sec;* It. *secco*, from Lat. *siccus*, dry, harsh.] A Spanish wine formerly in vogue, and is supposed to have corresponded with what is known to the moderns as *dry sherry:* Shakspeare (*I. Henry IV.*) calls it *sherris sack, i. e.*, sherry sack. At a later period, *sack* seems to have been used as a general term for all kinds of sweet wines.

Sack, *v. a.* [A. S. *secan*, to aeek.] To plunder or pillage, as a town or city; to ravage; to devastate, after taking by storm. —To dismiss from a situatiou or employment; to discharge;—generally implying some degree of demerit; as, to *sack* a dishonest servant.

—*n.* The pillage or plunder of a town or city, or the storm or plunder of an enemy's town; devastation; loot; ravage; as, the *sack* of Magdeburg by the Imperialists. — Dismissal; discharge from employment or office; as, to give an employé, or suitor, the *sack*.

Sack'age, *a.* Act of taking by storm, and pillaging, as, the *sackage* of a conquered city.

Sack'but, *n.* [Fr. *saquebute;* Gr. *sambūkē;* Lat. *sambūca;* etymol. uuknown.] (*Mus.*) A former wind instrument of the trumpet species, but different from the common trumpet in form and size;—it may, in fact, be said to be the modern TROMBONE, *q. v.*

Sack'cloth, *n.* [*sack* and *cloth.*] Coarse cloth, or sacking, of which sacks are made: anciently, a cloth or garment worn in grief, distress, or mortification.

"And next her wrinkled skin rough *sackcloth* wore." —*Spenser.*

Sack'clothed, (*-klōthd,*) *a.* Draped in sackcloth.

Sa'cker, *n.* One who sacks; one who storms and pillages a town or city;—also, one who discharges an employé, or menial.

Sack'ett's Harbor, in *New York*, a post-village and port of entry of Jefferson co., on Black River Bay, abt. 8 m. E. of Lake Ontario; Lat. 43° 55′ N., Lon. 75° 57′ W. In the War of 1812 it was the headquarters of the northern division of the American fleet, and was twice unsuccessfully attacked by the English. Several war vessels were built there. The frigate *Superior* of 66 guns was built in 66 days, and the *Madison* in 45 days, from timber standing in the forests.

Sack'ful, *n.*; *pl.* SACKFULS. The quantity which a sack will hold; as, a *sackful* of soot.

Sack'ing, *n.* [A. S. *sāccing.*] Coarse cloth of which sacks or bags are made. — The coarse canvas fastened to a bed-frame for supporting the bed, mattress, &c.; also, the act of taking by storm, and pillaging; act of discharging an employé or servant.

Sack'less, *a.* [A. S. *sacleas.*] Quiet; peaceable; harmless. (R.)

Sack'-posset, *n.* A posset, made of sack, milk, sugar, and spices, and formerly considered a delectable beverage; — it corresponds to the modern MILE-PUNCH, *q. v.*

Sa'co, a river rising in Coos co., New Hampshire, and flowing E. into Maine; thence pursuing a general S.S.E. course enters the Atlantic Ocean from York co.

Saco, in *Maine*, a city and township, port of entry of York co., on the Saco River, abt. 13 m. S.W. of Portland. The river, which has here a fall of 42 feet, furnishes immense water power, and the industry of the inhabitants is chiefly directed to the manufacture of cotton and woollen goods, machinery, lumber, hardware, &c. The manufactnre of cotton alone is represented by an aggregate capital of over $5,000,000. *S.* has also a considerable commcrce.

Sacoman'go River, in *New York*, rises in Warren co., and enters the Hudson River from Saratoga co.

Sa'cral, *a.* (*Anat.*) Relating, or belonging, to the sacrum.

Sacrament, (*săk'-,*) *n.* [Fr. *sacrement*, from Lat. *sacramentum — sacra*, to devoto, from *sacer*, holy, sacred.] (*Theol.*) The name given to certain religious rites, the number as well as effects of which are the subject of much controversy between various bodies of Christians. In the Roman Catholic Church, it is held that there are 7 sacraments, viz.: Baptism, Confirmation, the Eucharist, Penance, Extreme Unction, Holy Orders, and Matrimony. The special teaching of Catholics on each of these rites will be found under the several heads; but there are several general principles regarding them all, on which the Roman Catholic doctrine differs widely from that of the Reformed communities. Catholics define a sacrament to be a visible or sensible sign permanently instituted by God, and conveying real interior grace to the recipient, and they teach that all sacraments contain within themselves, as instruments, and, when they are received with proper dispositions, produce such grace by the virtue imparted to them by God, and not merely through the faith of the recipient; although they hold that proper dispositions on the part of the recipient, as sorrow for sin, love of God, pious resolves, &c., are conditions indispensable for the efficacy of the sacramental rite. — By the majority of the Reformed Churches, the sacraments are held to be merely ceremonial observances, partly designed as a solemn act, by which each individual is admitted to membership, or desires to make solemn profession thereof; partly intended to stimulate the faith and excite the fervor and the pious dispositions of the recipient, to which dispositions alone all the interior effects are to be ascribed. As to the number of rites called by the name, almost all Protestants agree in restricting it to two — viz., *Baptism* and the *Lord's Supper;* although some of the rites which Catholics regard as sacramental are retained by some of the Protestant communities as religious observances.

Sacrament'al, *a.* [Fr., from L. Lat. *sacramentalis.*] Pertaining or relating to, or constituting, a sacrament; sacredly or solemnly obligatory or binding; as, a *sacramental* rite. — Bound by a sacrament; as, "the *sacramental* host of God's elect." — *Cowper.*

Sacrament'alism, *n.* Sacerdotal government, rule, or authority. (R.)

Sacrament'ally, *adv.* After the manner of a sacrament.

Sacramenta'rian, *a.* Pertaining, or having reference, to the sacraments. — Relating to, or concerning, the Sacramentarians.

Sacramenta'rians, *n. pl.* (*Eccl.*) The name given in the 16th century to the party among the Reformers who separated from Luther on the doctrine of the Eucharist.

Sacrament'ary, *n.* [Fr. *sacramentaire.*] A sacramentarian; — a term of reproach formerly applied by Roman Catholics to Protestants.

—*a.* Relating to the sacraments, or to the Sacramentarians.

Sacramen'to, in *California*, a large and important river, which, with the San Joachim, drains the most fertile valley of the State. It has its source in Goose Lake, in the northeastern part of California, flows in a tortuous manner S. and S. W., till, in Lat. 38° 10′, it unites with the San Joachim, and, after a course of about 480 m., finally falls into the Bay of San Francisco, being, for a distance of about 50 m., navigable for vessels of large tonnage, and for boats and rafts open for traffic for quite 100 miles further.

—A N. W. central co.; *area*, about 1,010 sq. m. *Rivers.* Sacramento, San Joachim, American, Cosumne, and Mokelumne rivers. *Surface*, diversified; *soil*, very fertile, producing wheat, barley, and potatoes in abundance. It is also well adapted to grazing. *Min.* Granite is quarried in considerable quantities, and some gold is found. *Pop.* (1897) 30,000.

—A city, port of entry, and cap. of the State, also the seat of justice of the above co., on the Sacramento River, abt. 75 m. N.E. of San Francisco; Lat. 38° 34′ N., Lon. 121° 26′ W. It is regularly laid out, and contains many handsome public and private edifices. The river affords communication with the mining regions of the N., and trade is active. Sacramento was founded in 1849 (the former settlement having been known as NUEVA HELVETIA), and in 1861–62 suffered severely from inundation. In 1863, it was selected as the site of the State capital, and has since continued to increase rapidly in wealth, population and importance. The state capitol is an imposing building, cost $3,000,000. The State Agricultnre Society has extensive grounds, State Library some 60,000 vols., the Crocker Art Gallery contain some fine paintings and statuary. *Pop.* (1897) 31,140.

Sacramen'to, in *Illinois*, a p.-v. of White co; in *Minnesota*, a v. of Dodge co.; in *Nevada*, a v. of Nye co.

Sacramento, in *Wisconsin*, a village of Waushara co., abt. 80 m. N. by E. of Madison.

Sa'cred, *a.* [*pp.* of O. Eng. verb *sacre*, from Lat. *sacer, sacra, sacrum*, holy.] Set apart for a holy or religious purpose; hallowed; dedicated; devoted; — hence, holy; not profane or common; as, a *sacred* day, a *sacred* place, a *sacred* ceremony, &c. — Pertaining to God or to his worship; separated from common secular things; religious; theological; as, *sacred* songs, *sacred* history. — Set apart to some one for worship; veneration, or honor, in the highest degree; — preceding *to;* as, "A temple *sacred to* the queen of love." (*Dryden.*)—Venerable: entitled to extreme reverence, respect, or veneration. — Hence, inviolable; not to be profaned or appropriated.

"Secrets of marriage still are *sacred* held." — *Dryden.*

—Accursed; baleful; solemnly devoted, in a bad sense, as to evil, vengeance, destruction, &c.; as, "*sacred* to ridicule his whole life long." — *Pope.*

Sacred bean. (*Bot.*) The *Nelumbium speciosum.* See NELUMBIACEÆ, and Fig. 1628.

Sacred Heart of Jesus. (*Eccl.*) A festival in the Roman Catholic Church, whose origin is traced to a vision which is recorded of a French nun, of the order of the Visitation, named Mary Margaret Alacoque, who lived at Paray la Moniale, in Burgundy, in the latter half of the 17th century, and whose enthusiasm led her to practice a special devotion to the Heart of the Saviour. This devotion was gradually propagated in France, and at length was approved by Pope Clement XII. in 1732 and 1736, and by Clement XIII in 1765. The festival is held on the Friday after the octave of Corpus Christi. Confraternities of the Sacred Heart are disseminated through all parts of the Church.

Sa'credly, *adv.* In a sacred manner; religionaly; not secularly or profanely; as, to keep the Lord's day *sacredly.* — Inviolably; faithfully; with scrupulous adherence; as, he kept his word *sacredly.*

Sa'credness, *n.* State of being sacred or consecrated to God, to his worship, or to religious uses; sanctity; holiness; religiousuess; as, the *sacredness* of the Sabbath. — Inviolability; strict fidelity; as, the *sacredness* of a trust imposed and received.

Sacrifice, (*săk'rī-fīz,*) *v. a.* [Lat. *sacrifico — sacer*, holy, and *facere*, to make.] To make an offering, as of something consecrated, or of a holy or religious thing; to immolate or consume, partially or wholly, on the altar of God, either as an atonement for sin, or to beseech favor, or express thankfulness; as, to *sacrifice* an ox. — Hence, by analogy, to destroy, surrender, or suffer to be lost for the sake of obtaining something; to devote with loss; to destroy; as, to *sacrifice* one's love to one's duty.

—*v. n.* To make offerings to God, or to a deity, of things consumed on the altar; — hence, to make sacrifice or abandonment; as, "*Sacrifice* to the Graces." *Chesterfield.*

—*n.* [Fr.; Lat. *sacrificum.*] An offering made to an object of religious worship. Coextensive with the feeling of religion, with the belief in the existence of a Supreme Being, who superintends the affairs of mortals, is the desire to secure his favor and avert his displeasure. Hence we find the idea of sacrifices existing in all times, and among, probably, every people. It is generally supposed that sacrifices were instituted immediately after the fall of Adam, when God made with him the "covenant of grace." This supposition is founded on the fact that God clad Adam and Eve with the skins of beasts. In the next generation we find Cain and Abel offering sacrifices unto God. Hence, some account for the universal prevalence of sacrificial worship in some form or other. Sacrifices formed a prominent part of patriarchal worship, and the sacrificial code was at length consolidated by Moses. In the Jewish religion we have a complete system of sacrificial rites, and strict rules laid down regarding them. Animal sacrifices were of four general kinds; viz., *burnt-offerings*, *sin-offerings*, *trespass-offerings*, and *peace-offerings.* The first three had an expiatory virtue, that is, they made atonement for those that offered them; the last were more particularly expressive of gratitude for mercies received, or supplication for mercies desired. As a sacrifice was not

only intended to represent the offerer, but also to convey his deepest feelings on the occasion of the offering, the selection of the object was upon the ground of its nearness of relation and preciousness to the offerer. It must be his own, the first and best of its kind; it must be what he values and loves. Another peculiarity of a sacrifice consisted in destroying, in whole or in part, the offering presented. In the heathen world, human sacrifices have been very generally prevalent, apparently from a notion that human life is the most precious thing that can be offered to a Divine Being. Christians regard the sacrifices of the Jewish economy as typical of the death of Christ (whom they regard as the one great sacrificer), which has forever made atonement for the sins of men.

—Destruction, surrender, loss, or suffering made or incurred for gaining some object, or for obliging another; also, the thing so devoted, relinquished, or given up; as, he makes a *sacrifice* in selling those goods so cheap, she made a *sacrifice* of her love to her ambition.

Sacrificer, (*săk'ri-fīz-er,*) *n.* One who sacrifices or immolates.

Sacrificial, (*săk-ri-fĭsh'al,*) *a.* Performing sacrifice: included in sacrifice; pertaining or relating to, or consisting in, sacrifice; as, *sacrificial* rites.

Sacrifi'cios, an island in the Pacific Ocean, off the coast of Mexico; Lat. 15° 40′ N., Lon. 98° 6′ W.

Sacrilege, (*săk'ri-lĕj,*) *n.* [Fr.; Lat. *sacrilegium* — *sacer,* and *lego,* to steal or carry off.] The crime of violating or profaning sacred things, or the alienating to laymen, or to secular purposes, what has been appropriated or consecrated to religious purposes or uses.

Sacrilegious, (*-lĕj'us,*) *a.* Relating to, or implying, sacrilege; violating or profaning sacred things; polluted with the crime of sacrilege; impious.

"An altar, above the reach of *sacrilegious* hands." — *Pope.*

Sacrileg'iously, *adv.* With sacrilege; profanely; in violation of sacred things.

Sacrileg'iousness, *n.* Quality of being sacrilegious; disposition to commit sacrilege.

Sac'rilegist, *n.* A person guilty of the crime of sacrilege.

Sa'cring, *a.* [Fr. *sacrer.*] Consecrating; dedicating.

Sa'cring-bell, *n.* (*Eccl.*) In the Roman Catholic Church, a small bell rung before the elevation of the host; — also called *saint's bell.*

Sa'crist, Sac'ristan, *n.* [Fr. *sacristain,* from Lat. *sacer.*] (*Eccl.*) A sexton; an officer belonging to a church who has the care of the sacred vessels, movables, &c.

Sac'risty, *n.* (*Eccl.*) That apartment in an ecclesiastical edifice in which the vestments and sacerdotal vessels are kept; a vestry.

Sac River, (*sawk,*) in *Missouri,* is formed by the East and West Forks, which unite in Cedar co., and flowing N. enters the Osage River in St. Clair co.

Sacrum, (Os,) (*os sai'krum,*) *n.* [Lat., sacred bone, so called probably from being offered in sacrifices by the ancients.] (*Anat.*) The bone (Fig. 2067) which forms the bases of the vertebral column, being articulated above by the last lumbar vertebra, while laterally it is firmly united by a broad irregular surface to the ossa innominata, or hip-bones, and united below to the os coccygis. In young subjects, it is composed of five or six pieces, united by cartilage, but in more advanced age it becomes one bone, in which, however, we may still easily distinguish the marks of the former separation. It is pyramidal in form, flattened before and behind, with its basis towards the lumbar vertebræ and its point terminating in the coccyx. Like the vertebræ, it presents various processes, and holes affording passage for the nerves.

Sacs and **Foxes,** two kindred and associated tribes of N. American Indians (Fig. 1067), formerly dwelling in the S. part of Iowa, now occupying lands in the Indian Territory.

Sacy, (*sa'se,*) Antoine Isaac Sylvestre de, one of the most universal scholars of this century, and particularly renowned for his Oriental learning, was born at Paris, 1758, and occupied the first rank as professor under every form of government in France from 1795 to the reign of Louis Philippe. He is author of several original works, and of many highly valued translations from the Oriental languages. D. 1838.— His son, Samuel Ustaza Sylvestre de, b. 1801, followed in the steps of his father, and is one of the profoundest scholars of the age. He was elected to the Academy in 1854. D. 1881.

Sad, *a.* (*comp.* sadder; *superl.* saddest.) [Icel. *sed, sedia,* to fill.] Affected with grief; gloomy; dejected; desponding; mournful; sorrowful; cast down with affliction; full of sorrow or anxiety; as, a *sad* countenance. — Habitually affected with melancholy; grave; serious; gloomy; not gay, vivacious, light, volatile, or cheerful. — Dull; grave; dark; sombre; heavy; — said of colors. — Heavy; close; not light or porous in substance; as, *sad* bread. — Causing sorrow or affliction; calamitous; grievous; as, a *sad* affair, a *sad* accident, a *sad* misfortune.—Hence, by implication, naughty; wicked; vicious; troublesome; as, he's a *sad* fellow among the women.

(Note. *Sad* is occasionally employed in the construction of certain self-explanatory compounds; as, *sad*-eyed, *sad*-looking, *sad*-minded, &c.)

Sadaqua'da, or **Sau'quoit,** in *New York,* a creek flowing into the Mohawk River from Oneida co.

Sad'da, Sad'der, *n.* [Pers.] (*Lit.*) A Persian summary of the Zendavesta, or Sacred Books.

Sadden, (*săd'dn,*) *v. a.* [A. S. *sadian.*] To make sad or sorrowful; to make melancholy or gloomy.

"Her gloomy presence *saddens* all the scene." — *Pope.*

—*v. n.* To become, or to be made, sad; as, a *saddened* face.

Saddle, (*sad'dl,*) *n.* [A. S. *sadel, sadl;* Ger. *sattal,* allied to Lat. *sedeo,* to sit.] A leathern seat to be placed on a horse's back for the rider to sit on; — hence, something resembling a saddle in shape or in use, as a piece of meat comprising the back-bone of an animal's carcass, with the ribs on either side; as, a *saddle* of mutton.

(*Naut.*) A chunk of wood acting as a seat or rest to the heel of a boom, and shaped accordingly. It is principally used in steadying the studding-sail booms and the jib-boom.

—*v. a.* To put a saddle upon, as a horse; — hence, to load, to encumber, to fix, as a charge or burden upon; as, he is *saddled* with the keep of his wife's mother and sister.

Sad'dle, an island of S. America, off the coast of Terra del Fuego; Lat. 55° 23′ 50″ S., Lon. 68° 4′ 30″ W.

Sad'dleback, in *Maine,* a mountain of Franklin co.; *height,* abt. 4,000 ft.

Sad'dle-backed, (*-băkt,*) *a.* Shaped like a saddle; having a low back and a raised head and shoulders, as a horse.

Sad'dle-bags, *n. pl.* Leathern bags slung across the pommel of a saddle by straps, for transportation on horseback, one bag thus lying on each side of the rider.

Sad'dle-bow, *n.* [A. S. *sadel-boga.*] The bow or arch forming the pommel of a saddle.

Sad'dle-cloth, *n.* The housing placed under a horse's saddle.

Sad'dle-gall, (*-gawl,*) *n.* (*Far.*) A chafed place made on a horse's back by friction of the saddle.

Sad'dle-girth, *n.* The girth which, passing round a horse's body, holds the saddle securely in its place.

Sad'dle-horse, *n.* A horse trained and used for bearing a rider in the saddle.

Sad'dler, *n.* A maker of saddles for horses.

Sad'dle River, in *New Jersey,* enters the Passaic River from Hudson co. — A post-township of Bergen co.

Sad'dle-roof, *n.* (*Arch.*) A two-gabled roof.

Sad'dlery, *n.* The trade or occupation of a saddler. — The materials for making saddles, harnesses, &c.; the articles commonly offered for sale in a saddler's shop, taken collectively.

Sad'dle-shaped, *a.* Having the form of a saddle.

(*Bot.*) Bent down at the ends so as to give the upper part a curvilinear form.

(*Geol.*) Bent on each side of a ridge, while preserving an unbroken top; — said of certain strata.

Sad'dle-tree, *n.* The frame, or skeleton, of a saddle.

Sad'dleworth, a town of England, co. of York, 12 m. from Huddersfield. *Manuf.* Principally woollen goods. *Pop.* 18,000.

Sadducae'ic, *a.* Pertaining to, or after the manner of, the Sadducees; as, *Sadducaic* objections.

Sadducean, (*săd-du-sē'an,*) *a.* Belonging, or relating, to the Sadducees.

Sadduceeism, (*-sē'izm,*) **Saddu'cism,** (*-sĭzm,*) *n.* [Fr. *Saducéisme.*] The tenets held by the Sadducees.

Sad'ducees, (*-sēs,*) *n. pl.* (*Eccl. Hist.*) The name applied in the time of Jesus to a portion or sect of the Jews, who were usually at variance with the other leading sect, namely, the *Pharisees,* but united with them in opposing Jesus and accomplishing his death. The name would seem to be derived from a Hebrew word signifying *the just;* but the Talmudists affirm that it comes from a certain Sadoc, or Sadducus, who was the founder of the sect, and lived about three centuries before the Christian æra. The *S.* disregarded all the traditions and unwritten laws which the Pharisees prized so highly, and professed to consider the Scriptures as the only source and rule of the Jewish religion. They rejected the demonology of the Pharisees, denied the existence of angels and spirits, considered the soul as dying with the body, and of course admitted no future state of rewards and punishments. While, moreover, the Pharisees believed that all events and actions were directed by an overruling providence or fate, the *S.* considered them all as depending on the will and agency of man. The tenets of these free-thinking philosophers were not, in general, so acceptable to the people as those of the Pharisees; yet many of the highest rank adopted them, and practised great severity of manners and of life. Many members of the Sanhedrim were Sadducees.

Sad'ducize, (*-sīz,*) *v. n.* To follow the doctrines of the Sadducees.

Sad'-iron, (*-ī'ûrn,*) *n.* Same as Flat-iron, *q. v.*

Sad'ly, *adv.* Mournfully; sorrowfully; in a distressing, calamitous, or miserable manner; darkly; gloomily; in a sad manner; as, she suffers *sadly.*

Sad'ness, *n.* State of being sad; sorrowfulness; mournfulness; dejection of mind; despondency; gloom of countenance; sombreness, as of colors; sedate gravity; seriousness; heaviness, as of bread.

Sado', an island in the Sea of Japan, W. of Niphon; *area,* 700 sq. m. It is fertile and populous.

Sado'wa, a village of Bohemia, near Königsgrätz. Here, July 3, 1866, the Prussians, commanded by King William I. in person, defeated the Austrians under Field-marshal Benedek. The attack was commenced by the Austrian artillery about 7.30 A.M. At 10 o'clock the Prussians, under Gen. Stuhnapl, advanced upon the villages of Sadowa, Dohelnitz, and Mokrowena, whence, after hard fighting, in which the needle-gun did good service, they expelled the enemy; and by 2.30 P.M. they had seized the village of Chlum, or Klum, the centre of the Austrian position. The advantage, however, remained with the Austrians till about 3.30, when the Prussian Crown-Prince drove their left flank from the village of Lipa. By 4.30 the retreat had become general; but the firing continued till 9. Three Austrian archdukes were wounded. Prince Lichtenstein and Prince Windischgrätz, with about 15,000 men, were made prisoners; and 160 guns, 11 sets of colors, and 3 cavalry standards were captured. The Austrian army consisted of about 190,000, and the Prussians of 220,000 men.

Sads'bury, in *Pennsylvania,* a post-township of Chester county. It contains Sadsburyville, a post-village, about 39 miles west of Philadelphia. — A township of Crawford county. — A township of Lancaster county.

Sae'gerstown, in *Pennsylvania,* a post-borough of Crawford co., abt. 6 m. N.N.E. of Meadville.

Sae'gersville, in *Pennsylvania,* a post-village of Lehigh co., abt. 69 m. N.N.W. of Philadelphia.

Safe, *a.* (*comp.* safer; *superl.* safest.) [Fr. *sauf, sauve,* from Lat. *salvus;* probably allied to Gr. *saos, sōs,* safe and sound.] Secure; free from danger or harm of any kind; sound; exempt from hurt, injury, or damage; whole; as, he arrived home *safe.* — Conferring security; securing from harm, or risk of harm; confining within secure bounds; trustworthy; to be relied upon; as, a *safe* harbor, a *safe* means of conveyance, a *safe* road, a *safe* plank, a *safe* man, a *safe* guide, &c. — Made incapable of imparting or receiving harm; placed out of reach of being longer dangerous; in secure care or custody; as, he is *safe* in prison.

—*n.* A place of safety or security; — specifically, a fire- or burglar-proof chest or closet for depositing and containing money, valuable papers, books, &c.; as, an iron *safe;* — also, a hermetically sealed box or closet for securing or preserving provisions; a refrigerator; as, a meat-*safe.*

Safe'-conduct, *n.* [*Safe* and *conduct;* Fr. *sauf-conduit.*] That which insures a safe passage; — specifically, a pass-warrant; a pass or passport; a convoy or guard through an enemy's country, &c.

Safed', a town of Palestine, pashalic of Acre, 12 m. N. of Tiberias. *Manuf.* Principally weaving and dyeing. *Pop.* 5,000.

Safe'guard, (*-gard,*) *n.* One who, or that which, guards, defends, or protects; defence; protection.

"Thy sword, the *safeguard* of thy brother's throne."—*Granville.*

—A passport; a warrant of security given by a sovereign or ruler of a state to protect a stranger within his territories, or a convoy or guard granted for the like purpose; — also, a riding-skirt, or outer garment, worn to protect women's underclothing on horseback.

—*v. a.* To guard; to protect. (R.)

Safe Har'bor, in *Pennsylvania,* a post-village of Lancaster co., abt. 10 m. S.W. of Lancaster.

Safe'-keeping, *n.* [From *safe* and *keep.*] Act of keeping or holding in safety from injury or from escape; as, his body is in *safe-keeping.*

Safe'ly, *adv.* In a safe manner; without incurring risk or danger; as, we may *safely* conclude all is right. — Without harm, obstacle, or injury; as, we arrived *safely* on the other side of the Atlantic. — Without means of escape; in close durance or custody; as, he is *safely* locked up in a cell.

Safe'ness, *n.* Quality or condition of being safe; security; freedom or exemption from risk of harm or danger; as, the *safeness* of an undertaking, the *safeness* of one's credit. — State of being safe, or of assuring safety; trustworthy as regards security; as, the *safeness* of a ship, the *safeness* of a road.

Safe'-pledge, (*-plĕj,*) *n.* (*Law.*) A surety given for the appearance of a person at a specified time.

Safe'ty, *n.* State of being safe or out of danger; freedom from risk or hazard of harm or evil; exemption from hurt, injury, or loss; as, the *safety* of the passengers is assured. — Quality of making safe or secure, or of imbuing with confidence; insuring against detriment or loss, &c.; as, there is no *safety* in his promises. — Close custody; preservation or security from escape; as, to place a prisoner or refugee in *safety.*

Safe'ty-arch, *n.* (*Arch.*) An arch formed in the body of a wall, as over a door, window, &c., to equalize the pressure.

Safe'ty-beam, *n.* (*Railway Eng.*) A strapped beam of a truck-frame, passing around an axle, to prevent accidents.

Safe'ty-belt, Safe'ty-buoy, (*-bot,*) *n.* A life-belt; a life-preserver. See Life-buoy, *q. v.*

Safe'ty-lamp, *n.* (*Mining.*) See Davy Safety-lamp.

Safe'ty-plug, *n.* (*Engineering.*) In locomotive engines, a bolt having the centre filled with a fusible metal. It is screwed into the top of the fire-box, that the metal may melt out by the increased temperature when the water becomes too low, and thus admit the water to put the fire out, and save the tubes and fire-box. When the water is allowed to fall below a proper height, there is great risk of spoiling both the fire-box and tubes by the intense action of the fire. This is called "burning them;" and tubes subjected to such a trial are unfit for use again, as the tenacity of the metal has been destroyed.

Safe'ty-tube, *n.* A tube of various forms used in distillations, the preparation of gases, &c., to prevent the bursting of vessels from the sudden disengagement of gases, and their collapse from the sudden condensation of vapors or gases; to prevent the mingling of fluids contained in different vessels connected together by tubes; and to prevent explosion in that form of the oxyhydrogen blowpipe in which the oxygen and hydrogen are contained in the same vessel.

Safe'ty-valve, *n.* (*Mach.*) In steam-engines, a valve fitted to the boiler, in order to open and let out the steam when the inner pressure threatens to become dangerous; — also, a valve in a steam-boiler, opening on the interior, to admit the air and prevent the boiler being injured by atmospheric pressure upon the cooling of the steam.

Saffi, Azaffi, or **Asfi,** a seaport-town of Morocco, prov. of Ahda, on the Atlantic, near Cape Cantin, 95 m. N.W. of Morocco; *pop.* 12,000.

Saf'flower, *n.* (*Bot.*) See CARTHAMUS.
—The dried flowers of the *Carthamus tinctorius* (Bastard Saffron), which are used as a dye-stuff, and in the preparation of the pigment called *rouge.*

Saf'fron, *n.* [Fr. *safron.*] (*Bot.*) See CROCUS.
—Deep yellow; of the color of saffron-flowers; as, a *saffron* face, a *saffron* flame.
—*v. a.* To make yellow; to tinge, as with saffron. (R.)

Saffron-Walden, a town of England, co. of Essex, 23 m. N.N.W. of Chelmsford, and 37 m. N.N.E. of London; *pop.* 5,500.

Saf'frony, *a.* Presenting the color of saffron.

Sag, *v. n.* [A.S. *sigan,* to sink down.] To lean or incline from an upright position, or to bend from a horizontal position; to sink in the middle; to arch downwards, as the middle part of the keel and bottom of a ship, in consequence of undue weight; as, a building *sags* outward.—Hence, to be unsettled or unbalanced, as under the pressure of care, trouble, &c.; as, the mind *sags* with doubt.
To sag to leeward. (*Naut.*) See SAGGING.
—*v. a.* To load or burden so as to occasion a bending or giving way.
—*n.* State or act of sagging, or of sinking in the middle.

Sa'ga, *n.*; *pl.* SAGAS. [Scand. *sagen,* to say.] The general name of those ancient compositions which comprise at once the history and mythology of the northern European races. Their language is different from the modern Danish, Swedish, and Norwegian, and is more powerful and expressive than either of these latter dialects.

Sagacious, (*sa-gā'shus,*) *a.* [Lat. *sagax, sagacio,* from *sagio,* to perceive quickly by the intellect.] Quick of perception; having the senses acute; quick of scent;—hence, skilled in following a trail; as, a *sagacious* hound.—Hence, perceiving, as it were, by intuition; informed by keen or acute perceptions. (R.)—Hence, also, acute in discernment or penetration; shrewd; sage; wise; keen-witted; as, a *sagacious* head, a *sagacious* man.

Saga'ciously, *adv.* In a sagacious manner; with quick scent; with keen, acute, or shrewd discernment or penetration

Saga'ciousness, *n.* Quality of being sagacious; quickness of scent; readiness or acuteness of penetration or discernment; sagacity.

Sagacity, (*-găs'i-te,*) *n.* [Fr. *sagacité;* Lat. *sagacitas,* from *sagax.*] Quality of being sagacious; quick of scent, sharpness or acuteness of discernment or penetration, readiness of apprehension; sagaciousness.

Sagada'hoc, in *Maine,* a S. co., bordering on the Atlantic Ocean; *area,* abt. 270 sq. m. *Rivers.* Androscoggin and Kennebec rivers. *Surface,* much diversified; *soil,* generally fertile. *Cap.* Bath.

Sag'amore, *n.* The head of a North American tribe;—generally held to be synonymous with SACHEM, *q. v.*

Sa'gan, a town of Prussian Silesia, on the Bober, 48 m. N.W. of Liegnitz. *Manuf.* Cotton and woollen goods, glass, and paper. *Pop.* 9,100.

Sag'apen, Sagape'num, *n.* [Lat. *sagapenum;* Gr. *sagapenon.*] (*Med.*) A fœtid gum-resin, imported into Europe from the Levant, and also from Alexandria, in amygdaloidal masses of a brownish-yellow or olive color, sometimes in tiers. It is probably a Persian product, and has been supposed to be obtained from the root of the umbelliferous plant *Ferula persica.* It is employed medicinally as an antispasmodic, but is considered to be less powerful than asafœtida.

Saga'thy, *n.* [Fr. *sagatis.*] Same as SAYETTE, *q. v.*

Sage, (*sāj,*) *n.* [Fr. *sauge.*] (*Bot.*) See SALVIA.

Sage, (*sāj,*) *a.* (*comp.* SAGER; *superl.* SAGEST) [Fr.; Lat. *saga, sagus,* prophetic.] Perceiving quickly or keenly by the senses, or by the intellect; presaging; acute; discerning; grave; having nice penetration of mind and powers of judgment; prudent; as, a *sage* adviser.—Proceeding from wisdom; well judged; well adapted to the purpose; as, *sage* policy; *sage* counsels.—Grave; serious; pregnant with weight or solemnity; as, a *sage* dilemma. (R.)
—*n.* A man of quick and accurate discernment; a wise individual; a man of gravity and penetration;—especially, a man venerable for years, and known as a man of sound judgment and prudence; a grave philosopher.

Sage'-cheese, *n.* Cheese flavored with sage, and colored green by the juice of leaves of spinach and other plants which are added to the milk.

Sage'ly, *adv.* In a sage manner; wisely; with just and true discernment and prudence.

Sagene', Sajene', *n.* [Russ. *sâzheny.*] A Russian measure of length, equivalent to about 7 English feet.

Sage'ness, *n.* Quality of being sage; wisdom; sagacity; prudence; gravity.

Sage'ville, in *Iowa,* a village of Dubuque co., abt. 6 m. N.N.W. of Dubuque.

Sageville, in *New York,* a village, former cap. of Hamilton co., about 70 m. N.N.W. of Albany.

Sage'-willow, *n.* (*Bot.*) The *Salix tristis.* See SALIX.

Sag'gar, Sag'ger, Seg'gur, *n.* A cylindrical case of fine clay, in which fine stone-ware is baked in the oven.—Also, the clay of which such cases are formed.

Sag'ging, *n.* A bending or sinking in consequence of over-weight.
Sagging to leeward. (*Naut.*) A term denoting the movement by which a ship makes considerable lee-way;—it is the converse to *holding a good wind,* i. e, bearing up well to windward.

Sagg Village, in *New York,* a village of Suffolk co., abt. 100 m. E. by N. of New York city.

Saghalien (*sa-ha'li-en*), or **Sakhalin.** [Native name, *Saraika.*] A long, narrow island, belonging to Russia since 1875, when Japan ceded its southern part, lying off the shores of Siberia, S.W. of the Sea of Okhotsk, and immediately N. of the Japanese island of Yezo; Lat. between 46° and 54° 30′ N., Lon. 141° 50′ and 144° E.; *area,* 47,000 sq. m. The surfacs is mountainous and generally unfertile. The climate is very severe. *Rivers.* Ty and Tymy rivers. The inhabitants are very largely devoted to fishing and hunting. *Pop.* (1897) 10,850.

Sag Harbor, in *New York,* a post-village and port of entry of Suffolk co., abt. 100 m. E. by N. of New York city.

Sa'gina, *n.* (*Bot.*) The Pearl-worts, a genus of plants, order *Caryophyllaceæ.* The Creeping Pearl-worts, *S. procumbens,* found in damp places in almost all the States, is a small weed, with slender, creeping stems 3 or 4 inches long; leaves very small, flowers white and green, axillary or pedunclcs longer than the leaves.

Saginate, (*săj'-,*) *v. a.* [From Lat. *sagino,* a stuffing.] To pamper; to feed to the full. (R.)

Sag'inaw, in *Michigan,* an E. central co. of the lower peninsula; *area,* abt. 860 sq. m. *Rivers.* Saginaw, Flint, Shiawassa, Cass, Tittibawassee, and Mishtegayoc rivers. *Surface,* level or slightly undulating; *soil,* very fertile. *Cap.* Saginaw.
—A city, cap. of above co., on Saginaw river and several R. Rs., 100 m. N.W. of Detroit; consolidated with E. Saginaw in 1890; the third city in the State in size and importance. *Pop.* (1897) 91,450.

Sag'inaw Bay, in *Michigan,* an arm of Lake Huron, bordered by Iosco, Bay, Tuscola, and Huron cos. It is 60 m. in length, with a maximum breadth of 30 m., and affords good navigation and safe harbors for large vessels.

Sag'inaw River, in *Michigan,* is formed in Saginaw co. by the confluence of the Flint and Shiawassee rivers, and flowing N. enters Saginaw Bay from Bay co. The main stream is abt. 30 m. long. It receives several considerable streams, and is navigable to Saginaw City, a distance of 22 m.

Sagitta, (*-jit'ta,*) *n.* [Lat.] (*Arch.*) The keystone of an arch (R.)
(*Astron.*) A small constellation between the Fox and the Goose on the North, and the Eagle on the South.
(*Geom.*) The abscissa of a curve; also, among old writers on trigonometry, the versed sine of an arc;—so styled from its resemblance to an arrow standing on the chord of a double arc.

Sagittal, (*săj'-,*) *n.* [Lat. *sagittalis,* from *sagitta,* an arrow.] Pertaining or relating to, or resembling an arrow.
Sagittal suture. (*Anat.*) The median suture which unites the parietal bones of the skull.

Sagitta'ria, *n.* (*Bot.*) A genus of plants, order *Alismaceæ.* The root of *Sagittaria sagittifolia* is tuberous, nearly globular, with many long fibres. In China it is much cultivated for its esculent properties, its mealy nature making it easily convertible into starch or flour. The floating leaves are very variable in size, and in form resemble the head of an arrow, from which circumstance the plant derives its name. The leaves also are very cooling when applied to the skin; they have consequently been used, and may be serviceable, as a dressing to inflamed sores. Arrow-head, as a food, is much relished by most cattle.

Sagitta'rius, *n.* [Lat., an archer; Fr. *sagittaire.*] (*Astron.*) One of the twelve signs of the zodiac, which

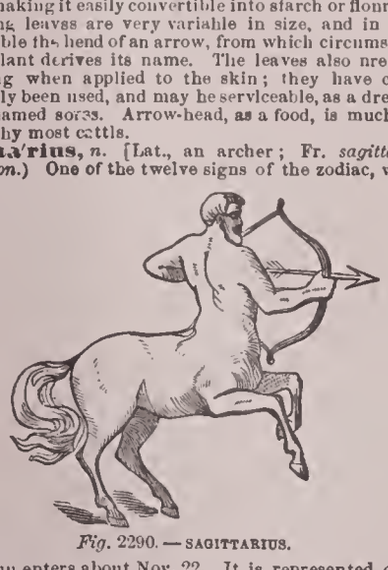


Fig. 2290.—SAGITTARIUS.

the sun enters about Nov. 22. It is represented on celestial globes and charts by the figure of a centaur in the act of shooting an arrow from his bow. In printing it is represented thus, ♐.

Sagittary, (*săj'-,*) *n.* (*Myth.*) Same as CENTAUR, *q. v.*
—*a.* Pertaining to, or resembling, an arrow.

Sagittate, *a.* (*Bot.*) Having the shape of an arrow-head; as, a *sagittate* leaf.

Sa'go, *n.* [Hind. *sagoo-danu.*] A well-known form of starch, obtained from the stems of various plants, particularly those of the botanical genera *Sagus* and *Saguerus* (see these words). Sago is produced chiefly in the Moluccas and in Sumatra; but it is first imported into Singapore, in very large quantities, for granulation and reëxportation. It is obtained by cutting and splitting the palm-stem, and washing it with water. The fecula subsides from the washings, and forms a powder like arrow-root, but of a dirty-white color. This constitutes *meal sago,* of which 500 or 600 lbs. may be yielded by a single tree. This, when imported into Singapore, is well washed, partially dried, granulated, sifted, and roasted. The sago of commerce was formerly in grains about the size of coriander-seeds, of a reddish or brownish-white color, and mixed with some of the meal. The Chinese settled at Singapore some time since introduced their methods of refining and granulating, which gave a sago in small grains, about the size of a pin's head, hard, of a whitish or a pearly lustre, sometimes even transparent, without odor, and with very little taste. This kind is now called *pearl-sago.* Sago is nutrient and demulcent, and well suited for invalids. It may be boiled with water, with milk, or in soups, and made into puddings with eggs and milk.

Fig. 2291.—SAGO PALM.

Sagoins', *n. pl.* (*Zoöl.*) A group of *Cebidæ,* comprises non-prehensile tailed monkeys, known as Fox-tailed Monkeys (*Pithecia*), Squirrel Monkeys (*Callithrix*), Night Monkeys (*Nyctipithecus*), and Marmosets (*Hapale and Midas*).

Sagres, (*sa-grais,*) a fortified seaport-town of Portugal, prov. of Algarve, on the peninsula of the S. coast, 4 m. S.E. of Cape St. Vincent.

Sagua La Grande, (*sa'gwa,*) a town of Cuba, on a river of same name, 20 m. above its mouth, and abt. 145 m. E. of Havana.

Saguenay', a large river of Canada. See CANADA, and Fig 493.

Saguenay, a co. of prov. of Quebec; *area,* about 12,815 sq. m. *Rivers.* St. Lawrence, Saguenay, and Port Neuf rivers. *Cap.* Tadousac.

Sague'rus, *n.* (*Bot.*) A genus of Palms. *Sagussacharifer* is the Gommuti-palm, which supplies the greater part of the sugar produced in the Moluccas and Philippines. Palm sugar, called *jagghery* in India, is generally obtained from the juice which flows out from the different palms upon wounding their spathes and surrounding parts. The saccharine juice of the Gommuti-palm is transformed into an intoxicating liquor, or *toddy,* by fermentation. This is termed *neva* in Sumatra, and a kind of arrack is distilled from it in Batavia. From the trunk of this palm, when exhausted of its saccharine juice, a great deal of our commercial sago is obtained, a single tree yielding from 150 to 200 lbs. The juice of the fruit is very acrid. Besides sugar, toddy, and sago, this palm yields the stiff, strong fibre known in commerce as *Gommuti,* or *Ejow fibre.*

Sa'gus, *n.* (*Bot.*) A genus of Palms. From the trunks of *S. lævis, S. genuina,* and other species, the principal part of the *sago* in the trade is obtained. See SAGO.

Sagy, (*sā'jy,*) *a.* Full of sage; seasoned with sage; partaking of the qualities of sage; as, a *sagy* flavor.

Saha'ma, (Neva'do de,) a summit of the Peruvian Andes; Lat. 18° 7′ S., Lon. 68° 52′ W. *Height,* 22,350 m.

Saha'ra, or the GREAT DESERT, an immense tract in Northern and Central Africa, extending from the Nile to the Atlantic coast, and from the Atlas Mountains to within 10° of the equator. Throughout this vast tract, which is an undulating, and for the most part barren, district, there are intervals of cultivated land, called *oases.* It was long supposed that the *S.* was the bed of an ancient inland sea, and consisted of a vast, nearly level expanse of sand, hers and there swept into ridges by the wind. Recent research has disproved this idea, the surface, instead of being uniform and depressed below sea-level, being found to be greatly diversified, rising at one point to an altitude of 8,000 feet Yet, though much has been done in the way of exploration, there are extensive tracts which are yet practically unknown. There is no reason to doubt that much, though not all, of the *S.* was at one time under water, probably in the Cretaceous and earlier periods. Since its elevation the lakes remaining have disappeared, and a process of desiccation set in which has been in action for thousands of years, and still continues, the surface being probably much drier now than during the period of Roman occupation. Water exists abundantly at depths of from 10 to 300 feet, and the boring of artesian wells has given rise to many new and fertile oases. The population is estimated at between 1,500,000 and 2,500,000.

Sah'lite, *n.* (*Min.*) A greenish gray variety of augite.

Sa'ic, *n.* [Fr. *saïque;* Turk. *shaïka.*] (*Naut.*) A kind of vessel frequently met with in the waters of the Levant, being a kind of ketch without top-gallant sail or mizzen-topsail.

Said, (*sĕd,*) *a.* (*imp.* and *pp.* of SAY; so written for *sayed.*] Declared; uttered; reported; aforesaid; before-mentioned;—of common usage in legal phraseology; as, the *said* lessor, &c.

Saïd, (Port.) See SUEZ (CANAL OF).

Saida, or SEIDA, (*si'da,*) a seaport-town of Syria, 18 m. from Beyrout, and built on the site of the ancient *Sidon;* Lat. 33° 25′ N., Lon. 35° 24′ S. It is celebrated as the most ancient of the Phœnician cities, preceding even Tyre; but now, like all other Turkish towns, is ill-built, dirty, and full of modern ruins, though the orchards and gardens with which the neighborhood is surrounded make it at a distance appear very beautiful. The once magnificent harbor, composed of vast moles, and stretching out into the sea, is now entirely destroyed. The trade is considerable, being the emporium of Damascus and all the surrounding country. The exports consist of corn, silk, raw and unspun cotton, particularly the

last. Sidou is mentioned in Scripture, and also by Homer. It was a place of consequence even long after the Christian era. *Pop.* 7,000.

Fig. 2292.—SAIDA (ANC. SIDON).

Sai'gon, a city, river-port, and the cap. of the French possessions in Cochin-China, on a branch of the Mekong, about 60 m. from the Chinese Sea by the river channel. This city, with the territory of which it was the capital, was taken by the French in 1861, since when it has grown from its former condition as a collection of Siamese huts into one of the handsomest cities of the East, marked by fine streets, boulevards, and squares, a magnificent governor's palace, a cathedral, two colleges, a floating and a dry dock, botanical and zoölogical gardens, &c. The population is made up of Annamese, Chinese, and French, amounting to 16,213, to which must be added that of the business suburb of Cholon, 4 m. S.W., which in 1890 had 39,925 people, of whom more than half were Chinese. Saigon (*Gia-dinh* in the native tongue) is the most important port between Singapore and Hong Kong, its exports of rice to China, Japan, the Philippine Islands, and the Straits settlements reaching a value annually of $8,000,000, while it has a considerable export trade in fish, salt, cotton, wool, hides, &c. On an average, at least 500 vessels, aggregating over 500,000 tons, enter and depart from the port yearly, principally under the British, French, and German flags.

Sail, *n.* [A. S., Ger., and Swed. *segel*; Icel. *segl*; Dan. *sejl*; all of which signify a sail.] (*Naut.*) A surface obtained by canvas, lateen, or other material, by the action of which, when extended, a ship or other vessel is moved. A sail extended by a yard hung (*slung*) by the middle, and balanced, is called a *square-sail*; a sail set upon a gaff or stay, is called a *fore-and-aft sail*; which terms refer to the position of the yard, gaff, or stay, when the sail is not set. The upper part of every sail is the *head*, the lower part the *foot*; the sides, in general, are called *leeches*; but the weather- or side-edge of any but a square sail is called the *luff*, and the other edge the *after leech*. The two upper corners are earrings, but that of a jib is the *head*; the two lower corners are, in general, *clews*; the weather clew of a fore-and-aft sail, or of a course while set, is the *tack*. The edges of a sail are strengthened by a rope called the *bolt-rope*. The ropes at the upper and lower edges are the *head-* and *foot-ropes* of the sail. The canvas, or sail-cloth, is made in *bolts*; and the qualities are numbered from No. 1, which is the strongest, and is used for storm sails, to No. 8, which is used for the smallest and lightest sails, as small studding sails, &c., which seamen ordinarily call *flying-kites*. The cloths in a square sail are seamed *vertically*; while in a fore-and-aft sail they are *parallel to the after leech*. In this way the strain of the sheet diffuses itself over the canvas, both along and across the cloths. Sails take their names from the mast, yard, or stay upon which they are stretched. The principal sails belonging to a square-rigged ship are represented in Fig. 2293, and are as follows:—1 Course; 1*a*, studding-sails; 2, fore-topsail; 2*a*, studding-sails; 3 main-topsail; 3*a*, studding-sails; 4, mizzen-topsail; 5, fore-topgallant-sail; 5*a*, studding-sails; 6, main-topgallant-sail; 6*a*, studding-sails; 7, mizzen-topgallant-sail; 8, fore-royal; 8*a*, studding-sails; 9, main-royal; 9*a*, studding-sails; 10, mizzen-royal; 11, fore-skysail; 12, main-skysail; 13, mizzen-skysail; 14, fore-topmast-staysail; 15, jib; 16, flying-jib; 17, spanker; 18, main-trysail, a similar sail on foremast is called fore-try-sail; 19, main-royal-staysail; 20, main-topmast-staysail; 21, mizzen-topgallant-staysail.

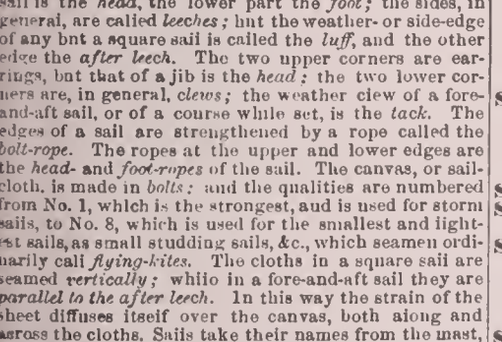


Fig. 2293.—SQUARE-RIGGED SHIP UNDER FULL SAIL.

—Hence, a wing; used poetically, in the plural; as, "an eagle's *sails*." — *Spenser*.

—*sing.* and *pl.* A ship or other vessel; a craft; — used as a collective word to denote the number of ships; as, a fleet of twenty *sail*.

—An excursion made in some vessel upon the water; as, to take a *sail* across a river.

Shoulder-of-mutton sail. (*Naut.*) A triangular sail, set on a boat's mast; — so called from its resemblance to a shoulder of mutton. — *To loose sails*, to spread or hang out the sails heretofore furled, either to air them, or for the purpose of setting afterwards. — *To make sail*, to spread out an additional extent of sail. — *To set sail*, to spread the sail to the wind in order to give impulsion to the ship; — hence, to proceed on a voyage. — *To shorten sail*, to take in some sail by furling or reefing. — *To strike sail*, to lower the yard or gaff of a sail when set, as in saluting, &c. — *Under sail*, with all necessary sails set.

—*v. n.* To be impelled or urged forward by the action of the wind upon sails, as a ship on water; to move through the water; — expressed also of a swimming-bird or of a fish. — To pass by water; to be conveyed in a vessel on water. — To set sail; to commence a voyage. — To be carried in the air, as a balloon; to pass smoothly along, as through the air; to fly without beating with the wings; as, a heron *sails* overhead.

—*v. a.* To navigate; to pass or move upon in a ship, by means of sails. — To fly or soar through.

"Sublime she *sails* th' aërial space." — *Pope*.

— To direct or manage the motion of, as a vessel; as, the chief mate *sailed* the ship after the death of the captain.

Sail'able, *a.* Navigable; that may be passed or sailed over by ships; as, *sailable* channels.

Sail'-broad, *a.* Spreading out after the manner of a sail.

Sail'-cloth, *n.* Duck or canvas used in making sails. See SAIL, *n.*, and CANVAS.

Sail'er, *n.* One who sails; a sailor. (R.) — A ship or other vessel; — used, referentially, as to her speed and manner of sailing; as, a fast *sailer*, a prime *sailer*, a crank *sailer*, a heavy *sailer*, &c.

Sail'-hook, *n.* A small hook used by sail-makers, to hold the seams square.

Sail'ing, *n.* (*Naut.*) Act of moving on water, or the movement of a ship or vessel impelled by the action of wind on her sails; act of setting sail or beginning a voyage; — also, smooth impulsion through the air, as in a balloon; or, the aërial passage of a bird.

(*Navig.*) The art of directing a ship on a given line laid down in a chart. It is called *plane sailing* when the chart is constructed on the supposition that the surface of the ocean is an extended plane; and *globular sailing*, when the chart is a globular chart, or constructed on the hypothesis that the earth is a sphere, the ship being then supposed to be sailing on the arc of a great circle. See OBLIQUE-SAILING, PARALLEL-SAILING, TRAVERSE-SAILING, NAVIGATION, &c.

Sailing order, or *order of sailing*, any determinate order preserved by a squadron of ships. It usually implied, in the days of sailing fleets, one, two, or three parallel columns; but it is at the disposition of the admiral or commodore.

Sail'ing-master, *n.* (*Nav.*) A warrant-officer, ranking next below a lieutenant, whose duties are to navigate the vessel, and, under the direction of the executive officer, to attend to the stowage of the hold, to the cables, rigging, &c.

Sail'less, *a.* Without sails.

Sail'-loft, *n.* A loft, or room, where sails are cut out and made ready for sending up.

Sail'or, *n.* [From *sail.*] One who follows the business of navigating or working ships, &c.; — specifically, on shipboard, a mariner who is making a long sea-voyage other than his first, and who is qualified to go aloft and tend the sails. A sailor is not necessarily an *able seaman*.

Sail'-room, *n.* (*Naut.*) A room on shipboard where all sails which are not bent are stowed away.

Sail'-yard, *n.* (*Naut.*) The yard or spar on which a sail is bent or extended.

Saim, Seam, *n.* [A. S. *seim.*] An English provincialism for lard.

Sai'ma, a lake in European Russia, govt. of Finland, 30 m. N.W. of Viborg. *Ext.* 145 m. long, and 50 wide.

Sain'foin, Saint'foin, *n.* [Fr., from *sain*, sound, and *foin*, hay.] (*Bot.*) See ONOBRYCHIS.

Saint, *n.* [Fr., from Lat. *sanctus* — *sacer*, sacred, holy.] A person sanctified; a holy or godly person; one eminent for piety and virtue. — One of the blessed in heaven.

(*Eccl.*) In the Roman Catholic Church, one of those who, whether under the old or under the new dispensation, have been specially remarkable for their personal virtues and their eminent services to the cause of religion. Of the old dispensation, the "patriarchs and prophets" are commonly designated as saints. But the word is used much more of the Christian Church. The procedure of the Church of Rome, as to the public recognition of saints, consists of two stages, that are called respectively BEATIFICATION and CANONIZATION, *q. v.* On the doctrine of saint-worship, see INVOCATION OF SAINTS.

—*v. a.* To canonize; to beatify; to number or enroll among saints by an official act of the Pope. (R.)

—*v. n.* To act the saint; to pretend to, or simulate, piety. (R.)

(NOTE. All names having the prefix *Saint*, not included in this part of the work, will be found under their proper heads.)

Saint An'drew's, a village of prov. of Quebec, co. of Argenteuil, about 45 m. W. of Montreal.

Saint Al'bans, a town of England, co. of Herts, 19 m. N.W. of London, famous for its magnificent abbey-church. *Pop.* about 8,000.

Saint Albans, in *Illinois*, a village of Hancock co., about 100 m. N.W. by W. of Springfield.

Saint Alban's, in *Maine*, a post-township of Somerset co.

Saint Alban's, in *Minnesota*, a village of Hennepin co., abt. 24 m. W. by S. of St Paul.

Saint Alban's, in *Ohio*, a township of Licking county.

Saint Alban's, in *Vermont*, a post-village and township, cap. of Franklin co., abt. 24 m. N. by E. of Burlington.

Saint Alban's Bay, in *Vermont*, a post-village of Franklin co., abt. 24 m. N. of Burlington.

Saint An'drew, a seaport-town of King's co., Prince Edward Island, on Cardigan Bay; Lat. 46° 10′ N., Lon. 62° 35′ W.

Saint Aimé, a village of Richelieu co., prov. of Quebec, abt. 50 m. N.E. of Montreal.

Saint Andrew's, a seaport-town of New Brunswick, cap. of Charlotte co., on the N.E. extremity of Passamaquoddy Bay, abt. 60 m. W. by S. of St. John; Lat. 45° 4′ 3″ N., Lon. 67° 3′ W. The town is well located and regularly built.

Saint Andrew's, in *Florida*, a post-village of Washington co., on the bay of the same name, abt. 80 m. S. of Tallahassee.

Saint Andrew's Bay, in *Florida*, an irregularly shaped inlet of the Gulf of Mexico, in Washington co. It is 25 miles in length, has 12 feet of water on the bar, and is completely land-locked.

Saint Andrew's Cross, *n.* See CROSS.

(*Bot.*) Same as ST. PETER'S WORT. See ASCYRUM.

Saint Anne, a lake of British N. America, abt. 50 m. N. of Lake Superior, with which it is connected by a small river. It covers an area of abt. 400 sq. m.

Saint Anne, a river of prov. of Quebec, flowing into the St. Lawrence abt. 50 m. W.S.W. of Quebec; *length*, abt. 120 m.

Saint Anne, a town of prov. of Quebec, on the St. Lawrence River; Lat. 49° N., Lon. 66° 25′ W.

Saint Anne, in *Illinois*, a post-township of Kankakee co.

Saint Ans'gar, in *Iowa*, a post-village and township of Mitchell co., abt. 95 m. W. of Lansing.

Saint Anthony, (*an'to-ne.*) in *Minnesota*, a town of Ramsey co., on the Mississippi River, at the Falls of St. Anthony, abt. 8 m. W. of St. Paul; Lat. 44° 48′ 40″ N., Lon. 93° 10′ W. The river here has a perpendicular fall of 18 feet, which affords immense hydraulic power. The town is well located on an elevated plain, and is generally well built. It is the site of the State University. Incorporated with Minneapolis (*q. v.*) in 1872.

Saint An'thony's Fire, *n.* (*Med.*) The ERYSIPELAS, *q. v.*

Saint Ar'mand, in *New York*, a township of Essex co.

Saint Au'bert, in *Missouri*, a post-village and township of Osage co.

Saint Angus'ta, in *Minnesota*, a post-township of Stearns co., abt. 6 m. S.E. of St. Cloud.

Saint Augus'tin, a river of Labrador, British North America, flowing into a bay of the same name, near the S. entrance of the Straits of Belleisle; Lat. 51° 15′ N., Lon. 59° W.

Saint Augus'tine, in *Florida*, a city, port of entry, and the cap. of St. John's co., about 200 m. E. by S. of Tallahassee; Lat. 29° 48′ 30″ N., Lon. 81° 35′ W. It is the oldest, and one of the most important places in the State. It is situated on Matanzas Sound, about 2 m. from the sea, and is defended by Fort Marion, built more than 100 years ago by the Spaniards, and called by them the *Castle of St. Mark*. Settled 1565. *Pop.* (1897) 4,340.

Saint Augustine, in *Illinois*, a post-village of Knox co., about 49 m. W. of Peoria.

Saint Barthol'omew, an island of the W. Indies, abt. 30 m. W. of St. Kitt's; Lat. (E. point) 17° 53′ N., Lon. 62° 52′ W. *Area*, abt. 35 sq. m. *Soil*, fertile, producing sugar, tobacco, cotton, and cocoa. The island is nearly surrounded with shoals and sunken rocks, and, except at the Careenage, on the W. side, is difficult of access; here, however, is a good harbor, and near it Gustavia, the capital. It was the only possession of Sweden in America, and was ceded to that country by France in 1784, and retroceded to France in 1877. *Pop.* abt. 3,000.

Saint Bernard', in *Louisiana*, a S.E. parish, bordering on the Gulf of Mexico; *area*, abt. 620 sq. m. Lake Borgne washes the N.W. border. *Surface*, level; *soil*, in some parts, very fertile. *Cap.* St. Bernard, a post-village, abt. 15 m. E. of New Orleans.

Saint Cath'arine, in *Missouri*, a post-village of Linn co., abt. 9 m. E. of La Clede.

Saint Cath'arine's, a cap. of Lincoln co., prov. of Ontario, abt. 12 m. N.W. of Niagara. It contains numerous manufs., and has an extensive trade. *Pop.* 7,864.

Saint Cath'arine's, in *Georgia*, an island off the coast of Liberty co., from which it is separated by Saint Catharine's Sound. *Area*, abt. 40 sq. m.

Saint Charles, in *Arkansas*, a post-village of Arkansas co., about 12 m. E. of Arkansas Post.

Saint Charles, in *Illinois*, a city and township of Kane co., about 42 m. W. of Chicago. It contains several large manufactories, and is thriving rapidly. *Pop.* (1897) 7,150.

Saint Charles, in *Iowa*, a township of Floyd co.
—A post-town of Madison co., about 25 m. S.S.W. of Des Moines.

Saint Charles, in *Louisiana*, a S.E. parish; *area*, about 288 sq. m. *Rivers.* Mississippi river, and lakes Pontchartrain, Des Allemands, and Washa. *Surface*, low and level; *soil*, in some parts very fertile. *Products.* Corn, cotton, sugar cane, fruits, vegetables, &c. *Cap.* Hahnville. *Pop.* (1897) 8,180.

Saint Charles, in *Michigan*, a post-village and township of Saginaw co., about 14 m. S.W. of Saginaw city.

Saint Charles, in *Minnesota*, a city and township of Winona co., about 25 m. W. by S. of Winona. *Pop.* (1895) 1,416.

Saint Charles, in *Missouri*, an E. co., adjoining Illinois; *area*, abt. 480 sq. m. *Rivers.* Mississippi, Missouri, and Cuivre rivers, and Dardenne and Femme Osage creeks. *Surface*, much diversified; *soil*, fertile. *Min.* Limestone. *Cap.* St. Charles.
—A city, cap. of the above co., on the Missouri River, abt. 140 m. E. of Jefferson City. It contains some extensive manufactories, and also is a place of much business activity.

Saint Chris'topher, an island of the W. Indies. See KITT'S, (SAINT).

Saint Clair, (*sĭn-kler,*) ARTHUR, a gallant, but unsuccessful American general, born at Edinburgh, Scotland, 1735. In June, 1777, he was besieged in Ticonderoga by Burgoyne's troops, and was compelled to evacuate that fort with great loss. In 1791, he was made major-general, became general-in-chief of the army, and was entrusted with the command of the expedition against the Miami Indians; but he was surprised near the Miami village, and his force of 1,400 men cut to pieces. He was compelled to resign his commission, and D. 1818.

Saint Clair, a lake between prov. of Ontario and Michigan, and between Lakes Huron and Erie. It covers an area of abt. 360 sq. m., and averages 20 feet in depth. Its surface is 571 feet above sea-level, or 6 feet higher than that of Lake Erie, into which its surplus waters are carried by the Detroit River, while it receives the waters of Lakes Superior, Michigan, and Huron, through St. Clair River.

Saint Clair, in *Alabama*, a N. by E. co.; *area*, abt. 725 sq. m. *Rivers.* Coosa River, and Canoe Creek. *Surface*, mountainous; *soil*, in some parts fertile, and well adapted to grain and grazing. *Min.* Bituminous coal in large deposits. *Cap.* Ashville.

Saint Clair, in *Illinois*, a S.S.W. co., adjoining Missouri; *area*, abt 630 sq. m. *Rivers.* Mississippi and Kaskaskia rivers, and Cahokia, Silver, and Richland creeks. *Surface*, undulating; *soil*, very fertile. *Min.* Coal in abundance. *Cap.* Belleville.

Saint Clair, in *Iowa*, a township of Benton co.—A post-village of Monona co., abt. 20 m. E. of Onawa.

Saint Clair, in *Michigan*, an extreme E. co. of the lower peninsula, bordering on Canada, Lake Huron, and Lake St. Clair; *area*, abt. 700 sq. m. *Rivers.* St. Clair, Black, and Belle rivers. *Surface*, level, or gently undulating; *soil*, in some parts fertile. *Cap.* Port Huron. *Pop.* (1891) 54,315.—A post-village and township, former cap. of the above co., about 50 m. N.E. of Detroit. It was formerly called Palmer.

Saint Clair, in *Minnesota*, a village of Carver co., about 44 m. W. by S. of St. Paul.

Saint Clair, in *Missouri*, a S.W. co.; *area*, about 670 sq. m. *Rivers.* Osage and Sac rivers, and Warblow, Peshaw, and Monaghan creeks. *Surface*, diversified; *soil*, fertile. *Cap.* Osceola. *Pop.* (1897) 17,220.—A post-village of Franklin co., about 55 m. S.W. of St. Louis.

Saint Clair, in *Ohio*, a township of Butler co.
—A post-township of Columbiana co.

Saint Clair, in *Pennsylvania*, a post-borough of Schuylkill co., about 62 m. N.E of Harrisburg.
—A township of Westmoreland co.

Saint Clair, or **Saint Clair City,** in *Pennsylvania*, a village of Westmoreland co.

Saint Clair River, an outlet of Lake Huron, forming a partial boundary between prov. of Ontario and Michigan. It averages ½ m. in width, is 40 m. long, and empties into Lake St. Clair.

Saint Clairs'ville, in *Ohio*, a post-village, cap. of Belmont co., about 116 m. E. of Columbus.

Saint Cloud, in *Kansas*, a village of Saline co., about 33 m. W.S.W. of Junction City.

Saint Cloud, in *Minn.*, a city, cap. of Stearns co., on the Mississippi, abt. 80 m. N.W. of St. Paul. It has extensive factories, and an active trade. Ap. 14, 1886, it was almost destroyed by a cyclone, 15 persons were killed.

Saint Croix, or SANTA CRUZ, (*san'ta kroos.*) an island of the W. Indies, abt. 80 m. E.S.E. of Porto Rico. It is the most S. and the largest of the Virgin group, and has an area of abt. 100 sq. m. *Cap.* Christianstad. It has been possessed successively by the Dutch, English, Spanish, and French, the last of whom sold it to Denmark in 1733. *Pop.* 27,000.

Saint Croix, (*krwaw,*) PASSAMAQUODDY, or SCHOODIC, a river rising in Grand Lake, and flowing a tortuous S.S.E. course between Maine and New Brunswick, enters Passamaquoddy Bay. *Length*, abt. 75 m.

Saint Croix, in *Wisconsin*, a N.W. co., adjoining Minnesota; *area*, abt. 750 sq. m. *Rivers.* St. Croix, Willow, and Apple rivers. *Surface*, somewhat diversified; *soil*, fertile. *Cap.* Hudson.

Saint Croix Lake, an expansion of the St. Croix River between Wisconsin and Minnesota. It is abt. 36 m. long, with an average breadth of 3 m.

Saint Croix River, rises in Douglas co., Wisconsin, and flowing S.W., then S. by W., between that State and Minnesota, enters the Mississippi River abt. 38 m. below St. Paul. *Length*, abt. 200 m.

Saint Cuth'bert, an English bishop, B. near Melrose, early in the 7th century. He was successively prior of the monasteries of Melrose and Lindisfarne, retired afterwards to the lone and desolate isle of Farne, where he might enjoy a life of solitude. He finally yielded to the persuasion of the Northumbrian king, Oswy, and took the bishopric of the prov. of Lindisfarne. He held this office for two years, when, worn out by labors and austerities, he died in the island of Farne, March 20, 687, which day is observed for his festival.

Saint Cuthbert's Beads, *n. pl.* (*Pol.*) See ENCRINITE.

Saint Cyr'il OF ALEXANDRIA, B. abt. 376, succeeded his uncle Theophilus as bishop of Alexandria, in 412. He compelled the Novatians to silence, banished the Jews, and caused Nestorius to be condemned and deposed by the Council of Ephesus. A subsequent *ex parte* council of 42 bishops, headed by John, patriarch of Antioch, and favoring Nestorius, excommunicated and deposed his opponent. The Emperor, appealed to in this strait, condemned both sides, and ordered the rival champions to be imprisoned. The powerful intercession of Rome, however, caused this sentence against *C.* to be abrogated. His works, mostly controversial, have been published, Paris, 1638, in 7 vols. folio.

Saint Cyril OF JERUSALEM, an eminent church father, B. at Constantinople abt. 315, was elected bishop of his native city in 351. He was soon engaged in hot conflict with his metropolitans, the Arian bishop Acacius of Cæsarea, who caused him to be twice deposed. He was for the second time restored to his episcopate in 383. Soon after, his old enemy Acacius died, but Cyril was immediately involved in new difficulties. After considerable strife, Cyril was banished, by order of the Emperor Valens, in 367; nor did he return till the Emperor's death in 378. D. 386. His writings, mostly doctrinal, are extremely valuable, not on account of their vigor, profundity, or beauty, but on account of their theology. They present to us, in a more complete and systematic manner than the writings of any other father, the creed of the church. Their style is simple and unattractive.

Saint Da'vid, a seaport-town of Queen's co., Prince Edward Island, on the Halifax Bay; Lat. 46° 23′ N., Lon. 63° 42′ W.

Saint David, an island of the Bermuda group, West Indies; Lat. 32° 10′ N., 64° 20′ W.

Saint Den'is Bayou, in *Louisiana*, enters Barataria Bay from Jefferson parish.

Saint Domingo. See HAYTI.

Saint Dona'tus. in *Iowa*, a p.-vill. in Jackson co.

Sainte-Anne, a town of the island of Gaudeloupe, W. Indies, on the S. coast of Grande Terre, abt. 12 m. E.S.E. of Point-à-Pitre.

Sainte-Beuve, (*bu(r)ve,*) CHARLES AUGUSTIN DE, a French author, b. at Boulogne-sur-Mar, 1804, who at first studied medicine, but subsequently turned his attention towards literature, for which he had a strong predilection from his earliest years. He commenced by writing articles on history, philosophy, and criticism for a French newspaper, and, in 1828, produced his *Historical and Critical Picture of the Poetry and Drama to the 16th Century*, a work which was accepted as a choice specimen of criticism. Some poems followed, but were less favorably received. He next supplied papers to the *Revue des Deux Mondes*, to the *Nationale*, and other important French organs: but his great work on the *History of Port Royal*, which appeared between the years 1840–48, gave him the high position among French *littérateurs* which he from that period maintained. His *Literary Portraits* have placed him at the head of the critics of the age. D. 1869.

Saint'ed, *a.* Holy; pious; sacred; canonized: as, "*sainted* hills." (*Milton.*)—Gone to heavenly happiness;—often employed as an euphemism for *dead*.
"I hold you as a thing enskied and *sainted*."—*Shaks.*

Saint Ele'na, a cape of Ecuador, on the Pacific coast; Lat. 2° 12′ S., Lon. 81° W. About 30 m. to the S.E., on a bay of the same name, is the village of Saint Elena.

Saint Eliz'abeth, a vill. and parish of Berthier co., prov. of Quebec, abt. 45 m. N.E. of Montreal.

Sainte-Lucie, a town on the S. coast of the island of Martinique, W. Indies, abt. 13 m. S.E. of Port Royal; *pop.* 1,500.

Sainte Rose, a town on the N. coast of the island of Guadeloupe, W. Indies, abt. 10 m. S.W. of Port Louis; *pop.* 4,500.

Saintes, (*sants,*) a town of France, dept. of Charente-Inférieure, on the Charente, 38 m. S.E. of Rochelle; *pop.* 8,405.

Saintes, (Les,) (*la sant,*) a cluster of small islands in the W. Indies, off the S. extremity of Guadeloupe. Aggregate *area*, abt. 5 sq. m. Discovered by Columbus, Nov. 4, 1495.

Saint-Esprit, (*-es-pree',*) a village and parish of Montcalm co., prov. of Quebec, abt. 42 m. N.W. of Montreal; —Also a village of Richmond co.; P. Quebec.

Saint'ess, *n.* A female saint. (R.)

Saint Eustatius, (*yūs-tā'shus,*) or EUSTATIA, an island of the Leeward group, W. Indies, abt. 12 m. N.W. of St. Kitt's; *area*, abt. 190 sq. m. *Surface*, mountainous. It has two extinct volcanoes. *Pop.* 2,000.

Saint-Fe'lix-de-Valois, (*-văl'wah,*) a village and parish of Berthier co., prov. of Quebec, abt. 51 m. N.N.E. of Montreal; *pop.* 3,800.

Saint Fran'cis, in *Arkansas*, an E. co.; *area*, abt. 612 sq. m. *Rivers.* White, St. Francis, and Cache rivers. *Surface*, nearly level; *soil*, generally fertile. *Cap.* Forest City. *Pop.* (1897) 14,150.—A township of Green co.—A township of Phillips co.

Saint Francis, in *Minnesota*, a post-township of Anoka co.

Saint Fran'cis River, rises in St. François co., Missouri, and flowing S. into Arkansas, it enters the Mississippi River from Phillips co. *Length*, abt. 450 m.

Saint Fran'cisville, in *Illinois*, a post-village of Lawrence co., abt. 170 m. S.E. of Springfield.

Saint Francisville, in *Louisiana*, a post-village, cap. of West Feliciana parish, abt. 30 m. N. of Baton Rouge.

Saint Francisville, in *Missouri*, a post-village of Clarke co., abt. 10 m. W.N.W. of Keokuk, Iowa.

Saint François, (*frangs'wah,*) or SAINT FRANCIS, in *Missouri*, a S.E. co.; *area*, abt. 350 sq. m. *Rivers.* St. Francis and Big rivers. *Surface*, hilly and broken; *soil*, in some parts fertile. The celebrated Iron Mountain is at the S.E. angle of this co. *Cap.* Farmington.

Saint François (or FRANCIS) **River,** rises in Lake Pohenagamook, and flowing a general E. and S.E. course, enters the St. John abt. 10 m. below the confluence of the Walloostook River. During its entire length, it forms a portion of the N. boundary between Maine and New Brunswick.

Sainte Genevieve (*zhĕn-a-vēv'*), in *Missouri*, an E.S.E. co., adjoining Illinois; *area*, about 450 sq. m. *Rivers.* Mississippi river, and Riviere aux Vases, and Isle au Bois, Saline, and Establishment creeks. *Surface*, uneven and broken; *soil*, in some parts very fertile. *Min.* Lead and copper, besides some fine marble. *Cap.* Sainte Genevieve, a thriving city on the Mississippi river, about 60 m. below the city of St. Louis. *Pop.* (1890) 9,883.

Saint George, the patron saint of England, said to have been a soldier in the army of Diocletian, and to have suffered death for the Christian faith. His character and very existence are surrounded with much obscurity. He is commonly represented on horseback, with a dragon vanquished at his feet.

Saint George, an island of the Bermuda group, lying N.E. of Bermuda. It is strongly fortified, and on the E. side has the town of Saint George, an important British military depôt. *Pop.* 4,000.

Saint George, a town on the S.S.W. coast of the island of Grenada, W. Indies. It has an excellent harbor, and is defended by a fort; Lat. 12° 2′ 54″ N., Lon. 61° 48′ W.

Saint George, an island in the bay of Honduras, opposite the mouth of the river Balize.

Saint George, a bay and harbor on the W. coast of Newfoundland, extending inland (E.N.E.) abt. 54 m. It receives a river of the same name.

Saint George, a bay on the N.W. coast of Nova Scotia, E. of Cape St. George. It extends abt. 18 m. inland, and is 20 m. wide at its mouth.

Saint George, in *Florida*, an island in the Gulf of Mexico, opposite the mouth of the Appalachicola River; *area*, abt. 100 sq. m.

Saint George, in *Kansas*, a post-village of Pottawatomie co., abt. 12 m. E. of Manhattan.

Saint George, in *Maine*, a post-township of Knox co.

Saint George, in *Nebraska*, a village of Nemaha co., abt. 10 m. W. of Brownsville.

Saint George, in *Oregon*, a post-village, former cap. of Columbia co., about 30 m. N. of Portland.

Saint George, in *Utah*, a post-village, cap. of Washington co., about 345 m. S. by W. of Salt Lake City.

Saint George, in *Vermont*, a post-township of Chittenden co.

Saint George, in *West Virginia*, a post-village, former cap. of Tucker co., about 100 m. S.E. of Wheeling

Saint George's, in *Delaware*, a post-village of New Castle co., about 16 m. S.S.W. of Wilmington.

Saint Gregoire-le-Grande, a village and parish of Nicolet co., prov. of Quebec, about 90 m. S.W. of Quebec.

Saint Helen, in *Missouri*, a village of Cedar co., about 17 m. S.W. of Jefferson City.

Saint Hele'na, in *California*, a post-village of Napa co., about 18 m. N. of Napa.

Saint Helena, in *Louisiana*, an E. parish, adjoining Mississippi; *area*, 540 sq. m. *Rivers.* Tickfah and Amite rivers. *Surface*, level, or slightly undulating; *soil*, generally very fertile. *Cap.* Greensburg. *Pop.* (1897) 8,450.
—A village of the above parish, about 35 m. N.E. by N. of Baton Rouge.

Saint Helena, in *Nebraska*, a post-village of Cedar co.

Saint Helena (Island of). See HELENA (ST.).

Saint Hel'en's Mountain, in *Washington*, volcanic peak of the Cascade Range, at the N.W. angle of Skamania co.; *height*, about 13,400 feet. It is very seldom in a state of eruption.

Saint Helier. See HELIER'S ST.

Saint-Hen'ri-de-Que'bec, a village of Dorchester co., prov. of Quebec, abt. 12 m. S.S.E. of Quebec.

Saint Hilaire. See GEOFFROY SAINT HILAIRE.

Saint'hood, *n.* State or condition of being a saint —The order or collective body of saints.

Saint Hy'acinthe, a S. county of prov. of Quebec; *area*, about 477 sq. miles. *Cap.* St. Hyacinthe. Its cap., St. Hyacinthe, is about 30 m. E.N.E. of the city of Montreal.

Saint Ig'nace, in *Michigan*, a thriving city of Mackinaw co. *Pop.* (1897) 2,750.

Saint Igna'tius's Beans. See IGNATIA.

Saint In'igo's, in *Maryland*, a post-village of St. Mary co., abt. 60 m. S. by E. of Annapolis.

Saint'ism, *n.* Characteristic quality of saints. (R.)

Saint-Jacques-de-l'Achigan, a village and parish of Montcalm co., prov. of Quebec, about 30 m. N.W. of Montreal; *pop.* 9,000.

Saint Ja'go. See SANTIAGO.

Saint James, in *Louisiana*, a S.E. parish; *area*, abt.

300 sq. m. *Rivers.* Mississippi and Acadien rivers. Lake Maurepas washes the N.E. horder. *Surface,* generally level; *soil,* extremely fertile, prodncing large crops of sugar and Indian corn. *Cap.* Convent. *Pop.* 16,000.

Saint James, in *Michigan,* a post-vllage of Charlevoix co., 70 m. N. of Traverso City.

Saint James, In *Missouri,* a post-village of Phelps co., about 10 m. E. of Rolla.

Saint James, in *Nebraska,* a post-village, former cap. of Cedar co., about 48 m. W.N.W. of Sioux City.

Saint Jan, or SAINT JOHN, one of the Danish W. Indic islands, lying E. of St. Thomas; *area,* abt. 42 sq. m. *Cap.* Christiansburg. *Pop.* 3,000.

Saint Joachim, (*yō'a-keem,*) a village of Montmorenci county, prov. of Quebec, abt. 10 m. N.E. of tne city of Quebec.

Saint John, a town on the W. coast of the Island of Antigna, W. Indies.

Saint John, or SAINT JOHN'S, [Indian *Looshtook,* long river,] a river of Maine and New Brunswick, which takes its rise in the highlands which separate Maine from Canada. Flowing N.E. a distanco of 100 m., under the name of *Walloostook,* it joins the St. Fraucis 50 m. below. It then flows, E.S.E. to the Great Falls, where it has a perpendicular descent of from 70 to 80 feet. In Lat. 46° N., it turns suddenly, and flows E. to St. John's Harbor. Its whole course is about 450 m., and it is navigable for vessels of 120 tons to Fredericton, 80 m. from its mouth. 75 m. from the Great Falls to the St. Francis forms the bounclary between Maine and New Brunswick.

Saint John, a seaport of N. Brunswick, cap. of St. John co., at the mouth of St. John River, 135 m. N.W. of Halifax; Lat. 45° 14′ 6″ N., Lon. 66° 3′ 30″ W. The harbor is one of the finest in America. Almost totally destroyed by fire, June 21, 1877; 200 acres were burnt, many lives lost, and property valued at several millions destroyed.

Saint John, in prov. of Qnebec, a river flowing into the Assumption River from Montcalm co. — A river flowing into the Gulf of St. Lawrence from Gaspé co. — A cousiderable lake, abt. 120 m. N. by W. of Queb... It is nearly circular in outline, and covers an area of abt. 900 sq. m. It receives the Peribona, Mistissinny, and several other rivers, and has its outlet in the Saguenay River. — A town of Chambly co., also called *Dorchester,* abt. 27 m. S.E. of Montreal.

Saint John, in *Illinois,* a village of Lake co., abt. 26 m. N. by W. of Chicago. — A post-village of Perry co., abt. 80 m. N. of Cairo.

Saint John, In *Iowa,* a post-village and township of Harrison co., abt. 22 m. N. of Council Bluffs.

Saint John, In *Michigan,* a post-village, cap. of Clinton co., abt. 98 m. W.N.W. of Detroit.

Saint John, in *Minnesota,* a village of Pine co., abt. 90 m. N.N.E. of St. Paul.

Saint John, in *Nebraska,* a village of Dakota co., abt. 9 m. W.S.W. of Sioux City.

Saint John Bap'tiste, in *Louisiana,* a S.E. parish; *area,* abt. 200 sq. m. *River.* Mississippi River. It is washed on the N. and S.E. by lakes Maurepas and Pontchartrain respectively. *Surface,* low and level; *soil,* along the rivers, very fertile. *Cap.* Edgard. *Pop.* (1897) 11,950.

Saint John's, a city, cap. of Newfoundland, and the most E. seaport of N. America, 1,665 m.W. by S. of Galway, Ireland; Lat. 47° 33″ 6′ N., Lon. 52° 43′ W. It is situate on an acclivity, consists chiefly of one street of abt. 1 mile in length, is lighted with gas, and well supplied with water. Its trade consists chiefly in supplying the fishermen with clothing, provisions, and fishing and hunting-gear. *Pop.* 25,000.

Saint John's, or SAINT JOHNSTOWN, in *Delaware,* a village of Sussex co., abt. 28 m. S. of Dover.

Saint John's, in *Florida,* a river rising in Lake Polnsett, near the S. border of Orange co., and flowing in a general N. direction, enters the Atlantic Ocean from Duval co. During its somewhat tortuous course of 200 m. through a low marshy region, it receives numerous smaller streams, and expands into several conciderable lakes.—A N.E. co., bordering on the Atlantic Ocean; *area,* abt. 990. sq. m. *River.* St. John's River. *Surface,* level and low; *soil,* saudy, and not very fertile. *Cap.* St. Augustine.

Saint John's, or SAINT JOHN, in *Indiana,* a post-village and township of Lake co., abt. 145 m. N.W. by N. of Indianapolis.

Saint John's, in *Ohio,* a post-villago of Anglaize co., abt. 90 m. W.N.W. of Columbus.

Saint John's Bread, *n.* (*Bot.*) See CERATONIA.

Saint Johns'bury, In *Vermont,* a city, cap. of Caledonia co., on the Passumpsic River, abt. 35 m. N.E. of Montpeller. The river affords excellent water-power, and the city contains numerous manufactories, among which is one of patent weighing-scales, said to be the most extensive in the U. States.

Saint Johns'bury Centre, In *Vermont,* a post-village of Caledonia co., abt. 2 m. N. of St. Johnsbnry.

Saint Johns'bury East, In *Vermont,* a post-village of Caledonia co., abt. 5 m. N.E. of St. Johnshury.

Saint John's Creek, In *Missouri,* enters the Missouri River from Franklin co.

Saint Johns'ville, In *New York,* a post-village and township of Montgomery co., about 63 m. W. by N. of Albany.

Saint John's Wort, *n.* (*Bot.*) See HYPERICACEÆ.

Saint Jo'seph, a lake of British N. America; Lat. 51° 10′ N., Lon. 91° W. It covers an area of abont 350 sq. m., receives the Catlake River, and empties into St. James' Bay on Hudson's Bay through the Albany River.

Saint Joseph, an island of prov. of Ontario, at the W. end of North Channel, and between lakes Huron and Superior; Lat. 46° 15′ N., Lon. 84° 10′ W.; *area,* about 200 sq. m.

Saint Jo'seph, in *Florida,* a village, former cap. of Calhoun co., on a bay of the same name, abont 70 m. S.W. of Tallahassee.

Saint Joseph, In *Indiana,* a N. co., adjoining Michigau; *area,* about 470 sq. m. *Rivers.* St. Joseph and Kankakee rivers. *Surface,* nearly level; *soil,* very fertile. *Min.* Iron. *Cap.* South Bend. *Pop.* (1897) 54,575. —A towuship of Allen co.

Saint Joseph, in *Louisiana,* a post-town, cap. of Tensas parish, abont 100 m. N. of Baton Rouge.

Saint Joseph, in *Michigan,* a S.S.W. co., adjoining Indiana: *area,* about 504 sq. m. *Rivers.* St. Joseph (of Lake Michigan), Portage, Prairie, Pigeon, and Fawn rivers. *Surface,* undulating; *soil,* remarkably fertile. *Cap.* Centerville. *Pop.* (1897) 25,800. —A post-village and township of Berrien co., abont 194 m. W. of Detroit.

Saint Joseph, in *Minnesota,* a village of Stearns co., about 10 m. W. of St. Cloud.

Saint Joseph, in *Missouri,* a city, cap. of Buchanan co., on the Missouri river, about 340 m. above Jefferson City. It is well located, has numerous manufactories, and carries on an extensive trade. The city is regularly and handsomely built, and is thriving rapidly. *Pop.* (1897) 61,200.

Saint Joseph, in *Ohio,* a township of Williams county.

Saint Joseph, in *Wisconsin,* a township of St. Croix co.

Saint Joseph Bay, in *Florida,* an arm of the Gulf of Mexico, extending S. into Calhoun co. It is 25 m. in length, and has a maximum breadth of 10 m.

Saint Joseph de Maskinongé, or MASKINONGÉ, a village and parish of St. Maurice co., prov. of Quebec, abt. 60 m. N.E. of Montreal.

Saint Joseph's Grove, in *Iowa,* a village of Dubuque co., abt. 10 m. S.W. of Dubnque.

Saint Joseph's River, (of Lake Michigan,) rises in Hillsdale co., Michigan, and flowing first N.W. into Calhoun co., then S.W. through Branch, St. Joseph, and Cass cos. into Indiana, where, after a W. course of abt. 30 m., it turns N.W. into Michigan again, and enters Lake Michigan from Berrien co. *Length,* abt. 250 m. Navigable abt. 120.

Saint Joseph's River, (of the Maumee,) rises in Hillsdale co., Michigan, and flowing S.W. through the N.W. angle of Ohio, into Indiana, it joins the St. Mary's River at Fort Wayne, in Allen co., to form the Maumee River.

St. Just, (*-zhoost,*) ANTOINE, one of the associates of Robespierre, was B. in 1768, and was educated for the legal profession. He voted for the death of Louis XVI., materially assisted in the destruction of the Girondists, acted as a commissioner of the National Convention to the army in Alsace, where he was distinguished for his severity; and, on his return to Paris, becoming involved in the ruin of Robespierre, was guillotined in July, 1794. This demagogue, who was the author of several works, among which were some licentious poems, has often been confounded with LOUIS LEON ST. JUST, the writer of *Esprit de la Révolution, et de la Constitution de France.*

Saint Lan'dry, In *Louisiana,* a central parish; *area,* about 1,700 sq. m. *Rivers.* Atchafalaya and Mermentean rivers. *Surface,* somewhat elevated and undulating; *soil,* very fertile. *Cap.* Opelousas. *Pop.* (1897) 42,240.

Saint Law'rence, a river of N. America. See LAWRENCE (SAINT).

Saint Leger, (*lěj'r,*) in *Missouri,* a post-village of Ozark co., abt. 13 m. S.E. of Gainesville.

Saint Leonard's, (*len'ardz,*) in *Maryland,* a post-village of Calvert co., abt. 45 m. S. of Annapolis.

Saint'-like, *a.* Saintly; resembling or befitting a saint; as, a *saint-like* show.

Saint'liness, *n.* Quality of being saintly.

Saint Lô, a town of France, cap. of the dept. of Manche, on the Vire, 55 m. S.E. of Cherbourg. *Pop.* 8,539.

Saint Louis, (*loo'ee*) a seaport, cap. of the Island of Mauritius. It is a place of active trade, and exports great quantities of coffee and sugar. *Pop.* 15,000.

Saint Louis (*loo'is* or *loo'ee*) In *California,* a village of Sierra co., abt. 21 m. N. by W. of Downieville.

Saint Louis, *in Indiana,* a village of Bartholomew co., abt. 11 m. N.E. of Columbus.

Saint Louis, in *Michigan,* a post-village of Gratiot co., abt. 33 m. W. of Saginaw City.

Saint Louis, in *Minnesota,* a N.E. co., adjoining the British possessions; *area,* abt. 6,000 sq. m. *Rivers.* St. Louis, Big White Face, and Cloquet rivers. Lake Snperior washes the S.E. horder, Vermilion Lake occupies the N. central part, and Rainy Lake forms a part of the N. border of this co. *Surface,* elevated and broken; *soil,* in general, not fertile. *Min.* Copper and iron. *Cap.* Duluth. *Pop.* (1897) 87,850.

Saint Louis, in *Missouri,* an E. co., adjoining Illinois; *area,* about 492 sq. m. *Rivers.* Mississippi, Missouri, and Maramec rivers. *Surface,* somewhat diversified; *soil,* very fertile, producing fruit and the cereals in abundance. *Min.* Stone-coal, iron, and marble. *Cap.* Clayton. *Pop.* (1897) 38,480. —A fine and flourishing city, port of entry, former cap. of above, and the principal place in the State, admirably sitnated on the Mississippi, 18 m. below the month of the Missouri, and nearly 200 m. above the mouth of the Ohio, at the terminus of many important railroads. The city extends along the margin of the river, from which the ground rises by a gentle ascent to a second plateau, about forty feet above the level of the first. Fortifications were erected on this terrace at an early period in the history of St. Lonis; but these have been removed to make way for buildings, and their site is now occnpied by streets and houses. In the older part of the city, by the brink of the river, which is the chief seat of trade, the streets are narrow and inconvenient, but of late they have been much improved. The more modern sections, on the high grounds, are laid out in broad avenues and streets, in which are most of the residences of the business and professional men. The old town of St. Lonis was chiefly of wood, but since the great fire of 1849 substantially rebnilt, and has many handsome edifices, as, for example, the Court-House (cost $1,200,000), the Four Courts (cost $1,000,000), the new U. S. Custom-House and Post-Office (cost about $5,000,000), Merchants' Exchange (costing $1,000,000), and the Cathedral (R. C.) is an elegant Doric building with a lofty spire and chime of bells. Among the other imposing church buildings, are Christ church (Epis.), Pilgrim church (Cong.), Church of the Messiah (Unitarian), First Presbyterian, and the Jewish synagogue.

Fig. 2294.—SAINT LOUIS.

Among the literary and scientific institutions may be named the St. Lonis University, fonnded by the Jesuits in 1829, which has a valuable museum and library of 25,000 volumes, and the Academy of Sciences, founded in 1856, has a large museum and library, and the St. Louis School and Museum of Fine Arts. The Mercantile Library has over 70,000 volumes and some fine works of art, and the Public School Library has also upwards of 75,000 volumes. *St. L.* has many spacious parks—Tower Grove has 277 acres, Forrest Park 1,350 acres, the beautiful, but smaller, Lafayette Park of 30 acres, together with Shaw's Garden and several other parks, form in all over 2,000 acres. *St. L.* has several orphan asylums, homes for the friendless, a house of refuge, a girls' industrial home, industrial school for boys, several free evening schools, an insane hospital, a maternity, an infant hospital, a large marine hospital, 3 general hospitals, 7 convents, and many other benevolent institutions, upon both individual and State foundations, which attest the intelligent philanthropy of its citizens; while the literary and professional organizations are of a corresponding high order. The periodical press, embracing some 60 publications, exercises commanding influence upon public opinion; and educational zeal is manifested by a complement of schools fully eqnal to the average of our largest cities of the east. Steamboats of the largest class come close up to the levee; and St. Louis, whose commercial importance is incessantly increasing, has became the grand emporium of the regions on the Missouri and the Upper Mississippi. The bridge, made of Iron and steel, over the Mississippi at this city is one of the grandest in the world, built by Captain Eads and completed in 1874, at a total cost of $10,000,000; it is nearly 5,000 feet in length, built in two stories, and of sufficient elevation to permit the passage of steamboats. The new Union R.R. depôt is an immense building. The great tunnel (7,000 ft.) under the city runs from it to the bridge. *St. L.* is largely engaged in manufactures. Her flouring-mills are numerous, and enjoy a high reputation; and her large sugar-refineries manufacture most of the sugar consumed in the Mississippi Valley. Oils and chemicals are largely manufactured. The manufacture of hemp into bale-rope and bagging, the distillation of whiskey, and the manufacture of tobacco, occupy many hands. The packing of pork, beef, lard, and hams employs a very large capital. In its tobacco product it has no equal. An important event in the history of the city was the Louisiana Purchase Expositiou, a World's Fair held in 1904, in commemoration of the acqulsition from France in 1803 of the territory of Louisiana. The site selected was nearly 1200 acres in extent, about twice the area occupied by any preceding Exposition. On this were erected numerous handsome buildings, covering about 126 acres, which were dedicated with appropriate ceremonies April 30, 1903. These were filled with striking exhibits from all quarters of the world, while the ample grounds were decorated in the highest style of landscape art. The Exposition was largely attended, and was held to be unsurpassed in beauty and grandeur. *Pop.* (1900) 575,238.

Saint Louis River, rises in St. Louis co., Minnesota, and flowing first S.S.W., then S.E. to the borders of Wisconsin, turns to the N.E. and enters Lake Snperior.

Saint Louisville, in *Ohio,* a post-vill. of Licking co.

Saint Lucia (*lu'she-a*), one of the smaller Cape de Verd Islands, bet. St. Nicholas and St. Antonio; Lat. 16° 49′ N., Lon. 24° 47′ W. *Ext.* 10 m. long and 3 broad.

Saint Lu'cia. (*Geog.*) See LUCIA, ST.

Saint Lu'cie, in *Florida*, the former name of Brevard co., a S.E. district, bordering on the Atlantic Ocean; *area*, 2,446 sq. m. The Indian river exteuds along the E. border. *Surface*, low and largely swampy; *soil*, in some parts fertile. *Cap.* Titusville. *Pop.* (1897) 4,752.

Saint'ly, *a.* (*comp.* SAINTLIER, *superl.* SAINTLIEST.) Like a saint; becoming a holy, devout person; as, *saintly* patience.

Saint Mari'a, in *Wisconsin*, a township of Green Lake co.

Saint Marie', in *Illinois*, a post-village and township of Jasper co., about 60 m. E. by S. of Vandalia.

Saint Mark's, in *Florida*, a small river flowing S. into the Gulf of Mexico from Wakulla co.

—A post-village, port of entry, the former cap. of Wakulla co., on St. Mark's River, abt. 26 m. S. by E. of Tallahassee. It has a safe harbor for vessels drawing 8 feet of water, and being the port of Tallahassee, it commands an extensive trade. At the E. side of the entrance to the harbor is a light-house, exhibiting a fixed light 73 feet high; Lat. 30° 4′ N., Lon. 84° 20′ W.

Saint Mar'tin, an island of the W. Indies, between Anguilla and St. Bartholomew; Lat. 18° 4′ N., Lon. 53° 10′ W. *Area*, about 30 sq. m. In 1638, this island was settled by the French and Dutch, the former occupying still the N., and the latter the S., part. *Pop.* (French) 4,000; (Dutch) 4,500.

Saint Martin, an island in the Pacific Ocean, off the W. coast of Patagonia, S. of Madre de Dios; Lat. 50° 40′ S., Lon. 75° 26′ W.

Saint Martin, a village and parish of Terrebonne co., prov. of Quebec, abt. 12 m. N.W. of Montreal; *pop.* 4,500.

Saint Martin's, in *Louisiana*, a S.S.E. parish; *area*, about 620 sq. m. *Rivers.* Grand river, and Atchafalaya and Teche bayoux. *Surface*, level; *soil*, in the vicinity of the streams extremely fertile, producing large crops of Indian corn and sugar. *Cap.* St. Martinsville. *Pop.* (1897) 16,020.

Saint Martin's, in *Maryland*, a small river flowing through Worcester co. into Sinepuxent Sound.—A post-village of Worcester co., about 120 m. S.E. of Annapolis.

Saint Martin's Keys, in *Florida*, a small cluster of islets in the Gulf of Mexico; Lat. 28° 42′ N., Lon. 83° 30′ W.

Saint Mar'tinsville, in *Louisiana*, a post-village, cap. of St. Martin's parish, about 125 m. W.S.W. of Baton Rouge.

Saint Ma'ry, a group of islauds in the Gulf of St. Lawrence, off the S. coast of Labrador; Lat. 50° 20′ N., Lon. 60° W.—A S.E. district of Newfoundland.

Saint Mary, in *Iowa*, a village of Mills co., about 230 m. W. of Iowa City.

Saint Mary's, in *Georgia*, a post-village, port of entry, and cap. of Camden co., on St. Mary's river, abont 9 m. above its mouth.

Saint Mary's, in *Indiana*, a township of Adams co.

Saint Mary's, in *Iowa*, a village of Linn co., about 20 m. N. by E. of Iowa City.—A township of Mills co.

Saint Mary's, in *Louisiana*, a S. by E. parish, bordering on the Gulf of Mexico; *area*, about 640 sq. m. *Rivers.* Atchafalaya and Teche bayoux. *Surface*, level; *soil*, extremely fertile. *Cap.* Franklin. *Pop.* (1897) 23,640.

Saint Mary's, in *Maryland*, a S. co., bordering on the Chesapeake Bay; *area*, about 360 sq. m. *Rivers.* Potomac and Patuxent rivers. *Surface*, nearly level; *soil*, fertile. *Cap.* Leonardtown. *Pop.* (1897) 16,960.

Saint Mary's, in *Minnesota*, a village of Waseca co., about 22 m. S.E. of Mankato.

Saint Mary's, in *Nevada*, a village of Humboldt co., abt. 40 m. N. of Unionville.

Saint Mary's, in *Ohio*, a post-village and townsbip of Auglaize county, about 105 miles west north-west of Columbus.

Saint Mary's, in *W. Virginia*, a post-village, cap. of Pleasants co., abt. 64 m. S.S.W. of Wheeling.

Saint Mary's Landing, in *Missouri*, a village of St. Genevieve co., abt. 70. m. S. by E. of St. Louis.

Saint Mary's River, rises in the Okefinokee Swamp, in Ware co., *Georgia*, and flowing S. to the border of Florida, continues to form the boundary of these two States until it enters the Atlantic Ocean; *length*, abt. 100 m.

Saint Mary's River, rises in Auglaize co., *Ohio*, and flowing N.W. into Indiana, joins the St. Josepb River in Allen co. to form the Maumee River.

Saint Mary's Strait, a channel connecting Lake Superior with Lake Huron, and separating the upper peninsula of Michigan from Canada. It is abt. 63 m. in length, and is navigable to within 1 m. of Lake Superior. Here it has a fall of 22 ft. in ¾ of a m. A canal, (one of the finest works of the kind in the Union,) has been constructed around this obstacle, and communication between all the great lakes is now complete.

Saint Maurice, (*mŏr'ris,*) a co. of prov. of Quebec; *area*, abt. 7,300 sq. m. *Cap.* Three Rivers.

—A village of the above co., abt. 84 m. S.W. of Quebec.

Saint Michael's, (*mik'ls,*) in *Maryland*, a river flowing into Chesapeake Bay from Talbot co.

—A post-village of Talbot co., abt. 57 m. S.E. of Annapolis.

Saint Michael's Bay, an inlet of the Atlantic Ocean, on the E. coast of Labrador; Lat. 52° 56′ N., Lon. 55° 30′ W.

Saint Mo'ran, in *Michigan*, a township of Mackinaw co.

Saint Nazlan, (*nā'zhan.*) in *Wisconsin*, a village of Manitowoc co., abt. 33 m. E.N.E. of Fond du Lac.

Saintol'ogist, (*-jist.*) *n.* (*Theol.*) One who is learned in the knowledge of saints;—also, a biographer of saints.

Saint Omer, (*ō'mair,*) in *Indiana*, a post-village and township of Decatur county, about 36 miles S.E. of Indianapolis.

Saintonge, (*sant'awnge,*) an old W. prov. of France, bordering on the Atlantic, now forming the depts. of Charente-Inférieure, Deux-Sèvres, and Charente.

Saint Par'is, in *Ohio*, a post-village of Champaign co., abt. 58 m. W. of Columbus.

Saint Paul, an island of British N. America, in the Gulf of St. Lawrence, abt. 8 m. N.E. of North Point, Cape Breton Island. It exhibits 2 fixed lights. Lat. (of N. Point) 47° 14′ N., Lon. 60° 9′ W.

Saint Paul, in *Indiana*, a post-village of Decatur co., abt. 35 m. S.E. of Indianapolis.

Saint Paul, in *Iowa*, a post-village of Lee co., abt. 22 m. W. by S. of Burlington.

Saint Paul, in *Minnesota*, a city, port of entry, cap. of Ramsey co., and seat of the State government, on the Mississippi River, 2,070 m. above its mouth, and 9 m. below the Falls of St. Anthony; Lat. 44° 52′ 46″ N., Lon. 93° 5′ W. The city is finely located on a bluff, 70 or 80 feet above the river. It was first settled in 1840, and is now the most populous city in the State, as well as one of the most important commercial places of the N.W. It contains a fine State-House, and other buildings devoted to literature, science, benevolence, &c., while its churches and schools are on a scale commensurate with its rapid progress as a city, indicating a worthy aspiration for moral and intellectual improvement. Situated almost at the head of navigation on the Mississippi River, *St. P.* commands an extensive and rapidly increasing commerce. *Pop.* (1900) 163,632.

Saint Paul, in *Missouri*, a village of Webster co., about 25 m E. of Springfield.

Saint Paul's, in *North Carolina*, a post-village of Robeson co., about 20 m. S.S.W. of Fayetteville.

Saint Paul's Bay, a village and parish of Saguenay co., pr. of Quebec, about 60 m. N.E. of Quebec. *Pop.* 3,000.

Saint Pe'ter, in *Minnesota*, a city, cap. of Nicollet co., about 75 m. S.W. of St. Paul. *Pop.* (1895) 4,251.

Saint Peter's Lake, an expansion of the St. Lawrence River, between Lat. 46° and 46° 8′, and Lon. 73° W.; *length*, abt. 35 m.; greatest breadth 10 m.

Saint Peter's (or MINNESOTA) **River,** in *Minnesota*, rises in Big Stone Lake, on the W. border of the State, and flows S.E. to Blue Earth co.; thence turning N.E., it enters the Mississippi River between Hennepin and Dakota cos. *Length*, abt. 450 m.

Saint Peter's Wort, *n.* (*Bot.*) See ASCYRUM.

Saint Pierre, JACQUES HENRI BERNARDIN DE, a French miscellaneous writer, was B. at Havre, in 1737, was educated in the engineer school at Paris; for a time he followed the military profession in the service of Russia; afterwards obtained a commission in the engineer corps of France; spent three years in the Isle of France, about 1770–73; and, retiring from military life, he devoted the remainder of his days to literature. In 1784 appeared his *Etudes de la Nature*, and in 1788, his *Paul et Virginie*, which, after passing through 50 editions in one year, has been translated into almost all the languages of Europe. "For many years," says Humboldt, "it was the constant companion of myself, and my valued friend and fellow-traveller Bonpland; and often, in the calm brilliancy of a southern sky, or, when in the rainy season the thunder reëchoed and the lightning gleamed through the forests that skirt the shores of the Orinoco, we felt ourselves penetrated by the marvellous truth with which tropical nature is described in this little work." Carlyle has called it "the swan-song of old dying France." Napoleon conferred on St. Pierre the order of the Legion of Honor, and Joseph Bonaparte granted him a pension of 2,000 francs. St. Pierre was also the author of *La Chaumière Indienne*, *Harmonies de la Nature*, and several other works, all marked by elegant taste and philosophical feeling. D. 1814.

Saint Pierre, a small island on the S. coast of Newfoundland, and which, with the two islands of *Miquelon*, belong to France, and compose the all of her possessions in N. America. *Pop.* 1,700.

Saint Pierre, a city of the island of Martinique, and its commercial port. It was utterly destroyed, with its 30,000 inhabitants, on May 8, 1902, by an eruption of Mount Pelee, a volcano in its vicinity, the citizens being killed by heated and poisonous gases. See MARTINIQUE.

Saint Re'gis River, in *New York*, rises in Franklin co., and, flowing N. by W., enters the St. Lawrence River between St. Lawrence and Franklin cos.

Saint's Bell, *n.* (*Eccl.*) See SACRING-BELL.

Saint'-seeming, *a.* Assuming the characteristics of a saint; as, *saint-seeming* piety.

Saint'ship, *n.* The character or qualities of a saint.

"Whose eyes might shake the *saintship* of an anchorite."—*Byron.*

Saint Simon, (*se-mawng,*) CLAUDE HENRI, COUNT DE, a celebrated French social philosopher, grandson of the following, B. at Paris, 1760. After completing his education he entered the army, and in 1777 was included in an expedition sent by Louis XVI. to assist this country in her war with England. After seeing some service under Washington, and travelling through Mexico, he returned to France, and was appointed colonel in the French army. He, however, took no interest in his military duties, as he intended to devote his life to the advancement of human civilization. On the breaking out of the Revolution, though he warmly sympathized with the movement, he took no part in the subsequent events, but retired entirely from the army, and bought a considerable quantity of confiscated land, with the view of establishing a large scientific and industrial school; but the scheme was a failure, and St. Simon retired from it after losing a vast sum of money. From this time he devoted himself to what he termed a "physico-political" reformation, for which purpose he entered into the study of all the physical sciences—mathematics, astronomy, general physics, and chemistry,—and all the general science attainable with respect to organized beings. He next proceeded to make his *experimental education;* he married, and continued to pursue his prescribed career, in which good and evil were confounded, and every kind of dissipation followed each other in rapid succession. This, however, in 1807, came to an end; his fortune was gone, and he was compelled to become a clerk in a government office at a small yearly salary. In 1812, he being then in his fifty-second year, he considered it time to "establish his theory," and published a number of remarkable works, which, however impracticable and visionary in their character, attracted round him a large number of disciples. His last efforts were directed towards the foundation of a new religion, which he called the *New Christianity*, in which society was to be reorganized upon this formular:—"To each man a vocation according to his capacity, and to each capacity a recompense according to its worth." Before breathing his last he gave his final instructions to his chief disciples, among whom were Augustine Thierry, the great historian, and Comte, the future author of the *Positive Philosophy*. His most important works were, *Introduction to the Scientific Labors of the Nineteenth Century; The Reorganization of European Society;* and *New Christianity*. D. 1825. After the death of its founder, St. Simonianism experienced some curious mishaps. Several of its most enthusiastic followers established a little church, where a mystical theology was propounded. In 1830 a weekly journal was started in furtherance of the movement, which had now attracted numbers of the educated classes to embrace its dogmas; but a split occurred between the leaders of the sect; one party formed a kind of monastic community, which, after a short time, was suppressed by the government, M. Enfantin, the abbot, being sentenced to a term of imprisonment.

Saint Simon, LOUIS DE ROUVROI, DUKE DE, was B. in 1675. He entered the army early, and served in the campaigns in Flanders, was a member of the Council of Regency under the Duke d' Orleans, and in 1721 was appointed ambassador-extraordinary to the court of Spain, to negotiate a marriage between the Infanta and Louis XV.; and D. in 1755. His *Memoirs of the Reign of Louis XIV. and the Regency* contain a vast mass of information, and possess great historical value as a vivid, and, on the whole, truthful representation of the times.

Saint'-Simo'nian, *n.* (*Pol. Econ.*) A disciple of ST. SIMON (COUNT DE), *q. v.*

Saint'-Simo'nianism, *n.* The theories, principles, or practice inculcated by the Saint-Simonians.

Saint Stephano, Stefano. See BERLIN, TREATY OF.

Saint Stephen, in *Neb.*, a village of Richardson co.

Saint Stephen's, a seaport town of New Brunswick, about 60 m. W. of St. John.

Saint Tam'many, in *Louisiana*, a S.E. parish, bordering on Mississippi and Lake Pontchartrain; *area*, about 915 sq. m. *Rivers.* Pearl and Chefonto rivers. *Surface*, uneven; *soil*, not generally fertile. *Cap.* Covington. *Pop.* (1897) 10,950.

Saint Thom'as, an island of the Virgin group, W. Indies, belonging to Denmark, abt. 38 m. E. of Porto Rico; Lat. 18° 20′ 24″ N., Lon. 64° 55′ 45″ W. *Area*, abt. 45 sq. m., only 2,500 acres of which are under cultivation. *Prod.* Sugar, rum, &c. *S. T.*, having a free harbor, is visited annually by a large number of vessels, and is a place of much business activity. *Cap.* Charlotte Amalie. *Pop.* abt. 14,000.

Saint Thomas, a town of prov. of Ontario, co. of Middlesex, abt. 17 m. S. of London.

Saint Thomas, a village of Lower California, abt. 30 m. S.S.E. of San Diego.

Saint Thomas, in *Missouri*, a post-village of Cole co., abt. 15 m. S. of Jefferson City.

Saint Thomas, in *Pennsylvania*, a post-village and township of Franklin co., abt. 10 m. W. of Chambersburg.

Saint Vin'cent, an island of the W. Indies, belonging to Great Britain, abt. 100 m. W. of Barbadoes; Lat. 13° 13′ N., Lon. 61° 15′ W; *area*, abt. 132 sq. m. *Surface*, pleasantly diversified, a volcanic ridge intersecting the island from N. to S., the culminating peak of which, called the *Souffriere*, was in a state of terrific eruption in 1812, and again in 1902, when great destruction was caused. *Prod.* Sugar, rum, molasses, arrow-root, and cotton. *Cap.* Kingstown. *Pop.* 32,000.

Saint Vi'tus' Dance, *n.* (*Med.*) See CHOREA.

Saint Vrain, in *Colorado*, a thriving post-village, cap. of Weld co., abon. 50 m. N. by E. of Denver.

Sa'jou, *n.* (*Zoöt.*) A lively and active monkey, of the *Cebidæ*, genus *Cebus;* docile, but somewhat capricious. It has a prehensile tail, though it is not so delicate an organ of touch as in some other species. In their native forests they live in troops, feeding on fruits, grain, eggs, &c.

Sake, *n.* [A. S. *sacu*, a suit in law.] Final cause; end; aim; purpose; or rather, the purpose of obtaining; account; regard to any purpose or thing;—principally used in the phrases, *for my sake, for the sake of, for his* (or *her*) *sake, for mercy's sake*, &c.

Sa'ker, *n.* [Fr.] (*Mil.*) A kind of ordnance used in the 16th century, throwing a 5½ lb. ball, and of 3½ inches calibre.

Saki', *n.* (*Zoöl.*) A monkey, called also Fox-tailed Monkey, belonging to the *Cebidæ*, genus *Pithecia*. These animals usually reside in the outskirts of forests, in small societies of ten or twelve individuals. Upon the slightest provocation they display a morose and savage temper, and, like the Howlers, they utter loud cries before sunrise and after sunset.

Sakina'ra, a river of Asiatic Russia, rising in the Ural Mountains, and after a S. course of 350 m., joining the Ural River, 20 m. S.E. of Orenburg.

Sal, *n.* (*Chem.*) This word was formerly used as a prefix to signify a crystallizable compound; as, for example, *sal*-ammoniac, or chloride of ammonium; *sal*-enixum, acid sulphate of potash; *sal*-prunella, fused nitrate of potash; *sal*-acetosella, oxalate of potash; *sal*-volatile, carbonate of ammonia, or liquid ammonia; *sal*-gem, or rock-salt.

Salaam', Salam', *n.* [Ar. *salâm*, peace.] A salutation practised by the Orientals, as a mark of deference or respect;—hence, a bow; an obeisance; as, to make a *salaam*.

Sal'able, *a.* [From *sale.*] That may be sold; marketable; merchantable; in good demand; as, *salable* commodities.

Sal'ableness, *n.* Quality, or state, of being salable.

Sal'ably, *adv.* In a salable manner.

Salacious, (*-lā'shus,*) *a.* [Lat. *salax, salacio*, fond of leaping, from *salire*, to leap.] Lustful; lecherous; lascivious.

Sala'ciously, *adv.* Lustfully; with hot, carnal appetite.

Sala'ciousness, Salacity, (*-lās'i-ty,*) *n.* [Lat. *salacitas.*] Hot lust; strong propensity to indulge the sexual passions; lasciviousness.

Sal'ad, *n.* [Fr. *salade;* It. *insaláta*, from Lat. *sal*, salt.] A preparation of raw herbs, as lettuce, radish, onion, &c., generally dressed with salt, oil, vinegar, &c., or other condiments, and used as a relish to other food; as, to dress a *salad*.

(*Cookery.*) A dish, as of chicken or lobster, minced fine, and intermixed with green herbs, as lettuce, onion, &c., seasoned with mustard, oil, and other condiments; as, we supped off lobster-*salad* and champagne.

Sal'ad-bowl, (*-bōl,*) *n.* A large bowl or basin wherein salad is mixed and served.

Sal'ade, Sallet, *n.* A light kind of helmet (Fig. 2295) introduced during the 15th century, chiefly for the use of foot-soldiers.

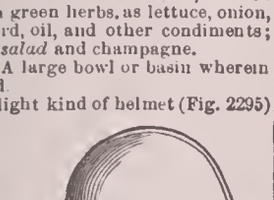


Fig. 2295. — SALADE.

Sal'adin, or **Salaheddin,** a celebrated sultan of Egypt and Syria, A. 1137, who, in the time of the Crusades, distinguished himself by his valor. He made great conquests in Syria, Arabia, Persia, and Mesopotamia; after which he defeated the Christians with great slaughter, near Tiberias, and took Guy de Lusignan, King of Jerusalem, prisoner. This was followed by the surrender of Jerusalem, where he behaved with great generosity to the Christians. In 1189 Richard Cœur-de-Lion, with his ally Philippe Auguste, King of France, laid siege to Acre, which, after a two years' struggle, was taken by them. The crusaders subsequently took Cæsarea and Jaffa, and Richard Cœur-de-Lion advanced to within a short distance of Jerusalem; but a truce was afterwards concluded between Saladin and the Christians; soon after which the Sultan died, broken down by his constant toil. D. at Damascus, 1192.

Sal'ading, *n.* Herbs or vegetables for salads.

Sala'do Bay, an inlet of the Pacific Ocean, in the dept. of Coquimbo, Chili, S. of Copiapo.

Sala'do Creek, in *Texas*, enters the San Antonio River from Bexar co.

Salahieh, (*sa'la-he-a,*) a town on the E. frontier of Egypt, 36 m. from Belbeis; *pop.* 6,000.

Salal-berry, *n.* (*Bot.*) The fruit of *Gaultheria shallon*, growing in the valley of the Oregon, abt. the size of a common grape, of a dark-purple color, and of sweet, pleasant flavor.

Sal-alem'broth, *n.* (*Chem.*) See ALEMBROTH.

Salam', *n.* Same as SALAAM, *q. v.*

Salamanca, a city of Spain, cap. of a prov. of the same name, on the Tormes, a tributary of the Douro, 92 m. S.W. of Leon, and 119 W.N.W. of Madrid. The city stands on 3 small hills, and is surrounded by walls. It has numerous squares and public buildings. The Cathedral is a majestic Gothic edifice. The University,

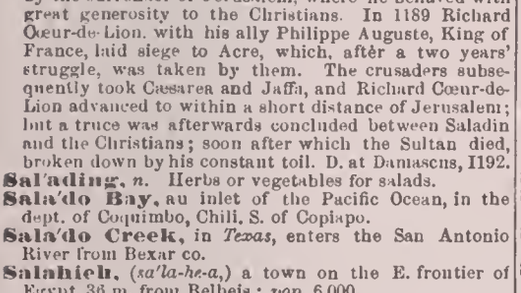


Fig. 2296. — SALAMANCA.

founded in 1239, was formerly celebrated, and the principal seat of learning in Spain. *Manuf.* Hats, woolleus, shoes, leather, earthenware, glue, starch, &c. The French under Marmont were here defeated by the Anglo-Spanish army under Wellington, in 1812. *Pop.* 15,500.

Salaman'ca, an island of the Republic of Colombia, opposite the mouth of the Magdalena River, abt. 30 m. S.W. of Santa Marta.

Salamanca, In *N. Y.*, a twp. of Cattaraugus co.

Sal'amander, *n.* [Ar. *samander*, from *samad*, perpetual, eternal.] Originally, a fabulous animal supposed by the ancients to live in the fire, and to be very poisonous.

(*Zoöl.*) See SALAMANDRINÆ.

—In England, a circular iron plate employed for culinary purposes;—also, a large poker, placed in the fire till red-hot, and then used in heating ale, &c.

Salamander safe, in the U. States, a particular kind of fire-proof iron safe.

Salaman'dridæ, *n. pl.* (*Zoöl.*) The Salamander fam., order *Urodela*, comprising tailed batrachia, divided into *Salamander proper* and *Tritons*. More than twenty species are found in the U. S., from two and a half to twelve inches long. They have no sternum, ribs rudimentary, legs four, fingers four, and toes five in most genera; and, contrary to what is seen in frogs and toads, the fore feet are developed before the hind ones. In their adult state, most *Salamanders proper* live upon the land, approaching the water only at the season in which they lay their eggs. Some are terrestrial throughout life, laying their eggs under stones and old logs in damp places. The *Tritons* have the tail compressed, and are entirely aquatic; yet, as they respire by means of lungs, they come to the surface of the water from time to time for atmospheric air. They have the most wonderful power to reproduce mutilated or lost parts. The limbs may be removed, and in less than a year they will grow again; and the new-formed limbs may in turn be amputated, and will in turn be replaced by others. Even the eye, when destroyed, is said in time to be reproduced.

Fig. 2297. SALAMANDRA MACULATA.

Salaman'drine, *a.* Having the property of resisting fire; pertaining or relating to, or resembling a salamander.

Salaman'droid, *a.* [Gr. *salamandra*, and *eidos*, form.] Resembling the salamanders.

Salamanquese, (*-kēz',*) *n., sing.* and *pl.* (*Geog.*) A native or inhabitant of Salamanca, Spain; plurally, the people of Salamanca.

—*a.* (*Geog.*) Pertaining, or relating, to Salamanca, or its inhabitants.

Sal'amis, (*anc. Geog.,*) a mountainous island of Greece, off the coast of Attica, and forming with it the Bay of Eleusis; *area*, 30 sq. m. Its modern name is *Koluri*. *Pop.* 5,000. The Persian fleet, under Xerxes, was defeated in the Bay of Salamis by the Greek fleet, commanded by Themistocles, in Dec., B.C. 480. The Persian fleet consisted of 1,207, and the Greek of 366 ships.

Sal-ammoniac, *n.* (*Chem.*) See AMMONIA (CHLORIDE OF).

Salamo'nie, in *Indiana*, a river rising in Jay co., and flowing N.W. enters the Wabash River in Wabash co.—A township of Huntington co.

Salam-stone, *n.* (*Min.*) The SAPPHIRE, *q. v.*

Salan'ga, an island of Ecuador, in the Pacific Ocean, abt. 80 m. N.W. of Guayaquil.

Salaried, (*sal'a-rid,*) *a.* Having or enjoying a salary; as, a *salaried* official.

Sal'ary, *n.* [Fr. *salaire*; Lat. *salarium*, said to be from *sal*, salt, because salt was part of the pay of the Roman soldiers.] The recompense, or consideration, stipulated to be paid to a person for services, usually a fixed sum to be paid annually or periodically; stipend; pay; wages; hire; allowance.

—*v. a.* To allow or pay a salary to a person; as, a *salaried* judge, a *salaried* clerk.

Salawatty, (*sa-la-wat'te,*) an island of the Eastern Archipelago, off the W. coast of Papua, Lat. 1° S., Lon. 130° E. *Ext.* 35 m. long, and 25 broad.

Sale, *n.* [Icel. *sal, sala;* Dan. *salg*, a selling. See SELL.] Act of selling; the exchange of a commodity for money of equivalent value, paid, or to be paid; as, a *sale* of cotton on 14 days' credit. — Power of selling; market; demand; as, there is always a ready *sale* for such goods. — Auction; public disposal of goods to the highest bidder; as, I bought that table at a *sale*. — State of being venal, or of being open to bribery; state of being to be sold; as, the *sale* of a vote to a buyer. — *Of sale, on sale, for sale*, offered to purchasers; to be bought or sold; as, he has books *for sale*.

To set to sale, to offer for sale; to make merchandise of.

(*Law*) That transaction by which the ownership of property is transferred from one person to another, in consideration of a money payment made by the buyer to the seller. If it be a commutation of goods for goods, it is more properly an *exchange*. In order to the validity of a sale, it is necessary that the parties act in good faith; for it is a maxim in law, that fraud vitiates all contracts. Neither is a sale valid if the subject matter of it is illegal or prohibited, or if an essential part of it involves an illegal act. In order to constitute a sale, the consent of each of the parties is required; and hence each must be legally qualified to consent. See BARGAIN AND SALE.

Sa'lem, a town of British India, presidency of Madras; Lat. 11° 38′ N., Lon. 78° 12′ E.

Sa'lem, in *Arkansas*, a post-village, cap. of Fulton co., abt. 140 m. N. of Little Rock.

Salem, in *Connecticut*, a post-township of New London co.

Sa'lem, in *Illinois*, a township of Carroll county.—A township of Knox county.—A city, cap. of Marion county, about 14 miles northeast of Centralia. *Pop.* (1897) 1,625.

Salem, in *Indiana*, a township of Delaware county.—A township of Pulaski county.—A village of Randolph county, about 83 miles northeast of Indianapolis.—A township of Steuben county.—A post-town, cap. of Washington county, about 36 miles northwest of New Albany. It is finely located, has some extensive manufactories, and is a place of considerable activity. *Pop.* (1897) 2,250.

Sa'lem, in *Iowa*, a post-village and township of Henry co., abt. 25 m. W. of Burlington.

Salem, in *Kentucky*, a post-village of Livingston co., abt. 200 m. W.S.W. of Frankfort.

Salem, in *Maine*, a post-township of Franklin county.

Salem, in *Massachusetts*, a city, port of entry, and one of the caps. of Essex co., on a point of land in Massachusetts Bay, formed by two inlets called N. and S. rivers, 14 m. N.E. of Boston; Lat. 42° 31′ 18″ N., Lon. 70° 53′ 53″ W. It is an important commercial and manufacturing city of New England, and though irregularly laid out, is well built, and contains many handsome residences. The harbor is commodious and well protected. The East India Marine Society, composed of men who had doubled the Cape of Good Hope, has a large museum of oriental curiosities; the Essex Institute, with a large library and scientific collections, each now form a part of the Peabody Acad. of Science, founded in 1869, with a gift of $150,000; the Salem Athenæum has also a fine library. There are also a normal and several grammar schools, cottou-mills, manufactures of chemicals, varnishes, leather, jute, shoes, machinery, &c. Salem, after Plymouth, is the oldest town of New England having been settled in 1628, 8 years after the arrival of the Pilgrim Fathers. In 1692, nineteen persons were burned at *S.* for practising witchcraft. *S.* was noted for its patriotic zeal in the Revolutionary War, taking an important part in the fitting out of privateers—it is said to the number of 60. It was incorporated as a city in 1836. It had formerly a large foreign commerce, and still has a good coasting trade. *Pop.* (1895) 34,447.

Salem, in *Mich.*, a twp. of Allegan co.—A post-vill. and twp. of Washtenaw co., abt. 30 m. W. by N. of Detroit.

Salem, in *Mississippi*, a former post-vill. of Tippah co.

Salem, in *Missouri*, a city, cap. of Dent co., about 25 m. S.S.E. of Rolla. *Pop.* (1897) 1,410.

Salem, in *New Hampshire*, a post-village and township of Rockingham county, about 35 miles S.E. by S. of Concord.

Salem, in *New Jersey*, a S.W. co., on Delaware Bay; *area*, about 340 sq. m. *Rivers.* Delaware and Maurice rivers, and Oldman's, Stow, Salem, and Alloway's creeks. *Surface*, mostly level; *soil*, in some parts very fertile. *Min.* Some iron is found. Marl is abundant. *Cap.* Salem. *Pop.* (1895) 26,084.

—A city, cap. of the above co., about 65 m. S.W. of Trenton. *Manuf.* Glass. *Pop.* (1895) 6,337.

Salem, in *New York*, a village of Chautauqua co., about 50 m. W.S.W. of Buffalo.

—A post-village and township, seml-cap. of Washington co., about 48 m. N.N.E. of Albany.

Salem, in *North Carolina*, a city of Forsyth co., about 120 m. W. by N. of Raleigh. *Manuf.* Cotton and woollen goods, paper, &c. *Pop.* (1897) 3,450.

Salem, in *Ohio*, a township of Auglaize county.—A township of Champaign county.—A city of Perry township, Columbiana county, about 167 m. N.E. of Columbus. *Manuf.* Locomotives, agricultural machines and implements, pottery, &c. *Pop.* 6,500.—A post-township of Columbiana county.—A vill. of Guernsey county, about 30 miles north-east of Zanesville.—A township of Highland county.—A township of Jefferson county.—A township of Meigs county.—A township of Monroe county.—A village of Montgomery county, about 12 miles north-west of Dayton.—A township of Muskingum county.—A township of Ottawa county.—A township of Shelby county.—A township of Tuscarawas county.—A township of Warren county.—A village and township of Washington county, about 14 miles north by east of Marietta.—A township of Wyandot county.

Salem, in *Oregon*, a city, capital of the State, and seat of justice of Marion county, on the Willamette River, about 110 miles north of San Francisco. Latitude, 44° 56′ north; longitude, 123° 1′ west. It is generally well built, contains some fine public and private edifices, several extensive manufactories, and is thriving rapidly.

Salem, in *Pennsylvania*, a township of Clarion county.—A township of Luzerne county.—A township of Mercer county.—A township of Wayne county.—A township of Westmoreland county.

Salem, in *Vermont*, a township of Orleans co.

Salem, in *Virginia*, a village of Fauquier county, about 114 miles N.N.W. of Richmond.—A post-village, cap. of Roanoke county, about 180 miles west of Richmond.

Salem, in *Wisconsin*, a post-township of Kenosha county.—A post-village of La Crosse county, abt. 12 miles N.E. of La Crosse.

Salem Centre, in *New York*, a post-village of Westchester co., abt. 112 m. S. by E. of Albany.

Salem Church, in *N. Carolina*, a post-village of Randolph co., abt. 121 m. W. of Raleigh.

Salem Church, in *Virginia*, a place some miles W. of Fredericksburg, where, May 3, 1863, the Nationals under Gen. Sedgwick attacked the Confederates under Gen. Wilcox, and were repulsed with great slaughter.

Sa'lem Creek, in *New Jersey*, enters Delaware Bay from Salem co.

Salem Cross-Roads, in *Pennsylvania*, a post-village of Westmoreland co., abt. 180 m. W. of Harrisburg.

Sale'mi, a town of Italy, in Sicily, prov. of Trapani, 20 m. E. of Marsala; *pop.* 13,860.

Sal'ep, *n.* See EULOPHIA, and ORCHIS.

Salera'tus, *n.* [Lat. *sal*, salt, and *aër*, air.] A salt intermediate in composition between a carbonate and a bicarbonate of potash, prepared from pearl-ash by exposing it to carbonic acid gas; — much used in making bread, to neutralize acetic acid, or tartaric acid, and thus render the bread light by the escape of the carbonic acid gas.

Saler'no, a city of S. Italy, capital of the province of Salerno (formerly Principato-Citeriore), on the Gulf of Salerno, 28 miles S.E. of Naples. It is irregularly built, and of a gloomy appearance. There are in front of the cathedral 28 ancient granite columns, with Corinthiau capitals of good workmanship. *Pop.* 24,241. The Gulf is separated from the Bay of Naples by Cape Campanella. It is 36 m. broad, and receives the river Sall.

Sales'man, *n.*; *pl.* SALESMEN. [From *sale* and *man*.] One who is employed in selling goods or merchandise.

Saleyer, or SALAYER ISLANDS, (*sa-lai'yer,*) in the E. Archipelago, off the S. coast of the islaud of Celebes; Lat. 6° S., Lon. 120° E. The largest is 30 m. loug, and 8 broad.

Sale'work, *n.* Work manufactured for sale;—hence, inferentially, work clumsily or carelessly performed.

Sal'ford, a borough of England, co. Lancaster, divided from Manchester by the Irwell.

Salga'do, a town of Brazil, on the Sao Francisco River, abt. Lat. 15° 20′ S.; *pop.* 5,000.

Su'liant, *a.* (*Her.*) Same as SALIENT, *q. v.*

Saliba'bo, an island in the Eastern Archipelago, separated from Tulour by a narrow strait 1 m. wide. It is 10 m. in circumference, and is well cultivated.

Sal'ic (or **Salique**) **Law,** *n.* [Lat. *Lex Salica.*] (*French Hist.*) Au ancient fundamental law of France, supposed to have been made by Pharamond or Clovis, in virtue of which daughters were excluded from the inheritance, and sons alone considered capable of succeeding to it. The term most probably is taken from the name of the ancient Franks,—*Sali*, or *Salici*, so called from *Sala*, a river of ancient Germany. The Salic law is said to have been made for the Salic lands, which were given to the Salic Franks who settled in Gaul, and held their lands upon condition of their personal service in war. It was, however, extended even to the throne; and from the earliest period of the French monarchy, no princess succeeded to the throne, except by force of some law different from the ordinary usage.

Salica'ceæ, *n. pl.* [Lat. *salix*, the willow.] (*Bot.*) The Willow family, an order of plants, alliance *Amentales*. DIAG. One-celled ovary, and numerous cottony seeds. They are trees or shrubs, chiefly natives of cold and temperate climates. Leaves simple, alternate, stipulate. Flowers unisexual, amentaceous, naked, or with a membranous or cup-like calyx. Male flowers with 1–30 distinct or monadelphous stamens; female flowers with a superior 1-celled ovary; ovules numerous, erect. Fruit 1-celled, 2-valved. Seeds numerous, covered with long silky hairs, exalbuminous; embryo erect, with an inferior radicle. Many of the species are valuable for their timber, and some for their tonic and febrifugal bark. The hair investing their seeds has been employed for stuffing cushions. There are but two genera, SALIX and POPULUS, *q. v.*

Sal'icin, *n.* (*Chem.*) A neutral bitter principle found in the bark of willows. It is procured by adding to an aqueous infusion of the bark hydrated oxide of lead, by which the tannin and coloring matters are precipitated. Salicin has been made the subject of a series of interesting and valuable researches by Piria of Turin, which have thrown considerable light on the compounds known as *glucosides*. Mixed with synaptase (a peculiar ferment), it splits up into glucose and saleginin. Heated with bichromate of potash and sulphuric acid distilled, a fragraut oily liquid comes over, which has exactly the same physical and chemical characteristics as the essential oil of Meadow-sweet.

Salicor'nia, *n.* (*Bot.*) A gen. of plants, ord. *Chenopodiaceæ*. They were formerly used in making *Carilla*, q. v.

Salicyl'ic Acid, *n.* (*Chem.*) An acid obtained by the action of fused potassa on salicin. It is recommended as an anti-ferment, an antiseptic, and a remedy for rheumatism.

Sa'lience, *n.* Condition of being salient; a leaping forward; an onsetting; — hence, quality of standing out prominently; projection; protrusion.

Sa'lient, *a.* [Lat. *saliens*, from *salio*, to leap.] Moving by leaps or bounds; beating; throbbing, as the heart; as, a *salient* animal. — Springing; darting; projecting; shooting out or up; as, a *salient* jet of water. — Hence, in a figurative sense, standing out prominently; conspicuous; obtrusive; as, a *salient* trait of character.

(*Her.*) Representing a beast in a leaping or springing attitude; as, a lion *salient*.

(*Math.* and *Fortif.*) Projecting outwardly; as, a *salient* angle;—the opposite of *reëntering*.

Salient angle. (*Fortif.*) An angle (Fig. 745) of which the vertex projects outward from the work;—it is the reverse of a *reëntering angle*.

Salient angle of a polygon. (*Geom.*) An angle which projects outwards.

Salient places of arms. (*Fortif.*) Enlarged spaces left by the rounding of the counterscarp opposite the salients. They are intended for the assembly of troops for sorties or defence.

Sa'lient Angle, (*Fortif.*) A salient angle; a projecting part.

Sa'liently, *adv.* In a salient manner.

Salif'erous, *a.* [Lat. *sal*, salt, and *ferre*, to bear; Fr. *salifére.*] Salt-bearing; as, *saliferous* rock.

Sal'ifiable, *a.* [Fr.] (*Chem.*) Susceptible of combination with an acid to form a salt.

Salifica'tion, *n.* [Fr.] Act of salifying.

Sal'ify, *v. a.* (*imp.* and *pp.* SALIFIED.) [Fr. *salifier*, from Lat. *sal*, salt, and *facio*, to make.] To form into a salt by combining an acid with a base, as with a metallic oxide, &c.

Sa'lii. (*Rom. Hist.*) See ANCILE.

Sali'na, *n.* [Lat., from *sal*, salt.] A salt marsh.—Also, a salt-works.

Sali'na, in *New York*, a post-village and township of Onondaga county, about 2 miles N. by W. of Syracuse.

Sali'nas (or SAN BUENAVENTURA) **River,** in *California*, rises in San Luis Obispo co., and flowing a general N.W. course, enters Monterey Bay from Monterey co.

Salina'tion, *n.* Act of washing with salt-water.

Sa'line, *a.* [Fr. *salin.*] Consisting of, constituting, or containing salt; as, *saline* particles. — Partaking of the characteristic qualities of salt; as, a *saline* flavor.

—*n.* [Fr.] A salt-spring, or a place where salt-water is deposited in the earth.

Sali'ne, or **Sali'ni.** (Anc. *Didyme.*) One of the Lipari islands in the Mediterranean Sea. *Ext.* 5 m. long, and 5 broad.

Sa'line, in *Arkansas*, a river formed by the union of several small branches in Saline co., and flowing a general S.E. and S. course, joins the Washita River between Ashley and Bradley cos. *Length*, abt. 200 m.

Saline, in *Arkansas*, a central co.; *area*, about 622 sq. m.; *River.* Saline river. *Surface*, diversified; *soil*, fertile and well adapted to cotton, corn, and grass. *Min.* Marble, soapstone, and quartz. *Cap.* Benton. *Pop.* (1897) 12,300.

—A township of Hempstead co.

—A township of Sevier co.

Saline, in *Illinois*, a creek flowing S.E. into the Ohio river, between Gallatin and Hardin cos.

—A S. E. co.; *area*, about 380 sq. m. *River.* Saline creek. *Surface*, somewhat diversified; *soil*, fertile. *Min.* Salt. *Cap.* Harrisburg. *Pop.* (1897) 20,100.

Saline, in *Michigan*, a post-village and township of Washtenaw co., about 40 m. W. by S. of Detroit.

Saline, in *Missouri*, a N.W. central co.; *area*, about 760 sq. m. *Rivers.* Missouri river, and Black and Salt Forks of La Mine river. *Surface*, mostly undulating; *soil*, fertile. *Min.* Stone-coal in abundance, besides salt, lead, limestone, and sandstone. *Cap.* Marshall. *Pop.* (1897) 34,500.

—A post-village of Mercer co., about 90 miles N. E. of St. Joseph. A village and township of Ralls co., abt. 17 miles W. S. W. of Hannibal.—A township of St. Genevieve co.

Saline, in *Ohio*, a township of Jefferson county.

Saline Bayou, in *Louisiana*, rises in Catahoula Lake, and flowing S.E., enters Red River from Catahoula parish.—Another rises in Claiborne parish, and flowing S., enters Red River from Winn parish.

Saline'ness, *n.* State or quality of being saline.

Saline'ville, in *Ohio*, a post-village of Columbiana co., abt. 140 m. N.E. of Columbus.

Saliniferous, *a.* Producing, or yielding, salt; as, *saliniferous* earth.

Salini'form, *a.* Possessing the form of salt.

Sali'no, a river of Italy, which, after an E. course of 32 m., falls into the Adriatic Sea, 5 m. N. of Pescara.

Salinom'eter, *n.* [Lat. *salinus*, and Gr. *metron*, measure.] A salt-gauge, or instrument for measuring the quantity of salt that may be in solution in the water of a steam boiler, which is indicated by the specific gravity of the water. Common sea-water contains 1·33 of salt, and the water in the boiler should never be suffered to attain a degree of saturation above that represented by 2·33 of salt, or *two salt waters*, as it is called

Sali'no-terrene', *a.* [Lat. *salinus*, saltish, *terrenus*, earthy.] Pertaining or having reference to, or consisting of, salt and earth.

Salin'ous, *a.* Saline. (R.)

Salins, (*sah'lan,*) a fortified town of France, dept. of Jura, 26 m. N. E. of Lons-le-Saulnier. *P.* abt. 7,500.

Salisburia adiantifolia. See GINGKO.

Salisbury, or **New Sarum,** (*salz'bĕr-e,*) a city of England, cap. of the co. of Wilts, on the Avon, 21 m. W. of Winchester, and 80 m. W.S.W. of London.

Salis'bury, an island of British N. America, in Hudson Strait; Lat. 63° 27′ N., Lon. 76° 40′ W.

Salisbury, in *Connecticut*, a post-village and township of Litchfield co., abt. 54 m. N.W. of Hartford. Iron ore of a superior quality is found in this township, and several extensive manufactories have been established, chiefly of machinery, cannon, edge-tools, fine cutlery, &c.

Salisbury, in *Illinois*, a post-village of Sangamon co., abt. 9 m. N.W. of Springfield.—A township of Coles co.

Salisbury, in *Indiana*, a village of Harrison co., abt. 8 m. N. by E. of Corydon.

Salisbury, in *Maryland*, a post-village, cap. of Wicomico co., abt. 95 m. S.E. of Annapolis.

Salisbury, in *Massachusetts*, a post-village and twp. of Essex co., abt. 38 m. N. by E. of Boston.

Salisbury, in *New Hampshire*, a post-township of Merrimack co.

Salisbury, in *New York*, a post-village and township of Herkimer co., abt. 70 m. N.W. of Albany. The township also contains Salisbury Centre, a post-village abt. 25 m. E. by N. of Utica.

Salisbury, in *North Carolina*, a city, cap. of Rowan co., about 118 m. W. of Raleigh. *Pop.* (1897) 4,750.

Salis'bury, in *Ohio*, a twp. of Meigs co.; *pop.* abt. 11,000.

Salisbury, in *Pennsylvania*, a post-village and township of Lancaster county, about 51 m. E. S. E. of Harrisburg.—A township of Lehigh co.—A village of Somerset county, abt. 20 m. W. N. W of Cumberland, Maryland.

Salisbury, in *Vermont*, a post-village and twp. of Addison co., abt. 37 m. S.W. of Montpelier.

Salisbury Mills, in *New York*, a post-village of Orange co., abt. 9 m. S.W. of Newburgh.

Sali'va, *n.* [Lat., from *sal*, salt.] (*Physiol.*) That fluid by which the mouth and tongue are constantly moistened in their natural state, and which is supplied by glands which form it, called the *salivary glands*. There are three pairs of salivary glands — the *parotid*, the *sub-maxillary*, and the *sub-lingual*. The saliva itself has neither color nor smell, and is tasteless; for although it contains a little salt, the nerves of the tongue

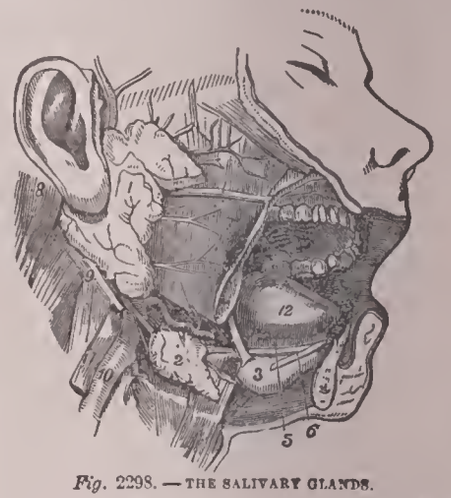


Fig. 2298. — THE SALIVARY GLANDS.

1, The parotid gland; 2, the sub-maxillary gland; 3, the sublingual gland; 4, Steno's duct; 5, Wharton's duct; 6, Bartholin's duct; 7, masseter muscle; 8, mastoid process; 9, digastric muscle; 10, internal jugular vein; 11, external carotid artery; 12, the tongue.

are so accustomed to it, that it is imperceptible. Its specific gravity is somewhat greater than that of water, and it is supposed that about twelve pounds are secreted in twelve hours. From the mechanical pressure of the muscles upon the salivary glands, the secretion is much augmented during speaking and mastication. In hungry persons, too, it is largely secreted at the sight of agreeable food. Its uses are to augment the taste of food by the evolution of sapid matter; to mix with, dissolve, and resolve into its principles the food during mastication, so as to change it into a pultaceous mass fit to be swallowed; to moderate thirst, by moistening the cavity of the mouth and fauces. In the healthy state, it consists of at least four-fifths of water, comprising, besides, mucilage, albumen, muriates of soda, phosphate of soda, phosphate of lime, and phosphate of ammonia.

Sal'ival, *a.* Relating to saliva; sallvary.

Sal'ivant, *a.* Causing salivation.

—*n.* That which produces salivation.

Sal'ivary, *a.* Pertaining, or having reference, to saliva; secreting or excreting saliva; salival; as, the *salivary* glands. See SALIVA.

Sal'ivate, *v. a.* [From Lat. *salivo*, *salivatum* — *saliva.*] (*Med.*) To produce an unusual secretion and discharge of saliva in a person, generally by means of mercury.

Salivation, (*-vā'shun,*) *n.* [Fr.; Lat. *salivatio.*] (*Med.*) Act or process of producing an increased secretion of saliva; excessive flow or secretion of saliva, as that produced by mercury; ptyalism.

Sali'vous, *a.* [Fr. *salivaux.*] Belonging to saliva; partaking of the nature of saliva.

Sal'ix, *n.* [Lat.] (*Bot.*) The Willow, a gen. of plants, order *Salicaceæ*. The species found in the United States are numerous, and commonly known as *willows*, *osiers*, and *sallows*. Their timber, though wanting in strength and durability, is applied to many useful purposes; and the wood of the flexible branches and twigs is largely employed for basket-work, hoops, &c. The Sage Willow, *S. tristis*, a small, downy shrub, with a profusion of aments in spring, appearing before the leaves, is the most common species in the Northern and Middle States. —A peculiar crystalline alkaloid, resembling quinine in its properties, called *salicine*, has been obtained from the bark, leaves, or flowers of about twenty species of this genus.

Sallee, or **Sla,** (*sal-lē',*) a seaport-town on the W. coast of Morocco, at the mouth of the Bu-Regreb, 105 m. from Fez; Lat. 34° 3′ N., Lon. 6° 40′ W. It was formerly a stronghold of the Mediterranean pirates. It has now fallen to decay. *Manuf.* Carpets. *Pop.* 12,000.

Sal'lenders, Sel'landers, Sel'lenders, *n. pl.* (*Far.*) An eruption on the hind leg of a horse.

Sal'low, *n.* (*Bot.*) The popular name of a number of British species of Willow, the most common of which is the Gray Sallow, *Salix cinera*.

—*a.* (*comp.* SALLOWER; *superl.* SALLOWEST.) [A. S. *salowig*, *saluwi*, from *seal*, a willow; Lat. *salix.*] Having a saffrony or yellowish color; of a pale, sickly hue, tinged with a dark-yellow; as, a *sallow* complexion.

Sal'lowness, *n.* State of being sallow; pallor, tinged with a darkish yellow; as, *sallowness* of the skin.

Sal'loy-thorn, *n.* (*Bot.*) The common name of the genus *Hippophaë*, order *Elæagnaceæ*, consisting of large Asiatic shrubs or trees, with gray, silky foliage, and active leaves. The only European species is *H. rhamnoides*, the Sea Buck-thorn, a low tree, native of the sandy sea-coasts of W. Europe.

Sal'lust, CAIUS CRISPUS, a Roman historian, distinguished equally for his talents and profligacy, was B. at Amiternum, B. C. 86. He was expunged from the list of senators, in consequence of his extravagance and shameless debaucheries; but being restored by Julius Cæsar, and made governor of Numidia, he there amassed an enormous fortune by acts of rapine. He died B. C. 35. His *Histories of the Jugurthine War*, and the *Conspiracy of Catiline*, bear ample testimony to his genius; but the rigid morality displayed in his writings forms a strange contrast to the vices of his life.

Sal'ly, *n.* [Fr. *saillie*, from Lat. *salio.*] A leaping or springing forth. — Specifically, a sudden issue or rushing out of troops from a beleaguered place to attack the besiegers; a sortie; as, the garrison made a successful *sally.* — Excursion from the ordinary track; range; deviation; digression; as, to make *sallies* into a country district. — A spring or darting of intellect, fancy, or imagination; flight of liveliness or humor; sprightly exertion of the faculties; as, *sallies* of wit — Act of levity or extravagance; unseemly display of vivacity; an act of wild frolic or obstreperous gayety; an escapade; an overleaping of the bounds of propriety; as, *sallies* of hot-blooded youth.

—*v. n.* (*imp.* and *pp.* SALLIED.) [Fr. *saillir.*] To leap, spring, bound, or rush out or forth; to issue suddenly, as a body of troops from a fortified place to attack besiegers: to make a sudden irruption or sortie.

Sal'ly-lunn, *n.* [Called after the inventor.] In England, a sort of sweet tea-cake, toasted and well-buttered before eaten.

Sal'ly-port, *n.* (*Fortif.*) An opening cut in the glacis of a fortified work, through which a passage leads by a ramp from the terreplein of the covered way to the exterior.

(*Naval.*) A landing-place in a harbor at which the boats of men-of-war (but no other boats) are allowed to land. It is also the name for an opening in the quarter of a fire-ship by which the crew escape after setting her on fire.

Salmagun'di, *n.* [Fr. *salmigondis*, from Lat. *salmaga*, pickles.] (*Cookery.*) A mixture of chopped meat and pickled herrings, seasoned with oil, vinegar, pepper, and onions. (*Johnson.*) — Hence, a hodge-podge of various ingredients; an olio; a medley; an olla podrida; a miscellany; a pot-pourri; — used in a literary sense; as, Washington Irving's *Salmagundi.*

Salmi, (*săl'mē,*) *n.* [Fr.] (*Cookery.*) A ragout of roasted game stewed with wine, forcemeat, and spices, as a provocative of the appetite: as, a *salmi* of pheasants.

Sal'mo, *n.* [Lat., from *salio*, to leap or spring, the species being remarkable for its power of leaping.] (*Zoöt.*) The principal genus of the *Salmonidæ*. The Salmon, *S. salar* of the Arctic seas, whence it visits the rivers of both continents, is one of the largest of the genus, and is celebrated for its delicious flesh. It is from 24 to 36 inches long, and attains a weight of 30 pounds or more. In N. America it frequents the rivers of Labrador, Canada, Nova Scotia, New England, and those of N. York communicating with the St. Lawrence, ascending even to Lake Ontario. The *S.*-fishing in the Gulf of St. Lawrence is estimated as worth $500,000 a year, and by steamers the fish are delivered in Boston, N. York, and Philadelphia in the best condition. The Great Trout of the lakes, *S. amethystus*, of the Northern lakes of North America, is from 24 to 60 inches long, dark-gray, with numerous lighter spots on the back and sides; under parts light ashy-gray or cream-color. It sometimes attains the weight of 120 pounds, and is often called Mackinaw Trout. It is also known as the Longe. The Speckled Trout, or Brook Trout, *S. fontinalis* (Mitch.), of the clear streams of Northern North America, is from 6 to 20 inches long, horn-color above with irregular darker marking, sides bluish mixed with silvery white, and ornamented with yellow spots and vermilion dots. There are many varieties of trout, and probably some of the so-called varieties are distinct species. All are highly prized on account of the delicacy of their flesh.

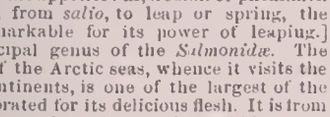


Fig. 2299. — SALMON, (*Salmo salar.*)

Salmon, (*săm'un,*) *n.* (*Zoöt.*) See SALMO.

Salmon'idæ, *n. pl.* (*Zoöt.*) The Salmon family comprising abdominal malacopterygious fishes, which have the body more or less scaly, a first dorsal with soft rays, followed by a second small one, which is fatty, and unsupported by rays. They inhabit both salt and fresh water, are very voracious, and highly prized for food. See SALMO.

Salm'on Creek, in *New York*, enters Cayuga Lake at Lindlowville, Cayuga co. — Another, enters Braddock's Bay of Lake Ontario, from Monroe co. — A village of Wayne co., abt. 30 m. E. by N. of Rochester.

Salm'on Falls River, rises in Carroll co., *New Hampshire*, and flowing a general S.E. course along the boundary between that State and Maine, joins the Cocheco River to form the Piscataqua River.

Salm'on-peel, *n.* A young salmon; a samlet.

Salmon-pipe, *n.* A contrivance for catching salmon.

Salmon River, in *Connecticut*, enters the Connecticut River in Middlesex co.

Salmon River, in *New York*, rises in Franklin co., and enters the St. Lawrence River abt. 10 m. N.E. of St. Regis.

Sa'lo, a town of Italy, prov. of Brescia, 14 m. from Brescia. *Manuf.* Linen, yarn, and thread. *Pop.* 6,000.

Sal'ogen, *n.* (*Chem.*) The electro-negative component of haloid salts; salt-radical.

Salo'me, (*Script.,*) the mother of James the Elder and John the Evangelist, one of those holy women of Galilee who attended our Saviour in his journeys and ministered to him; *Matt.* xxvii. 56. Some infer, from comparing *Matt.* and *John* xix. 25, that she was a sister of Mary the mother of Jesus.

Salon, (*sah-lông',*) *n.* [Fr., saloon.] A state apartment; a room for the reception of visitors;—hence, plurally, assemblies of the fashionable world; circles of select society, the élite, &c.; as, her *salons* were crowded with notabilities.

Salon, (*sa'lawng,*) a town of France, dept. of Bouches-du-Rhone, 29 m. N.N.W. of Marseilles. *Manuf.* Silk plush, hats, and soap. *Pop.* 6,600.

Salo'na, a town of European Turkey, at the foot of Mount Parnassus. It contains many interesting ruins. *Pop.* 6,000.

Salona, in *Pennsylvania*, a post-village of Clinton co., abt. 104 m. N.W. of Harrisburg.

Salonica, (*sa-lon-ek'a,*) a city and seaport of European Turkey, in Roumania, on the Bay of Salonica, 185 m. N.W. of Athens; Lat. 40° 30′ 47″ N., Lon. 22° 57′ 13″ E. It is built on the acclivity of a steep hill, and is 5 m. in circumference. It is commanded by a large citadel called the "Seven Towers," and contains numerous public buildings and anc. remains. *Manuf.* Silk; besides, a large trade in maize, wheat, barley, tobacco, wool, sponges, timber, wine, &c. *Pop.* 70,000.

—The GULF OF SALONICA, is 70 m. long, and 30 m. broad at its entrance.

Saloon', *n.* [Fr. *salon;* It. *salone*, augmentative of *sala*, a hall.] (*Arch.*) A large state apartment; a spacious and lofty hall;—specifically, a spacious and elegant apartment for the reception of company, or the exhibition of works of art; also, a large public room or parlor; also, again, a refreshment room in a theatre.

—A concert or dancing room where liquors are sold;—hence, in American parlance, a public house; a tavern.

(*Naut.*) The main cabin of a steamer or passenger-ship.

Sal'op, or **Shrop'shire,** an inland co. of England, having N. the co. of Denbigh, and a portion of Flint and Cheshire, E. Stafford, S. Worcester, Hereford, and Radnor, and W. Montgomery; *area*, 1,300 sq. m. The surface is generally diversified, but mountainous in the S., and the soil fertile. *Rivers.* Severn, Teme, Shelbrook, Elf Brook, Weaver, Clun, Ormie, and Cowe. *Prod.* The usual cerealia, with hemp, flax, hops, &c. Numerous cattle and sheep are also raised. *Min.* Iron, coal, lead, salt, limestone, sandstone, &c. *Manuf.* Flannels, woollen, cotton, and linen goods, gloves, buttons, hardware, paper, porcelain, china, tobacco-pipes, iron-ware, tar, &c. *Cap.* Shrewsbury.

Sal'safy, Sal'sify, *n.* (*Bot.*) See TRAGOPOGON.

Salsamenta'rious, *a.* [From Lat. *salsamentum*, brine.] Salted; pertaining to, consisting of, or partaking of the quality of, salt.

Sals'es, *n. pl.* Mud-eruptions, being vents of vapor and heat, where there is no true volcano.

Sal'sette, an island on the W. coast of Hindostan, prov. of Aurungabad, N. of Bombay Island, with which it is connected by a narrow causeway. *Ext.* 18 m. long, with an average breadth of 13 m. *Pop.* 60,000.

Salsify, *n.* (*Bot.*) See TRAGOPOGON.

Salsil'la, *n.* (*Bot.*) A twining, tuberculous-rooted plant, also called Oyster-plant, *Alstræmeria salsilla*, ord. *Amaryllidaceæ*, cultivated in the W. Indies for its roots, which are used as the tubers of the potato.

Sal'so-acid, (*-ăs'id,*) *a.* Possessing a combined taste or flavor of salt and acid.

Sal-so'da, *n.* The commercial term for impure carbonate of soda.

Sal'sola, *n.* [Lat. *sal*, salt, and *salus*, alone, from its saline qualities.] (*Bot.*) A genus of plants, order *Chenopodiaceæ*. The species inhabit salt-marshes and contain much soda. See BARILLA.

Salsolaceous, (*-lā'shus,*) *a.* (*Bot.*) Pertaining, or having reference, to the family *Salsola.*

Salsuginous, (*-sū'ji-nus,*) *a.* [Fr. *salsugineux*. from Lat. *salsugo*, saltness.] Saltish; somewhat salt; salty (R.)

Salt, *n.* [A. S. *salt, sealt;* Ger. *salz;* Fr. *sal.*] A substance used for seasoning, being the chloride of sodium, and generally known as *common salt.* It is obtained by evaporation from the waters of the sea, or saline lakes or springs, and from the earth in a crystallized state, or in the form of *rock-salt*, q. v.

—Hence, savor; taste; relish; vapor; smack; seasoning; as, "we have some *salt* of our youth in us." — *Shaks.*

—Hence, also, pungency; piquancy; wit; epigrammatic point; poignancy; as, Attic *salt.* — A vessel to hold salt at table; a salt-cellar; as, a set of silver *salts.* — A veteran sailor; a weather-beaten tar; as, an old *salt.*

(*Chem.*) A salt may be defined as a compound containing either a metallic oxide or alkaloid in combination with an acid or a metal, or pseudo-metallic grouping in combination with a halogen. The advocates of Gerhardt's theory reverse his well-known definition of an acid,—namely, "a salt whose basis is hydrogen,"—and describe a salt as any metallic compound that is obtainable from an acid by the substitution of a metal or pseudo-metallic grouping for hydrogen. When first Lavoisier proposed his admirable scheme of chemistry, it was supposed that an acid could not exist without containing oxygen. As the science advanced, Sir Humphry Davy discovered the true composition of hydrochloric acid, and found that there were acids whose acidifying principle was hydrogen, which, when entering into combination with metallic oxides, gave up their hydrogen to the oxygen to form water. Taking the union of hydrochloric acid and soda as an example, it was found that the chlorine united directly with the sodium, the water formed at the time being readily driven off by heat. To meet this difficulty, salts were divided into two classes,—*oxy-salts*, formed by the union of a base and an acid, and *haloid salts*, formed by the union of a metallic and a halogen. Sir Humphry Davy advanced a theory, however, which is now almost universally received as the correct one. He assumed that when acids were rendered anhydrous they lost their acid properties, an assumption provable by direct experiment. Sulphuric acid he looked on not as SO_3, the anhydrous acid, but as H_2OSO_3, or rather H_2SO_4. This at once brought the two classes of salts into harmony, the grouping SO_4 being equivalent to the halogen in HCl, HI, HBr, &c. A few examples of salts and acids will render this more intelligible:

Hydrochloric acid,	H.Cl.	.....Potash salt,	K.Cl.
Hydrochloric acid,	H.Br.	..... "	K.Br.
Sulphuric acid,	H_2SO_4	..... "	K_2SO_4.
Nitric acid,	HNO_3	..... "	KNO_3.
Sulphurous acid,	H_2SO_3	..... "	K_2SO_3.

This theory is accepted in its entirety by the advocates of the new school. Salts being looked on as the union of an acid radicle with a metal, the name in a few cases has been necessarily altered. Thus we now constantly meet with carbonate of *potassium*, nitrate of *sodium*, sulphate of *ammonium*, &c., in chemical publications. Salts are generally divided into three classes: — *Basic salts*, in which the amount of base predominates over the acid; *neutral salts*, when these are united equivalent for equivalent in protosalts, or one of base to three of acid in sesquisalts; and *acid salts*, where the acid is in excess. These terms must be taken in their chemical sense, and not as meaning the effect that certain salts have on litmus or turmeric paper. Thus, carbonate of potash, which is chemically a neutral salt, reddens turmeric paper, and sulphate of alumina, also neutral, reddens litmus. Numerous examples of each of these classes will be found throughout this work. *Double salts* are those whose acid apparently combines with two bases to form a crystalline compound, but the real union appears to take place between the two salts; thus, we have the double chloride of platinum and potassium, $KClPtCl_2$; the double sulphate of potash and alumina, or ordinary alum, $K_2SO_4Al_2SO_4$; the double sulphate of potash and magnesia, $K_2SO_4MgSO_4$.

—*pl.* An Eng. provincialism for marshes flooded by the tide.

Above the salt, on the dais, or at the upper end of the table; hence, in a position of honor; — derived from the ancient custom in the banqueting-halls of people of rank, of placing a large salt-cellar in the centre of a long table, the places above which were assigned to guests of distinction; while the places below were reserved for retainers, inferior guests, &c.

Below the salt, at the lower end of the table; — hence, in an inferior or mean position.

—*a.* (*comp.* SALTER; *superl.* SALTEST.) Having the taste of salt; impregnated with salt; abounding with salt, or yielding it: prepared with, or tasting of, salt; as, *salt* water, *salt* provisions — Overflowed with salt water; as, a *salt* marsh. — Growing on salt marshes or meadows, and hence, having the flavor of salt; as, *salt* grass. — Poignant; bitter; sharp; acrid; as, "a *salt* rheum." (*Shaks.*) — Salacious; lecherous; libidinous; as, a *salt* jest a *salt* story, a *salt* imagination.

—*v. a.* To sprinkle, impregnate, or season with salt; as, to *salt* meat or fish. — To stuff with salt between the timber and planks, for the preservation of the wood; as, to *salt* a ship.

—*v. n.* To throw off salt, as a saline solution; as, the brine *salts* but slowly.

Sal'ta, a city of the Argentine Republic, cap. of prov. of same name, abt. 180 m. N. of Tucuman; Lat. 24° 15′ S., Lon. 64° 50′ W. It is well built, and contains some handsome religious and other edifices. *Pop.* 10,000.

Sal'tant, *a.* [Lat. *saltans*, from *salire*, to leap.] Leaping; dancing; skipping; jumping.

(*Her.*) In a leaping attitude; bounding forward; as, a squirrel *saltant.*

Saltarel'lo, *n.* [It.] (*Mus.*) A dance among the Neapolitans.

Sal'tate, *v. a.* To leap; to dance; to bound. (R.)

Saltation, (*-tā'shun,*) *n.* [Fr., from Lat. *saltatio*, from *saltare*, to dance.] Act of dancing, leaping, or jumping; as, to practise *saltations.* — Beating; throbbing; palpitation; as, the *saltation* of the great artery.

Saltato'rial, *a.* Belonging, or having reference, to leaping; as, *saltatorial* exercises or exploits. — Possessing the power of leaping; as, *saltatorial* animals.

Sal'tatory, *a.* Leaping or dancing, or having the power of leaping or dancing; employed in leaping or dancing; as, *saltatory* motions, *saltatory* performances.

Salt'-cake, *n.* Sulphate of soda, in its prepared form, for the use of glass-blowers and soap-manufacturers.

Salt'-cat, *n.* A lump of salt used as a lure for pigeons.

Salt'-cellar, *n.* A small vessel used at table for holding salt: a salt.

Saltcoats, (*solt'kotes,*) a seaport-town of Scotland, co of Ayr, 24 m. S.W. of Glasgow. It is a great resort for sea-bathing. *Pop.* 4,800.

Salt Creek, in *Illinois*, enters the Sangamon River between Menard and Mason cos

Salt Creek, in *Indiana*, enters the East Fork of White River from Lawrence county.—A township of Decatur county.—A township of Franklin county.—A township of Jackson county.—A township of Monroe county.

Salt Creek, in *Iowa*, enters the Iowa River from Tama co. — A village and towushlp of Davie co., abt. 75 m. S.W. by S. of Iowa City

Salt Creek, in *Michigan*, enters Maple River from Gratlot co.

Salt Creek, in *Ohio*, enters the Sciota River from Ross co. — Another enters the Muskingum River from Mnekingum co.—A township of Hocking co.—A post-township of Holmes co.—A township of Muskingum co. —A townehip of Pickaway co.—A township of Wayne co.

Salt Creek, in *Texas*, a p. o. of Montague county.—In *Virginia*, a p. o. of Amherst county.

Salt'er, *n.* One who salts, or applies salt; as, a *salter* of proviеions. — Oue who sells salt; a dealer in ealt; a dry-salter; also, a maker of salt.

Salt'ern, *n.* A place where ealt is manufactured; a salt-work.

Salt'-fish, *n.* A fish preserved or cured with salt. — A fish taken in ealt water; — in contradistinction from *fresh-water fish*.

Salt'-foot, *n.* A large salt-cellar, formerly used at the tables of persons of rank to mark the line of demarcation between the snperior and inferior guests. See SALT.

Salt Fork, in *Missouri*, an affluent of the Black River, which it joins in Saline co.

Salt'-gnage, (*-gāj,*) *n.* An instrument ueed to guage or test the strength of brine or salt-water.

Salt'-green. *n.* Sea-greeu.

Saltier, Saltire, (*săl'teer,*) *n.* (*Her.*) A bearing in form of a St. Andrew's cross, formed by two bends — dexter and einister — crossing each other.

Sal'tier-wise, Sal'tire-wise, *a.* (*Her.*) In the form of a saltier; — thns, charges having length (as swords, bâtone, &c.) placed in the directiou of the saltire, are said to be borne *saltier-wise*.

Sal'tigrade, *a.* [Fr.; from Lat. *saltus*, a leap, and *gradi*, to go.] (*Zoöl.*) Having feet or legs adapted to leaping, as certain animale.

—*n.* (*Zöol.*) One of a tribe of spiders which selze their prey by leaping upon it from a distance.

Saltil'lo, a town of Mexico, on the Tigre River, abt. 110 m. S. of Coahnila; *pop.* 7,000. See BUENA VISTA.

Saltillo, in *Indiana*, a village of Jasper co., abt. 10 m. N.E. of Rensselaer.

Saltillo, in *Tennessee*, a post-village of Hardin co., abt. 12 m. N. of Savannah.

Saltil'loville, or SALTILLO, In *Indiana*, a post-village of Washington co., abt. 47 m. N.W. of New Albany.

Salt'ing, *n.* Act of eprinkliug, impregnating, or seasoning with salt.

—A salt-marsh.

Salt'ish, *a.* Somewhat salt; seasoned or impregnated with a moderate quantity of salt.

Salt'ishly, *adv.* With a moderate degree of saltness.

Salt'ishness, *n.* A moderate degree of saltness.

Salt'-junk, *n.* Hard salt beef for use at sea.

Salt Key, a sandy and rocky bank, abt. 90 m. S. by E. of Florida, between Cuba aud the Grand Bahama Bank. *Length*, abt. 62 m.; greatest breadth 36 m. Its W. border consists of a chain of barren rocks called *Double-Headed Shot Key*, of which the extreme N.W. one has a lighthouse, exhibiting a fixed light 100 feet above the sea; Lat. 23° 26′ 24″ N., Lon. 80° 27′ 35″ W.

Salt Lake, in *Utah*. See GREAT SALT LAKE.—A N. co.; *area*, about 784 sq. m. *River*. Jordan river. *Surface*, diversified, and in some parts mountainous; *soil*, generally very fertile, producing wheat, corn, oats, potatoes, and hay in abundance. *Cap.* Salt Lake City. *Pop.* (1895) 68,182.—A city, cap. of Salt Lake co., and seat of the State government, ou the Jordan river, about 22 m. S. E. of Great Salt Lake. The city is regularly laid out, and coutains some handsome edifices, among which is a magnificent temple which was 40 years in building. *S. L. City* was founded July 24, 1847, by Brigham Young and his company of Mormons, numbering 143. *Pop.* (1895) 66,400.

Salt'less, *a.* Lacking salt; — hence, pointless; insipid; as, a *saltless* joke.

Salt'-lick, *n.* A saline spring, resorted to by buffaloes, deer, &c. See LICK.

Salt Lick, in *Pennsylvania*, a township of Fayette co.

Salt Lick, in *Ohio*, a township of Perry county.—*n.* See LICK.

Salt'ly, *adv.* With a smack of salt; in a salt manner.

Salt'-marsh, *n.* Meadow or grass-land subject to the overflow of the tides.

Salt'-mine, *n.* A mine where rock-salt is obtained.

Salt'ness, *n.* Quality of being salt or impregnated with salt; as, the *saltness* of brine. — Taste or flavor of ealt; hence, raciness; as, the *saltness* of dried cod, the *saltness* of au anecdote, &c.

Salt'-pan, Salt'-pit, *n.* A pan, basin, or pit where salt is obtained or made.

Saltpetre, (*-pē'tr,*) *n.* [From *salt*, and Gr. *petra*, a rock, a stone.] (*Chem.*) See POTASH (NITRATE OF).

Saltpe'trous, *a.* Pertaiuing, or relating, to saltpetre; impregnated with, or partaking of the qualities of, saltpetre.

Salt'-raker, *n.* A collector of salt in natural salt ponds, or inclosures from the sea.

Salt'-rheum, (*-rōōm,*) *n.* (*Med.*) A name somewhat indefinitely applied in the U. S. to various cutaneous affections of the eruptive and herpetic forms.

Salt River, *n.* An imaginary river up which defeated politicians, &c., are supposed to be sent to oblivion. The phrase *To run up Salt River* has its origin in the fact that there ie a small stream of that name in Kentucky, the passage of which is made difficult and laborious as well by its tortuous course as by the abundance of shallows and bars. The real application of the phrase is to the unhappy wight who has the task of propelling the boat up the stream; but in political or slang usage it is to thoee who are *rowed up*.

Salt River, In *Kentucky*, rises in Shelby co., and flowing S.W., W., and N.W., enters the Ohio River between Hardin aud Jefferson cos.

Salt River, in *Missouri*, is formed in Monroe co., by the union of several brauches, and flowing an irregular E.S.E. course, enters into the Mississippi River from Pike co. — A village of Audrain co., abt. 40 m. N. of Jefferson City. — A township of Knox co.

— A township of Randolph co.

Salt Rock, in *Ohio*, a township of Marion county.

Salt Spring, in *Missouri*, a township of Randolph co.

Salt Sulphur Springs, in *W. Virginia*, a post-village of Monroe co., abt. 230 m. W. of Richmond, Va.

Salt'ville, in *Virginia*, a post-village of Smyth co., about 20 m. N. E. of Abingdon.

Salt'-water, *n.* Sea-water; water impregnated with salt In solntiou.

Salt'y, *a.* Saltish; moderately salt.

Saltz'burg, or **Salts'burg,** in *Pennsylvania*, a post-borough of Indiana co., 32 m. E. of Pittsburg.

Salu'bria, in *New York*, a village of Chemung co., abt. 20 m. N. of Elmira.

Salu'brious, *a.* [Lat. *saluber, salubris*, from *salus*, a sound condition.] Favorable to health; promoting health; wholeeome; salutary; healthful; as, a *salubrious* climate.

Salu'briously, *adv.* In a salnbrious manner; eo as to promote health.

Salu'briousness, Salu'brity, *n.* [Fr. *salubrité*; Lat. *salubritas*.] Quality of being salubrious; wholesomeness; healthfulness; favorableness to the preservation of health; as, the *salubrity* of country air.

Salu'da, in *Indiana*, a post-township of Jeffersou county.

Saluda, in *S. Carolina*, a river rising among the Blue Ridge Mountains, between Pickens aud Greeuville dists., and flowing a geueral S.S.E. course, joins Broad River at Columbia; *length*, abt. 200 m. — A village of Newberry dist., abt. 55 m. W. by N. of Columbia.

Salu'ria, in *Texas*, a village and port of entry of Calhoun co., on Matagorda Islaud, abt. 125 m. S.W. of Galveston.

Sal'utarily, *adv.* In a salutary manner.

Sal'utariness, *n.* Wholesomeness; quality of being salutary.— Quality of conducing to good or prosperity; as, *sulutarin*ss of counsel.

Salu'tary, *a.* [Fr. *salutaire*; Lat. *salutaris*, from *sălus*, a whole condition.] Healthful; wholesome; salubrious; promoting health; as, to take a *salutary* walk. — Promotive of public good or safety; contributing to some beneficial purpose; useful; advantageous; profitable; as, to adopt *salutary* measures, to set a *salutary* example.

Saluta'tion, *n.* [Lat. *salutatio*, from *salus*, safety.] The act or ceremony of saluting or paying respect or reverence to any one. Among the Romaus, *salutatio* wae the daily homage paid by clients and dependents to their superiors. The women, too, had their crowds of saluters attending them every morniug. In the reception of those who came to pay their respects, the better sort were honored with a kiee, while the poorer had a small

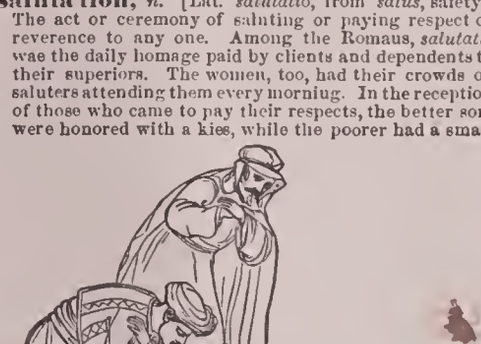


Fig. 2300. — ORIENTAL SALUTATIONS.

entertainment set before them, and were even feasted by those who wished to be thought very liberal. It is not a little interesting to observe the different modes of ealutation that prevail in different countries. In most civilized countriee, bowing, uncovering the head, pressing the hand, embracing, and kissing, are the ueual modes in which good-will, esteem, and love, are exprcsed; but, not unfrequently what is regarded as an act of civility in one country, would be out of place, or even cousidered as rude, in another. In some parte of Germany, it ie considered an act of politeness to kiss the hands of ladies; in Italy, this ls a familiarity only permitted to nearest relatives. In the East, the salutations are generally of a very slavish character; as the throwing oneself on the ground before persons of distinction, and repeatedly kissing their feet. In Sumatra, the saluting person bows, begs the left foot of him whom he addresses, kneels on the ground, and applies this foot to the crown of his head, forchead, breast, and knee; finally, he touches the ground with his head, and remains for some moments stretched out on his helly. In the Pellew Islands, a person seizee the hand or foot of him whom he wishes to salute, and rubs his face with it. In the Philippines, they beud their body very low, place their hands upon their cheeks, raise one leg, and bend the kuee. In Siam, the inferior throws himself on the ground before his superior. In Japan, the interior takes off his sandals, puts his hands into the opposite sleeves, bends slowly till they reach his knees, and thns with short and measured steps, and with a rocking motion, passes his superior, cryiug, "Do not hurt me." In China, the forms of salutation are various. The Turk crosses hie hands, places them upon his breast, and bows; the Laplanders rub noses; the Frauks are said to have pulled out a hair, and presented it to the persou saluted; an Ethiopian takes the robes of another and ties it about his own waist, leaving his friend half naked. In some parts, they show their humility by preseuting themselvee naked before the person whom they salute; in others, they scratch the hand slightly, and reciprocally suck a drop of blood from the wound. or, as a peculiar mark of esteem, they open a vein and present a goblet of blood as a beverage for their friend.

Salutato'rian, *n.* In the U. States, the student of a college who pronounces the salutatory oration at the annual Commencement, or like exercises.

Saluta'torily, *adv.* After the manner of salntation.

Saluta'tory, *a.* Contaiuiug, implying, or expressing salutation; speaking a welcome; conveyiug a greeting; —applied particularly to the oration introductory of the exercisee of the Commencements, &c., in American colleges.

—*n.* In American colleges, the salutatory oration.

Salute', *v. a.* [It. *salutare*; Lat *saluto*, from *sălus*.] To greet; to hail; to address or accost with friendly gratulations or expressions of kind wishes.— To greet with a kiss; to greet with a wave of the hand or nod of the head; as, to *salute* a lady's lips, to *salute* a stranger.

(*Mil.* and *Nav.*) To greet or show honor to by a discharge of cannon or small arms, by striking colors, rolling drums, presenting arms, &c.; as, the President was *saluted* by the troops.

—*n.* Act of saluting, or of expressing respect, gratulation, or kind wishes; greeting; salutation; as, friendly *salutes* were exchanged between them. — A kiss; a lip-greeting expressing more than mere courtesy.

"No cold *salute* is in yon lovers' kiss." —*Earl of Roscommon.*

—In the military and naval eervices, a mark of respect performed in different ways, according to circumstances. Naval salntes are fired from ships, the number of guns engaged in which denotes the rank of the personage saluted. A foreigner'e salnte is returned gun for gun. Troops under arms salute with their rifles or swords; staff-officers not drawing their swords salute with the hand, as, also, do soldiers when unarmed. Another form of salute at sea is *dipping the ensign*, that is, lowering the colors for a few moments, and then rehanling them up to the masthead or gaff-peak. See also COLORS and FEU-DE-JOIE.

Salut'er, *n.* One who, or that which, salutes.

Salutiferous, *a.* [From Lat. *salus, salutis*, health, and *ferre*, to bring.] Bringing health; salubrious; healthy; as, *salutiferous* weather. (R.)

Salutiferously, *adv.* In a salutiferons manner.

Salut Public, (Comité de.) [Fr., Committee of Public Safety.] (*Fr. Hist.*) The term applied to a number of members of the National Convention during the Reign of Terror, 1793–94, who acted as the dictators of France. The committee arose out of that section of the convention called the "Mountain," which had gained the victory over the Girondist party; and at length its power came to be concentrated in three of its members — Robespierre, the real chief, though half concealed from view, Couthon, and St. Just. Among these men there was perfect equanimity down to the moment of their fall; and there is reason to believe that they had resolved to perpetnate their power by establishing a supreme council of three consuls, in which Robespierre would have had the perpetual presidency, with the departments of Justice, Exterior, and Finance; Couthon that of the Interior, and St. Just the War Department. The career of this sanguinary tribunal was brought to a termiuation by some of their former associates impeaching its members before the convention; and a reaction having taken place in the public mind, Robespierre, Couthon, and St. Just were executed on the 9th Thermidor (July 28, 1794).

Saluzzo, (*sa-loot'so,*) a town of Italy, prov. of Coni, near the Po, 30 m. S.S.W. of Tnrin. It consists of an Upper and Lower town, the former situated on a height crowned by a magnificent castle, now used as a prison; the latter contains a handsome cathedral and other public buildings. It was the cap. of a dept. under the French domination. *Manuf.* Silk, leather, aud hats. *Pop.* 17,548.

Salvabil'ity, *n.* The possibility of being saved, or admitted to everlasting lite.

Salv'able, *a.* [From Lat. *salvus*, safe.] That may be saved or received to eternal happiness; admitting of salvation; as, *salvable* souls.

Salvador, San. See SALVADOR.

Salvador, St. See SALVADOR.

Salvadora'ceæ, *n.* (*Bot.*) The *Salvadora* family, a small order of plants, alliance *Echiales*, consisting of shrubs and small trees, with leathery leaves and minute panicled flowers. The species are natives of India, Syria, and North Africa. The only one of any importance is *Salvadora Persica*, which Dr. Royle has shown to be the mustard-tree of Scripture. Its fruit is edible, and resembles in taste the garden-cress. The bark of its root is acrid, and is employed in India as a blistering agent. Its leaves are said to possess purgative properties

Salvage, (*săl'vaj,*) *n.* [Fr., from L. Lat. *salvagium*,

from Lat. *salvus*, safe.] (*Mar. Law*) A reward or recompense allowed by law for the saving of a ship or cargo (or any part or parts thereof) from loss at sea; also, the goods or property so saved.

Sal'vages, a group of uninhabited islands off the W. coast of Africa, N. of the Canaries; Lat. 30° N., Lon. 16° W.

Salvatel'la, *n.* [Lat., from *salvare*, to save.] (*Anat.*) A vein of the arm terminating in the fingers. It was formerly regarded as having peculiar influence on the health when opened.

Salvation, (*-vā'shun,*) *n.* Act of saving; rescue or preservation from danger, great calamity, or total destruction; as, marrying money was his *salvation*.

(*Theol.*) The deliverance wrought out by Christ for mankind, saving them from the consequences of their sins. This last is the sense in which it is commonly used in the New Testament, as by the apostle Paul, when he says, "How shall we escape if we neglect so great *salvation?*"

—Deliverance from enemies; victory; saving power; as, "see the *salvation* of the Lord." — *Exod.* xiv. 13.

Sal'vator Ro'sa. See ROSA, SALVATOR.

Sal'vatory, *n.* A repository; a place where things are kept safe and secure. (R.)

Salve, (*sawv,*) *n.* [A. S. *scalfe;* kindred with Lat. *salvus.*] That which saves, mitigates, relieves, or preserves; a help; a remedy; an aid; an antidote; as, heavy damages proved a *salve* to his dishonor. — An adhesive composition; a substance applied to heal, mollify, or relieve wounds or sores; an unguent; an ointment; a plaster.

—*v. a.* (*imp.* and *pp.* SALVED, (*sawvd.*) To cure by remedial or emollient treatment; to heal by external applications; to apply salve to; as, to *salve* a wound.

Salver, (*sawv'er,*) *n.* A piece of plate with a foot; or, a waiter on which articles are carried round and presented; as, the groom of the chambers brought me their cards on a *salver*.

Salv'er-shaped, (*-shāpt,*) *a.* (*Bot.*) Tubular, with a flat border rectangular to the tube; — said of the corolla of a plant.

Sal'via, *n.* [Lat. *salvus*, well, in good health, because it was esteemed capable of curing many diseases.] (*Bot.*) A genus of plants, order *Sabiaceæ*, consisting of herbs and under-shrubs, with aromatic leaves, which have generally a rugose appearance and flowers commonly in spikes. The species best known is *S. officinalis*, the Common or Garden Sage, much used by the cook as a flavoring agent, particularly in the stuffing for pork, goose, and duck. *S. lyrata*, the Wild or Meadow Sage, is found in shady woods from Canada to Georgia. An infusion of sage was formerly used, under the name of *sage-tea*, as a substitute for that of China tea; it is still largely employed in North America as a gargle in common sore throat, and when the uvula is relaxed. Many of the *salvias* are very ornamental plants, and are favorite objects of culture with the florist.

Sal'visa, in *Kentucky*, a post-village of Mercer co., abt. 20 m. S. of Frankfort.

Sal'vo, *n.*; *pl.* SALVOS. [Lat. *salvo jure.*] An exception; an excuse; a reservation; as, "private *salvos* or evasions." — *Locke*.

(*Mil.*) A discharge of heavy guns, or volley of musketry; as, to fire a *salvo*.

Sal-volat'ile, *n.* (*Chem.*) Carbonate of ammonia. The term is often applied to a spirituous solution of carbonate of ammonia flavored with aromatics, as in the *compound spirit of ammonia*.

Sal'vor, *n.* (*Mar. Law.*) One who saves a ship or goods at sea.

Salzburg, (*saltz-boorg.*) a city of Upper Austria, on the Salzach, 67 m. S.W. of Linz, and 70 m. E.S.E. of Munich. It is situated amidst lofty mountains, and surrounded by walls. The Salzach flows through the city, dividing it into two parts. It contains numerous public buildings and monuments. *Manuf.* Leather, tobacco, starch, and iron-wire. It is the birth-place of Mozart and Haydn. *Pop.* 18,000.

Salz'burg, a town of Hungary, S.W. of Eperies; *pop.* 4,000.

Sa'makov, a town of European Turkey, in Bulgaria, 30 m. S.S.E. of St. Sophia. It has extensive iron-works. *Pop.* 7,000.

Sama'na, a peninsula on the N.E. of the Island of Hayti, republic of San Domingo, extending 32 m. from W. to E., with a breadth of 11 m.; Lat. 19° 18′ N., Lon. 69° 8′ W. The surroundings indicate that it was formerly an island. *Soil*, fertile, producing timber for shipbuilding and cabinet-ware. *Min.* Copper, gold, and coal. *Pop.* 1,721.

Samana Bay, in San Domingo, S. of ab. peninsula, 30 m. long and several broad, one of the most important harbors of the W. Indies. On the shores are the harbors of Santa Barbara and San Loreuzo. The bay was surveyed by a U. S. vessel in 1882. See HAYTI.

Saman'co, a bay on the coast of Peru, Lat. 9° 15′ 30″ S., Lon. 78° 32′ 45″ W.

Samar', one of the Philippine Islands, situated to the S.E. of Luzon, from which it is separated by a strait 20 m. wide; Lat. between 11° 15′ and 12° 45′ N., Lon. 124° 15′ and 125° 52′ E. *Ext.* 140 m. long, with an average breadth of 60 m. It is fertile and easily cultivated. *Prod.* Sugar, cotton, coffee, and various kinds of fruits and vegetables. *Pop.* 100,000.

Samara, *n.* [Lat., the seed of the elder-tree.] (*Bot.*) A superior two or more celled fruit, each cell being dry, indehiscent, few-seeded, and having its pericarp extended into a winged expansion. Each cell of the *Samara* is, in fact, an achæniun, with a winged margin. Examples of the *Samara* occur in the so-called aycamore, the ash, and the elm.

Samara', a city of European Russia, cap. of govt. of same name, on the Volga, at the junction of the Samara, 100 m. S.E. of Simbirsk. *Pop.* 25,343.

Samarang', a seaport-town of Java, on the N. coast, near the mouth of the river Samarang, 240 m. E.S.E. of Batavia; Lat. 6° 56′ S., Lon. 110° 27′ E. It is strongly fortified, and has a considerable trade in coffee, pepper, and rice.

Samarcand, a fortified city of Independent Tartary, in Bokhara, on the Sogd, or Zer-Afchan, 120 m. E. of Bokhara; Lat. 39° 30′ N., Lat. 68° 50′ 15″ E. It was formerly the cap. of Timour's empire, and was a place of great importance. *Pop.* 25,000. Captured and annexed by the Russians in 1868. See also BOKHARA.

Samare, *n.* Same as SIMAR, *q. v.*

Samaria, (*Jewish Hist.,*) a city and country of Palestine, situated towards the north of Judea. Samaria was the country in which the ten revolted tribes raised their independent state, and formed the kingdom properly denominated Israel, in contradistinction to that of Judah, embracing the two tribes of Judah and Benjamin, from which the other ten had seceded when, refusing the authority of Rehoboam, they established a dynasty of their own, at the head of which they placed Jerohoam, the first king of the nation of Israel. So deadly was the animosity, and so implacable the hatred that existed between these two nations of Jews, that, from the time of their severance to the destruction of their capital and the captivity of Israel, an almost perpetual state of warfare existed between Judah and Israel; indeed, so intensely did the former hate the latter, that the term of *Samaritan* was one of the bitterest contempt and reproach that could be applied to any one. It was the consciousness of this fact, though it had long outlived the existence of the nation, that made the woman at the well marvel when Jesus asked her to draw him some water. The antipathy borne by the people of Judah for those of Israel or Samaria was not only political, but religious, and they hated them not alone for the difference of their institutions, but more for the difference that existed in the form of worship adopted by the Samaritans. These theological dissensions were, however, in time greatly modified by the return of the Samaritans to the ancient form of worship, and by the erection of a temple in the capital that professed to be a model of the great fabric completed by Solomon in Jerusalem, an event that was celebrated soon after the passage of Alexander the Great through the land of Syria. The city of Samaria, and capital of the kingdom, was situated on a hill, Mount Sameron, was founded by Omri, and from that time till its overthrow by the Assyrians was the residence of all the kings of Israel. It was subsequently rebuilt by Herod, who called it *Sebaste* (a Greek word signifying *Augustus*), in honor of Augustus Cæsar.

Samar'itan, *a.* (*Geog.*) Pertaining, or relating, to Samaria, the chief city of the ten tribes of Israel.

(*Philol.*) Denoting the ancient characters and alphabet used by the Hebrews before the Babylonish captivity, and retained by the people of Samaria.

—*n.* (*Geog.*) An inhabitant of Samaria; one who belonged to the sect which derived their appellation from that city.

(*Philol.*) The language of Samaria; — a dialect of the Chaldee.

Samar'aroid, *n.* (*Bot.*) Bearing resemblance to a samara.

Samar'rah, a town of Asiatic Turkey, pashalic of Bagdad, 65 m. N.N.W. of Bagdad. It is frequented as a place of pilgrimage.

Sambas', a river on the W. coast of Borneo; Lat. 1° 12′ N., Lon. 109° 5′ E. — A town on the above river, 40 m. from its mouth. The British were repulsed in an attack upon it in 1812, but captured it in the following year. *Pop.* 10,000, mostly Malays.

Sam'bo, *n.* [Sp. *zambo.*] The offspring of a black person and a mulatto; — hence, sportively or derisively, a negro.

Sambre, (*sambr,*) a river of France and Belgium, rising in the dept. of Aisne, and after a N.E. course of 100 m., joins the Meuse, at Namur.

Sambu'cus, *n.* [Lat., from *sambuca*, a musical instrument formed of this tree.] (*Bot.*) The Elder, a gen. of the ord. *Caprifoliaceæ*. *S. nigra* is the Common Elder,

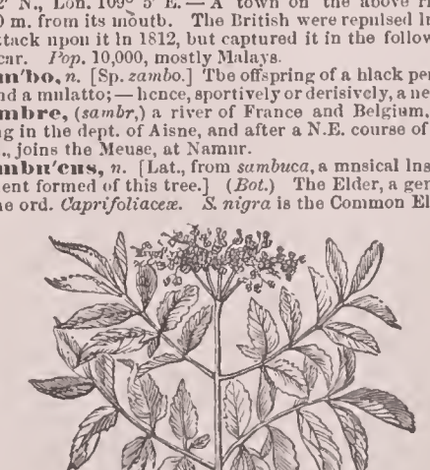


Fig. 2301. — ELDER, (*Sambucus canadensis.*)

a low tree, native of Europe, from which the elder-wine of old-fashioned folk is manufactured, a liquor which is now chiefly used for adulterating port-wine. Several parts of this plant are used in medicine. Its flowers contain a volatile oil, which renders them mildly stimulant and sudorific; they are employed in the preparation of a cooling ointment, and to make elder-flower water. The inner bark and leaves have more or less purgative and emetic properties. The fruit is mildly aperient and diuretic. The American species, *S. canadensis* (Fig. 2301), much resembles *S. nigra*, but never assumes anything of a tree character.

Sam'buke, *n.* [Lat. *sambuca;* Gr. *sanbukē.*] (*Mus.*) An ancient stringed musical instrument, resembling a harp, the invention of which has been attributed to the Syrians and Phœnicians. — The name was also applied to a military engine for scaling the walls of besieged cities.

Same, *a.* [A. S.] Having the property of oneness; identical; not different from other; as, he is the *same* individual I spoke of. — Of the identical kind or species though not the specific thing; being of the like class kind, like, or degree; correspouding; equal; exactly similar; as, it is all tho *same* to me whether he accepts or rejects. — That was mentioned before, or that was just about to be mentioned; as, he spoke too of the *same*.

Same'ness, *n.* State of being the same, or of being identical; state of not being different or other; state of being perfectly alike; near resemblance; correspondence; similarity; identity; oneness; as, *sameness* of individuality, of appearance, of sound, &c. — Hence, tedious monotony; absence of variety; tiresome repetition; as, there's too much *sameness* in his style.

Sa'mian, *a.* [Lat. *Samius.*] (*Geog.*) Pertaining or relating to the island of Samos, or to its inhabitants; as, *Samian* wine.

Samian earth, a sort of marl brought from Samos, and formerly used, medicinally, as an astringent.

Sa'mian, *n.* (*Geog.*) A native or inhabitant of Samos; a Samiot.

Sa'miel, *n.* The simoom. See SIMOOM.

Sa'miot, Sa'miote, *a.* (*Geog.*) Pertaining or relating to Samos, or its inhabitants; Samian.

—*n.* (*Geog.*) A native or inhabitant of Samos.

Sam'let, *n.* A young salmon; a salmonet.

Samo'lus, *n.* (*Bot.*) A genus of plants, order *Primulaceæ*. They are herbs with alternate leaves, and flowers corymbose or racemose. *S. valerandi*, the Water Pimpernel, found in wet, gravelly places throughout the world, is 1 foot high, and has small, white flowers, the corolla of which is twice the length of the calyx.

Sam'nites, *n. pl.* (*Anc. Hist.*) A people of ancient Italy, who inhabited the country between Apulia on the east and Latium and Campania on the west; a brave and warlike nation, who distinguished themselves by their implacable hatred of the Romans, with whom, from their earliest existence as a people, they waged a perpetual hostility. They were, however, ultimately compelled to succumb before the growing power of Rome, and after a succession of disasters were finally exterminated about 272 B. C. Their capital city was called Samnium, or Samnis. — The term *Samnites* was subsequently applied to an order of Roman gladiators, so named because accoutred and armed in the fashion of the ancient nation of Samnites.

Samoan Islands. See NAVIGATORS' ISLANDS.

Samo'ens, a town of France, in Savoy; *pop.* 4,000.

Samoïedes, Samoyeds, *n. pl.* (*Geog.*) Three tribes inhabiting a region skirting the Arctic Ocean.

Sa'mos, [Turk. *Susam-adassi.*] An island of the Grecian Archipelago, belonging to Turkey, off the W. coast of Asia Minor, from which it is separated by the Little Boghaz, a strait 2 m. wide, 42 m. S.W. of Smyrna; Mount Kerki, on its W. extremity, being in Lat. 37° 43′ 48″ N., Lon. 26° 38′ 21″ E.; *area*, 165 sq. m. The surface is mountainous, varied in scenery, the highest peak (Mount Kerki) being 4,725 feet. It is well wooded and fertile. *Prod.* Grain, wine, and the vegetables and fruits of the temperate zone. *Min.* Silver, lead, and marble. *Cap.* Khora. *S.* was anciently one of the most famous isles of Greece, and early turned its attention to naval affairs, establishing numerous colonies along the shores of the Mediterranean. It took part in the numerous wars of Greece, and finally became a Roman province B. C. 84. It took part in the war against the Turks for Grecian independence, but at its conclusion was retained by the Turks.

Samothrace, (*sa'mo-thraice.*) [Mod. Gr. *Samothraki;* Turk. *Semendrek.*] An island belonging to European Turkey, in the Ægean Sea, 15 m. S.E. of Nubros; *area*, 30 sq. m. The surface is rugged and mountainous. *Pop.* 1,500.

Samp, *n.* An article of food consisting of maize, broken or bruised, which is cooked by boiling, and often eaten with milk; — a dish borrowed from the aborigines of America.

Samphire, (*săm'fur,*) *n.* (*Bot.*) See CRITHMUM.

Sample, (*săm'pl,*) *n.* [Fr. *exemple*, from Lat. *exemplum.*] A specimen; that which is taken out of a larger quantity as a specimen; a part of anything presented for inspection, or intended to be shown, as evidence of the quality of the whole; as, cotton is purchased by *sample*, give me a *sample* of the goods. — A pattern; an example; an instance; as, is this a *sample* for me to follow?

Sam'pler, *n.* [Lat. *exemplar.*] A pattern or model of work; a specimen; — particularly, a piece of needle-work sewed by learners, containing specimens of various kinds of stitches. — One who apportions things into samples for inspection; as, a tea *sampler*.

Sampson, WILLIAM T., Rear-Admiral U. S. Navy; born in Palmyra, N. Y., February 9, 1840; graduated Naval Academy 1861; served in civil war; was on board the *Patapsco* when blown up in Charleston harbor, 1865. Advanced from captain to acting rear-admiral, 1898, and put in command of North Atlantic squadron at

Key West. Commanded the fleet during the blockade of Cuba and the destruction of the Spanish squadron at Santiago. Promoted rear-admiral after the war. Served as chairman of the *Maine* inquiry and the Cuba Evacuation Commissions. Died May 6, 1902.

Samsœ, (*sam'se(r,)* an island of Denmark, in the Great Belt, between Zealand and Jutland; *area*, 40 sq. m.

Sam'son. (*Script.*) The son of Manoah, of the tribe of Dan. He was endowed with extraordinary strength, and obtained several advantages over the Philistines. At length his mistress betrayed him into the hands of his enemies, who put out his eyes, and made him work at a mill. On a public festival, when the Philistine lords were assembled in the temple of Dagon, Samson was sent for to show them sport. Laying hold of two pillars of the temple as if to support himself, he pulled down the building, and was buried in the ruins, with more than 3,000 Philistines.

Sam'son's-post, *n.* (*Naut.*) A strong pillar resting on a ship's keelson, and supporting a beam of the deck over the hold, thus helping to keep the cargo in its place. — Also, a temporary or movable pillar carrying a leading block for various purposes.

Samuel, (*săm'u-el.*) (*Script.*) A prophet and judge of Israel, of the tribe of Levi, was called in his youth, while attending Eli, the high priest. He consecrated Saul king of Israel, and was afterwards commanded to anoint David. After governing Israel either alone or in conjunction with Saul during 50 years, he died in the 90th year of his age, B. C. 1072.

Books of Samuel. Two of the ceremonial books of the Old Testament, called after the prophet Samuel, their reputed author. They were anciently reckoned as one book by the Jews, the present division into two being derived from the Septuagint and Vulgate. Various attempts have been made to determine the age and authorship of these books, with more or less of probability. The common opinion, founded on 1 *Chron.* xxix. 29, is that the first twenty-four chapters were written by Samuel himself, and the remainder by Nathan and Gad. There is no reason to believe, however, that these documents were identical with the present Books of Samuel. From Samuel and Kings being sometimes called the four Books of Kings, John is of opinion that they were all written by the same person, and at a date so recent as the thirtieth year of the Babylonish captivity. This hypothesis, however, will not stand the test of criticism. The language and style of the books are very different, denoting different periods and different authors. The Books of Samuel bear the impress of a hoary age in their language, allusions, and mode of composition. The insertion of odes and snatches of poetry, to enliven and verify the narrative, is common to them with the Pentateuch. They appear to have been made up from documents contemporary, or nearly so, with the events to which they refer, and wrought into their present form by some later hand. Some portions are more fully detailed and warmly colored than others, and the minute and vivid sketches with which they abound prove that their author speaks what he knows, and testifies what he has seen. With respect to the person who compiled and brought them together in their present form, all that can be affirmed with probability is that he lived not long after the time of David. Though much has been made of discrepancies and contradictory statements that are said to occur in these Books, their historical character is abundantly supported both by external and internal evidence. Portions of them are quoted or referred to in the New Testament, and allusions to them also occur in the Book of Psalms, to which they often furnish historical illustration.

Samyda'ceæ, *n.* (*Bot.*) A small order of plants, alliance *Violales*, consisting of trees and shrubs, exclusively tropical, and principally S. American. Leaves alternate simple, evergreen, stipulate, usually with round or linear transparent markings. Flowers perfect, calyx inferior, 4–5-partite. Stamens perigynous, two, three, or four times as many as the segments of the calyx. Fruit superior, capsular, leathery, 1-celled. Seeds numerous, arillate, with oily or fleshy albumen and large embryo. The plants are of little economic value.

San, a river of Austrian Poland, rising in the Carpathian Mountains, and after a N. course of 250 m., falling into the Vistula, near Sandomir.

Sa'na, a city of Arabia, cap. of Yemen, and residence of the Iman, near the head of the Shab River, 150 m. N.N.E. of Mocha; Lat. 15° 21′ N., Lon. 44° 9′ E. It has a considerable trade in coffee. *Pop.* 40,000.

Sanabil'ity, *n.* State of being sanable or curable.

San'able, *a.* [Lat. *sanabilis — sano*, to cure.] That may be healed or cured; curable; healable; susceptible of remedial treatment.

San And'reas, in *California*, a post-vill., cap. of Calaveras co., abt. 42 m. E. by N. of Stockton;

San Angel, (*anzh'l,*) a town of Mexico, abt. 6 m. S. of the city of Mexico; *pop.* 2,500.

San Antonio, (*an-to'ne-o,*) a bay of Patagonia; Lat. 40° 49′ S., Lon. 65° 54′ W.

San Antonio, a cape of Brazil, at the entrance to the Bay of Bahia. It has a light 140 feet high; Lat. 13° 0′ 7″ S., Lon. 38° 31′ 7″ W.

San Antonio, a cape of Buenos Ayres, Argentine Republic, at the mouth of the Rio de la Plata; Lat. 36° 19′ S., Lon. 56° 45′ W.

San Antonio, a town of Venezuela, abt. 110 m. E. of Varinas.

San Antonio, in *New Mexico*, a village abt. 45 m. S.S.W. of Santa Fé. — A village abt. 150 m. S.S.W. of Santa Fé.

San Antonio, in *Texas*, a river rising in Bexar co., and flowing a S.E. course enters Guadalupe River from Refugio co., a few m. above Espiritu Santo Bay. The upper portion is called Medina River. — A city, cap. of Bexar co., on the San Antonio River, abt. 110 m. S.W. of Austin. It is well built, and contains many fine public and private edifices. A U. S. arsenal is here located. Fort Alamo, near here, is memorable as having been the scene of one of the most affecting episodes of the Texan war of independence. On March 6, 1836, a small body of patriots, under the command of Col. Travis, resisted a Mexican army ten times their number, and, rather than surrender, perished to a man; — hence it has been called the *Thermopylæ of Texas*, and "Remember the Alamo" afterwards became the war-cry of the Texan army.

San Anto'nio, one of the Cape Verd Islands; Lat. 16° 26′ N., Lon. 25° 21′ W.

San Antonio Creek, in *California*, flows into the Pacific Ocean from Marin co.

San Antonio de Gibraltar, a town of Venezuela, abt. 50 m. N.W. of Trujillo; *pop.* 3,500.

San Antonio de los Cues, a town of Mexico, abt. 70 m. N. of Oajaca.

San'ative, *a.* Having the power to heal or cure; tending to cure or heal; healing; curative; remedial; sanatory; as, *sanative* treatment.

San'ativeness, *n.* Quality of being sanative; power of healing; curativeness.

San'atory, *a.* [From Lat. *sanare*, to heal.] Sanative; curative; healing; tending to promote health; as, *sanatory* regulations; — this term is often confounded with *sanitary*, as being synonymous in definition; this is, however, not properly so, the word *sanitary* having the passive sense of *belonging to health*, rather than *tending to*, or *conducive of health*.

San Augus'tin, a town of Mexico, abt. 12 m. S. of the city of Mexico.

San Augus'tine, in *Texas*, an E. co.; *area*, abt. 620 sq. m. *Rivers.* Angelina and Attoyac rivers. *Surface*, mostly level; *soil*, very fertile, and noted for its cotton-growing qualities. *Cap.* San Augustine, a thriving post-village, abt. 310 m. E.N.E. of Austin. *Pop.* of co., abt. 5,000.

San-benito, (*-bū-nē'to,*) *n.* [It.; Lat. *saccus benedictus.*] (*Eccl.*) A robe painted with bizarre images of hideous aspect, formerly worn by those condemned by the Spanish Inquisition.—Also, a garment of sack-cloth worn by a penitent restored to the bosom of the Roman Catholic Church.

San Bernard', in *Texas*, a small river flowing S.E. into the Gulf of Mexico from Brazoria co.

San Bernardino, (*ber-nar-dee'no,*) in *California*, a lofty peak of the Coast Range, in San Bernardino co., abt. 30 m. E. of San Bernardino. *Height*, abt. 8,500 ft. —A southeast co., adjoining Nevada and Arizona; *area*, about 21,000 square miles. *Rivers.* Colorado, Mohave, Amargoza, and Santa Anna rivers. There are also several brackish lakes, or *sinks*. *Surface*, much diversified, the Coast Range traversing the S.W. part of the co.; *soil*, in some parts fertile. *Min.* Gold, silver, and tin. *Cap.* San Bernardino.—A thriving city, cap. of the above county, about 30 miles east of Los Angeles. *Pop.* (1897) 4,900.

San Bernar'do, a group of islets belonging to the U. S. of Colombia, in the Caribbean Sea, at the mouth of the Gulf of Morrosquillo, abt. 50 m. S. by W. of Cartagena.

San Blas, or MANDINOO, a bay or gulf of the U. S. of Colombia, formed by an arm of the Caribbean Sea on the N. coast of the Isthmus of Panama; Lat. 9° 30′ N., Lon. 79° W. See CAPE SAN BLAS.

San Blas, or SAINT BLAS, a seaport-town of Mexico, on an island in the Pacific Ocean, at the mouth of the Santiago River, abt. 37 m. W.S.W. of Tepic; Lat. 21° 32′ 34″ N., Lon. 105° 15′ 24″ W. It has an excellent harbor, but the climate is very unhealthy. *Pop.* abt. 2,500.

San Borom'bon, (ENSENADA DE,) a bay of the Argentine Republic, in the Rio de la Plata, abt. 30 m. S.E. of Buenos Ayres.

San'bornton, in *Iowa*, a village of Clinton co., abt. 45 m. N.E. by E. of Iowa City.

Sanbornton, in *New Hampshire*, a post-township of Belknap co.

San'bornton Bridge, in *New Hampshire*, a village of Belknap co., about 18 m. N. of Concord.

San Buenaventura (*bwa-na-ven-too'ra*), in *California*, a small river flowing W. into the Pacific Ocean from Santa Barbara co.

—A town of Ventura co.; its post-office is VENTURA.

San Cascia'no, a town of Central Italy, prov. of Florence, 10 m. S.W. of Florence; *pop.* 11,258.

San Carlos, (*kar'los,*) a town of Chili, on the N.E. coast of the island of Chiloe. It has a fine harbor, well fortified, and commands an extensive trade.

San Carlos, a town of Venezuela, abt. 130 m. S.W. of Caracas. In the vicinity, rich plantations of indigo, coffee, and cotton, and immense numbers of sheep and cattle are raised on the neighboring savannas. *Pop.* 10,000.

Sancerre, (*san-sair,*) a town of France, dept. of Cher, on the Loire, 27 m. N.E. of Bourges; *pop.* 4,000.

San Clemente, in *California*, one of the Santa Barbara Islands, abt. 15 m. S. of Santa Catalina.

San'coty Head, in *Massachusetts*, a promontory and light-house at the S.E. extremity of Nantucket Island. It exhibits a fixed light 150 ft. above sea level; Lat. 41° 17′ N., Lon. 69° 59′ W.

San Cristo'val, a lake of Mexico, abt. 12 m. N.N.E. of the city of Mexico. On its S. side is a village of same name.

San Cristoval, a town of Venezuela, abt. 96 m. S.S.W. of Merida.

San Croce, (*-kro'chai,*) a town of Italy, on the Arno, 4 m. N.W. of San Miniato; *pop.* 5,200.

Sanctification, (*sank-tif-e-kai'shun,*) *n.* [Lat. *sanctus*, holy, and *facio*, to make.] (*Theol.*) The work of the Holy Spirit on the soul of the regenerate man, by which it is made "meet for the inheritance of the saints in light." It is to be carefully distinguished from *justification*, which is the divine pardon and acceptance of the sinner. It is the progressive conformity of the heart and life of the Christian man to the will of God from his justification to his final salvation.

Sanc'tified, (*-fīd,*) *p. a.* Sanctimonious; made to present an appearance of affected holiness; puritanical; — used in a reproachful or contemptuous sense; as, a *sanctified* sinner.

Sanc'tifier, *n.* One who sanctifies or makes holy; specifically, the Holy Spirit; as, God the *sanctifier*.

Sanctify, (*sangk'ti-fī,*) *v. a.* (*imp.* and *pp.* SANCTIFIED.) [Fr. *sanctifier*, from Lat. *sanctus*, holy, and *facio*, to make.] To make holy or sacred; to hallow; to separate, set apart, or appoint to a holy, sacred, or religious use; to consecrate by appropriate ceremonies. — To make holy or pure; to free from sin; to cleanse from moral corruption or pollution; to render fit for the service of God and the enjoyment of heaven. — To make productive of holiness or piety; to provide, as the active means of holiness. — To secure from violation; to give sanction, or authoritative title, reverence, and respect to; to impart venerableness or inviolability to; as, a doctrine *sanctified* by truth.

Sanc'tifyingly, *adv.* In a manner tending to sanctify; in a degree adapted to make or increase holiness.

Sanctil'oquent, (*-kwent,*) *a.* [Lat. *sanctus*, holy, and *loquens — loqui*, to speak.] Speaking of holy things, or discoursing in a devout manner.

Sanctimo'nious, *a.* [From Lat. *sanctimonia — sanctus*, holy.] Sacred; saintly; possessing sanctimony or devoutness. — Having the external appearance of sanctity; pretending to religiousness; mock-pious; hypocritically devout; puritanical; as, a *sanctimonious* Sabbatarian.

Sanctimo'niously, *adv.* In a sanctimonious manner; puritanically.

Sanctimo'niousness, *n.* State or quality of being sanctimonious; sanctity, or the appearance of it: devoutness; mock piety; hypocritical devoutness; pretended holiness; artificial saintliness; puritanical manners or practices.

Sanc'timony, *n.* [Lat. *sanctimonia — sanctus*, holy.] Holiness; sanctity; devoutness; religiousness;—particularly, assumed saintliness; mock piety; pretended holiness; sham or hypocritical devoutness.

Sanction, (*sangk'shun,*) *n.* [Fr.; Lat. *sanctio*, from *sancio*, to make sacred or inviolable.] Solemn or magisterial authorization, confirmation, or ratification; official countenance or support; an authoritative act of a superior, by which he ratifies and gives validity to the act of some other person or body of persons; confirmation or acceptance derived from testimony, character, influence, or custom.—That which is acted or uttered to carry out the will, law, or authority of another or others; as, "the public *sanctions* of the peace." *Dryden.* —*v. a.* To give a sanction to; to make authoritative or valid; to ratify; to confirm; to countenance; to support; as, he refused to *sanction* so risky an enterprise.

Sanc'tionary, *a.* Serving to, or giving, sanction.

Sanc'titude, *n.* [Lat. *sanctitudo.*] Sanctity. (R.)

Sanc'tity, *n.* [It. *santita*; Fr. *sainteté*; Lat. *sanctitas*, from *sanctus.*] State or quality of being sacred, holy, or devout; state of being pure or godly; holiness; saintliness; godliness; piety; purity; goodness; as, he makes no pretensions to *sanctity* of life. — State of being religiously or solemnly binding or incumbent; sacredness; inviolability; as, the *sanctity* of an oath or moral obligation. — A saint; a holy personage. (R.)

Sanc'tuary, *n.* [Lat. *sanctuarium.*] Among the ancient Jews, a sanctuary was the innermost chamber of the tabernacle, — afterwards of the temple, in which was kept the ark of the Covenant, and was never entered, except by the high-priest once a year. It was also called the Holy of Holies, *Sanctum Sanctorum*. In the Christian church, the bema, or inner portion of the church, immediately round the altar, was called the *sanctuary*. From the sacred character of the churches, and from the rising power of the clergy, they came to be resorted to as asylums by fugitives from the hands of justice, and afterwards certain churches were set apart specially for that purpose, and were termed *sanctuaries*. This seems to have been originally intended only to prevent sudden violence, and to give time for the regular administration of the law, and perhaps, in the case of certain delinquencies, for the intercession of the church. The abuses to which this system gave rise, as tending entirely to defeat the ends of justice, led to its abolition in all the Christian countries.

Sanc'tus, *n.* [Lat.] (*Mus.*) In sacred music, an anthem commencing with the word *sanctus*, holy.

Sand', *n.* [A. S. and Ger.] Any mass or collection of fine particles of stone, particularly of fine, granular particles of silicious stone, which constitutes common river- and sea-*sand*. Particles of other substances are often blended with it, and sometimes it becomes calcareous from the prevalence of carbonate of lime. Silicious sand selected for the mixing of mortar and other cements, should be freed from all saline matters, not too fine-grained, and somewhat sharp or angular. In the manufacture of glass and of porcelain, sand should be from oxide of iron and other tinging oxides. The fine, white sand resulting from the disintegration of soft and pure sandstone, is much used, under the name of *silver-sand*.

George Sand

[BARONESS DUDEVANT]

1804–1876

—**hence, chiefly in the plural,** a moment; a measured interval; — from the use of sand in the hour-glass.

"The *sands* are number'd that make up my life." — *Shaks.*

—*pl.* Tracts of land consisting of sand, like the deserts of Arabia, Africa, Asia, &c.; as, "the Libyan *sands*." *Milton.*

—*v. a.* To sprinkle or cover with sand; as, to *sand* a floor.

Sand, GEORGES, the *nom de plume* of MADAME AMANTINE LUCILE AURORE, BARONESS DUDEVANT, a French authoress of great celebrity, b. in Paris, 1804, and descended from the famous Marshal de Saxe by her father the Marquis Maurice Dupin de Franceuil. After having received a conventnal education, from 1817 to 1820, she married in 1822 M. Dudevant. A separation took place in 1831. She went to Paris, where her first literary efforts appeared in the *Figaro*. In conjunction with a young student, Jules Sandeau, from whose name she composed her *nom de plume*, she wrote the romance *Rose et Blanche*, in 1832, but which, though clever in parts, gave no hint of the splendid ability first fully developed in *Indiana*, published in the same year. Much interest was excited by this, which increased on the appearance of the romances *Valentine; Lélia; Jacques; André; Leone Leoni; Simon;* and *Mauprât*. Besides imaginative productions, she contributed miscellaneous papers, articles, and political essays to *La Monde*, edited by Lamennais. She started the *Revue Indépendante*, in connection with P. Leroux and Viardot. She wrote for this paper *Horace; Consuelo;* and *La Comtesse de Rudolstadt*. Madame Dudevant obtained possession of her private property and her children, and afterward chiefly resided at the Château de Nohant. She published an autobiography and several popular dramas, and attained the highest distinction for versatility, brilliancy of imagination, intrepidity of mind, and mastery of the great problems of modern social progress. Died in 1876.

San'dal, *n.* [Fr. *sandale.*] A protection for the foot, worn in ancient times, and which, in the Authorized Version of the Old Testament, is usually denoted by the word translated *shoe*. It was usually a sole of hide, leather, or wood, bound on the foot by thongs; but it may sometimes denote such shoes and buskins as eventually came into use. Jewish ladies appear to have paid great attention to the beauty of their sandals (*Cant.* vii. 1), which, probably, did not differ much from those used in Egypt, excepting, perhaps, that from the greater roughness of their country, they were usually of more substantial make and materials. The Egyptian sandals varied slightly in form; those worn by the upper classes, and by women, were usually pointed and turned up at the end, like our skates and many of the Eastern slippers at the present day. In transferring a possession or

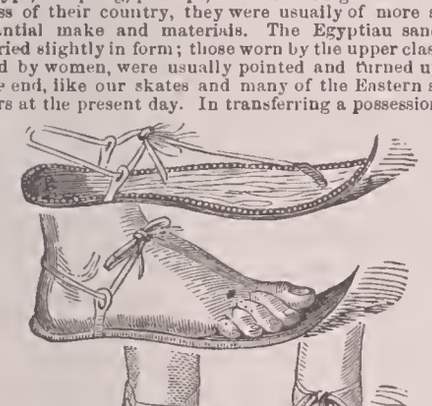


Fig. 2302. — EGYPTIAN AND TURKISH SANDALS.

domain, it was customary among the Jews to deliver a sandal (*Ruth* iv. 7), as in our Middle Ages, a glove. Hence, the action of throwing down a shoe upon a region or territory, was a symbol of occupancy (*Ps.* lx. 10). It was undoubtedly the custom to take off the sandals on holy ground, in the act of worship, and in the presence of a superior. Hence the command to take the sandals from the feet under such circumstances (*Exod.* iii. 5; *Josh.* v. 15). This is still the well-known custom of the East — an Oriental taking off his shoe in cases in which a European would remove his hat. The shoes of the modern Orientals are, however, made to slip off easily, which was not the case with sandals, which required to be unbound with some trouble. This operation was usually performed by servants; and hence the act of unloosing the sandals of another became a familiar symbol of servitude (*Mark* i. 7; *Luke* iii. 16; *John* i. 27; *Acts* xiii. 25).

—*pl.* A kind of ladies' slippers, having ribbons tied criss-cross over the instep of the foot.

San'dal, San'dal-wood, *n.* See SANTALUM.

Sandal'iform, *a.* Shaped like a sandal or slipper.

San'dal-wood Isle, an island of the Eastern Archipelago, in Lat. 10° S., Lon. 119° E. *Ext.* 120 m. long, and 60 m. broad in its widest part. The surface is generally mountainous, but fertile. *Prod.* Cotton, rice, coffee, sugar, maize, pepper, indigo, ebony, &c. *Chief towns.* Nangamessi and Padewawy. *Pop.* 1,000,000.

San'darac, San'darach, *n.* [Gr. *sandarakē*, realgar; Fr. *sandaraque.*] A white brittle resin obtained from *Callitris quadrivalvis*, a tree growing in N. Africa. The powder of this resin is used in the manufacture of varnish, for incense; and is, also, employed under the name of *pounce* to prevent ink from sinking into paper. (*Min.*) Realgar.

San'day, one of the Orkney islands; *pop.* 2,000.

Sand'bach, a town of England, co. of Chester, on the Wheelock, 24 m. E.S.E. of Chester; *pop.* 5,000.

Sand'-bag, *n.* (*Engrav.*) A leathern cushion, tightly filled with fine sand, used by engravers to prop their work at a convenient angle, or to give motion to a place or wood-cut, in engraving curved lines, &c.

—*pl.* (*Fortif.*) Bags of coarse canvas filled with sand, much used in cases where cover for troops is required to be speedily obtained, as a temporary revestment for parapets, &c.

Sand'-ball, *n.* Soap mixed with sand, or powdered pumice-stone, made into a ball for use in ablutions.

Sand'-bath, *n.* (*Chem.*) See BATH.

Sand'-blind, *a.* Having a defect of sight, by reason of which small particles like sand appear to fly before the eyes.

Sand'-box, *n.* A box with a perforated lid, for distributing sand over paper.

(*Mach.*) In locomotive engines, a box from which sand is sprinkled on the rails in front of the driving-wheel, to increase their power of adhesion, &c.

Sand'box-tree, *n* (*Bot.*) See HURA.

Sand'-crab, *n.* (*Zoöl.*) See ACYPODA.

Sand'-crack, *n.* (*Far.*) A vertical crack in a horse's hoof, apt, if not remedied, to induce lameness.

Sand Creek, in *Indiana*, rises in Decatur co., and flowing S.W. and W., enters Driftwood Fork of White River from Jackson co. — A township of Bartholomew co. — A township of Decatur co. — A township of Jennings co.

Sand'-drift, *n.* Whirling or driving sand.

Sand'ed, *a.* Covered with sand; barren; desert-like; as, a *sanded* valley. — Checkered with small spots; mottled; variegated with spots; speckled; as, a *sanded* hound. — Short-sighted; as, *sanded* eyes; — an English provincialism.

Sand'-eel, Sand'-lance, *n.* (*Zoöl.*) See AMMODYTE.

Sandema'nians, *n. pl.* (*Eccl. Hist.*) Same as GRASSITES, *q. v.*

San'derling, *a.* (*Zoöl.*) A small bird, a species of *Triga*, *T. arenaria*, family *Scolopacidæ*, native of North America and Europe.

San'ders, or **Red San'dal-wood,** *n.* See SANTALUM.

San'ders-blue, *n.* (*Paint.*) See SAUNDERS-BLUE.

San'derson's Hoop, a promontory of Greenland, S. of Uperuavik; the cliff is 3,000 feet high.

San'dersville, or SAUNDERSVILLE, in *Georgia*, a city, cap. of Washington co., about 28 m. E. of Milledgeville. *Pop.* (1897) 2,150.

Sandersville, or SAUNDERSVILLE, in *Indiana*, a village of Vanderburg co., about 10 m. N. of Evansville.

Sand'ford, in *New York*, a post-township of Broome county.

Sand'-fly, *n.* (*Zoöl.*) A small, troublesome fly, *Simulium nocivum*.

Sand'gate, in *Vermont*, a post-township of Bennington co.

Sand-glass, *n.* An hour-glass.

Sand'-grouse, *n.* (*Zoöl.*) A species of grouse, *Tetrao arenarius*.

Sand'-heat, *n.* The caloric of warm sand in chemical operations.

Sand'-hopper, Sand'-flea, *n.* (*Zoöl.*) See AMPHIPODA.

San Di'ego, in *California*, an extreme S. co., having Arizona Territory on the E., Lower California on the S., and the Pacific Ocean on the W.; *area*, abt. 15,000 sq. m. *Rivers.* Colorado, San Diego, San Luis del Rey, and Santa Margarita rivers. *Surface*, much diversified, and in the central part mountainous; *soil*, in the E. sterile, and in the W. generally fertile. *Min.* Gold is found near the Colorado river. *Cap.* San Diego. *Pop.* (1897) 38,660.

—A city, cap. of the above co., on a bay of the same name, about 470 m. S.E. of San Francisco; Lat. 32° 44′ 41″ N., Lon. 117° 8′ W. It possesses one of the best harbors on the Pacific coast. *Pop.* (1897) 21,400.

Sand'iness, *n.* [From *sandy.*] State of being sandy, or of a sandy color; as, *sandiness* of the hair, *sandiness* of soil.

Sand'ing Isles, two small islands off the S.W. coast of Sumatra.

Sand'isfield, in *Massachusetts*, a post-village and township of Berks county, about 37 miles W. of Springfield.

Sand'iston, in *New Jersey*, a township of Sussex county.

San'diver, San'dever, *n.* Same as GLASS GALL, *q. v.*

Sand'jak, San'giac, *n.* A Turkish governor of a territorial district.

Sand Lake, in *New York*, a post-village and twp. of Rensselaer co., abt. 10 m. S.E. of Albany.

Sand'-martin, *n.* (*Zoöl.*) A species of Swallow (*Hirundo riparia*).

San Domin'go, or the DOMINICAN REPUBLIC. See HAYTI.

San Domingo, a town of the U. S. of Colombia, abt. 60 m. E. of Antioquia.

San Domingo, an islet of the W. Indies, on the Great Bahama Bank, abt. 90 m. N.E. of Nuevitas, in Cuba.

San Domingo, in *New Mexico*, a town on the Rio Grande del Norte, abt. 28 m. S.W. of Santa Fé.

San Domingo Sinacantan', a town of Mexico, in Chiapa, on the borders of Tabasco; *pop.* abt. 2,500.

San Domingo Suriano, (*soo-re-a'no,*) a village of Uruguay, on the Rio Negro, abt. 80 m. N. of Buenos Ayres.

Sandomir, (*san'do-meer,*) a town of Russian Poland, on the Volga, 50 m. S.W. of Lublin. It was formerly the residence of the kings of Poland. *Pop.* 4,500.

San Do'na, a town of Italy, on the Piave, 18 m. N.E. of Venice. *Manuf.* Silk and linen goods. *Pop.* 4,600.

San'doval, in *Illinois*, a post-village of Marion co., abt. 61 m. E. of St. Louis.

San'down, in *New Hampshire*, a post-township of Rockingham county, about 34 miles south-east of Concord.

Sand'-paper, *n.* Paper covered on one side with a fine gritty substance, small as sand, for smoothing and polishing.

Sand'-piper, *n.* (*Zoöl.*) See TRINGA.

Sand Prai'rie, in *Illinois*, a township of Tazewell co.

Sand Ridge, in *Iowa*, a village of Des Moines co., abt. 75 m. S.S.E. of Iowa City.

Sand'-rock, *n.* A rock composed of cemented silicious sand.

Sand'-star, *n.* A species of star-fish, *Ophiura texturata*.

Sand'stone, *n.* (*Geol.*) A general term applied to all stones composed of agglutinant grains of sand, which may be silicious or calcareous.

Sand Stone, in *Michigan*, a post-township of Jackson co.

Sand Stone Creek, in *Michigan*, enters Grand River from Jackson co.

Sand'town, in *Georgia*, a village of Campbell co., abt. 11 m. W. of Atlanta.

Sand'town, or BERKELEY, in *New Jersey*, a village of Gloucester co., abt. 5 m. S.W. of Woodbury.

Sand'-tube, *n.* Same as FULGURITE, *q. v.*

Sandus'ky, in *New York*, a post-village of Cattaraugus co., abt. 40 m. S.E. of Buffalo.

Sandusky, in *Ohio*, a N. co., bordering on Sandusky Bay, of Lake Erie; *area*, 420 sq. m. *Rivers.* Portage, with Toussaint, Muddy, and Sugar creeks. *Surface*, level, and in the W. is the famous *Black Swamp*, covered with dense forests; *soil*, fertile. *Min.* Limestone. *Cap.* Fremont. *Pop.* (1897) 36,710. — A thriving commercial city, port of entry, cap. of Erie co., on Sandusky Bay, 5 m. from Lake Erie, and 110 N.E. of Columbus; Lat. 41° 27′ N., Lon. 82° 45′ W. The bay, 20 m. long and 60 broad, with an average depth of 12 feet, forms a commodious and safe harbor. The city, situated on an elevation overlooking the bay, is mostly built of stone or brick, and contains many elegant churches, dwellings, and warehouses. It is the terminus of two extensive lines of railway, and its commerce is rapidly increasing. *Pop.* (1897) 20,100. — Also, the name of three townships in Crawford, Richland, and Sandusky cos.

—A river rising on the boundary-line of Crawford and Richland cos., and flowing N. enters Sandusky Bay.

Sandusky, in *Vermont*, a post-village of Addison co., abt. 22 m. W.S.W. of Montpelier.

Sand'-wasp, *n.* (*Zoöl.*) See VESPARIÆ.

Sand'wich, *n.* A viand, or slight refection, consisting of two slices of bread and butter, with a thin slice of ham or other cold salt-meat placed between.

—*v. a.* To lay between other parts; to form an inner lamina; as, to *sandwich* the permanent way of a railroad. to *sandwich* a newspaper column.

Sandwich, a Cinque-port of England, co. of Kent, on the Stour, 2 m. from its mouth, and 65 m. S.E. of London. It was formerly a place of considerable importance, but is much decayed, mainly owing to the receding of the sea. *Pop.* 8,000.

Sandwich, in prov. of Ontario, a p.-v. and twp., cap. of the co. of Essex, on the Detroit River, opposite the city of Detroit, Michigan. — In *Ill.*, a city of DeKalb co. *Pop.* (1897) 2,950. — In *Mass.*, a post-township of Barnstable co., about 56 m. S.E. of Boston. — In *N. H.*, a post-township of Carroll co., abt. 50 m. N. of Concord.

Sandwich (EDWARD MONTAGU), EARL OF, general and admiral, son of Sir Sidney Montagu, of Broughton, England, was born July 27, 1625, and in 1643 raised a regiment in the service of the Parliament, with which he distinguished himself at Marston Moor, Naseby, and the siege of Bristol. He sat in the House of Commons (1645–48), was a member of the "Little Parliament" and of the Council of State (1653), and in 1656 succeeded Penn — father of William Penn — as admiral. In 1657, England having joined France in war against Spain, he aided with the fleet to prevent the relief of 3 coast towns besieged by the French, and defeated the attempt of a great Spanish force to retake Mardike, one of these towns. After the death of Cromwell, Sandwich aided in the restoration of Charles II., conveyed him to England in the fleet under his command, and was, in reward, made Knight of the Garter, and afterward elevated to the peerage as Baron Montagu, Viscount Hinchinbroke, and Earl of Sandwich. He commanded the Blue Squadron in the war with the Dutch of 1664–65, in which he greatly distinguished himself. In a renewal of the war in 1672, he again commanded the Blue Squadron, and during the fight in Southwold Bay, May 28, his ship, the *Royal James*, was set on fire by the Dutch, whereupon he leaped overboard and was drowned. His body was recovered and buried in Westminster Abbey.

Sandwich (JOHN MONTAGU), FOURTH EARL OF, was born Nov. 3, 1718, and succeeded to the earldom in 1729. He was educated at Eton and Cambridge, and took an active part in politics as a supporter of Sir Robert Walpole. He was appointed plenipotentiary to the Congress at Breda, in 1746, and in 1748 became first Lord of the Admiralty, which he held till 1751, and again 1763–65 and 1771–82. Died April 30, 1792. He became famous as the inventor of the *sandwich*, the invention being due to his devotion to the gaming-table, the convenient layers of bread and meat enabling

him to satisfy his appetite without leaving the cards.

Sand'wich Bay, an inlet of the coast of Labrador.

Sandwich Is'lands. See HAWAII.

Sand'-worm, *n.* A general name for any of the worms living in the sand of the seashore. There are many forms of these, mostly belonging to the order of *Chætopoda*, and having setæ for organs of motion. The most important of the sedentary forms is the Lobworm of the fishermen. This is extremely abundant on the British shores and is highly valuable as bait. *Terebella conchilega* dwells in a tube, mostly composed of fragments of shell, examples of which are common on many beaches. There are, in addition, various wandering forms, which hide under stones or burrow deeply in the sands, of the genera *Nereis, Nephthys, Polynoe, Syllis*, &c.

Sand'-wort, (*-wurt,*) *n.* (*Bot.*) See ARENARIA.

Sand'y, *a.* [A. S. *sandig*] Abounding with, or full of, sand; consisting of, or containing, sand; covered or sprinkled with sand; as, a *sandy* desert, a *sandy* soil.—Of the color of sand; characterized by a yellowish-red color; as, *sandy* hair.

Sand'y, a river of prov. of Ontario, entering Lake Superior 30 m. S. of Cape Chaillons.

Sandy, in *O.*, a twp. of Tuscarawas co.—A twp. of Stark co.—In *Oregon*, a p.-v. of Multnomah co., abt. 15 m. N.E. of Portland.

Sandy Creek, in *Ala.*, enters the Tallapoosa River a short distance W. of Dadeville.—Or BIG SANDY, in *Geo.*, flows into the Oconee River from Wilkinson co., at its S. E. extremity.—In *Gea.*, unitee with Labor Creek in Morgan co.—In *N. Y.*, a p.-v. and twp. of Oswego co., abt. 47 m. N.W. of Rome.—In *N. Y.*, enters the N. end of Lake Ontario from Jefferson co.—Another, flows into Lake Ontario from Monroe co., abt. 20 m. N.W. of Rochester.—In *N. C.*, flows S. into Deep River, E. of Ashborough.—In *Penna.*, a v. and twp. of Mercer co.—A v. and twp. of Venango co.—In *Penna.*, flows into the Alleghany River from Venango co.—In *Ohio*, rises in the E part of the State, and flows S.W. into the Tuscarawas River at Bolivar.—In *Texas*, flows into Colorado R. from Gillespie co.—Another, flows S. ioto the Navidad R. from Jackson co.—In *Va.*, enters Bauister R. at Meadsville, Halifax co.

Sandy Hill. in *Md.*, a p.-v. of Worcester co., abt. 109 m. S E. of Aunapolis.—In *N. Y.*, a p.-v. of Washington co., on the Hudson, abt. 52 m. N.E. of Albany.

Sandy Hook, in *Conn.*, a p.-v. of Fairfield co., abt. 21 m. W.N.W. of New Haven.—In *Md.*, a v. of Washington co., on the Potomac, abt. 1 m. E. of Ilerper's Ferry.—In *N. J.*, a sandy beach at the entrance to New York Bay, 6 m. long and abt. 1 m. wide, with a fixed light 90 ft. high, at the N. point; Lat. 40° 27′ 3″ N, Lon. 74° 0′ 48″ W.—In *Va.*, a p.-v. of Rappahannock co., abt. 28 m. S. of Winchester.

Sandy Lake, in *Penna.*, a p.-twp. of Mercer co., abt. 12 m. N.E. of Mercer.

Sandy Neck, in *Mass.*, a light-house on the W. side of the entrance to Barnstable Bay; Lat. 41° 44′ N., Lon. 70° 15′.

Sandy River, in *Maine*, rises in Franklin co., and flows into the Kennebec in Somerset co.—In *Mich.*, rises in the W. part of the State, and entere Lake Michigan from Mason co.—In *Oregon*, risee in Clackamas co., and flows N.W. into the Columbia River from Multnomah co.—In *S. C.*, flows into Broad River from the S.W. of Chester dist.—Or BIG SANDY RIVER, in *W. V.* and *Ky.*, formed by the junction of the Tug Fork from Tazewell co., and the W. or Louisa Fork from Russell co., Va., and flows into the Ohio River, nearly opposite Burlington, in Ohio, after a N. course of 50 m.

Sandys, GEORGE, a famous early traveller and translator, was born in 1577, son of an archbishop of York, studied at Oxford, and began his travels in 1610. He journeyed by way of Venice to Constantinople, thence to Egypt and Palestine, returning by way of Sicily, Naples, and Rome. These travels gave rise to a series of geographical and ethnological volumes, written in an entertaining and often eloquent style. Later in life he translated Ovid's *Metamorphoses*, part of Virgil's *Æneid*, and some books of the Scriptures, his verse being praised by Dryden, and deservedly so. He died in 1644.

Sandy Spring, in *Maryland*, a post-village of Montgomery co., about 30 m. W. S. W. of Baltimore.

Sandy'ville, in *Ohio*, a post-village of Tuscarawae co., abt. 112 m. E.N.E. of Columbus.

Sane, *a.* [Lat. *sanus*; Gr. *sáos, sôs*, safe and sound; Fr. *sain.*] Sound; whole; healthy; not disordered or shattered; as, a *sane body*.—Sound in mind; having the regular exercise of reason and the other faculties of the mind; not disordered in intellect; as, a *sane* person.

Sane'ness, *n.* State of being sane, or of sound mind.

San Felipe', a port of Central America, in Honduras, on Golfo Dulce River; Lat 15° 38′ N., Lon. 89° 1′ 45″ W.—In *Texas*, a p.-v. of Austiu co., abt. 150 m. E.S.E. of Austin City.—In Venezuela, a town of the dept. of Caracas, 60 m. W.N W. of Valencia.

San Felipe de Aconcagua, (*-da-a-kon-ka'gwa,*) in Chili, a town, cap of the prov. of Acoucagua, abt. 15 m. N. of Santiago; *pop.* 13,000.

San Felipe-de-Javita. (*-de-ha-ve'ta,*) a town of Spain, prov. of Valencia, 43 m. from Valencia. *Manuf.* Woollen goods. *Pop.* 13,500.

San Fernan'do, a town of the Argentine Republic, 15 m. from Buenos Ayres; *pop.* 3,000.—In *Cal.*, a town of Los Angeles co., abt. 27 m. N.W. of Los Angeles.—In Chili, a town, cap. of the dept. of Colchagua, abt. 80 m. S. of Santiago.—In Venezuela, a town of the dept. of Caracas, abt. 130 m. W.N.W. of Calabozo.

San Fernan'do. SERRA DE DOIRADOS, a mountain of S America, dividing the Brazilian prov. of Matto-Groseo from the Bolivian territory of Chiquitos.

San Fernando de Apure. (*-da-a-poo're,*) a town of Venezeula, 70 m. S. of Calahozo; *pop.* 6,000.

San Francis'co, (abbreviated *'Frisco* by California usage,) a city and seaport of the U. States, in *California*, (of which State it is the metropolis in point of size, wealth, and importance,) is situate on the S. promontory hounding the great Bay of San Francisco, and a little to the S. of the "Golden Gate" (Fig. 479), opening to the Pacific, in Lat. 37° 48′ 30″ N., Lon. 122° 27′ 23″ W. The city is built over a series of eminences of comparatively moderate elevation, hut from which fine prospects of the hay and surrounding country are afforded. The growth of *S. F.* has been quite extraordinary. In the early part of 1848 it consisted only of a few rude ehanties; whereas it is now, comparatively speaking, one of the chief American cities as regards the uumher and elegance of its public and domestic edifices. This transformation, as is well known, was the result of the discovery of the gold deposits in the beds of the tributaries of the San Joaquin and Sacramento rivers, which fall into her hay. Such, however, are the advantages of the location of the city, the spirit of enterprise of its inhabitants, anü the fertility of the adjacent region, that even the exhaustion of gold-mining would not sensibly affect her growth, or the extent of her trade. Among the public edifices are the New City Hall, Custom House, U. S. Mint, Banke of California and of Nevada, Merchante' Exchange, Palace, Baldwin, and other fine hotels. The Palace hotel cost, including grouud and furniture, $3,250,000. A stone dry-dock, with capacity for a ship of 6,000 tons; these, together with handsome churches, theatres, public halls, gardens, parks, excellent libraries and reading-roome, clubhouses, and institutions established for science, literature, and benevolence. The city of *S. F.* is well governed; an efficient police system insuree the public safety; fires are less frequent and destructive than in eastern cities; prostitution is lese openly carried on; and gamhling is of late yeare forhidden. The etreets are dirty, it is true, and with the clonds of dust which, in blowing weather, sweep over the city like a sand-storm, form drawbacke which,

Fig. 2303. — MONTGOMERY STREET, (San Francieco.)

after all, are hut elight in comparison with its many advantages. The principal husiness thoroughfare, Montgomery street, the fashionahle promenade, ie neat and handsome, with many fine edifices. The buciness streete are paved with cuhical blocks and cohhle-stones; others are plauked, hoth in the carriage-way and sidewalk. Golden Gate Park contains over 1,000 acree; besides this are several small squaree, and innumerable gardene attached to the houses of the citizeus. Flowers and ehrubs greet one'e sight in every direction; eo much, indeed, is this the case, that a recent enthusiaetic traveller has declared that *S. F.* should he called the "City of Flowere." The clin.ate ie also everything that could he desired, heing at once sunny and eool. The winter is like the spring of the Eastern States, showery, hut delightful. *S. F.* ie the centre of great wealth and the home of many millionaires. Many of the minee of gold, silver, quicksilver, and coal, the depoeits of horax and sulphur, the quarries of granite, marhle, trap, slate, and stearite, the mining and irrigating ditches, the quartz-mills and eawmille, the vineyards, farme, orchards, and ranchos, from Arizona to Idaho, and from the Pacific to the Rocky Mountains, are owned here. The city poesesses large mannfacturing intereste, they comprisiug large sugar refineries, iron foundries, rolling mills, and machine shops; also extensive shlp-yards, in which vessele of the largest size are built, ropo-walks, door and sash factories, and manufacturers of glass, flour, furniture, clothing, tinware, &c.—*Com.* Tho bay of *S. F.* has a narrow entrance, hut within it expands to one of the nohlest hasine that is anywhere to be met with, having a coast-line of about 275 uiles. The city has become the seat of a very extensive foreign commerce, and ie now the great emporium of the U. S. on the Pacific seaboard. A large number of ocean steamers run from the port of *S. F.* in regnlar lines to Hawaii, Japan, Australia, Panama, Mexico, &c., with coast lines to Puget Sound and all interveuing ports. San Francisco has often been visited by earthquakes, much the severest being that of April 18, 1906. This hurled into ruin large numbers of buildiugs, whilo the firee that followed threatened to destroy the entire city and were only arrested after the husiness and much of the best residential parts of the city had been consumed. Tho total loss is estimated at the phenomenal sum of over $300,000,000. The people of the couutry came nobly to the rescue and nearly $20,000,000 was contributed for relief. Rebuildiug, on improved lines, began at once, and much progress has been made, but it will take years to restore the city to its former etate. *Pop.* (1900) 342,782.

San Francis'co, in *Califarnia*, a W. co., bordering on the Pacific, having N. and E. San Francisco Bay, and S. San Mateo; *area*, 50 sq. m. *Surface*, diversified; *soil*, fertile. *Min.* At one time there was considerable gold found within the limits of tbis county, but the deposits were long ago exhausted. *Cap.* San Francisco, with which city tbe co. is coextensive.

San Francis'co, a port on the S.W. coast of California; Lat. 30° 45′ N., Lon. 113° 40′ W.

San Francisco, in *Minnesota*, a village and township of Carver co., abt. 35 m. S.W. of St. Paul.

San Francisco, (*-fran-sis'ko,*) a village of N. Peru.

San Francisco, (Bay of,) an iolet of tho Pacific, iu *California*, between Lat. 37° 30′ and 38° 8′ N., Lon. 122° and 122° 30′ W. *Extent.* 55 m. long from N.NW. to S.S.E.; breadth varying from 2 to 12 m. The entrance to the hay, called the *Golden Gate* (Fig. 479), is very picturesque; the shores are bold and rocky; and the channel iu its narrowest part is hut 1 m. wide.

San Francisco de la Monta'na, a town of the Republic of Colombia, department of Istmo, on the Isthmus of Panama, N. E. of Santiago. *Pop.* (1897) 6,160.

Sang, *imp.* and *pp.* of SING, *q. v.*

San Ga'briel, an island of the Argentine Republic, in the æstuary of the Plata, abt. 22 m. N.E. of Buenos Ayres; Lat. 34° 30′ S., Lon. 57° 58′ W.

San Gabriel, in *California*, a post-village of Loe Angeles co., abt. 8 m. E. of Los Angeles.—A town of Los Angeles co., abt. 18 m. N.E. of Los Angeles.

San Gabriel, in *Texas*, a river rising in the W. of Williamson co., and flowing E into Little River, a short distance S.W. of Cameron in Milan co.

San Gabriel River, in *California*, entere the Pacific Ocean from Los Angeles co.

San'gamon, a river of W. Illinois, formed in Sangamon co. hy the junction of its N. and S. branches, and falls into the Illinois River, 10 m. N. of Beardstown, after a W. course of 200 m. It is navigahle for small steamhoats during high water.

San'gamon, in *Illinois*, a S.W. central co; *area*, 750 sq. m. *Rivers.* Sangamon and S. Fork; also, Sugar, Lick, Brush, and Spring creeks. *Surface*, level, and mostly prairies; *soil*, fertile. *Min.* Coal. *Cap.* Springfield. *Pop.* (1897) 63,400.

Sangarec', *n.* [Sp. *sangria*, a drink.] A West Indian term for wine and water sweetened and spiced; negus.

San'gerfield, in *New York*, a post-village and township of Oneida county, about 15 miles south-south-west of Utica.

Sangerhan'sen, a town of Prussian Saxony, at the foot of the Hartz Mountains, 33 m. W.N.W. of Meresburg. *Manuf.* Woollens and linens. *Pop.* 7,283.

Sang-froid, (*sông'-frwah,*) *n.* [Fr., cold blood.] Coolbloodedness; freedom from agitation or perturhation of the epirits; presence of mind; lack of ardor or violent emotion; apathetic indifference.

San Ger'man, a town of the W. Indies, on the S.W. of the island of Porto Rico; *pop.* 9,125.

San Geronimo, (*ha-ran'ne-mo,*) a emall river of Califorula, whieh entere the Pacific from Marin co.

San Geron'imo, a town of the Republic of Colomhia, about 16 m. S. E. of Antioquia.

San Geronimo, a village of Mexico, about 15 m. S. W. of the city of Mexico.

Sangerville (*sang'gher-vil*), in *Maine*, a post-township of Piscataquis county, about 70 miles N. N. E. of Augusta.

San Gil, or **Saint Giles** (*san-heel'*), a town of the Republic of Colomhia, department of Boyaca, about 64 m. S. W. of Pamplona. *Pop.* (1897) 7,170.

San'gir, an island of the Eastern Archipelago; Lat. 3° 28′ N., Lon. 125° 44′ E.

San Gor'gonio, (Mount,) in *Califarnia*, San Diego co.; Lat. 33° 48′ N., Lon. 116° 40′ W. *Height*, 7,000 ft.

San'giac, *n.* Same as SANDJAK, *q. v.*

San'giacate, *n.* A division of a Turkish province or pashalic.

San'greals, SANGREAL, or SAINT GRAIL. [The Holy Cup or Grail, said to be from Mod. Lat. *gradale*, a cup; but supposed by some to be a corruption of the Old. Fr. *le Sang Real*, *i. e.*, the true hlood of Christ.] This sacred rolic, preserved in an emerald cup, is said in legendary history to have heen hrought to England by Joseph of Arimathea. According to tbe romantic story of King Arthur, it could only he discovered by one possessed of perfect virtue; and the "Quest of the St. Grail" by the Knights of the Ronnd Table, of whom the perfect champion, Sir Galahad (in other legends *Perceval*), was favored by ite diecovery, ie narrated therein at great length.

Sanguif'crous, *a.* [Lat. *sanguis*, blood, and *ferre*, to bear.] Conveying or Imparting blood; as, the *sanguiferaus* veseels.

Sanguiferous vessels. (*Anat.*) The arteries, veins, and capillaries.

Sanguifica'tion, *n.* [Fr.] (*Physial.*] The conversion of the chyle into hlood.

Sanguifi'er, *n.* That which produces hlood.

Sanguiflnous, *a.* Running or flowing with blood.

San'guify, *v. n.* [Fr. *sanguifier.*] To produce blood.

Sanguina'ria, *n.* [Lat. *sanguis*, blood, because nsed to stop hemorrhage.] (*Bot.*) A genus of plants, order *Papaveraceæ*. The most Interesting speciee is *S. canadensis*, the Puccoon, a native of N. America. Its root, often called *blood-raat*, from its containing a red juice, ie used internally in large doses as an emetic and purgative, and in small doses as a diaphoretic and expectorant. When applied externally, it is said to exhihit marked escharotic properties, and has been tried comhlned with chloride of zinc as an application to check cancerous growths.

San'guinarily, *adv.* In a sanguinary or bloodthirsty manner.

San'guinariness, *n.* State or quality of being sanguinary.

Sanguinary, (*sang'gwĭ-narў,*) *a.* [Fr *sanguinaire;* Lat. *sangainarius — sanguis,* blood.] Bloody; murderous; causing, or attended with, much bloodshed; as, a *sangainary* war. — Bloodthirsty; savage; cruel; eager to shed blood; as, a *sanguinary* tyrant.

Sanguine, (*săng'gwin,*) *a.* [Fr. *sanguin.*] Red; crimson: having the color of blood; as, *sanguine* streamers. (*Dryden.*) — Abounding with blood; plethoric; characterized by full and active circulation of the blood; as, a *sanguine* constitutional temperament.—Ardent; warm; animated; lively; ae, a *sanguine* temper. — Confident; hopeful; anticipating the best; not diffident or desponding; as, to be *sanguine* of success.

San'guinely, *adv.* In a sanguine or ardent manner; confidently; with lively anticipation of success; as, he looks forward quite *sanguinely.*

San'guineness, *n.* State or quality of being sanguine; redness; plethora; ardor; warmth of temper; confidence; hopefulness.

Sanguin'eous, *a.* [Lat. *sanguineus.*] Sanguine; plethoric; abounding with blood; as, a *sanguineous* habit of body. — Of the nature of blood: relating to, or consisting of, blood. — Constituting blood; as, *sanguineous* particles. — Of a red or blood color; crimson; as, a *sanguineous* tint.

Sanguniv'erous, *a.* [Lat. *sanguis,* blood, and *vorare,* to gorge.] Eating or subsisting on blood, as leechee.

Sanguin'olency, *n.* State of being sanguinolent.

Sanguin'olent, *a.* [Fr., from Lat. *sanguinolentus.*] Bloody; tinged or commixed with blood.

Sanguisorba'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Rosales,* usually combined with *Rosaceæ,* but eeparated by Lindley on account of tho constantly apetalone flowers, indurated calyx, and solitary or almost solitary carpels. Their general character is that of astringency. The *Sanguisorba officinalis,* or Burnet (Fig. 2304), is sometimes grown as a pasture plant.

Fig. 2304. — GREAT BURNET, (*Sanguisorba officinalis.*) *a,* a leaf; *b,* spikes of flowers; *c,* a flower.

Sanguisuge, (*săng'gwi-sŭj,*) *n.* [From Lat. *sanguis,* and *sugare,* to suck; Fr. *sangsue.*] (*Zoöl.*) The horse-leech. See LEECH.

San'hedrim, San'hedrin, *n.* (*Jewish Hist.*) The highest judicial tribunal among the Jews, consisting of 71 members, including the high-priest. Its origin is referred by some writere to the inetitution by Moses of a council of 70 persons on the occasion of a rebellion of the Israelitee in the Wildernese. According to the Talmudists, they assembled in a chamber within the precincts of the temple; but according to Josephus, it was in a room on the east eide of Mount Zion, not far from the temple; and at the trial of Christ we read that they assembled in the high-priest'e house. The authority of this council was very extensive. It decided on all the great affairs of the nation, and it was also a court of appeal from inferior tribunals. The right of judging in capital casee and pronouncing sentence of death belonged to this court alone. In the time of Christ, its power had been much limited by the interference of the Romans. It still retained the right of passing eentence of death, but the power of executiug it rested with the Roman procurator.

Sanic'ula, *n.* (*Bot.*) The Sanicle, a genue of plants, order *Apiaceæ,* having the umbel nearly eimple; rays few, with many-flowered, capitate umbellete; involucre of few, often cleft leaflets; involucel of several, entire.

Sa'nies, *n.* [Lat.] (*Med.*) A thin, unhealthy, serous discharge from wounds or soree.

San'ilac, in *Michigan,* an E. co., bordering on Lake Huron; *area,* abt. 950 eq. m. *Rivers.* Caes, Black, and North Fork of Cass River. *Surface,* undulating; *soil,* moderately fertile. There is a great abundance of pine, sugar-maple, and other trees. *Cap.* Sanilac Center. *Pop.* (1894) 33,944.

—A township of the abovo co., on Lake Huron.

San Ildefonso, (*-eel-da-fon'so,*) a group of islands, in the S. Atlantic, abt. 80 m. W. of Cape Horn.

Sa'nious, *a.* [Fr. *sanieux.*] Pertaining, or relating, to sanies; thin and serous, and slightly tinctured with blood; as, the *sanious* discharge of a sore. — Effusing a thin, unhealthy, serous, reddish pus; as, a *sanious* ulcer.

San Isidro, (*-e-see'dro,*) a town of the Argentine Republic, abt. 12 m. N. of Buenos Ayres; *pop.* abt. 1,200.

San'itarist, *n.* One who advocatee, or carries into effect, measures of eanitary reform.

Sanita'rium, *n.* [Lat.] A health station; as, a *sanitariam* for invalids.

San'itary, *a.* [Fr. *sanitaire,* from Lat. *sanitas—sanus.*] Pertaining to health; having refereuce to eauity, or to the promotiou and preservation of health; hygienic; as, *sanitary* rules.

—*n. S. science.* That department of human knowledge which regards the laws of the human body, and of the agents by which it is surrounded, with a view to the preservation of health and the warding off of disease and death. The practical application of these lawe constitutes *hygiene,* or the art of preventing disease. This is commonly divided into *public* and *private* hygiene, the former having regard to the healthy condition of persons in communities, in camps, barracks, workhouses, &c.; the latter to the health of individuals.

San'ity, *n.* [Fr. *santé,* from Lat. *sanitas — sanus.*] Quality or condition of being sane in body or mind: eoundness of the intellectual faculties; especially, the state of mind in the perfect exercise of reason; saneness; — correlative to *insanity;* ae, doubts are entertained of his *sanity.*

San Jacinto, (*ha-seen'to,*) a river of *Texas,* rising in the W. of Walker co., and flowing into Galveston Bay, 25 m. E. of Houston.—A village of Harris co., abt. 18 m. E. of Houston; *pop.* abt. 511. Here was fought, in 1836, the battle of San Jacinto, which insured the independence of Texae. See HOUSTON, (SAM.)

San Jalme, (*-hi'ma,*) a town of Venezuela, dept. of Apure, abt. 30 m. N.N.W. of San Fernando de Apure; *pop.* 7,000.

San Joaquin, (*-ho-a-keen',*) an important river of *California,* rises in the Sierra Nevada Mountaine, and after a general N.W. course of 350 m., for two-thirds of which it is navigable, joins the Sacramento abt. 30 m. E. of Martinez: Lat. 38° 10′ N., Lon. 120° 50′ W.— A N. W. central co.; *area,* 1,380 sq. m. *Rivers.* Moquelumne, San Joaquin, and Calaveras. *Surface,* generally level; *soil,* fertile. *Min.* Gold. *Cap.* Stockton. *Pop.* (1897) 29,800.

—A town of Sau Joaquin co., about 77 m. S. E. of San Francisco.

San Joaquin, a village of Paraguay, abont 100 m. E. N. E. of Assumption.

San Jorge (*-hor'ha*), a river of the Republic of Colombia, which, after a N. E. course of 180 m., joins the Cauca, 30 m. S. W. of Mompox.

San Jorge D'Olaucho, (*-hor'ha do-lan'cho,*) a town of Central America, in Honduras, abt. 80 m. S.S.W. of Truxillo.

San José, (*-ho'să,*) an island in the Gulf of California, abt. 100 m. S.E. of Loreto.

San José, a town of Bolivia, prov. of Chiquitos; Lat. 17° 40′ S., Lon. 64° 40′ W.; *pop.* 2,000.

San José, in *California,* a city and township, cap. of Santa Clara co., on the Guadalupe River, abt. 51 m. S.S. E. of San Francisco; Lat. 37° 24′ N.. Lon. 121° 54′ 30″ W. *Pop.* 20,000.

San José, one of the Pearl Islands of the Republic of Colombia, in the Bay of Panama, department of Istmo, about 8 m. S. W. of the island of Rey.

San José, an island in the Rio Negro, on the boundary line between Brazil and Venezuela.

San José del Interior, (*-een-ta-re-or',*) in Central America, a town, cap. of the state of Costa Rica, abt. 15 m. W.N.W. of Cartego; *pop.* 18,000.

San José del Parral', a town of Mexico, in Durango, abt. 200 m. N.W. of Durango; *pop.* 5,000.

San José de Oruna, (*-da o-roo'na,*) a town and former cap. of the island of Trinidad, abt. 5 m. E. of Port-of-Spain.

San Juan, (*-hoo-an',*) a navigable river of Central America, in Nicaragua, formed by the eurpline waters from Lake Nicaragua, which it discharges into the Caribbean Sea, at the port of Sau Juan, 80 m. S. of the mouth of Bluefields River, after an E. course of abt. 100 m.

San Juan, a river of Bolivia, prov. of Chiquitos, an affluent of the Aguapehi.

San Juan, a river of Bolivia, which joins the Pilcomayo, abt. 80 m. S.S.E. of Siuti, after a S.E. couree of 300 m.

San Juan, a river of Mexico, risee in Cohahuila, and joine the Rio Grande del Norte abt. 120 m. from its mouth, after an E. course of 150 m.

San Juan, a river of the Argentine Republic, rises in the Andes, and flows E. into Lake Guanacache.

San Juan, a river of the Republic of Colombia, dept. of Cancu, flows into the Pacific, by several mouths, about 35 m. N. W. of Buenaventura, after a S. W. course of 150 m.

San Juan, a town of Cuba, abt. 15 m. S.S.W. of Havana.

—Also, a town, about 42 m.W.N.W. of Santiago de Cuba.

San Juan, a town of Peru, proviuce of Chachapoyas, on San Juan river. *Pop.* 18,000.

San Juan, a town of the island of Haytl, about 80 m. N. W. of San Domingo.

San Juan, in *California,* a post-village and townehip of San Benito co., abont 42 m. S. S. E. of San Jose.

San Juan Bautis'ta, or BAPTISTA DEL RIO GRANDE, a town of Mexico, about 85 m. N. N. E. of Cohahuila.

San Juan Bautista, or BAPTISTA, formerly *Villa Hermosa,* a town of Mexico, cap. of Tabasco, on the river Tabasco, abt. 70 m from its mouth in the Caribbean Sea.

San Juan Bautista, or SAN JUAN BAPTISTA DEL PAO, a town of Venezuela, department of Caracae, about 110 m. S. W. of Caracas.

San Juan, Cape, the N. E. extremity of the ieland of Porto Rico, West Indiee.—Also, the most S. point of Vancouver's Island, in British North America.

San Juan Capistra'no, in *California,* a town of Orange co., about 32 m. S. E. of Loe Angeles.

San Juan Chiname'ca, a town of Central America, in San Salvador, about 15 m. N. of San Miguel.

San Juan de Fuca, an Island of Britieh North America. See FUCA, STRAIT OF.

San Juan de la Frontera (*-fron-ta'ra*), a W. prov. of the Argentine Republic, between Lat. 30° and 32° S., Lon. 68° and 70° W., having N. the prov. of Rioja, S. Mendoza, and W. the Andes. *Cap.* San Juan. *Pop.* 25,000.

San Juan de los Llanos, (*-da loce la'noce,*) a town of the U. S. of Colombia, dept. of Cundinamarca, abt. 65 m. S.S.E. of Bogotá.

San Juan de los Remedios, (*-da loce ra-ma'deoce,*) a seaport-town on the N. coast of Cuba, abt. 180 m. E. of Havana; *pop.* 6,000.

San Juan del Rio, (*-ree'o,*) a town of Mexico, in Queretaro, abt. 30 m. S.E. of Queretaro; *pop.* abt. 10,000.

San Juan del Sur, (*-soor.*) a eeaport of Nicaragua, on the Pacific, about 24 m. S.W. of Nicaragua; Lat. 11° 15′ 37″ N., Lon. 85° 52′ 56″ W.

San Juan de Nicara'gua, SAN JUAN DEL NORTE, or GREYTOWN, a eeaport-town of Nicaragua, in Mosquito Territory, at the mouth of the San Juan, in the Caribbean Sea; Lat. 10° 55′ N., Lon. 83° 43′ W. Its harbor is one of the finest on the coast.

San Juan de Porto Rico, (*-por'to ree'ko,*) the principal city and seaport of the island of Porto Rico, on an island off its N. coast; Lat. 18° 29′ N.. Lon. 66° 7′ 2″ W. It is strongly fortified, one of the healthiest towns of the W. Indies, and is the eeat of government and of the euperior courts of the island. *Pop.* 11,000.

San Juan de Ulloa, (*-da oo-loo'a,*) a strong castle or fort of Mexico, defending the harbor of Vera Cruz, on a small island N.E. of the city.

Sauk, *imp.* of SINK, *q. v.*

San Loren'zo, a small ieland in the Gulf of California.

San Lorenzo, a river of the Argentine Republic, which joins the Vermejo, nbt. 55 m. N. of Corrientes, after an E. course of 120 m.

San Lorenzo, a town of the Argentine Republic, abt. 32 m. S.E. of Santa Fé.

San Lean'dro, in *California,* a post-village, former cap. of Alameda co., about 20 m. S.E. of San Francisco. *Pop.* about 700.

San Loren'zo, in *California,* a poet-village of Alameda co., abt. 3 m. S.E. of San Leandro.

San Lorenzo de la Fronte'ra, a town of Bolivia, on the Guapey, a ehort distance from Santa Cruz de la Sierra; *pop.* 4,000.

San Lu'car, a seaport-town of Spain, prov. of Cadiz, 14 m. N.W. of Cadiz; *pop.* 17,000.

San Luis, or SAN LUIS DE LA PUNTA, (*-loo'is da lapoon'ta,*) in the Argentine Republic, a city, cap. of the prov. of San Luis, 2,417 feet above the sea, abt. 428 m. W.N.W. of Buenos Ayres; *pop.* 1,500.

San Luis de la Paz, a town of Mexico, in Guanajuato, abt. 45 m. E.N.E. of Guanajuato.

San Luis Obispo, (*-o-bees'po,*) in *California,* a S.W. co. bordering on the Pacific Ocean, having N. Monterey, E. the Coast Mountains, and S. Santa Barbara; *area,* 3,404 sq. m. *Surface,* level in the N.E., and mountainous in the S.E.; *soil,* fertile. *Rivers.* San Buenaventura and Nacimiento rivers. *Products.* The usual cerealia, grapes, and fruits. *Min.* Copper, sulphur, and limestone. *Principal ports.* San Luis Obispo (the cap.) and Sau Simeon. *Pop.* (1897) 18,950.

—A city, cap. of the above co. *Pop.* (1897) 3,340.

San Luis Poto'si, a state of Mexico, having N. New Leon, E. Tamaulipas, S.E. and S. Vera Cruz, Queretaro, and Guanaxuato, and W. Zacatecas; *area,* 29,486 sq. m. *Rivers.* Santauder, and Panuco or Tampico rivers. *Surface,* mountainous in the W., and in the E and S.E. undulating; *oil,* generally fertile. *Prod* Maize, wheat, and barley. *Manaf.* Woollen and cotton fabrics, glass, pottery, leather, and metallic waree. *Cap.* San Luie Potoei. *Pop.* abt. 394,592. — A city, cap. of the above dept., at the source of the Tampico, 70 m. N.N.E. of Guanaxuato. The houses are mostly built of stone, and there are eeveral splendid churchee aud a fine government house. It has an active trade with the neighboring depts., principally in foreign imports. *Pop.* 40,000.

San Luis Rey, in *California,* a post-town of San Diego co., abt. 84 m. S.E. of Los Angeles.

San Mar'cos, in *Texas,* a river rising in the N. of Comal co., and flowing S.E. into the Guadalupe N.W. of Gonzales.—A post-town, cap. of Hayes co., about 30 m. S. S. W. of Austiu.

San Mari'no, a etate of Italy. See MARINO.

San Martin, (*mar-teen'.*) in the Argentine Republic, a village of the prov. of Cordova, 30 m. E.S.E. of Cordova; *pop.* 2,000.

San Mateo, (*-ma-ta'o,*) in *California,* a W. co., bordering on the Pacific, having E. and N.E. the Bay of San Francieco; *area,* 460 sq. m. *Surface,* divereified by hills and valleys; *soil,* fertile in the valleys. *Products.* Wheat, hay, lumber, and cattle. *Climate,* mild and healthy. *Cap.* Redwood City. *Pop.* (1897) 12,150.

—A post-village of the above co.

San Mateo, in Venezuela, a town of the dept. of Cumaña, 50 m. S.S.W. of Cumaña; *pop.* 7,000.

San Mignel, (*me-ghel',*) in Central America, a town of San Salvador, 80 m. E.S.E. of San Salvador. It is an old but well-built town, and has a considerable trade in indigo. *Pop.* 10,000.

San Mignel, in Bolivia, a town of the prov. of Chiquitoe, 160 m. N E. of Santa Cruz de la Sierra; *pop.* 3,000.

San Mignel, a town of Brazil, prov. of Parahyba, abt. 35 m. N. of Parahyba.

San Mignel, a town of Brazil, prov. of Rio Grande do Sul, abt. 180 m. W.N.W. of Porto Alegre; *pop.* 1,000.

San Mignel, in *California,* a town of San Luis Obispo co., abt. 156 m. S.S.E. of San Francisco.

San Mignel, in *New Mexico,* a N. co., E. of Santa Fé. *Rivers.* Pecos and Canadian rivere. *Surface,* divereified: *soil,* generally fertile. *Prod.* Corn and wheat. *Cap.* Las Vegas.

San Miguel, in *Texas*, a river of Medina co., which flows S.E. into Rio Frio.

San Miguel, a gulf of the U. S. of Colombia, in the Isthmus of Darien, on the E. side of the Bay of Panama; Lat. 8° 10′ N., Lon. 78° 20′ W.

San Miguel-el-Grande, in Mexico, a town of the dept. of Guanaxuato, 40 m. E. of Guanaxuato; *pop.* 3,000.

San Nich'olas, a city of the Argentine Republic, abt. 120 m. N.W. of Buenos Ayres; *pop.* 3,000.

San Pab'lo, in *California*, a bay connected by the Straits of Karquenas with Suisun Bay. — A post-village of Contra Costa county, about 15 miles N.N.E. of San Francisco.

San Pasqual, (*pas'kwal,*) in *California*, a village of San Diego co., abt. 97 m. S.E. of Los Angeles.

San Patricio (*pa-tree'-se-o*), in *Texas*, a S. co., bordering on the Gulf of Mexico; *area*, 630 sq. m. *Rivers.* Arkansas and Nueces rivers. *Surface*, generally level, *soil*, fertile. *Cap.* Sinton. *Pop.* (1897) 1,980.

—A post-town, former cap. of the above co., on the Nueces river, about 20 m. N.W. of Corpus Christi.

San Paulo, a town and prov. of Brazil. See São Paulo.

San Pedro, (*pa'dro,*) a town of the Argentine Republic, abt. 190 m. N.N.E. of Buenos Ayres; *pop.* 1,200.

San Pedro, a town of Bolivia, on the Mamore River; Lat. 14° S., Lon. 64° 48′ W.

San Pedro, in Mexico, a river rising in the dept. of Tabasco, and joining the Usumasinta near its confluence with the Tabasco.

San Pedro, a town of the Republic of Colombia, dept. of Cundinamarca, about 25 m. S.E. of Antioquia.

San Pedro, in *California*, a post-town and port of Los Angeles, Lat. 33° 45′ N. It has a good anchorage.

San Pe'dro Bay, in *California*, an inlet of the Pacific Ocean, abt. 105 m. S.E. of Santa Barbara; Lat 33° 48′ N., Lon. 118° W.

San Pedro y San Pablo, (Rio de,) in Mexico, enters the Caribbean Sea abt. 10 m. N.E. of Tabasco.

San Pete, in *Utah*, a central co.; *area*, 1,784 sq. m. *Surface*, Wahsatch Mountains in the W., fertile valleys in the E.; good timber. *Cap.* Manti. *Pop.* (1895) 15,538.

San Quen'tin, in *California*, a post-village of Marin co., abt. 15 m. N. of San Francisco.

San Ra'fael, in *California*, a post-village and township, cap. of Marin county, about 16 miles N. of San Francisco.

Sans. A Latin prepositlon denoting without; wanting; destitnte of.

"*Sans* teeth, *sans* eyes, *sans* taste, *sans* everything."—*Shaks.*

San Sa'ba, a river of *Texas*, which flows E. into the Colorado River from Bexar co.—A central co.; *area*, 925 sq. m. *Rivers.* Colorado and San Saba rivers. *Surface*, nndulating; *soil*, generally fertile. *Cap.* Sau Saba. *Pop.* (1897) 7,120.—A post-village, cap. of the above co., about 92 m. N.W. of Austin.

San Sal'vador, a republic of Central America, consisting of a strip of territory stretching along between Honduras and the Pacific Ocean; bounded on the W. by Guatemala, and on the E. by Fonseca Bay, which separates it from Nicaragua. It averages 180 m. in length, by about 40 in breadth; *area*, 7,230 sq. m. The N. frontier is formed by a portion of the great Cordillera chain, and parallel to this range, and between it and the Pacific sea-board, runs another range of mountains along the whole length of the country, breaking it up into an inland valley, with a long, low, rich belt along the coast. This central range is highly volcanic in character, and has 16 volcanic peaks, ranging in height from 7,386 to 4,000 feet high. *S. S.* possesses nnmerous lakes, the largest of which is Guija, about 90 m. in circumference, and abounding in fish. The greater portion of the interior valley, and the alluvial strip lying aloug the coast, are of extreme fertility, and agriculture is extensively and successfully practised, to the almost total exclusion of pastoral pursuits. The principal agricultural products are indigo, sugar, and maize; cotton, also, being successfnlly cultivated in the districts arouud La Libertad and the Bay of Jiquilisco. The coast from Acajutla (30 m. from the W. frontier) to La Libertad is known as the *Costa del Balsimo*, or Balsam Coast, as in the woods of this district is produced the famous balsam known as "Balsam of Peru," iu such quantities that from 17,000 to 22,000 lbs. av. are annually exported. The commercial intercourse of *S. S.* is chiefly with the U S. and Great Britain. In 1897, the value of imports was abt. $2,000,000, and of exports, abt. $6,600,000. The staple articles of export are coffee (60 per ct.), indigo, known commercially as "indigo of Gautemala," reckoned the finest of any (30 per ct.), sugar, dyo-stuffs, turpentinc, cocoa, and spices. The climate of *S. S.* is salnbrious, and the temperature lower than might he expected from the low latitude and general want of elevation of the country. The population is composed of whites (of Spanish origiu), Indians, *Ladinos* (of mixed white and Indian blood), negroes, and mulattoes. The whites form little more than one-fifth, the Indians one-third. The Indians are of the Aztec race, speak the Spanish language, profess the Roman Catholic religion (the one established by statute), and hold the rights of citizens. The government is carried on hy a president, vice-president, and two ministers, one for foreign affairs and finance, and the other for internal business and war. The legislature consists of two chambers, an npper one of 12 senators, and a lower of 24 representatives. Education is well provided for, every village of 50 inhabitants being bound by law to support a school, and there is a university in the capital, San Salvador (*q.v.*), which is well endowed by the state. *S. S.*, originally called *Cuzcatlan*, "the land of riches," is said to have been, previous to the immigration of Europeans, the best peopled and most civilized country in America. It was conquered after a long and obstinate contest by Pedro do Alvarado, a lieutenant of Cortez, and under the Spanish rule was one of the most flourishing portions of the Gautemalan kingdom. In 1821, it threw off the yoke, joined the Mexicau Confederation, from which it seceded in 1823, and finally became an independent state.

San Salvador, the cap. of the above republic, was founded in 1589. It was the cap. of the Union of Central America from 1821 till 1839. In 1854, it was a fine, well-built city, adorned with nnmerous splendid buildings, and containing a pop. of more than 30,000; but on the night of April 16th, it was completely destroyed by an earthquake, and about 100 lives lost. In Jan., 1855, it again became the capital, and its trade once more flourishing. March 19, 1873, it was again destroyed by earthquake, with great loss of life, but ono building left standing. The first R.R. was begun in 1882.

San Salvador', Guanahani, or Cat Island, one of the Bahama Islands, in the West Indies, 28 m. S.E. of Eleuthera; Lat. 24° N., Lon. 75° 30′ W., 46 m. long, and 5 broad. It was the first part of America discovered by Columbus, Oct. 12, 1492.

San Salvador', or **Ban'za,** a town of Africa, in S. Guinea, cap. of Congo, abt. 160 m. S.E. of Loango; *pop.* 20,000.

San Salvador de Bayamo, (*-ba-a'mo,*) a town of Cuba, abt. 78 m. N.W. of Santiago; *pop.* 14,000.

San Salvador Pequena, (*pa-ka'na,*) an island of Cuba, W. of the above towu.

San Salvatore, (*sal-va-to'ra,*) a town of N. Italy, 7 m. N.W. of Alessandria; *pop.* 6,521.

Sansanding', a town of Ceutral Africa, in Bambarra, on the Niger, 20 m. N.E. of Sego; *pop.* 11,000.

Sans-culotte, (*sõng-ku-lõt',*) *n.* [Fr., without breeches.] (*Fr. Hist.*) A term first applied in derision by the aristocrats to the popular party in France at the beginning of the Revolution of 1789; and, as in several cases of a like kind, it came afterwards to be regarded by them as a title of honor. In the republican calendar, the five supernumerary days (each month having only 30 days, and therefore making 360 in the twelve) were at first called *jours sans-culottides.*

—Hence, by implication, a red-republican; a Jacobin; a rabid revolutionist; a bloodthirsty demagogue.

Sans-culot'tism, *n.* [Fr. *sansculottisme.*] Principles or practice of the *sans-culottes;* rabid revolutionary doctrines; red-republicanism.

San Sebas'tian, the cap. town of the island of Gomera, in the Canaries, on the S. coast. It is well built, and has a harbor defended by several forts. *Pop.* 2,000.

San Sebastian de los Reyes, (*-sa-bas-tean' da-loce-ra'es,*) a town of Venezuela, prov. of Caracas, abt. 50 m. S.S.W. of Caracas.

San Severo, (*-sai-vai'ro,*) a town of S. Italy, prov. of Capitanata, 16 m. N.E. of Foggia; *pop.* 18,000.

San'skrit, San'scrit, *n.* The name of the ancient, and now literary, language of the Hindoos. Originally a vernacular dialect in Hindostan, it has for nearly or quite 2,000 years past been kept artificially in use, like the Latin in Europe, by the labors of grammarians and lexicographers, and the transmitted usages of an educated caste, to serve as the means of learned intercourse and composition. Its name (*Sanskrta*, completed, perfected), denotes it as "the cultivated, elaborated, and perfected form of speech," in distinction from the uncultivated dialects, called *Pracrit* (*prâkrta*, left in the natural condition), which sprang from, or were contemporaneous with, it. It was brought into India from the N.W. by tribes belonging to the Aryan branch of the Indo-European family, and having for their next of kiu the Iranians, who spoke dialects which were the ancestors of the modern Persian languages. Syntax is a branch of the grammar of very inferior interest in Sanskrit. Whatever expressiveness and rhetorical charm the language has, lie chiefly in its boundless wealth of epithets, and not at all in the construction of its sentences and periods; indeed, a period in Sanskrit is next to an impossibility. The formation and connection of its clauses are of the boldest simplicity. The excessive use of cumbrous compounds is also a very general fault in Sanskrit construction, appearing in all styles of composition, but especially the more artificial. To say, for instance, "Water-play-delighted-maiden-bathing-fragrant (river-breezes)," for "Made fragraut by the bathing of maidens delighted with sportiug in the water," is a virtual abnegation of the privileges of an inflected languagc, and a partial retrogradation to the stiff inexpressiveness of the Chinese. — See Hindostan (Lanouaoes of).

Sans-souci, (*sõng-sõõ-see',*) *adv.* Free and easy; harum-scarum; devil-me-care; happy-go-lucky.

San'ta, a river of N.W. Peru, which flows into the Pacific Ocean, after a N.W. course of 200 m. Opposite its month, in Santa Bay, are the islets of Santa.

San'ta, or Parilla, (*pa-reel'ya,*) a town of N.W. Peru, on the Santa, abt. 65 m. S.E. of Truxillo.

San'ta An'na, Antonio Lopez de, ex-president of the republic of Mexico, b. in Xalapa, 1798. At the outset of his career, he served in the Spanish army, in which he attained the grade of lieutenant-colonel in 1821: but, in the following year, while stationed at Vera Cruz, he joined the movement inaugurated by Iturbide, which resulted in the total defeat of the Spanish forces, and the reduction of the whole of that province. He next turned his arms against, and overthrew, Iturbide, who had proclaimed himself emperor. The Mexican republic was shortly afterwards formed, and from that period until the year 1833, when he succeeded in himself obtaining the presidentship of the republic, *S. A.* was engaged in opposing or defending, at the head of the Mexican troops, the claims of rival chiefs. He maintained his position as president until 1836, when he was defeated and taken prisoner at San Jacinto by his political opponents. Liberated in 1837, he participated in the repulse of the French troops at Vera Cruz, on which occasion he lost a leg. He was once more president, from 1841 until 1845, in which latter year he was deposed and banished for ten years, but was recalled soon afterwards, reinstated as president, and charged to defend Mexico against the U. States army. He was defeated in several encounters by Generals Scott and Taylor, and finally, in 1848, was compelled to resign, Mexico having proclaimed peace with the U. States, by the cession of California, and by submitting to the erection of Texas into an independent state. From the close of the year 1852 until the middle of 1855, he again held the reins of power, only to be driven into exile, however, at the latter period, by General Carrera, who had revolted against his rule. He retired to the island of St. Thomas, where he lived quietly for some years. In the winter of 1863–64 he went to Vera Cruz, with the intention, as was naturally expected, of taking a more active part in politics than was deemed desirable. He had prepared a manifesto to the Mexican army, in which, after disclaiming any ambitious intentione, he expressed a strong desire to lay his bones among the people for whose independence he had done so much, but the French authorities would not allow him to publish it. On the arrival of the Emperor Maximilian in Mexico, he embraced the cause of the empire, but soon abandoned it, left Mexico, and returned to St. Thomas. *S. A.* had a long interview with Mr. Seward when he was in the W. Indies. He visited the U. States in May, 1866; and it is generally believed that his visit was connected with the then state of affairs in Mexico. He was taken prisoner by the Juarist party in 1867, but was soon after released. After that time the veteran general lived in comparative obscurity. Died in 1877.

San'ta An'na, an island of Brazil, in the Atlantic, 40 m. E.N.E. of Maranhao. — An island, prov. of Goyaz, in the River Araguay, abt. 210 m. long, and 40 m. broad. —A town, prov. of Matto-Grosso, abt. 30 m. E.N.E. of Cuyaba; *pop.* 4,000. — A town, prov. of Rio Grande do Sul, on the Sino, N. of Porto Alegre; *pop.* 1,400.

Santa Anna, or Villa Nova, a town of Brazil, prov. of Santa Catherina, abt. 20 m. N.E of Laguna; *pop.* 2,000.

Santa Anna, a town of Ceutral America, in San Salvador, 11 m. W. of San Salvador; *pop.* 10,000.

Santa Anna, a lake of Mexico, prov. of Tabasco, abt. 154 m. S.E. of Vera Cruz.

Santa Anna (now San Juan), in *New Mexico*, a N.W. co., bordering on Arizona; *area*, 6,008 sq. m. *Rivers.* Rio San Juan and Rio Chusco. *Surface*, geuerally mountainous. *Cap.* Aztec. *Pop.* (1897) 1,960.

Santa Anna, a town of S. Peru, abt. 8 m. N.W. of Cuzco.

Santa Anna, in *California*, a river which flows into the Pacific Ocean from Los Angeles co.

Santa Anna, or Santa Aña, in *California*, a post-village, cap. of Orange co., 28 m. S.E. of Los Angeles.

Santa Anna, in *Illinois*, a township of DeWitt co., 16 m. E. of Clintou. *Pop.* (1897) 2,320.

Santa Bar'bara, a town of Brazil, about 30 m. N.N.E. of Ouro-Preto. *Pop.* 4,000.

Santa Barbara, a town of Veneznela, on the Orinoco, opposite the mouth of the Ventuari.

Santa Barbara, in *California*, a S.W. co., bordering on the Pacific, having N. San Luis Obispo co., and W. those of Kern aud Los Angeles; *area*, 2,380 sq. m. *Rivers.* Santa Clara, or Saticoy, and Santa Inez rivers. *Surface*, mountainous in the E., and undulating in the center and W.; *soil*, generally fertile. Vineyards are largely cultivated. *Min.* Gold, iron, copper, salt, and asphaltum. *Cap.* Santa Barbara. *Pop.* (1897) 19,450.

—A city aud seaport, cap. of the above co., 279 m. S.E. of San Francisco; Latitude 34° 25′ N., Longitude 119° 30′ W. *Pop.* (1897) 6,455.

Santa Barbara Islands, in *California*, extending abt. 175 m. along the coast of Santa Barbara, Los Angeles, and San Diego cos., at a distance varying from 20 to 65 m. They are uine, and consist of San Mignel, Santa Rosa, Santa Cruz, Anacape, Santa Barbara, Santa Catalina, San Clemente, San Nicholas, and San Juan.

Santa Catali'na, an island and harbor of Central America, on the Mosquito coast; Lat. 13° 23′ 40″ N., Lon. 81° 22′ 10″ W.

Santa Catharina, (*-ka-ta-ree'na,*) a marit. prov. of S. Brazil, bordering on the Atlantic, between Lat. 26° and 30° S., Lon. 49° and 51° W.; *area*, 25,002 sq. m. *Surface*, mountainous, except along the coast, which is low; *soil*, generally fertile. *Climate*, mild and healthy. *Prod.* Rice, manioc, millet, sugar, coffee, and cochineal. *Chief towns.* Desterro, São Francisco, and Laguna. *Pop.* 90,000. — A fortified island of Brazil, off the coast of the above prov., 30 m. long, and 8 broad. *Surface*, mountainous, and well watered. *Principal town.* Desterro. *Pop.* 12,000.

Santa Clara, (*-kla'ra,*) an island of Ecnador, in the Gulf of Guayaquil, abt. 13 m. S.E. of Puna.

Santa Clara, a river in *California*, rises in the mountains, and flows W. into the Pacific Ocean from Santa Barbara co.

Santa Clara, in *California*, a W. co., bordering on San Francisco Bay; *area*, 1,200 sq. m. *Rivers.* Guadalupe and Pajaro rivers. *Surface*, mountainous in the S.W., elsewhere, generally level; *soil*, fertile. *Prod.* Wheat and fruits. *Min.* Quicksilver, copper, alum, asphaltum, and limestone. *Cap.* San José. *Pop.* (1897) 52,280.—A post-towu and township of the above co., about 3 m from San José. *Pop.* (1897) 3,480.

Santa Clara, in *Nevada*, a village of Humboldt co., 13 m. N. of Unionville.

General Santa Anna

1798-1877

San'ta Cla'ra, in *Utah*, a post-village of Washington co., 6 m. N.W. of Saint George.

Santa Cruz, (*-croos,*) a river of Patagonia, enters the Atlantic Ocean, Lat. 50° S., Lon. 68° 30′ W., after an E. course of over 200 m.

Santa Cruz, a seaport-town, cap. of the island of Teneriffe, on the N.E. extremity; *pop.* 9,500.

Santa Cruz, a town of Brazil, 120 m. S.E. of Goyaz; *pop.* 3,000.

Santa Cruz, or **Saint Croix,** the largest of the Virgin Islands, in the W. Indies, belonging to Denmark, 65 m. E.S.E. of Porto Rico; Lat. 17° 45′ 30″ N., Lon. 64° 34′ W.; *area*, 110 sq. m. *Surface*, generally level; *soil*, fertile. *Climate*, variable, and at times unhealthy. Hurricanes and earthquakes are of frequent occurrence. *Prod.* Sugar, rum, cotton, coffee, and indigo. *Cap.* Christiansted. *Pop.* 30,000.

Santa Cruz, an island of the W. Indies, N. of Cuba, abt. 30 m. N.E. of Matanzas

Santa Cruz, an island in the Gulf of California, abt. 80 m. S.E. of Loreto.

Santa Cruz, in *California*, a W. co., bordering on the Pacific; *area*, 425 sq. m. *Surface*, diversified, but mountainous in the N.E.; *soil*, generally fertile. *Min.* Gold. *Cap.* Santa Cruz. *Pop.* (1897) 21,350.

—A city and seaport, cap. of the above co., 59 m. S.S.E. of San Francisco. *Pop.* (1897) 6,250.

Santa Cruz de los Rosa'les, a town of Mexico, abt. 68 m. N.W. of Chihuahua. It was taken in 1848 by the Americans under Gen. Price.

Santa Cruz de Mayo, a seaport-town of Mexico. See Guitivis.

Santa de Jesus, (*ha'soos,*) a town of Venezuela, on the Meta, abt. 46 m. W. of its junction with the Orinoco.

San Tadeo, (*san-ta-da'o,*) a river of Patagonia, which flows W. into the Gulf of St. Esteven in the Pacific Ocean.

Santa Fé, ("holy faith,") a prov. of the Argentine Republic, between Lat. 30° and 33° S., Lon. 61° and 62° W. *Rivers.* Salado, and the Tercero, or Carcaranal. *Pop.* 89,117. *Chief towns.* Santa Fé (the cap.), Rosario, and Fort St. Espiritu.—A city, cap. of the above prov., 5 m. N.W. of Paraná; *pop.* 10,670. It is situate on an island formed by the Paraná and Salado rivers, 50 m. long, and 6 in average breadth.

Santa Fe, in *New Mexico*, a N. central co.; *area*, 2,292 sq. m. *Rivers.* Rio Graude, which forms part of its W. boundary, and several small affluents. *Surface*, mountainous in the S.W. and E., elsewhere undulating; *soil*, generally fertile. *Cap.* Santa Fé. *Pop.* (1897) 14,140.

—The cap. of the territory in the above co., on the Rio Chicito or Santa Fé River, about 20 m. N.E. of its mouth in the Rio Grande, Lat. 35° 41′ N., Lon. 106° 10′ W. It is situated on a plateau 7,000 ft. above the sea, and the houses are principally built of brick. The completion of the Union Pacific and other railroads has greatly added to the prosperity of the city. *Pop.* (1897) 6,850.

Santa Fé, in *Florida*, a river forming the boundary of Alachua and Columbia cos. It flows into the Suwanee River.

Santa Fé, in *Indiana*, a village of Spencer co., 40 m. E. N.E. of Evansville.

Santa Fé, in *Missouri*, a post-village of Monroe co., abt. 60 m. N. of Jefferson City.

Santa Fé de Antio'quia. See Antioquia.

Santa Fé de Bogotá. See Bogotá.

Santa Hele'na, a town of Brazil, 60 m. W.S.W. of Guimarães.

Santa Herman'dad. See Hermandad.

Santa Inez, (*e'nes,*) in *California*, a river of Santa Barbara co., rises in the Coast range, and flows W., entering the Pacific Ocean 10 m. N. of Cape Coucepcion.—A town of Santa Barbara co, abt. 265 m S.S.E. of San Francisco.

Santa Isabel', a town of Brazil, 120 m. N.E. of São Paulo.

San'taline, *n.* (*Chem.*) The red coloring matter of red-sandal-wood.

Santa Juana, (*-hoo-a'na,*) an island of Chili, in the river Biobio, 38 m. E S.E. of Concepcion.

Santala'ceæ, *n.pl.* [Ar. *zandal,*] (*Bot.*) The Sandalwood family, an order of plants, alliance *Asarales.* Diag. A one-celled ovary and definite ovules, having a coated nucleus.—The species are natives of various parts of the world. Those of North America and Europe are inconspicuous herbs; while those of India and Australia are trees or shrubs. The genus *Thesium* is parasitic on the roots of other plants. Some of the plants are remarkable for their fragrant wood; a few produce edible seeds. See Santalum, and Fusanus.

Santa Lucia, (*-loo-see'a,*) a town of the Argentine Republic, on the Paraná, 106 m. S of Corrientes.

Santa Lucia, a town of Brazil, abt. 110 m. S.S.W. of Recife; *pop.* 2,000.

Santa Lucia, or **Luzia,** a town of Brazil, 120 m. S. E. of Goyaz.

Santa Lucia, a town of Italy, in Sicily, 7 m. S. of Milazzo; *pop.* 4,500.

Santa Lucia, a river of Urnguay, which joins the Rio de la Plata 7 m. N.W. of Montevideo, after a S. course of 100 m.

Santa Margarita, (*-mar-gah-ree'tah,*) in *California*, an island on the S.W. coast, from which it is separated by the Bay of Madelina; Lat. 24° 30′ N., Lon. 111° 30′ W. *Ext.* 45 m. long, and 15 m. in greatest breadth.

Santa Margarita, in *Colorado*, a village of Conejos co., 110 m. S.S.W. of Pueblo.

Santa Maria, (*-ma-ree'a,*) an island in the Bay of Aranco, off the coast of Chili, 30 m. S.W. of Concepcion; Lat. 37° 2′ 8″ S., Lon. 73° 34′ 15″ W. Its surface was raised about 10 ft. by an earthquake in 1835.

Santa Maria, in *California*, a river which rises in the Coast range, flows W., forming part of the boundary between San Luis Obispo and Santa Barbara cos., and falls into the Pacific 40 m. N. of Cape Concepcion.

San'talum, *n.* [Arab. *zandal.*] (*Bot.*) The typical gen. of the order *Santalaceæ.* The fragrant wood called *sandal-wood* is obtained from *S. album*, a native of India. It is employed in perfumery, and is used by the Indian doctors as a sedative and refrigerant. *S. freycinatium* and *paniculatum* furnish the sandal-wood of the Sandwich Islands.

Fig. 2305.—SANTALUM ALBUM.

Santa Mari'a de Fé, a town of Paraguay, abt. 45 m. E. of Neembucu.

Santa Mar'ta, or **Martha,** a seaport-town of the Republic of Colombia, on a bay of the Caribbean Sea, 40 m. N.E. of the mouth of the river Magdalena. *Pop.* 9,000.

Santa Maura, or Leucadia, (*mo'ra,*) one of the Ionian Islands, on the W. coast of Arcanania; *area*, 180 sq. m. *Pop.* 20,000.

Santan'der, a river of Mexico, dept. of Tamaulipas, flows N.E. into the Gulf of Mexico, 110 m. N. of Tampico.

Santander, (*san-tan-dair',*) a seaport-town of Spain, cap. of the prov. of same name, 50 m. N.E. of Bilboa. It has a commodious harbor, protected by 2 forts. *Pop.* 19,000.

Santanilla, or Swan Islands, (*san-ta-neel'ya,*) two islands at the entrance to the Bay of Honduras, about 150 m. N. of the Mosquito coast; Lat. 17° 25′ N., Lon. 83° 50′ W.

Santaquin', in *Utah*, a post-village of Utah co., 24 m. S.W. of Provo City.

Santarem', a town of Brazil, on the Tapajos, at its junction with the Amazon, 60 m. S.W. of Montalegre; *pop.* 10,000.

Santarem, (*san-ta-reng',*) a town of Portugal, on the Tagus, N.W. of Lisbon; *pop.* 8,000.

Santarem' Chan'nel, in the W. Indies, between the Great Bahama and Salt Key Banks; Lat. 24° N., Lon. 79° W., with a width of 40 m.

Santa Rita, (*ree'ta,*) a town of Brazil, abt. 60 m. S. of Villa Rica; *pop.* 7,000.

Santa Rita, in *Texas*, a village of Cameron co., about 10 m. N.W. of Brownsville.

Santa Ro'sa, a town of Chili, 18 m. E.S.E. of San Fellpe; *pop.* 7,000.

Santa Rosa, in Mexico, 32 m. N. of Cobahuila; *pop.* 5,000.

Santa Rosa, a town in the Republic of Colombia, 40 m. E. of Antioquia. It has rich gold mines.

Santa Rosa, in *California*, an island off the N.W. coast, 35 m. S.W. of Santa Barbara.

—A city and township, cap. of Sonoma co., 60 m. N. of San Francisco. *Pop.* (1897) 5,840.

Santa Rosa, in *Florida*, a W. co., bordering on the Gulf of Mexico; *area*, 1,296 sq. m. *Rivers.* Yellow-water and Blackwater. *Surface*, flat; *soil*, unproductive. *Prod.* Indian corn and sweet potatoes. *Cap.* Milton. *Pop.* (1895) 8,914.

Santee', in *S. Carolina*, a river formed by the junction of the Congaree and Wateree, at the S.E. of the Richland dist., and flows into the Atlantic by 2 mouths, near Lat. 33° 6′ N., after a S.E. course of 150 m.

Santia'go, or Saint Jago, an island near the W. coast of Africa, the largest of the Cape de Verd Islands; Lat. 15° N., Lon. 23° 40′ W. *Ext.* 35 m. long, and 12 broad. The surface is mountainous, but fertile and well cultivated. *Prod.* Sugar, coffee, indigo, orchilla-wood, cotton, and a variety of tropical fruits. *Manuf.* Cotton goods. It has an extensive trade. *Chief town.* Porto Praya. *Pop.* 20,000.

Santiago, a town of Bolivia, 190 m. S.E. of Cbiquitos.

Santiago, a river of Central America, in San Salvador, which enters the Pacific about 20 m. W. of Sonsonate. At its mouth stands a small town of same name.

Santiago, a river of Ecuador, joins the Amazon a short distance W. of San Borja, after an E. course of 180 m.

Santiago, (*san-te-ah'go,*) a river of Ecuador, enters Saldinas Bay in the Pacific, 50 m. N.E. of Esmeraldas, after a N.W. course of 75 m.

Santiago, in *Minnesota*, a post-village of Sherburne co., 20 m. E. of St. Cloud.

Santiago Atitlan, (*-a-teet-lan',*) a town of Guatemala, between 2 volcanoes from 8,000 to 10,000 ft. high, 90 m. W. of Guatemala.

Santiago de Alanje (*-a-lang'gha*), a town of the Republic of Colombia, 90 m. W. of Veragua.

Santia'go de Chili, (*-chil'e,*) a city, cap. of the republic of Chili, at the foot of the Andes, 1,800 feet above the sea, 90 m. E.S.E. of Valparaiso; Lat. 33° 35′ S., Lon. 70° 43′ 38″ W. The river Mapocho divides the city into 2 parts, that on the N., the largest, being regularly laid out, the streets running at right angles. The *Plaza*, or Great Square, is adorned with a magnificent fountain, and surrounded by elegant public buildings and fashionable stores, the most notable of the former being the mint, the old palace (formerly the residence of the presidents), and the cathedral. The new hotel and the opera house are also fine buildings; the Alameda, 600 ft. wide, extends to the Exposition Buildings, a distance of four miles. *S.* was founded in 1851, by Pedro de Valdivia, but made very little progress, owing to the restrictions of Spain, until Chili became independent of the mother country, since which time it has become one of the most important cities of S. America.

Santiago de Compos'tella. See Compostella.

Santiago de Cu'ba, a city, seaport, and former cap. of Cuba, on the river Santiago, 6 m. from its mouth on the S. coast; Lat. 19° 55′ 9″ N., Lon. 75° 50′ W. It is regularly built, and the houses are mostly of stone; but the situation is unhealthy. The harbor, 4 m. long, is fortified and well sheltered, and is next in commercial importance to Havana and Matanzas. The Spanish fleet under Admiral Cervera was blockaded in this harbor by an American fleet in 1898, and an army was sent thither which attacked and defeated the Spanish garrison of the city. The fleet then made an effort to escape, but was attacked and destroyed by the American fleet. Shortly afterwards the city and the adjoining territory were surrendered to the besieging army, and placed under military government by the United States. See Cuba. *Pop.* 26,000.

Santiago de las Ve'gas, a town of Cuba, about 15 m. S. of Havana: *pop.* abt. 6,500.

Santiago de la Ve'ga, or Spanish Town, a town, cap. of the island of Jamaica, on the river Cobre, 10 m. W. of Kingston; *pop.* abt. 6,500.

Santiago del Este'ro, a town of the Argentine Republic, cap. of a prov. of same name, on the Dulce; Lat. 28° S., Lon. 64° W.; *pop.* 5,000.

Santiago de los Caballeros, (*-ka-bal-ya-roce',*) a town of the island of Hayti, on the Yaqui River, 103 m. E. of Cape Haytien; *pop.* 12,000.

Santi Bachully, (*san'tee-ba-chul'lee,*) a considerable walled town of S. India, in the dominions of Mysore, 4 m. N.W. of Seringapatam.

Santil'la, or **Satil'la,** in *Georgia*, rises in Irwin co., and flows E.S.E. into the Atlantic through St. Andrew's Sound.—The Little Santilla joins the above in Wayne co., after a S.E. course.

San'to Agostinho, or Saint Augustin, (*-a-gos-teen'yo,*) a cape of Brazil, 25 m. S. of Pernambuco; Lat. 8° 21′ S., Lon. 34° 56′ W.

Santo Ama'ra, a town of Brazil, prov. of Rio Grande do Sul, on the Jacuhy; *pop.* 3,000.

Santo Ama'ro, a town of Brazil, 45 m. N.W. of Bahia.

Santo Anto'nio da Patrulha, (*-pa-trool'ya,*) a town of Brazil, prov. of Rio Grande do Sul, E.N.E. of Porto Alegre; *pop.* 3,103.

Santo Antonio de Sa, or **Macacu',** a town of Brazil, 30 m. N.E. of Rio de Janeiro; *pop.* 8,000.

Santo Antonio dos Guarulhos, (*-doce-gwa-rool'-yoce,*) a town of Brazil, on the Parahiba, opposite Campos; *pop.* 7,000.

San'ton, *n.* [Sp., from Lat. *sanctus*, boly.] A Turkish dervish, believed in by the vulgar as a saint; a hermit; a recluse.

Santoña, (*san-tone'ya,*) a fortified seaport-town of Spain, prov. of Santander, on the Bay of Biscay, 16 m. E. of Santander; *pop.* 1,000.

San'tonine, *n.* [Fr.] (*Chem.*) A proximate vegetable principle, obtained from the flower-heads of *Artemisia santonica* and other species, known in pharmacy as *worm-seed.* It is white, crystallizable, bitterish, and very little soluble in water, but more so in alcohol. It is occasionally used as a vermifuge in doses of from 10 to 30 grains, followed by a brisk purge.

Santorin, (*san-to'rēn,*) an island in the Grecian Archipelago, 12 m. S. of the island of Scio; *area*, 40 sq. m. *Prod.* Cotton, figs, wine, and barley. *Pop.* 13,000.

San'tos, a seaport-town of Brazil, on the N. of the island of Engua Guaçu, 34 m. S.S.E. of São Paulo; Lat. 23° 55′ S., Lon. 46° 19′ W. Its harbor is large and commodious, and it has an active trade in sugar. *Pop.* 8,000.

San'tos, (**Los,**) a town of the U. S. of Colombia, dept. of Istruo, on the W. coast of the Gulf of Parita, S.S.E. of Parita.

Santos Luga'res, a village of the Argentine Republic, 14 m. W. of Buenos Ayres, noted for the defeat of the dictator Rosas, by Urquiza, in 1852.

San'tyam, in *Oregon*, a river which rises in the E. of Linn co., and flows W. into the Willamette River, abt. 20 m. S. of Salem.—A vill. of Linn co., on the Santyam River, abt. 5 m. S. of its junction with the Willamette.

San Vicen'te, in Central America, a town, cap. of San Salvador, 25 m. E.S.E. of San Salvador; *pop.* 9,000.—Near it is the volcano of San Vicente, abt. 800 ft. high.

São Ben'to, a town of Brazil, abt. 40 m. N. of Alagoas; *pop.* 3,000.

São Bernar'do, a city of Brazil, on the Russas, 70 m. S.S.E. of Ciara; *pop.* 6,000.

São Christovão, or **Sergipe,** (*sowng-krees-to-vown',*) a city of Brazil, cap. of the prov. of Sergipe, on the Paromapama River, about 20 m. from its mouth in the Atlantic; *pop.* 2,000.

São Feliz, or **Felis,** (*-fa-lees'*) a town of Brazil, 280 m. N.N.E. of Goyaz; S.S.E. of it are the famous thermal

springs of Caldas de Frei Relnoldo, in which the water is almost boiling hot.

São Francis'co, an island on the S.E. coast of Brazil, prov. of Santa Catharina, from which it is separated by a narrow channel. *Ext.* 20 m. long and 10 broad. The cap. of the same name is in Lat. 26° 12′ S., Lon. 48° 43′ W.
—A town of Brazil, 45 m. N.W. of Bahia; *pop.* 2,000.
—A river of Brazil, rises in the N.W. of the prov. of Santa Catharina, and flows into the Atlantic opposite the island of São Francisco, after an E. course of 100 m.

São Francisco, or **Saint Francisco,** an important river of Brazil, rises in Lat. 20° S., Lon. 45° W., and after a N.E. course of 1,200 m., enters the Atlantic by two mouths; Lat. 10° 24′ S., Lon. 36° 20′ W. It is navigable almost its entire length, except where impeded by the falls of Paulo Affonso, 160 m. from its mouth.

São Gonçalo, (*-gon-sa'lo,*) a town of Brazil, on the Potengi, 12 m. W. of Natal.— A town of Brazil, 75 m. N.E. of Rio de Janeiro; *pop.* of dist. 10,000.

São Gonçalo D'Amarante, (*-da-ma-ran'ta,*) a town of Brazil, 56 m. N.N.W. of Leiras; *pop.* 1,800.

São João de Barra, (*-zho-own',*) a town of Brazil, on the Parahiba, near its mouth in the Atlantic, 18 m. E.N.E. of Campos; *pop.* 2,000.

São João da Pal'ma, a town of Brazil, 400 m. N. of Goyaz.

São João das Duas Bar'ras, a town of Brazil, at the confluence of the Araguay and Tocantins.

São João del Rei, (*-del-ra'e,*) a town of Brazil, 80 m. S.W. of Ouro-Preto; *pop.* 5,000.

São João do Príncipe, or **Mar'cos,** (*-preen'se-pa,*) a town of Brazil, 60 m. W.N.W. of Rio de Janeiro; *pop.* 6,000.

São Jorge dos Ilheos, (*-zhor-zha-doce-eel-ya'oce,*) a seaport-town of Brazil, at the mouth of the Rio dos Ilheos in the Atlantic, 130 m. S.W. of Bahia; *pop.* 4,000. The above river has an E. course of 130 m.

São José, (*-zho-za',*) a bay of Brazil, E. of the island of Maranhão, formed by the mouths of the rivers Moni and Itapicuru. *Ext.* 24 m. long and 8 broad.
—A town of Brazil, on the Parahiba, 60 m. N.E. of São Paulo; Lat. 23° 12′ S., Lon. 46° W.; *pop.* of dist. 4,000.
—A town of Brazil, prov. of Santa Catharina, 4 m. W. of Desterro; *pop.* 6,000.

São Mathieos, (*-ma-ta'oce,*) a town of Brazil, 190 m. S.S.W. of Ceara; *pop.* 2,000.— A town of Brazil, prov. of Espiritu Santo, 16 m. W. of the Atlantic.

São Miguel, a town of Brazil, 25 m. S.S.W. of Alagoas; *pop.* 2,000.

Sao'na, an island off the S.W. coast of Hayti, from which it is separated by a channel 10 m. wide. *Ext.* 15 m. long and 5 broad.

Saone, (*sone,*) a river of France, rising in the dept. of Vosges, and after a S. course of 225 m., joins the Rhone at Lyons.

Saône-et-Loire, a dept. of the E. of France, between Lat. 46° and 47° N., Lon. 3° 40′ and 5° 30′ E., having N. the dept. Cote d'Or, E. Jura and Ain, S. Rhone and Loire, and W. Allier and Nievre; *area,* 3,300 sq. m. The surface is mountainous and well wooded, and the soil is generally fertile. *Rivers.* Saône, Loire, Arroux, Doubs, and Seille rivers. *Prod.* Principally corn and wine. *Min.* Iron, coal, marble, and manganese. *Manuf.* Glass, earthenware, and iron-works. *Chief towns.* Macon, the cap., Autun, Charollea, Chalons, and Louhans. *Pop.* 111,894.

Saône, (Haute,) a dept. of the E. of France, between Lat. 47° 15′ and 48° N., Lon. 5° 35′ and 7° E., having N. Vosges, E. Haut-Rhin, S. Doubs, and W. Cote d'Or and Haute-Marne; *area,* 1,792 sq. m. The surface is undulating and fertile, except in the N.E., which is mountainous. *Rivers.* Saône, Oignon, Drejon, and Amance. *Prod.* Corn, wine, and timber. *Min.* Iron and coal. *Manuf.* Chiua, glass, cloth, and straw hats. *Chief towns.* Vesoul, the cap., Gray, and Lure. *Pop.* 317,706.

São Paulo, (*paw'lo,*) a city of Brazil, cap. of a prov. of same name, stands on an uneven elevation between two small streams, tributaries of the Tiede, 220 m. W.S.W. of Rio de Janeiro. There is an academy of laws, attended by about 500 students. The general appearance of the town is picturesque, and the vicinity and suburbs are beautiful.

São Pedro D'Alcantara, (*-dal-kan'ta-ra,*) a town of Brazil, prov. of Goyaz, 80 m. S.S.E. of São João dos Duas Barras.

São Pedro do Rio Grande, a marit. prov. of Brazil. See Rio Gaande do Sul.

São Romão, (*-ro-mown',*) a town of Brazil, prov. of Minas-Geraes, on the São Francisco River; Lat. 15° 22′ S.; *pop.* 4,000.

São Roque, (*-ro'ka,*) a town of Brazil, 32 m. W.S.W. of São Paulo; *pop.* 5,000.

São Roque, (Cape,) a promontory on the N.E. coast of Brazil; Lat. 5° 28′ S., Lon. 35° 16′ W.

São Sucramen'to, in Brazil. See Pernambuco.

São Sebastião, (*-sa-bas-ta-own',*) a seaport-town of Brazil, prov. of São Paulo; Lat. 23° 48′ 20″ S., Lon. 45° 29′ 6″ W. *Pop.* 5,000. — Also, an island opposite the above town, from which it is separated by a narrow channel. *Ext.* 12 m. long and 6 broad. *Pop.* 3,000.

Sap, *n.* [A. S. *sæp.*] (*Bot.*) The nutrimental fluid which circulates in plants. As it rises in the stem it is of a watery nature, and contains the various inorganic matters absorbed by the roots, also some sugar, dextrine, and other organic substances, which it has dissolved in its upward course. In its passage to the leaves it becomes more and more altered from the state in which it was absorbed by the roots; but when it reaches the leaves it is still unfitted for the requirements of the plant, and is hence termed *crude sap.* Through the action of the light and air, it undergoes important changes in the leaves and other green parts, and becomes adapted for the nourishment of the plant. In this state it is termed *elaborated sap.* In dicotyledons, this elaborated fluid descends through the internal bark and cambium layer towards the root, and is transmitted laterally inwards by the medullary rays. See Botany.
—*v. a.* [Fr. *saper;* It. *zappare,* from *zappa,* a spade, or *zappone,* a mattock.] To subvert by digging under or removing the foundation of; to undermine; to mine.
—*v. n.* To proceed by mining, or by secretly undermining.
—*n.* A trench for undermining, or an approach made to a fortified place by digging under cover of gabions, &c.

Sap'ajou, *n.* (*Zoöl.*) See Monkey.

Sapan'-wood, *n.* A dye-wood produced by certain species of *Cæsalpina.* It resembles Brazil-wood in its color and properties.

Sap'-green, *n.* See Rhamnus.

Saphe'na, *n.* [Gr. *saphes,* distinct.] (*Anat.*) The large vein of the leg which ascends over the external ankle.

Saph'ire, *n.* See Sapphire.

Sap'id, *a.* [Fr. *sapide;* Lat. *sapidus,* from *sapis,* to taste.] Tasteful; savory; having the power of affecting the organs of taste.

Sapid'ity, Sap'idness, *n.* Quality of being sapid; flavor; tastefulness; savor; the quality of affecting the organs of taste.

Sa'pience, *n.* [Fr.; Lat. *sapientia,* from *sapiens.*] Good taste; good sense; discernment; discretion; prudence; wisdom; sageness; knowledge.

Sa'piently, *adv.* Wisely; sagaciously.

Sapinda'ceæ, *n.* [From Lat. *sapo Indicus,* Indian soap.] (*Bot.*) The Soap-wort family, an order of plants, alliance *Sapindales.* Diag. Complete, unsymmetrical flower, petals usually with an appendage, anthers opening longitudinally, 3 carpels, and usually arillate, wingless seeds.—The plants of this order flourish chiefly in tropical regions, especially in S. America and India. The *S.* are represented in the U. States by the horse-chestnuts. The presence of a sapouaceous principle is one of the most prominent properties of the order. Many of these plants are poisonous in all their parts; but it more frequently happens that, while the roots, leaves, and branches are dangerous, the succulent fruits are innocuous, or in some cases even valuable articles of dessert. The useful products of the order are timber, edible fruits, starch, and the soapy matter above referred to. See Æsculus, Nephelium, Paullinia, Sapindus.

Sapin'dales, *n. pl.* (*Bot.*) An alliance of plants, subclass *Hypogynous exogens.* Diag. Monodichlamydeous unsymmetrical flowers, axile placentæ, an imbricate calyx and corolla, definite stamens, and little or no albumen. The alliance includes 9 orders,—Tremandraceæ, Polygalaceæ, Vochyaceæ, Staphyleaceæ, Sapindaceæ, Petiveriaceæ, Aceraceæ, Malpighiaceæ, and Erythroxylaceæ, *q. v.*

Sapin'dus, *n.* [From Lat. *sapo Indicus,* Indian soap.] (*Bot.*) A genus of the order *Sapindaceæ.* The most important species is *S. saponaria,* the fruits of which are employed in the W. Indies instead of soap for cleansing linen. The fruits of *S. inequalis* contain the same sapouaceous principle, and are used for the same purpose.

Sap'less, *a.* Destitute of sap; not juicy;—hence, dry; old; husky.

Sapodil'la, *n.* (*Bot.*) See Achras.

Saponaceous, (*-shus'-*) *a.* [From Lat. *sapo, saponis,* soap.] Soapy; resembling soap; having the qualities of soap.

Saponac'ity, *n.* Quality of being saponaceous or soapy.

Sapon'ifiable, *a.* That may be converted into soap.

Saponifica'tion, *n.* The separation of the fatty acids from their glycerine base, by the addition of an alkali or other metallic base, which unites with them. See Soap.

Sapona'ria, *n.* (*Bot.*) A genus of plants, order *Caryophyllaceæ.* The common Soap-wort, *S. officinalis,* found by roadsides in all the States, is a hardy, smooth, succulent plant, with handsome pink-like flowers; stem 1-2 feet high. It has a bitter taste, with a saponaceous juice.

Sapon'ify, *v. a.* [Fr. *saponifier.*] To convert into soap.

Sap'onine, *n.* [Lat. *sapo,* soap.] (*Chem.*) A substance resembling soap, contained in a large number of plants, such as the *Saponana officinalis,* in the root of the Common Pink, and in the fruit of the horse-chestnut. It is easily extracted from these sources by boiling in alcohol. It is soluble in water in all proportions, and froths strongly on agitation. The juice of soap-wort is often used as a detergent for cleansing the finer variety of wool from grease. Powdered, it forms a powerful sternutatory. Boiled with dilute acids, it forms saponic acid.

Sa'ponule, *n.* (*Chem.*) A combination of a volatile or an essential oil with a base.

Sa'por, *n.* [Lat., from *sapio.*] Taste; savor; flavor; relish; the power of affecting the organs of taste.

Sapor I., a king of Persia of the Sassanide dynasty, succeeded his father, Artaxerxes, 240. He invaded Mesopotamia 242, and having conquered Armenia, Syria, and Cilicia, he put to death the Emperor Valerius with great cruelty. He was defeated by Odenatus 269, and D. 271. —Sapor II., a posthumous son of Hormisdas II., was proclaimed 310, before his birth. He became an active and warlike prince in conflict with the Romans, and was a great enemy to Christianity, D. 380. — Sapor III., succeeded Artaxerxes II., 384. He kept peace with the Romans. D. 389.

Saporos'ity, *n.* Quality of exciting taste or affecting the palate.

Sap'orous, *a.* Savory; tasteful. (R.)

Sapota'ceæ, *n. pl.* (*Bot.*) An order of plants, alliance *Rhamnales.* Diag. Monopetalous flowers, epipetalous stamens, ascending ovules, a short radicle, and amygdaloid cotyledons. They are trees or shrubs, often having a milky juice, with alternate, simple, exstipulate, coriaceous leaves, and hermaphrodite flowers. Calyx usually with 5 divisions, sometimes 4–8; corolla with as many divisions, or twice or thrice as many; stamens definite, in a single row, half of them sterile and alternating with the fertile ones, the latter being opposite to the segments of the corolla; ovary 4–12-celled, with a solitary ovulo in each cell; style single. Fruit fleshy; seed large, with bony surface. The plants of this order are natives of the tropical parts of Asia, Africa, and America; many yield edible fruits. The seeds of some contain fatty oils. The valuable substance gutta-percha is a product of this order.

Sap'per, *n.* [Fr. *sapeur.*] One who saps; one who digs a sap or trench.

Sapphic, (*săf'fik,*) *a.* In the style or manner of Sappho; as, a *Sapphic* ode.
—*n.* A species of Greek verse, named after the celebrated poetess *Sappho,* by whom it is said to have been invented. It consists of eleven syllables, or five feet; the first being a trochee, the second a spondee, the third a dactyl, and the last two trochees; as follows:—

Grāndī | nīs mī | sīt pătĕr | ĕt rŭ | Cēntĕ.

This measure was afterwards introduced into Latin, and received great improvements at the hands of Horace and Catullus.

Sapphire, (*săf'fire,*) *n.* [Gr. *sappheiros.*] (*Min.*) A precious stone, next in hardness to the diamond. It consists of nearly pure alumina, or clay, with a minute portion of iron as the coloring matter. It is found of various colors; the blue variety being generally called *sapphire,* the red the *oriental ruby,* and the yellow the *oriental topaz.* The finest variety of sapphire comes from Pegu, where they occur in the Capelan Mountains near Sgrian. *S.* have also been found in France, Saxony, and Bohemia.

Sap'phirine, *a.* Resembling sapphire; made of sapphire; having the qualities of sapphire.

Sappho, (*săf'fo,*) a celebrated Greek poetess, was a native of the island of Leshos, and flourished in the 6th century B. C. She was the contemporary and friend of Alcæus, and won so high a reputation by her exquisite lyrics that she was called the *Tenth Muse.* Hardly anything is known of her biography, and fragments only of her nine books of poems are extant. Among them, however, is a fine hymn to Aphrodite, probably complete. The admiration of the ancients is justified by these precious remains of her songs. The moral character of *S.* has to be inferred from these compositions, and while some critics find ground for the gravest charges, others vigorously contend for her purity and virtue.

Sap'piness, *n.* [From *sappy.*] State or quality of being full of sap; succulence; juiciness.

Sap'pington, in *Missouri,* a post-village of St. Louis co., abt. 15 m. W.S.W. of St. Louis.

Sap'sago, *n.* [Ger. *schabzieger.*] A kind of Swiss cheese of a dark olive-green color.

Sap'-sucker, *n.* See Woodpecker.

Sapucahy, (*sa-poo-ka'e,*) in Brazil, a river which rises in the S. of the prov. of Minas-Geraes, and joins the Parana, after a N.W. course of 200 m.—A town of Brazil, on the Sapucahy, abt. 180 m. S.W. of Ouro-Preto; *pop.* 4,000.

Sapuca'ya-nut, *n.* (*Bot.*) See Lecythis.

Sap'-wood, *n.* (*Bot.*) See Alburnum.

Saquarema, or **Sequarema,** (*sa-kwa-ra'ma,*) a town of Brazil, 29 m. E. of Rio de Janeiro; *pop.* 8,000.

Sa'ra, (Bayou,) in *Louisiana,* rises in W. Feliciana parish, and flows S. into the Mississippi at the village of Bayou Sara.

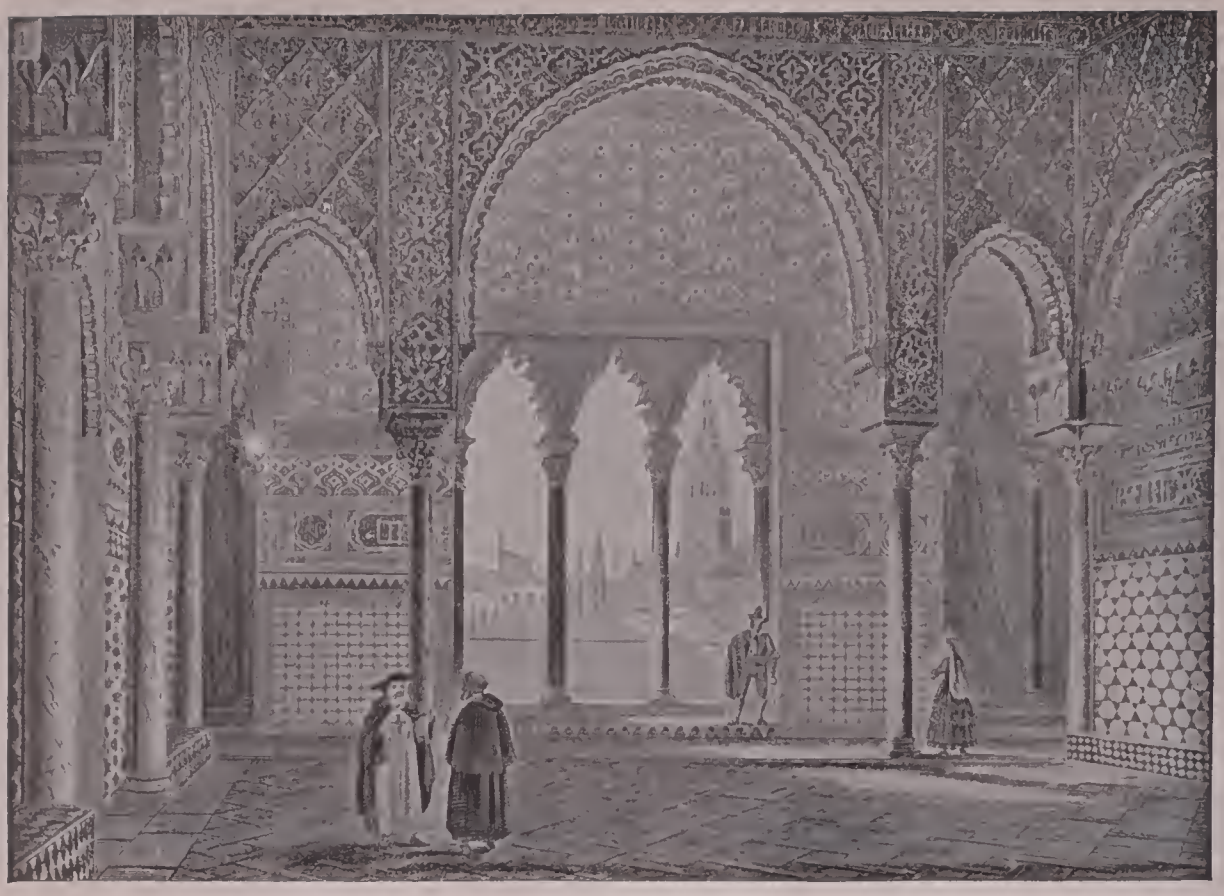
Sar'aband, *n.* A slow Spanish dance, said to be of Saracenic origin.—Hence,
(*Mus.*) A composition in triple time very similar to a minuet. When denoting music for the dance, it is to the same measure which usually terminates when the beating hand rises; being thus distinguished from the *couranto,* which ends when the hand falls.

Sarabi'ta, or Suarez, a river of the Republic of Colombia, rises near the center of the country, and joins the Galinazo, or Sogamozo, a tributary of the Magdalena, after a N.N.E. course of 160 m.

Saracen'ic Art, *n.* See Arabian Architecture.

Sa'racens, *n. pl.* The name of an Arab tribe, is by some authorities derived from *Sarah,* the wife of Abraham, whom they are said to claim as their foundress, to avert the stigma of their descent from the bond-woman Hagar. Bochart denies this theory, and asserts that they were called Saracens in consequence of their nomadic and predatory habits. *Saraka* being the Arabic verb "to plunder." Reland states that the word simply denotes the eastern origin of the Saracens, *Sharaka* being a modification of the Arabic "to rise," and applied in this case because the east is the quarter in which the sun rises. They are mentioned by the classical geographers, who do not define very exactly the locality they occupied. In consequence of their predatory encroachments, the Emperor Decius caused a number of lions to be conveyed into their country from Africa, and turned loose among them, in 251. The name, at first applied to a tribe, then to the Bedouin Arabs, was afterwards given to all Moorish and Mohammedan people, and especially to the opponents of the Crusaders, and in fact to all opponents of Christianity.

Saragossa, (*sa-ra-gos'sa.*) [Sp. *Zaragoza.*] A city of Spain; the capital of the old kingdom of Aragon, on the Ebro, which is here at about the middle of its course, and separates the city from its suburbs, 176 m. N.E. from



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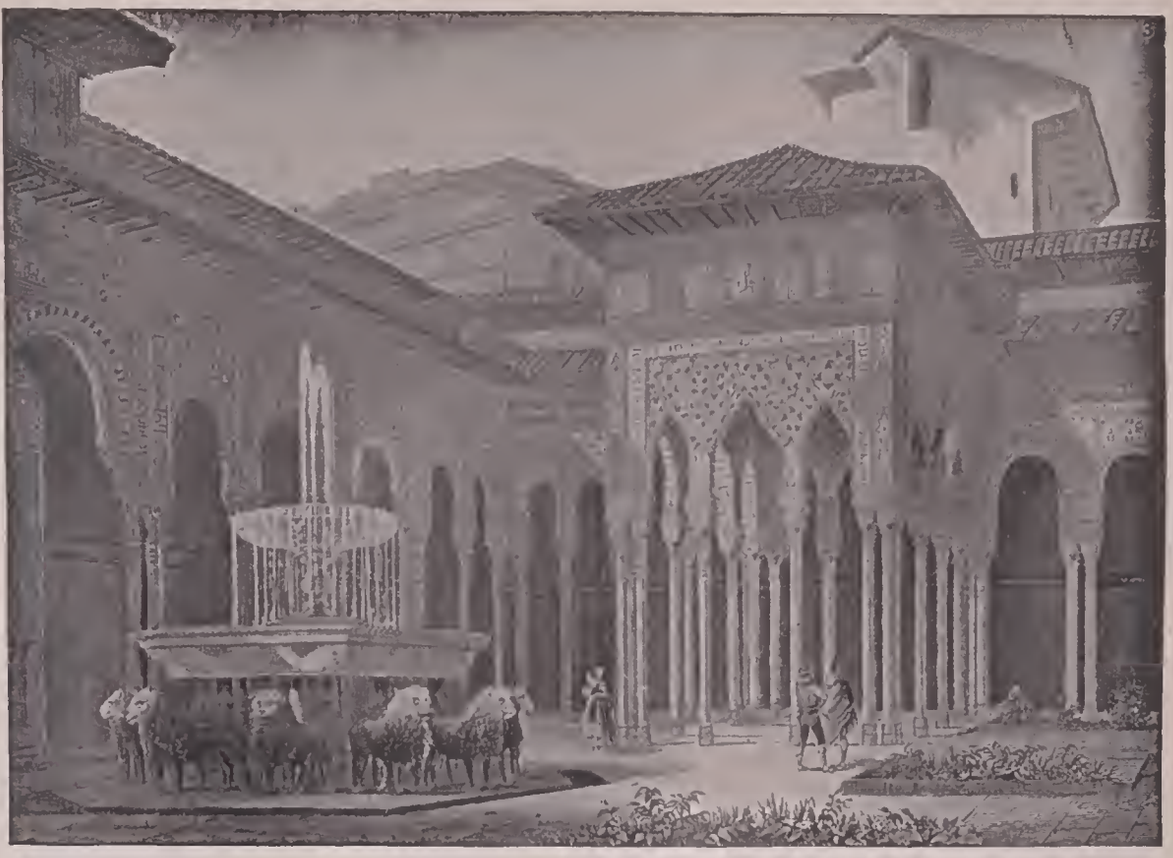
SARACENIC OR MUHAMMADAN ARCHITECTURE.

Bajazet, Constantinople. 9. Court of the Lions (perspective), Alhambra.

1. Don Pedro's Hall in the Alcaz
Spain. 4. Cathedral of St. Basi



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...azar at Seville, Spain. 2. Church at Kurte-Ardshish, Turkey. 3. Court of the Lions in the Alhambra, near Granada, ...asil Moscow, Russia. 5, 6, 8. Decorative details in church at Kurte-Ardshish, Turkey. 7. Mosque of the Sultan

Madrid. Without being regularly fortified, it is surrounded by an earthen wall, and is built throughout of bricks. The houses are seldom above three stories in height; the streets narrow and crooked, except one long and wide one, called the *Onzo*. Here are two bridges over the Ebro. The public buildings are numerous,—churches, convents, and a cathedral celebrated throughout Spain for its sanctuary. The city has a university, founded in 1478; also an academy of fine arts, with schools for drawing, and other branches of education. It is noted in history for the memorable siege it sustained against the French, under Marshals Mortier and Lannes, and which lasted with slight intermission from July 15th, 1808, to Feb. 21st, 1809, when it finally surrendered.

Sarah, (*sai'ra.*) (*Script.*) The niece and wife of Abraham. She became the mother of Isaac at the age of 90 years, and caused Abraham to cast forth Hagar and Ishmael. She lived to the age of 127 years.

Sarah Ann Fur'nace, in *Pennsylvania*, a village of Lancaster co.

Sa'rahsville, in *Ohio*, a post-village, the former cap. of Noble co., 85 m. S. E. of Columbus.

Saraisk', a town of European Russia, govt. of Riazan, 40 m. N.W. of Riazan; *pop.* 6,000.

Saranac'ca, a river of Dutch Guiana, which enters the Atlantic 30 m. W. of the mouth of the Surinam, after a N. course of 200 m.

Saranac', in *Illinois*, a township of De Kalb co.

Saranac, in *Michigan*, a post-village of Ionia co., on Grand River, 25 m. E. of Grand Rapids.

Saranac, in *New York*, a post-township of Clinton co., 15 m. W. of Plattsburg.

Saranac Hol'low, in *New York*, a village of Clinton co., 17 m. W. of Plattsburg; *pop.* abt. 600.

Saranac Lake, in *New York*, in the S. of Franklin co., 10 m. long.

Saranac River, in *New York*, formed by the surplus waters of Saranac Lake in Franklin co. It falls into Lake Champlain near Plattsburg.

Sarangpoor', a town of British India, 110 m. E. of Lucknow; *pop.* 10,000.

Saransk', a town of European Russia, govt. of Pensa, on the Saranga, near the Insar, 68 m. N.E. of Pensa. *Manuf.* Soap and leather. *Pop.* 9,000.

Sarapi'qui, a river of Central America, rises in Costa Rica, and flows into the San Juan near its mouth in the Caribbean Sea.

Sarapol', a town of European Russia, govt. of Viatka, on the Kama, 188 m. S.E. of Viatka; *pop.* 6,000.

Sarare, (*sa-ra'ra,*) a river of Brazil, rises in the prov. of Matto-Groeso, and flows S.W. into the Guapore; Lat. 14° 51′ S., Lon. 60° 30′ W.

Sarato'ga, in *Illinois*, a township of Gruudy co.—A twp. of Marshall co., 28 m. N. of Peoria.

Saratoga, in *Iowa*, a post-township of Howard co., 60 m. W. of Lansing.

Saratoga, in *Minnesota*, a post-village and township of Winona co., 25 m. W.S.W. of Winona.

Saratoga, in *N. Carolina*, a village of Wilson co., 58 m. E. of Raleigh.

Saratoga, in *Nebraska*, a village of Douglas co., N. of Omaha City.

Saratoga, in *New York*, an E. co., bordering on the Hudson; *area*, 780 sq. m. *Rivers.* Mohawk and Sacondaga rivers. *Surface*, mountainous in the N.W., in other parts level; *soil*, generally fertile. It is noted for its excellent potato crops. *Min.* Iron, sandstone, and limestone. *Cap.* Ballston. *Pop.* (1897) 58,260.—A township of the above co., 30 m. N. E. of Albany. *Pop.* (1897) 4,050.

Saratoga, in *Wisconsin*, a township of Wood co., 8 m. S. of Grand Rapids.

Saratoga Lake, in *New York*, 7 m. long and 2 broad, 5 m. E. of Ballston Spa, in Saratoga co.

Saratoga Springs, in *New York*, a village and township of Saratoga co., 38 m. N. by W. from Albany. It is one of the chief watering-places in the U. States. It contains 23 mineral springs, some chalybeate, some containing iodine, with salts of soda and magnesia, and all highly charged with carbonic acid. They are prescribed in diseases of the liver, chronic dyspepsia, &c. The most celebrated are *Congress*, *Empire*, *Iodine*, and *High Rock Springs*, the last of which was known by the Indians for its medicinal virtues many years before the Revolutionary War. During the season, which lasts from about June 20 to the end of August, the number of visitors ranges from 25,000 to 35,000, who find ample accommodation in the village, which contains about 25 hotels, some of immense magnitude. *Pop.* (1897) 12,200.—Here, Sept. 14 and Oct. 7, 1777, the Americans, under Gen. Gatee, fought the memorable battles the first of which is also known under the names of Stillwater and Bemus's Heights), against the English forces under Gen. Burgoyne, who, Oct. 13, was compelled to capitulate. See BURGOYNE.

Saratov', (*sa-ra-taf',*) a town of Russia in Europe, cap. of a govt. of same name, on the Volga, 335 m. S.S.E. of Nijni-Novgorod, and 360 m. N.N.W. of Astrakhan. Though its houses are generally built of timber, the town has a rich and picturesque appearance. Its 16 churches are ornamented with numerous towers and cupolas; and its broad streets, from the character of the houses and of the elegant equipages that roll through them, give quite a handsome appearance. *Manuf.* Canvas, cotton goods, cordage, leather, &c.

Sarawak', a kingdom or rajahship of Borneo, extending from Cape Datoo on the W. to the river Samarahan on the E., between Lat. 1° 8′ and 1° 58′ N., and Lon. 109° 9′ and 110° 39′ E. The aboriginal inhabitants, called Dyaks, consist of various wild tribes, who, in 1844, took for their sovereign an Englishman, Sir James Brooke (*q. v.*), through whom the country is chiefly known. *Pop.* 50,000.—Sarawak, the capital, situate upon a river of same name, carries on a considerable trade with Singapore. *Pop.* 15,000.

Sarawan', a prov. of Beloochistan, between Lat. 28° and 30° 20′ N., Lon. 64° and 67° 40′ E.; *area*, 15,000 sq. m. The surface is mountainous, the highest peak, Tukatoo, reaching an elevation of 11,000 feet. *Chief towns.* Sarawan, the cap., Quetta, and Mustung. *Pop.* 50,000.

Sarayacu, (*sa-ri-a-koo',*) a town of Peru, on the river Ucayale; Lat. 6° 50′ S., Lon. 75° W.

Sar'casm, *n.* [Lat. *sarcasmus*; Gr. *sarkasmos*, a bitter laugh.] A bitter laugh; a sneer.—A cutting jest; a keen, reproachful expression; a satirical remark or expression, uttered with some degree of scorn or contempt; satire, personal and severe; irony; a taunt; a gibe.

Sarcas'tic, Sarcas'tical, *a.* Containing sarcasm; bitterly satirical or ironical; scornfully severe; taunting.

Sarcas'tically, *adv.* In a sarcastic manner; with scornful satire.

Sar'cel, *n.* (*Falconry.*) The pinion or outer joint of a hawk's or a falcon's wing.

Sarcenet, (*sars'net,*) *n.* [Fr., from L. Lat. *saracenicum.*] A species of fine, thin, woven silk, so named from its having been originally made by the Saracens.

Sar'cle, *v. a.* [Fr. *sarcler.*] To weed, as corn. (R.)

Sarcoba'sis, *n.* [Gr. *sarx*, *sarkos*, flesh, and *basis*, a base.] (*Bot.*) A many-celled fruit, having its cells dry, indehiscent, few-seeded, and cohering by a common style round a common axis.

Sar'cocarp, *n.* [Gr. *sarx*, and *karpos*, fruit.] (*Bot.*) The fleshy part of a pericarp, lying between the epicarp and endocarp (Fig. 940).

Sar'cocele, *n.* [From Gr. *sarx*, and *kēlē*, a tumor.] (*Med.*) A tumefaction of the testicle.

Sar'cocol, *n.* [Gr. *sarkokolla*, a Persian gum.] A gum resin, said to be the produce of *Pœnea sarcocolla*, a plant growing in the northern parts of Africa. This sarcocol somewhat resembles gum-arabic, but is soluble in alcohol, and its aqueous solution is precipitated by tannin.

Sar'coderm, *n.* [Gr. *sarx*, and *derma*, skin.] (*Bot.*) An intermediate fleshy layer found in the testa of some seeds.

Sarcol'ogy, *n.* [Gr. *sarx*, and *logos*, a discourse.] (*Anat.*) The history or doctrine of the fleshy parts of the body.

Sarco'ma, *n.* [Gr., from *sarx*, flesh.] (*Med.*) Any species of excrescence having a fleshy consistence.

Sarcophagus, (*sar-kŏf'a-gŭs,*) *n.* [Lat.; Gr. *sarkophagos—sarx*, *sarkos*, flesh, and *phago*, to eat.] A species of stone used among the Greeks for making coffins, which was so called because it had the supposed property of consuming the flesh of bodies deposited in it within a few weeks.—Hence, any stone coffin or tomb in which the ancients deposited bodies which they chose not to burn.

Sarcoph'agy, *n.* [Gr. *sarx*, and *phago*, to eat.] The practice of eating flesh.

Sarco'sis, *n.* [From Gr. *sarx*, flesh.] (*Med.*) Same as SARCOMA.

Sarcot'ic, *a.* (*Med.*) Generating or breeding new flesh.

Sarcox'ie, in *Missouri*, a post-village and township of Jasper co., 170 m. S.W. of Jefferson City.

Sard, *n.* [From *Sardis*, a city of Asia.] (*Min.*) A deep brownish chalcedony exhibiting a blood-red color when held up to the light.

Sar'dachate, *n.* [Gr. *sardion—sardis*, and *achates*, agate.] (*Min.*) A variety of agate containing layers of sard or cornelian.

Sardanap'alus, the name of several princes of Assyria, the most celebrated of whom was the last sovereign of the first Assyrian empire. His reign dates from 836 to 817 B. C., when he was dethroned by Arbaces and Beleis, at the head of a revolt of the Medes, Persians, and Babylonians. In the last extremity, Sardanapalus, who had withstood a siege for three years in Nineveh, placed himself, his treasures, his wives, and his eunuchs on a funeral pile, which he fired with his own hand. He had ceased to exist when the city was taken, and that event was followed by the dismemberment of the Assyrian empire. The above date is only an approximation to the true one, as authorities vary.

Sar'del, Sar'dine, Sar'dius, *n.* [Lat. *sardius*; Gr. *sardion*, from *Sardis.*] A precious stone; a species of chalcedony; the cornelian.

Sar'den, Sar'del, *n.* (*Zoöl.*) Same as SARDINE, *q. v.*

Sardi'nas, or SALDINAS, a bay of the U. S. of Colombia, in the Pacific; Lat. 1° 30′ N., Lon. 79° W.

Sar'dine, *n.* (*Zoöl.*) A small fish of the Herring family (*Clupea Sardina*), taken in vast numbers off the coast of Sardinia, and in other parts of the Mediterranean Sea and Atlantic Ocean, where the herring is unknown. They form an important article of commerce, their flavor being highly esteemed.

Sardinia, (*sar-din'yah.*) [It. *Sardegna.*] An island of the Mediterranean, belonging to the kingdom of Italy, between Lat. 39° and 41° N., Lon. 8° and 10° E., separated from Corsica on the N. by the Strait of Bonifacio. It is of an oblong form, 160 m. long from N. to S., and 60 m. in average breadth. *Area*, with its dependent islands, 9,240 sq. m. The surface is mountainous, the highest peak, Mount Genargentu, attaining an elevation of 7,000 feet. The soil is generally fertile. *Prod.* Principally wine;—also, flax, linseed, hemp, saffron, tobacco, and barilla. *Min.* Iron, lead, salt; antimony, marble, &c. *Manuf.* Linens, cottons, leather, earthenware, and glass. *Chief towns.* Cagliari and Sassari. *S.* is said to have been founded B. C. 1200 by Sardus, with a colony of Lybians. It was early taken by the Carthaginians, and afterwards by the Romans. At the fall of the W. empire, it came successively under the power of the Vandals, Goths, and Moors. It was taken by the Genoese in the 12th century, and afterwards by Aragon. It was ceded to the Duke of Savoy in 1720, when it became a part of the kingdom of Sardinia. *Pop.* 588,064.

Sardin'ia, (KINGDOM OF.) [It. *Stati Sardi.*] The name given to the dominions appertaining to the house of Savoy, and so called after the island of that name. The kingdom of Sardinia consists of, or till lately did consist of, the duchy of Savoy, the principality of Piedmont, duchy of Genoa, county of Nizza, and the island of Sardinia. The continental territories were bounded on the N. by the Lake of Geneva and the Pennine Alps, S. by the Gulf of Genoa, W. by France, and E. by the Lombardo-Venetian kingdom. The area of these territories is 20,000 sq. m. The kingdom of *S.* was founded in 1720 by Victor Amadeus I., Duke of Savoy. It was the cradle of Italian unity, and the nucleus of the new kingdom of Italy, into which it was merged in 1861. See ITALY.

Sardin'ia, in *New York*, a post-village and township of Erie co., 30 m. S.E. of Buffalo.

Sardinia, in *Ohio*, a post-village of Brown co., 90 m. S.W. of Columbus.

Sar'dis, or **Sar'des,** a ruined city of Asia Minor and the ancient cap. of Lydia, 50 m. from Smyrna (Fig. 2006). *S.* was one of the first towns to embrace Christianity, its people having, it is said, been converted by the apostle

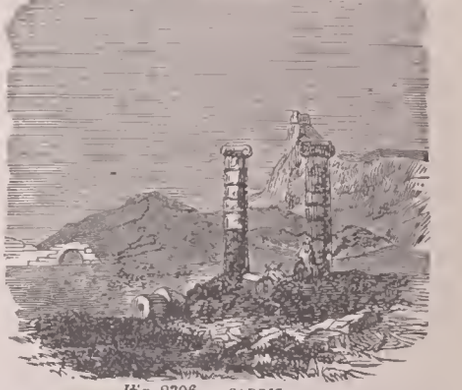

Fig. 2306.—SARDIS.

John. It is one of the seven churches of Asia mentioned in *Revelations* (i. 11). It was captured by the Turks in the 11th and 14th centuries. *Sart*, which now occupies its site, is a miserable place, consisting of a few mud huts. All the neighborhood is covered by ruins of temples, theatres, and other monuments of ancient grandeur.

Sar'dis, in *Kentucky*, a post-village of Mason co., abt. 14 m. S. of Maysville.

Sardis, in *Mississippi*, a post-town, semi-cap. of Panola co., 54 m. S. of Memphis.

Sardis, in *Ohio*, a post-village of Monroe co., 36 m. E.N.E. of Marietta.

Sardon'ic, *a.* [Fr. *sardonique*; etymology uncertain.] Forced or feigned;—applied to laughter or smiles in which, under the semblance of gayety, one scarce conceals bitterness of thought, or mockery.

S. laugh. See RISUS SARDONICUS.

Sar'douyx, *n.* [Gr., from *Sardis*, q. v.] (*Min.*) Onyx consisting of alternate layers of sard and nearly opaque-white chalcedony. It is the most beautiful and the rarest variety of onyx, and that which was held in the greatest esteem by the ancients for engraving into cameos.

Sa'ree, Sa'ri, *n.* A cotton fabric worn by Indian women, wrapped about the person;—also, a long embroidered scarf of gauze or silk.

Sarep'ta, a fortified town of European Russia, govt. of Saratov, on the Sarpa, near its confluence with the Volga, 15 m. S. of Tzaritsin: *pop.* 5,000.

Sarepta, in *Mississippi*, a post-village of Calhoun co., 28 m. S.E. of Oxford.

Sargas'so Sea. (*Phys. Geog.*) A name given to that part of the N. Atlantic Ocean, whose area is covered with floating sea-weed (*Sargassum bacciferum*).

Sargas'sum, *n.* (*Bot.*) A genus of *Algæ*. *S. bacciferum* is the Gulf-weed of the Atlantic. Its stems are much employed in S. America, under the name of *goitre-sticks*, in the treatment of goitre. Their beneficial effects are due to the large proportion of iodine existing in the plant.

Sargeantsville, (*sar'jants-vill,*) in *New Jersey*, a village of Hunterdon co.

Sarguemines, (*sarg'meen,*) a town of France, dept. of Moselle, on the Sarre, 41 m. N.E. of Metz. *Manuf.* Silks, velvets, gauzes, leather, and earthenware. *Pop.* 6,500.

Sari, (*sar're,*) a town of Persia, cap. of the prov. of Mazanderan, 18 m. from the S. shore of the Caspian Sea, and 115 m. N.E. of Teheran.

Sark, *n.* [A. S. *serce*, *syrce.*] A Scotticism for a shirt.

Sark, a river of Scotland, co. of Dumfries, falling into the Solway Frith, near its E. extremity.

Sark, a small island in the English Channel, belonging to Great Britain; Lat. 49° 30′ N., Lon. 2° 52′ W., 7 m. E. of Guernsey, and 9 m. N.E. of Jersey. *Ext.* 2 m. in length, and greatest breadth. *Pop.* 580.

Sark'ing, *n.* (*Carp.*) Thin skirting-boards, &c.

Sarlat, (*sar'la,*) a town of France, dept. of Dordogne, on the Sarlat, 98 m. E. of Bordeaux; *pop.* 6,000.

Sarmatia, (*sar-mā'shi-a.*) (*Anc. Hist.*) A name given by the Romans to all the country in Europe and Asia between the Vistula and the Caspian Sea. The people inhabiting this country were usually called *Sauromatæ* by the Greeks, and *Sarmatæ* by the Romans. The Sarmatians began to threaten the Roman empire in the reign of Nero (54–68). Since that time they figure promiscuously among the barbarians who vexed the N.E. frontier of the Roman empire. They were finally subdued by the Goths, with whom, in process of time, they were amalgamated.

Sar'ment, *n.* [Fr., from Lat. *sarmentum*, a twig.] (*Bot.*) A prostrate filiform runner, as of the strawberry.

Sarmentaceous, (*-tā'shus,*) *a.* [From *sarment.*] (*Bot.*) Runner-bearing, as the strawberry.

Sarmentose', Sarment'ous, *a.* (*Bot.*) Long and filiform, and almost nude; as, a *sarmentose* stem.—Bearing sarments; as, a *sarmentose* plant.

Sarmiento, (*sar-me-en'to,*) a mountain of Terra del Fuego, S. of Gabriel Channel; Lat. 54° 27′ 12″ S., Lon. 70° 51′ 30″ W. *Height*, 6,800 feet.

Saru', *n.* [W. *sarn*, a causeway.] A stepping-stone in the centre of a brook. (Prov. Eng.)

Sar'nia, or **Port Sarnia,** in prov. of Ontario, cap. of Lambton co., on the St. Clair River, near Lake Huron. Immense oil refineries have been erected here.

Sar'no, a town of S. Italy, prov. of Principato-Citeriore, at the head of the Sarno, 11½ m. N.W. of Salerno. It is noted for its sulphur-baths. *Pop.* 16,374.

Sarong', *n.* A sort of petticoat worn by women in the East.

Sa'ros, *n.* (*Astron.*) An ancient Assyrian astronomical period, the origin and exact length of which are unknown, though they have been the subject of much disputation. By some authors the *Saros* has been confounded with the *Metonic Cycle*, q. v.

Saros, or **Scharos,** (*sha'ros,*) a town of Hungary, 15 m. from Zemplin; *pop.* 5,500.

Sa'ros, (Gulf of,) an inlet of the Ægean Sea, separated from the Hellespont by the peninsula of Gallipoli; *ext.* 40 m. long, and 20 broad.

Saros-Patak', a town of Hungary, on the Bodrog, 20 m. N.E. of Tokay; *pop.* 6,000.

Sarotham'nus, *n.* (*Bot.*) A genus of plants, order *Fabaceæ*. *S. scoparius* is the common Broom, one of the most elegant of the European shrubs.

Sar'pa, a river of Russia, rising in the government of Astrakhan, and, after a N. course of 200 m., falling into the Volga, near Sarepta.

Sar'plar, *n.* In England, a large bale, or package, of wool, containing 80 tods, or a ton, in weight.

Sar'plier, Sar'pelere, *n.* [Fr. *serpillière.*] A coarse hempen kind of cloth used as bagging, &c.

Sar'py, in *Nebraska*, an E. co. bordering on Iowa; *area*, 245 sq. m. *Rivers.* Elkhorn and Papillon. *Surface*, undulating; *soil*, fertile. *Min.* Limestone. Cottonwood, oak, hickory, and walnut are plentiful. *Cap.* Papillon. *Pop.* (1897) 7,230.

Sarracenia'ceæ, *n.* (*Bot.*) The *Sarracenia*, or Water-pitcher, or Side-saddle flower family, an ord. of plants, alliance *Ranales*. DIAG. Consolidated carpels, a permanent calyx, and axile placentæ.—They consist of perennial herbs, growing about mud-lakes from Labrador to Florida. They have pitcher- or trumpet-shaped leaves.

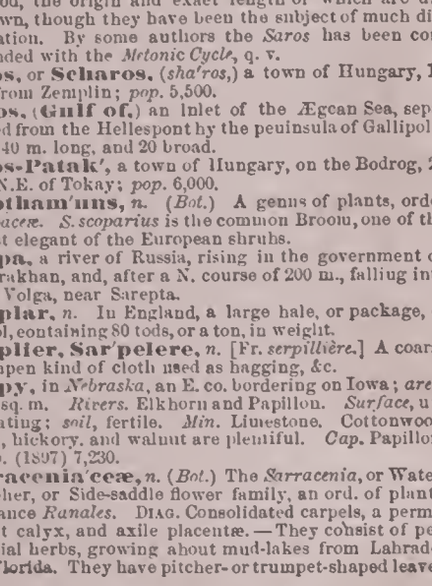

Fig. 2307.—SIDE-SADDLE FLOWER, (*Sarracenia purpurea.*)

1, A flower, from which the corolla has fallen off, showing the very large 5-angled stigma; *a*, a fully expanded flower; *b*, germen; *c*, section of the fruit.

Calyx permanent, imbricated, carpels united so as to form a compound ovary, and a 3-celled dehiscing fruit, with large axile placentas. A decoction of the root of *Sarracenia purpurea* (Fig. 2307) has been recommended as a remedy for small-pox; but the opinions of medical men differ widely as to its efficacy.

Sar'rasin, Sar'rasine, *n.* (*Bot.*) A name sometimes given to buckwheat.

(*Fortif.*) A portcullis; a sarrasin.

Saras', Saraz', *n.* A contracted form of sarsaparilla.

Sarsaparil'la, *n.* [Sp. *zarzaparilla*; Fr. *salsepareille.*] (*Bot.*) See SMILAX.

Sars'field, in *Maine*, the former name of a township of Aroostook co.

Sarthe, (*sart,*) in France, a river rising in the dept. of Orne, and after a S.S.W. course of 160 m., joins the Mayenne near Angers.—A dept. of the N.W. part of France, between Lat. 47° 35′ and 48° 40′ N., Lon. 0° 25′ W., and 0° 50′ E., having N. Orne, E. Eure-et-Loire and Loire-et-Cher, S. Indre-et-Loire and Maine-et-Loire, and W. Mayenne; *area*, 2,470 sq. m. The surface is level, except in the N.W. part, which is hilly. The soil is generally fertile. *Rivers.* Sarthe, Loire, Huisne, and Vegre rivers. *Prod.* Wheat, barley, rye, potatoes, wine, &c. *Manuf.* Woollen and cotton fabrics, paper, hardware, glass, earthenware, and sail-cloth. *Chief towns.* Le Mans, the cap., La Flèche, Mamers, and St. Calais. *Pop.* 463,619.

Sar'to, (An'drea del,) (ANDREA VANUCCHI,) a celebrated Italian painter, b. at Florence, 1488. He was the son of a tailor, and was first apprenticed to a goldsmith, but afterwards studied painting under Piero di Cosino. Among his earliest and best works are the frescoes of the *Santissima Annunciata* at Florence, representing scenes in the life of the founder of that convent. In the same convent is his admired *Madonna del Sacco*, painted in 1525. *S.* was invited to France by Francis I. in 1518, and was well received, but returned to Florence the next year, and misspending the money entrusted to him for the purchase of works of art for Francis, he never saw Paris again. Among his other frescoes are a *Last Supper*, in the convent of San Salvi, and an *Annunciation*, and *Disputa della Santissima Trinità*, in the Pitti Palace. The finest of his easel pictures is the *Madonna di San Francesco*, now at Florence. D. in Florence, 1530.

Sarto'rial, *a.* Pertaining, or relating, to a tailor.

Sarto'rius, *n.* [Lat. *sartor*, a tailor.] (*Anat.*) A flat and slender muscle, but the longest of the human body, extending obliquely from the upper and anterior part of the thigh to the upper anterior and inner part of the sibia. It serves to bend the leg obliquely inwards, or to roll the thigh outwards, and at the same time to bring one leg across the other, on which account it has received the name of *sartorius*, or "tailor'a muscle."

Sar'versville, in *Pennsylvania*, a post-village of Butler co.

Sarga'na, an ancient town in the Genoese territory, on the Magra, 45 m. from Genoa. It had formerly its own parliament. *Pop.* 4,000.

Sasbach, (*sas'bak,*) a village of Baden, 17 m. from Strasbourg; *pop.* 1,500. Here Marshal Turenne fell by a random shot in 1675.

Sash, *n.* [Ar. *saj*, a green sash rolled round the head and falling down behind.] A belt or scarf wound round the waist, or over the shoulders, for ornament; a silken band worn by officers in the army, by the clergy over their cassocks, and, also, as a part of female dress.

—[Fr. *chassis.*] (*Arch.*) A piece of framing for holding the squares of glass in a window. It is of two sorts—viz., that called the *French sash*, which is hung like a door to the sash-frame; and that in which it moves vertically from being balanced by a weight on each side, to which it is attached by lines running over pulleys at the top of the sash-frame. When in a window both the upper and lower sashes are movable, the sashes are said to be *double hung*, and *single hung* when only one of them moves.

—*v. a.* To furnish with sashes, or frames, for glass; as, a *sashed* door or window.

Sa'sik, a lake of European Russia, govt. of Bessarabia, 35 m. W. of Akerman. *Ext.* 16 m. long, and 6 broad.

Sas'in, *n.* (*Zoöl.*) See ANTELOPE.

Saskatch'ewan, ("swift current,") or NELSON RIVER, a river of British N. America, rises in the Rocky Mountains by two heads, one in Lat. 49°, and the other in 53° 30′ N., both uniting near Lon. 115° W., and flowing thence into Lake Winnipeg after a N.E. course of about 1,000 m., the greater part of which is navigable.

Sas'safras, in *Maryland*, a river which rises in Cecil co., and flows W. into Chesapeake Bay, between Cecil and Kent cos.

—[Named after the above river.] (*Bot.*) A genus of plants, order *Lauraceæ*. *S. officinalis*, common in the forests and barrens of almost all the states, is 10–40 feet high, leaves alternate, flowers greenish-yellow, appearing in May and June, in clustered racemes at the end of the last year's twigs, and after the leaves have expanded. Every part of the tree has a pleasant fragrance, and a sweetish, aromatic taste, which is strongest in the bark of the root. These qualities depend upon an essential oil, which may be obtained by distillation, and which has been highly valued in medicine. The young shoots are a common ingredient in *small beer*, imparting to it a grateful flavor.

Sas'sanage, *n.* [Fr., from *sasser*, to lift.] Stones left after sifting.

Sas'sanides, *n. pl.* (*Hist.*) A Persian dynasty, founded by Artaxerxes I., abt. 226. They governed Persia until the Mohammedan conquest in 651.

Sassari, (*sas'sa-re,*) a town of Italy, in the N.W. of the island of Sardinia, on the Turritano, 10 m. from its mouth at Porto Torres, in the Gulf of Sassari, 58 m. N.W. of Oristano, and 100 m. N.N.W. of Cagliari; Lat. 40° 43′ 33″ N., Lon. 8° 35′ E. It is well built and strongly fortified, and has a considerable trade in tobacco, oil, and fruit. *Pop.* 23,672.—The gulf of same name is 20 m. long and 35 m. broad.

Sas'solin, Sas'soline, *n.* (*Min.*) Native boracic acid, from the vicinity of Sasso, near Florence.

Sas'tar, *n.* [Hind. *shāstr.*] Same as SHASTER, *q. v.*

Sat, Sate, *imp.* of SIT, *q. v.*

Satalia', or ANTALIA, a seaport-town of Asia Minor, on the Gulf of Satalia, 50 m. N.E. of Cape Chelidonia; Lat. 36° 50′ N., Lon. 30° 45′ E.; *pop.* 8,000.

Sa'tan, *n.* A Hebrew term, meaning *enemy* or *adversary*, and used in several instances in this sense in the Old Testament. Generally, however, it is applied to the Devil, as being the great adversary and enemy of mankind.

Satan'ic, Satan'ical, *a.* Having the qualities of Satan; resembling Satan;—hence, devilish; infernal; extremely wicked or malicious; as, a *satanic* smile.

Satan'ically, *adv.* With the wicked and malicious spirit of Satan; diabolically; infernally; in a satanic manner; fiendishly.

Satan'icalness, *n.* Quality of being satanic; fiendishly wicked, or diabolical; devilishness.

Sa'tanism, *n.* The evil and diabolical spirit of Satan. (R.)

Sa'tanist, *n.* A diabolically wicked person. (R.)

Satartia, (*sa-tar'she-a,*) in *Mississippi*, a post-village of Yazoo co., 40 m. N.W. of Jackson.

Satch'el, *n.* [Fr. *sachet.*] A little sack, pouch, or bag;—also, a lady's reticule.

Sate, *old imp.* of SIT for SAT. See SIT.

—*v. a.* [Lat. *satio*, from *satis*, enough; It. *saziare*, to satisfy.] To satiate; to satisfy the appetite of; to glut; to cloy; to feed, or fill, beyond natural desire; as, he *sated* of pleasure.

Sate'less, *a.* That may not be sated; insatiable. (R.)

Sat'ellite, *n.* [Lat. *satelles*, an attendant.] (*Astron.*) A term applied to certain secondary planets moving round the other planets, as the moon does round the earth. They are so called because always found attending them, for rising and setting, and completing the orbit round the sun together with them. The words *moon* and *satellite* are sometimes used indifferently; thus Jupiter's *moons*, or Jupiter's *satellites*, are spoken of; but the term *moon* is generally applied to the earth's attendant, and the term *satellite* to the small moons around Jupiter, Saturn, and Uranus. (See Section II.)

—An obsequious dependant; a subservient follower; a close, submissive attendant; as, every great man has his *satellites*.

Satel'litious, *a.* Pertaining or relating to, or consisting of, satellites. (R.)

Satiate, (*sā'shi-āt,*) *v. a.* [Lat. *satio, satiatus*, from *satis*, enough.] To satisfy; to fill or fully gratify the appetite or desire of; to feed to the full, or to furnish enjoyment to the extent of desire; to fill to the extent of want or demand; to sate; to glut; as, a tiger *satiated* with blood.—To gorge; to surfeit; to fill or cram beyond natural desire; to gratify desire to repletion or the utmost; as, though *satiated*, he is not satisfied.

—*a.* Filled to satiety; glutted; gorged; cloyed;—preceding *with* or *of*; as, *satiate of* applause.

Satiation, (*sā-shi-ā'shun,*) *a.* State of being filled to satiety.

Satie'ty, *n.* [Fr. *satieté*; Lat. *satietas—satis.*] State of being satiated; fulness of gratification, either of the appetite or any sensual desire;—usually, fullness beyond desire; surfeit; repletion; an excess of gratification which cloys, or excites wearisomeness or loathing.

Satil'pa Creek, in *Alabama*, enters the Alabama from Clarke co., a few m. S.E. of Coffeeville.

Sat'in, *n.* [Fr.; probably from Gr. and Lat. *sindon*, muslin, from *Indos*, Scinde.] A species of silk stuff, originally brought from China. It is so manufactured that it does not exhibit the crossing of the warp and weft in weaving, but has a uniform and highly-glossed surface; it is also thicker than ordinary silk.

(*Manuf.*) A soft, closely-woven silk cloth, with a glossy surface. In making other silk stuffs, each half of the warp is raised alternately, but in weaving *S.* the workman only raises the fifth or eighth part of the warp; thus the woof is hidden beneath the warp, which, presenting an even, smooth, and close surface, is better able to reflect the rays of light. In France the chief seat of the *S.* manufacture is at Lyons, and in Italy at Genoa and Florence.

Satinet', *n.* [Fr., from *satin.*] A thin kind of satin;—also, a particular sort of cloth, made of cotton warp and woollen filling.

Sat'in-flower, *n.* (*Bot.*) See LUNARIA.

Sat'in-spar, Sat'in-stone, *n.* (*Min.*) A fibrous variety of gypsum. It exhibits, when polished, a lustre like satin, whence its name.

Sat'in-wood, *n.* (*Bot.*) See CHLOROXYLON.

Sat'iny, *a.* Resembling, or consisting of, satin; as, a *satiny* texture, a *satiny* skin.

Satire, (*sāt'ire*, sometimes pron. *sāt'ur,*) *n.* [Fr., from Lat. *satira.*] Keenness and severity of remark; sarcasm; trenchant wit; biting ridicule; incisive humor; pungent irony; denunciation and exposure to derision or reprobation.

(*Lit.*) The representation of follies or vices in a ridiculous form, either in discourse or dramatic action. The Romans were the first to distinguish themselves in this species of literature. The Roman *S.* was at first a kind of rude dramatic composition, filled with various matter and written in various kinds of verse, and took its name of *satura*, or *satira*, from the *lanx satura*, a dish filled with various kinds of fruits and herbs, which was carried in procession at the feasts of Ceres as the first-fruits or gatherings of the season. These *S.* were set to music and repeated with suitable gestures, accompanied with the flute and dancing. They contained much ridicule and smart repartee; and hence poems characterized by these marks, and written to expose vice, got the name of *S.* Lucilino was regarded by the Romans as the father of this species of composition, and was the first to introduce those principles of art which came afterwards to be regarded as essential to it. His poems formed the models of the *S.* of Horace, the great master in this art, and whose humorous and playful raillery of the follies and foibles of mankind are ever fresh and ever true. He reproves with a smiling aspect, and while he moralizes like a philosopher, he discovers at the same time all the politeness of a courtier. Juvenal is much more serious and declamatory. He has more strength and fire, and more elevation of style than Horace, but is at the same time greatly inferior to him in gracefulness and

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